



SUPPLIER QUALITY ASSURANCE MANUAL



POLARIS

POLARIS INDUSTRIES INC.
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REV	DATE	DESCRIPTION OF CHANGES
06	21-JUN-21	<ul style="list-style-type: none"> • Brand new front cover page • Updated the name of the supplier portal and navigational references for it throughout the manual • Updated and verified all reference documentation throughout the manual • Removed the Supplier Productivity Metrics (SPM) section • Merged the Supplier Continuous Improvement Program (SCIP) and Supplier Performance Escalation Process (SPEP) sections with the new Supplier Performance Management section • 1.1.2 - Critical Definitions: Added clarification for "must" and "may" and verified all mandatory and optional language throughout the manual • 2.0 - Glossary: Updates to a few definitions so they match corresponding updates in the applicable manual sections, added a few new definitions that were missing • 4.3 Sub-Tier Management: Added clarification about timely communication • 4.8 - Supplier Communications: Very small clarification • 5.2 - Test & Measurement Equipment: One small correction and updated tire graphic • 6.1 - Polaris Development Process (PDP): Added Pre-Gate 1 information, some APQP clarifications, and did some small corrections • 6.4 - Key Product Characteristics (KPCs): Entirely rewritten for clarify and correctness • 6.6 - Sample Inspection Report (SIR): One small correction

		<ul style="list-style-type: none"> • 6.7 - Pre-Production Build Material Supply: Engineering & Quality Requirements: Some small corrections, removed the example, and added a clarifying sentence • 6.8 - Pulse Orders: Entirely rewritten for clarity and correctness • 6.9 - Run-At-Rate (R@R): Added one sentence about virtual audit • 6.10 - Production Part Approval Process (PPAP): Several small corrections, clarifications for PV build, charges, and proprietary information, removed sentence about non-response to Supplier Acceptance affecting scorecard • 6.11 - Appearance Approval Report (AAR): One small correction • 7.1.3 – Product Assurance: Entirely rewritten for clarity and correctness • 7.3 - Process Controls: Entirely rewritten for clarity and correctness • 7.5 - Deviation Request: One small correction • 7.7 - Process Change Request (PCR): Added one small clarification • 8.1.1 - RMO Disposition Codes: Added a clarification regarding code 00 • 8.2.1 - Supplier Corrective Action & Preventive Action (CAPA): Corrected title by adding missing word • 8.3.2 - Third-Party Containment: Added a few clarifications • 8.5 - Supplier Performance Management: Renamed from Supplier Performance Escalation Process (SPEP) and entirely rewritten
07	22-AUG-22	<ul style="list-style-type: none"> • 1.0 - Minor changes to wording: <ul style="list-style-type: none"> ○ was: “global Supply Change” is: “Supply Chain” ○ was: “Having a zero defects mindset...” is: “A zero defects mindset...” ○ Deleted “The focus shall be on customer-perceived quality with metrics linked to leading product quality and reliability.”

		<ul style="list-style-type: none"> • 1.1.1 - Minor changes <ul style="list-style-type: none"> ○ was: "...or on Supplier University..." is: "...in Supplier University..." ○ Deleted "Reliance is Polaris' document control system and is available to all approved Polaris suppliers. A login is required to view the additional resources." ○ was: "...in a gray box like ..." is: "...in a box like ..." ○ was: "...training, and/or templates are ..." is: "...training, and templates are ..." • 2.0 - Re - wrote APQP and Design Record definitions. Minor Change to PPAP definition • 3.1 - Spelling: Ensure "Design Review" is initial cap throughout document • 4.1 - Extensive changes; completely re-written • 4.2 - Changed "global Supply Chain "to "Supply Chain" • 4.3 - Extensive changes; completely re-written • 4.5 - Changed Title from "Quality Records" to "Quality Records and Materials" • Re - wrote second paragraph • 4.6 - Re - wrote second paragraph and Updated training references • 5.0 - Extensive changes; completely re-written • 5.1 - Extensive changes; completely re-written • 5.2 - Third paragraph: deleted last sentence <ul style="list-style-type: none"> ○ Fourth Paragraph: revised first sentence ○ Added fifth paragraph (re APQP Task) • 6.2 - Extensive changes; completely re-written • 6.3 – Second paragraph, deleted "Upon completion, the MFC should be submitted to the Polaris Sourcing representative. <ul style="list-style-type: none"> ○ Third paragraph, Deleted "...and as such when a conflict arises between a specification, purchase order or model, the drawing is the master document." ○ Fifth (last) paragraph - new • 6.5 - Manufacturing Feasibility Commitment (MFC) was removed and replaced with new section - Design for Manufacturability (DFM).
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		<ul style="list-style-type: none"> ○ 04 – Rework/Sort at Supplier Expense: <ul style="list-style-type: none"> ○ Second paragraph - Last sentence was removed ○ Note (following 04 – Rework/Sort at Supplier Expense) had extensive changes. ● 8.1.2 – this is a newly added section ● 8.1.3 - "PPM" was replaced with Defects per Million "DPM" <ul style="list-style-type: none"> ○ Remainder of section was completely re-written WITH the addition of Rejection Rules for RMOs. ● 8.3.1 - Training and document references - updated PDI training number ● 8.5 - Table 4 - Deleted the SPEP column and transferred all SPEP checkmarks (where applicable) to SCIP ● 9.1 - Example 1 - replaced "issue" with "non - conformance" and changed "PPM" to "DPM" (one instance) <ul style="list-style-type: none"> ○ Example 2 - replaced "issue" with "non - conformance" and changed "PPM" to "DPM" (two instances) ○ Example 3 - replaced "issue" with "non - conformance" and replaced "receiving" with "assembly" and deleted "hold the supplier Harmless" and changed "PPM" to "DPM" (four instances) ○ Example 4 - replaced "receiving" with "assembly" and changed "rework has to be approved by Polaris" to "all rework must be approved by Polaris" and changed "PPM" to "DPM" (two instances) ○ Example 5 - changed "PPM" to "DPM" (two instances) ● 9.2 - Deleted entire section ● 10.0 – Added new References section: “Listed in topic sections to which they pertain.”
08	01-SEP-22	<ul style="list-style-type: none"> ● Added detailed change descriptions for Rev 07 ● No other changes to the document

<p>09</p>	<p>12-DEC-23</p>	<ul style="list-style-type: none"> • 4.3 – Added sentence “This includes “Directed-Buy” sub-tier suppliers as designated by Polaris.” • 4.3 – Bullet points edited for clarity; new bullet added “Quality Management System auditing process for sub-tier” • 5.1 – Fixed grammar and punctuation. Simplified language in Overview and last paragraph for clarity. • 5.2 – Added “Please refer to the <i>Supplier Business Practice Manual (SBPM)</i> for additional requirements for Polaris-owned tooling.” • 6.1 – Gate 2 rewritten for clarity around first material requirements • 6.1 – Added “in alignment with Production Verification Build (PV Build)” to Gate 2 • 6.2 – Added “failure modes” to second bullet point • 6.2 – Last paragraph rewritten for clarity • 7.3 – Overview rewritten, “Polaris specifications” changed to “Polaris requirements” • 7.3 – Deleted “and avoid non-quality costs” from first paragraph • 7.5 – Parenthetical deviation example rewritten • 7.5 – Edited for clarity “supplier shall never request a deviation in order to bypass the PPAP system” • 7.6 – Overview and first paragraph rewritten for clarity • 7.6 – Added “via a production order” to first sentence of second paragraph • 8.1 – Deleted duplicate bullet • 8.1.1 – Deleted Nonconforming DPM Rate content (properly found in section 8.1.3) • 8.2.1 – Added “Suppliers are expected to complete CAPA-CAR in a timely and thorough manner. Failure to do so can result in recovery fees being assessed as stated in the <i>Supplier Business Practice Manual</i>.”
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10	12-Feb-25	<ul style="list-style-type: none"> • 3.1 – Clarification added for order of precedence • 4.1 – Replaced Zycus with JAGGAER • 4.2 – “supply chain” decapitalized • 4.8 – Replaced Zycus with JAGGAER • 5 – Section renamed “Supplier Onboarding”; “phased-gate Supplier Qualification and Onboarding Process” changed to “vetting process for Supplier Onboarding; old onboarding process table removed, new table added • 5.2 – Added “not verified for calibration per the calibration schedule” • 6.2 – Overview rewritten; second paragraph rewritten; last bullet point rewritten; last paragraph rewritten • 6.3 Drawing Review – Section removed • 6.3 Team Feasibility Commitment – New section added • 6.4 – Critical Characteristics (CC) added to section name; a KPC is now “vital” instead of “key” to avoid redundancy; sentence added to end of first paragraph “Please refer to Production Part Approval Process (PPAP) Supplier Work Instructions and PPAP Submission Checklist for details regarding the requirements to achieve PPAP for parts with Key Product Characteristics.”; last three paragraphs removed; PPAP Supplier Work Instructions and PPAP Submission Checklist added to document references • 6.5 Design for Manufacturability (DFM) – Section removed • 6.7 (now 6.6) – Overview rewritten to include bullet points • 6.9 (now 6.8) – Polaris will “identify” rather than “expose” issues; manufacturing process has the “capability” rather than “ability” to produce product; “and when the conditions described above are congregated” removed
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		<ul style="list-style-type: none"> • 6.10 (now 6.9) – Section completely rewritten; table removed, new table added • 6.11 Appearance Approval Report (AAR) – Section removed • 6.12 (now 6.10) – Section completely rewritten • 7 – Intro paragraph added by Rob Tyler • 7.1 – Section header removed; subsections 7.1.1, 7.1.2, and 7.1.3 are now 7.1, 7.2, and 7.3 • 7.1.1 – Second paragraph rewritten; note removed • 7.1.2 – MSDS removed from section title; MSDS replaced by SDS in last sentence • 7.3 (now 7.5) – “sourced through them to Polaris” added to overview; new sentence added to end of “Method” bullet “All failure modes identified in the FMEA as red/high action priority risk per the VDA AIAG standard require error proofing to reduce the action priority to yellow/medium risk or green/low risk.”; “should” replaced by “shall” in Management bullet • 7.5 (now 7.7) – PPAP now a “process” rather than “system” in second paragraph; sentence added to end of second paragraph “Deviations shall specify what specific requirement cannot be met as well as what deviated requirements can be met.” • 7.6 (now 7.8) – Second paragraph completely rewritten • 7.7 (now 7.9) – “that is not covered by a DCR” removed from overview • 8.1.2 – Example 3 “If non conformance is found in the returned material” replaced by “If again nonconformance is found after the returned suspect material is shipped back to Polaris as Certified”; Example 5 rewritten • 8.1.3 – DPM equation revised • 9.1 – RMO rules removed from appendix (they already appear in section 8.1.2)
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11	8-Jul-25	<ul style="list-style-type: none"> • “Confidential” changed to “Proprietary” in footer
12	2-Feb-26	<ul style="list-style-type: none"> • Language updates for clarity throughout document • 6.2 – APQP section reformatted to drive clarity • 6.2.1 – Supplier responsibilities listed in detail • 6.4 – Section renamed Special Characteristics and reformatted to differentiate KPC and CC • 6.8 – Run At Rate is now Production Trial Run Audit here and throughout document • 6.9 – Sample and duty costs added to PPAP expectations • 8.1.2 – New section added to clarify RMO decision making • 8.5 – Supplier Performance Management section rewritten with SCIP/NNB table replaced by new Escalation graphic

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1. PURPOSE/SCOPE

This manual communicates the quality processes, systems, and procedures necessary to ensure all members of the Supply Chain meet Polaris expectations. The expectations set forth in this manual are applicable to existing and new suppliers of parts, materials, and services that directly impact the quality of Polaris products.

We recognize that suppliers are instrumental in meeting Polaris' commitment to obtaining on-time, defect-free product with unmatched value to make us successful. Our relationship shall instill a passion for "Zero Defects" across the entire supply chain. A zero defects mindset is not a "business as usual" approach to resolving quality problems. It requires a proactive approach to managing quality that focuses on prevention and continuous improvement that is deeply embedded within the supply chain. We shall transform our mindset regarding quality from "as received" at the factory to zero defects "as delivered" to the end customer. Polaris seeks suppliers who will make a commitment to continuous improvement (using tools such as Lean Manufacturing, Six Sigma and AIAG Core Tools) and provide objective evidence of measurable improvements in quality and delivery.

Working together with the processes outlined in this manual, the *Supplier Business Practice Manual (SBPM)*, and the *Supplier Delivery Manual (SDM)*, we can successfully generate breakthrough quality improvements, create world-class products, and deliver them effectively while contributing to each other's success.

Polaris shall provide updates and revisions to this manual, as necessary. Suppliers are expected to incorporate these updates and revisions into their quality system in a timely manner. If these changes generate a question or potential problem for a supplier, it is the supplier's responsibility to bring the matter to the attention of Polaris by contacting their Sourcing representative or Supplier Quality representative.

1.1. CONVENTIONS

1.1.1. Reference Documentation

Where applicable, supporting document and training titles are provided in this manual. These titles reference documents found in Reliance, on the Polaris Supplier Portal (www.polarissuppliers.com), or in Supplier University of Polaris. Use these references, which are designated in a box like the one below, to ensure your information, training, and templates are of the latest revisions.

SUPPORTING DOCUMENT TITLES WILL BE LISTED IN FIELDS LIKE THIS ONE.

1.1.2. Critical Definitions

Shall/Must – The words "shall" or "must" indicate mandatory requirements.

Should/May – The word "should" or "may" indicate a recommendation.

2. GLOSSARY

Table 1: Supplier Quality Assurance Manual Glossary

TERM	DEFINITION
Advanced Product Quality Planning (APQP)	Set of standard procedures that document the ability to produce a capable part with a reliable and repeatable process through a mutual understanding of the requirements and thorough risk assessment
Appearance Approval Report (AAR)	Completed for each part or series of parts if the product/part has appearance requirements on the Design Record.
Benchmarking	Improvement tool whereby a company measures its performance or process against other companies' best practices, determines how those companies achieved their performance levels, and uses the information to improve its own performance. It is a continuous process whereby an enterprise measures and compares all its functions, systems and practices against strong competitors, identifying quality gaps in the organization and striving to achieve competitive advantage locally and globally.
Certified ID Requirement	Certified ID requirements define how to properly identify material when requested to ship certified product.
Containment	Immediate short-term supplier actions taken or planned to identify and segregate defective product in order to eliminate further product impact to Polaris during the cause and corrective- action processes.
Continuous Improvement	Adopting new activities and eliminating those that are found to add little or no value. The goal is to increase effectiveness by reducing inefficiencies, frustrations, and waste (rework, time, effort, material, and so on).
Control Plan	Documented description of the systems and processes for controlling product. The control plan describes the actions that are required at each phase of the process, from receiving to shipping, to ensure that all process outputs remain in a state of control. The control plan reflects a strategy that is responsive to changing process conditions and is maintained and used throughout the product life cycle.
Corrective Action (CA)	Permanent, documented, systemic corrections to the failed processes that shall prevent a recurrence of the identified nonconformance, and ensure future defect detection.
Cp	Ratio of tolerance to 6 Sigma, or the upper specification limit (USL), minus the lower specification limit (LSL), divided by 6 Sigma. Sometimes referred to as the engineering tolerance divided by the natural tolerance and is only a measure of dispersion.
Cpk	Equals the lesser of the USL minus the mean divided by 3 Sigma (or the mean) minus the LSL divided by 3 Sigma. The greater the Cpk value, the better.
Critical Characteristic	Used to communicate high severity aspects of a design where a standard dimensional KPC does not apply or the statistical control is not needed. Critical Characteristics are used to define high severity parts (DFMEA severity of 9 Or 10) and dictate special controls needed, based on what type of parameter it is attached to.

TERM	DEFINITION
Design for Manufacturability and Assembly (DFM/DFA)	Simultaneous engineering process designed to optimize the relationship between design function, manufacturability, and ease of assembly.
Design Record	Part drawing, specifications, and/or electronic (CAD) data used to convey information necessary to produce a part.
Deviation Request	Initiated to request temporary acceptance to ship product that is nonconforming to the Polaris drawing, engineering specification, or quality standards.
Drawing Change Request (DCR)	Initiated to request a permanent change to a Polaris drawing, engineering specification, or quality standard.
Engineering Change Level (ECL)	New revision level applied to a current part.
Failure Modes and Effects Analysis (FMEA)	Systematic group of activities intended to recognize and evaluate the potential failure of a product, and the effects and causes of that failure, identify actions that could eliminate or reduce the chance of the potential failure occurring, and document the process.
Gauge Repeatability	Variation in measurements obtained with one measurement instrument, when used several times by one appraiser, while measuring the identical characteristic on the same part.
Gauge Reproducibility	Variation in the average of the measurements made by different appraisers, using the same measurement instrument, used several times by each appraiser, while measuring the identical characteristic on the same part.
Geometric Dimensioning and Tolerancing (GD&T)	Set of rules and standard symbols used to define the part features and relationships on an engineering drawing according to ASME Y14.5M 1994.
Intellectual Property	Creative ideas and expressions of the human mind that have commercial value and receive the legal protection of a property right. It includes ideas, inventions, business methods and manufacturing processes. The major legal mechanisms for protecting intellectual property rights are copyrights, patents, and trademarks.
Interim Corrective Action (ICA)	Ensures all suspect product is quarantined and certified prior to use by Polaris as soon as possible to minimize any production delays on the part of Polaris.
Key Product Characteristics (KPC)	A product characteristic defined by Polaris design engineering where variation would significantly affect the product's intended usage, the product's safety or its regulatory compliance or is likely to significantly affect customer satisfaction with a product.
Manufacturing Feasibility Commitment (MFC)	Key step in the Polaris Development Program (PDP) process. The MFC shall be completed by the supplier to analyze and determine their ability to commit to all requirements as specified in Polaris Design Record prior to acceptance of any pre-production order.

TERM	DEFINITION
Error-Proofing	The use of any reliable and efficient method that makes an error immediately obvious once it has occurred.
Measurement System Analysis (MSA)	An experimental and mathematical method of determining how much the variation within the measurement process contributes to overall process variability.
No New Business (NNB)	Status to prevent additional business to be sourced to a supplier in the event that the supplier is experiencing chronic performance issues.
Parts Per Million (PPM)	Method of stating the performance of a process in terms of actual nonconforming material calculated as $1,000,000 * \text{Reject/Receipt}$.
Ppk	Term used to predict the process capability of a new process (also referred to as the performance index).
Polaris Development Process (PDP)	Five-phase business process for integrated product development and validation that is designed for speed and flexibility. It emphasizes quality and teamwork, focusing heavily on analyzing risk in order to make well-informed decisions.
Pre-Delivery Inspection (PDI)	Secondary act of inspecting a product for quality defect(s) prior to shipment to ensure nonconforming product does not reach the customer.
Preventive Action (PA)	Actions taken to eliminate the causes of a potential nonconformity or other undesirable situation in order to prevent occurrence (must be validated to be complete).
Preventive Corrective Action (PCA)	8D/Six Sigma term, quantitatively confirm that the selected corrective action will resolve the problem.
Process Capability	Range over which the natural variation of a process occurs as determined by the system of common causes. Process capability is comprised of three important components: the design tolerance, the centering of the process, and the range or spread of the process variation.
Process Change	Any supplier method changes (for example, process, tooling, material, or location) potentially affecting any attributes or dimensions.
Process Change Request (PCR)	Documents a change in the supply or manufacture of material/product that is not covered by a DCR.
Process Control	Monitoring of characteristics for capability to produce a feature under stable conditions to maintain ongoing acceptable quality levels. Examples of process control documents include process sheets, inspection and test instructions, test procedures, standard operating procedures, preventive maintenance instructions, and specific part control plans.
Process Failure Modes and Effects Analysis (PFMEA)	Systematic group of activities intended to recognize and evaluate the potential failure of a process and the effects / causes of that failure, identify actions that could eliminate or reduce the chance of the potential failure occurring, and document the process.

TERM	DEFINITION
Product Acceptability Requirements (PAR)	General requirements that suppliers need to adhere to that enables part / product shipment to a Polaris facility.
Product Assurance	Part or assembly characteristics that are critical to the operation of the process or the function of the product require intense monitoring and control in order to ensure product quality for the customer.
Production Part Approval Process (PPAP)	Rigorous and structured process for part qualification that applies to supplier sites supplying production parts, production materials, or bulk materials to Polaris. PPAP is used for production approval of all new or changed parts used in Polaris production.
Pulse Order	Risk mitigation tool used throughout the PDP process to evaluate the readiness of a supplier's production process prior to SOP.
Quality Audit	On-site verification activity based upon a sample used to determine the effective implementation of a supplier's documented quality system.
Quality Operating System (QOS)	Fundamental quality system that provides for risk management, continuous improvement, emphasizing defect prevention and the reduction of variation and waste in the Supply Chain.
Quality Record	Records established to provide evidence of conformity to requirements, and the effective operation of the Quality Operating System (QOS).
Quality System	Organizational structure, responsibilities, procedures, processes and resources required to achieve management's goals or objectives.
Reject Material Order (RMO)	Established to document and disposition product that is nonconforming to the Design Record.
Risk Priority Number (RPN)	Product of severity, detection, and occurrence in a Failure Mode Effects Analysis (FMEA).
Root Cause (RC)	Primary, proven reason(s) for the product defect(s), or defect detection failure(s). The most basic reason(s) that, if eliminated, would prevent recurrence.
Root Cause Analysis	Study of original reason for nonconformance within a process. When the root cause is removed or corrected, the nonconformance shall be eliminated.
Run Chart	Simple line chart that plots one characteristic over time. It is used to plot individual observations and detect patterns in the data.
Safe Launch	Enhanced quality-control method that manufacturers/suppliers use to help ensure production excellence at launch.
Safety Data Sheet (SDS)	Document that contains information on the potential health effects of exposure to chemicals or other potentially dangerous substances, and on safe working procedures when handling chemical products. Per OSHA regulations and to ensure safety standards, suppliers of incoming materials and products shall utilize chemicals that comply with general lubrication guidelines and provide complete SDS documentation as proof of that compliance. Also known as Material Safety Data Sheet (MSDS).

TERM	DEFINITION
Sales Inventory Operations Planning (SIOP)	The process Polaris uses to manage inventory levels, production lead times, and finished goods.
Site	Supplier location at which value-added production processes occur. “Site” also includes distributors of parts manufactured by other companies.
SOP	Start of production.
Statistical Process Control (SPC)	Application of statistical methods to identify and control the special cause of variation in a process.
Subject Matter Expert (SME)	Skilled professional with significant knowledge regarding the products, service or solution delivered by a supplier.
Sub-Supplier (Tier 2, 3, and so on)	Supplier(s) or sub-contractor(s) to Polaris’ tier I suppliers/providers.
Supplier (Tier I)	Direct provider of 1) production material, 2) indirect material, 3) production or service parts, or 4) services such as heat treating, plating, painting or other finishing processes. The party that produces, provides or furnishes a part or service to a purchasing organization.
Supplier Assessment	Used by Polaris supply chain personnel to evaluate a supplier’s business capabilities. The tool assesses quality, engineering and business practices to ensure the supplier’s capabilities align with Polaris business needs.
Supplier Business Practices Manual (SBPM)	Outlines a successful commercial business partnership with Polaris.
Supplier Designed Component (SDC)	Part (for example, an assembly, electrical device, mechanical device or control module) where design responsibility belongs to the Supplier. SDC requirements are generally limited to those characteristics/parts required for Polaris interface connections and verification of functional requirements. Outside Design and Development (ODD) has the equivalent meaning. A supplier drawing that is placed onto a Polaris border shall be considered an SDC part and all related supplier owned drawings and specifications shall be considered part of the Design Record.
Sample Inspection Report (SIR)	Formal method of providing a measurement report for a given manufacturing process. SIRs may be requested at any time for any pre-production or post-production part.
Supplier Continuous Improvement Program (SCIP)	Process to strategically increase a supplier’s quality according to Polaris expectations through the application of systemic improvements.
Supplier Manufacturing Assessment	Tool used by Polaris Supply Chain personnel to evaluate a supplier’s process capabilities. The tool gauges all aspects of manufacturing including process controls, maintenance, tool support, technology, and quality systems specific to the supplier’s core competencies. The goal is to ensure the supplier’s capabilities align with Polaris business needs.

TERM	DEFINITION
Supplier Performance Management	Program used by Polaris to improve the quality and capacity of a previously qualified, but consistently underperforming, supplier.
Third-Party Containment	Act of inspecting a product for quality defect(s) by a third party to ensure nonconforming product does not reach Polaris' assembly lines.
Tool	Portion of process machinery that is specific to a component or sub-assembly. Tools (or tooling) are used in process machinery to transform raw material in to a finished part or assembly.
Total Variation	Ratio of the uncertainty of the repeatability and reproducibility of the gaging system to the tolerance range of the characteristic to be measured.
TS 16949	International standard replacing QS-9000. TS 16949 contains all ISO-9000, QS-9000, and many European standards. It defines the business as a set of processes with inputs and outputs that need to be defined, controlled, improved or optimized, and so on.
Validation	Confirmation by examination and provision of objective evidence that the particular requirements for a specific intended use or requirements are fulfilled.

3. POLARIS BUSINESS INTEGRATION

3.1. CONFLICT MANAGEMENT

Overview: Our relationship with suppliers is defined by the provisions, terms and conditions of any fulfilled purchase order or signed Master Supply Agreement (MSA) between Polaris and the supplier.

Compliance with the guidelines of this manual or acceptance or approval of the supplier's parts or materials does not relieve the supplier of any of the obligations or liabilities stated in the applicable purchase order or contract. With regard to only the requirements of the purchased good, and unless otherwise provided for in a signed written agreement between Polaris and the supplier, the following order of precedence shall apply in the event of a conflict:

- Design Record
- Procurement specifications
- Purchase order
- Contract
- This manual, the *Supplier Business Practice Manual (SBPM)*, and the *Supplier Delivery Manual (SDM)*

3.2. COMMITMENT

Overview: Suppliers shall comply with this *Supplier Quality Assurance Manual (SQAM)* and all related standards, processes, engineering specifications, and procedures.

This commitment begins with a strong management dedication to zero defects, problem prevention and resolution, and continuous improvement to the manufacturing process.

3.3. BUSINESS PRACTICES

Overview: The *Supplier Business Practice Manual (SBPM)* outlines a successful commercial business partnership with Polaris, defines both our customary and general guidelines of how Polaris conducts business, and provides an overview of the global business practices that define our expectations of being a business partner to Polaris.

This manual outlines our expectations for the commitments needed from our suppliers to create a strong, competitive, and value-added Supply Chain.

Polaris' success is dependent upon our ability to provide the highest value to our customers through price, quality, timely delivery, and service. A close working relationship with our Supply Base is critical to the achievement of this objective. The *SBPM* provides you with the necessary information that will be critical to our mutual efforts of conducting business in a professional, efficient, and profitable manner.

Finally, suppliers violating the requirements of this manual will be subject to recovery fees, which are explained in more detail in the *SBPM*.

POLARIS SUPPLIER PORTAL

SUPPLIER BUSINESS PRACTICES MANUAL (SBPM), LOCATED UNDER RESOURCES > SUPPLIER MANUALS

4. SUPPLIER EXPECTATIONS & REQUIREMENTS

4.1. ESCALATION MANAGEMENT

Overview: Polaris utilizes the information provided in JAGGAER and the Polaris Supplier Portal to contact the appropriate individuals at a supplier.

For more information on the expectations and responsibilities of maintaining contacts in JAGGAER and the Polaris Supplier Portal, refer to the "Supplier Relationship Management" section of the *Supplier Business Practice Manual*.

4.2. RESOURCE MANAGEMENT

Overview: It is expected that suppliers offer a learning environment for their employees that provides knowledge about appropriate quality tools and processes that affect the quality of products and services provided to Polaris. Employees shall be provided with equipment, facilities, and work environments conducive

to producing high-quality products and services that consistently meet functional requirements and product specifications.

Polaris has invested in supplier success by creating supplier training programs to support supplier qualification, onboarding, and performance improvement processes. Partnering together to create a highly-skilled workforce drives Polaris and our supply chain to provide Best-in-Class quality products and services and significant market opportunities.

POLARIS SUPPLIER PORTAL

SUPPLIER UNIVERSITY OF POLARIS, LOCATED ON THE APPLICATIONS & TOOLS TAB

4.3. SUB-TIER MANAGEMENT

Overview: Tier 1 Suppliers are solely responsible for their sub-tier supplier performance and compliance to all Polaris requirements.

Tier 1 suppliers are required to develop sub-tier suppliers by establishing and maintaining a documented procedure that supports part qualification. This includes sub-tier suppliers designated by Polaris. These procedures must include methods that define:

- Proper distribution of Polaris drawings/specifications
- Change Management: Design or Process Change requests and effectivity of approved change
- Required levels of part traceability
- Qualification requirements (PPAP)
- Quality Management System auditing process for sub-tier
- Sub-tier quality performance monitoring via the use of scorecards and a continuous improvement initiative
- Timely communication of Quality Issues and implementation of corrective actions (CAPA/CAR)
- Tooling life and quality near the end of life
- As required, additional component specific needs

Tier 1 suppliers will be required to develop a sub-tier qualification plan that supports PPAP approval at Polaris. Polaris reserves the right to request Tier 1 suppliers provide sub-component PPAPs.

4.4. QUALITY MANAGEMENT

Overview: A Quality Operating System (QOS) is the fundamental quality system that provides for risk management, continuous improvement, emphasizing defect prevention and the reduction of variation and waste in the Supply Chain.

The supplier shall establish, document and maintain a QOS as a means of ensuring products conform to Polaris-specified requirements. The supplier shall structure their QOS from the current release of either ISO 9001 or IATF 16949 standards.

Polaris requires suppliers to have a QOS registered to either ISO 9001 or IATF 16949 standards. The supplier shall use the most current release of either of these standards and their certification must be registered through an accredited registrar. If the supplier is not registered to one of the aforementioned standards, the supplier shall document an action plan to become registered.

The supplier's responsibilities regarding the QOS include:

- Ensure Polaris is updated with any changes to QOS, ISO/IATF certification and primary quality contacts by communicating these changes with Polaris Sourcing representative.
- Ensure registration to the requirements of ISO 9001 or IATF 16949; suppliers are required to retain copies of this information to be provided upon request to Polaris.
- Ensure QOS supports all Polaris supplier quality requirements as defined in this manual.
- Ensure, no less than annually, a comprehensive quality system audit is conducted and results are made available to Polaris. This audit may be conducted internally, by a third party, or by Polaris. Submitted results shall include the corrective action taken or planned actions against significant (major) findings. All audit results, including any actions taken, shall be part of the supplier's document control. Polaris will reserve the option of requesting the supplier take specific action(s) upon review of the internal audit.

SUPPLIER UNIVERSITY OF POLARIS
QUALITY MANAGEMENT EXPECTATIONS (QME) TRAINING

4.5. QUALITY RECORDS & MATERIALS

Overview: Supplier Quality Records shall be established to provide evidence of conformity to Polaris and industry requirements and the effective operation of the Supplier's QOS.

Quality records are the documented evidence that the supplier's processes were executed according to their QOS documentation. Unless otherwise specified by Polaris, supplier shall retain all records and materials pertaining to a good's

development, design, testing, and manufacturing for 20 years after final delivery and for the period prescribed by applicable law. Supplier will use reasonable commercial efforts to require each of its sub-tier suppliers to do likewise with respect to their records and materials.

4.6. CONFIDENTIAL INFORMATION & INTELLECTUAL PROPERTY RIGHTS

Overview: Creative ideas and expressions of the human mind that have commercial value and receive the legal protection of a property right that may include ideas, inventions, business methods and manufacturing processes shall be protected.

Suppliers serving as Tier 1 to Polaris shall comply and ensure that their respective sub-tier suppliers (Tier 2, Tier 3, and so on) are advised of and agree to the obligations set forth in the Supplier Code of Conduct.

POLARIS SUPPLIER PORTAL

SUPPLIER CODE OF CONDUCT, LOCATED UNDER COMPANY > SUPPLIER CODE OF CONDUCT

4.7. RESOURCES & TECHNOLOGY

Overview: Polaris expects Suppliers to maintain and use the most current levels of technology reasonably available and required for design and production of quality products, in addition to electronic communication.

Suppliers shall possess and maintain relevant resources and technology necessary to interpret and comply with Polaris requirements. Some examples are CAD systems to interpret Polaris drawings and models, CMM and measurement technologies, digital scanning capabilities, computerized aids to assist in the analysis of data, flow mold technology, tool life and management, electronic communication including email, and the distribution of quality graphs, drawings, and specifications.

4.8. SUPPLIER COMMUNICATIONS

Overview: Quality is everyone's job and effective communication is an important element to ensure our success. All communications to Polaris must be in English, including but not limited to forms, part approval submissions, product assurance documentation and general communication.

To maintain schedules and builds, effective communication regarding part qualification and quality requirements shall be communicated in a timely manner to the appropriate Polaris personnel. All communication shall include the Sourcing representative and Supplier Quality/Development Engineer. In addition, pre-production information shall include the NPI Materials Coordinator and NPI Strategic Sourcing Lead. Production information shall include the Planning representative.

Immediate notification is required regarding all non-conformance situations (including sub-tier suppliers). The supplier shall champion the nonconformance reaction plan including containment and resolution activities to minimize impact to

Polaris. The Sourcing representative, Supplier Quality/Development Engineer, and Planning representative shall be kept informed as to the status of the nonconformance. It is the Tier 1 supplier's responsibility to convey all relevant information for sub-tier suppliers to Polaris.

Oral communication may be effective for a quick avenue of notice, but all official communications shall be conducted in writing electronically by use of appropriate forms or email notifications. Some examples of appropriate forms are:

- Process Change Request (PCR) including rework
- Corrective Action/Preventive Action (CAPA)
- Deviation Request
- Design Change Request (DCR)
- Contact information (Polaris Supplier Portal and JAGGAER Supplier Profile)

Note: All communication shall be conducted electronically. Direct issues regarding any of these systems to purchasing.systems@polaris.com.

5. SUPPLIER ONBOARDING

Overview: Overview: Polaris follows a structured vetting process for Supplier Onboarding which performs two basic functions:

- 1. Vetting and Assessment -- Ensures suppliers have the proper resources, systems, and competencies to become a successful business partner with Polaris.**
- 2. Systems Access and Training -- Assists the supplier to understand the Supply Chain tools which Polaris uses to communicate requirements.**

Polaris may modify required Onboarding action items on a case-by-case basis dependent upon the type of Supplied product or service, and existing relationship with the Supplier. The standard process is shown in Table 2, below.

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Table 2. Onboarding Overview (Standard Process)

Stage	Step
Registration	Step 0: Jaggaer Supplier Registration
	Step 1: Confirm Polaris Contact
	Step 2: Confirm NDA
Qualification	Step 3: Material Compliance
	Step 4: Ethics Compliance
	Step 5: Qualification Request Intake
	Step 6: Quality Assessments & Cross Functional Review
	Step 7: Trade Compliance
Integration	Step 8: Contract Review (Pre-Award)
	Step 9: Supplier Profile - Pre Integration Requirements
	Step 10: ERP Integration
	Step 11: SCS Integration

Upon completion of Systems Training, the onboarding process is considered closed and the Supplier is ready for current and future business with Polaris (unless otherwise specified).

5.1. **SUPPLIER ASSESSMENTS**

Overview: Regular assessments allow Polaris to proactively identify opportunities for growth, lower risks, streamline production timelines, eliminate unnecessary expenses, and improve supplier performance.

There are three main types of assessments:

- QMS Assessment – Evaluates the Quality Management System implemented in the supplier’s facility and how effective they are to achieve Polaris’ expectations.
- Manufacturing Assessment – Evaluates the critical manufacturing processes and controls attached to them.
- Capacity Assessment – Evaluates current and New Product Introduction (NPI) production readiness.

Depending on availability and restrictions, assessments can be performed on-site or remote. The results of these assessments, combined with the timely closure of identified non-conformances, may impact business with Polaris.

5.2. TEST & MEASUREMENT EQUIPMENT

Overview: Test and Measurement Equipment may be owned by the supplier or by Polaris.

Suppliers may use any Test and Measurement Equipment (T&ME) deemed necessary and appropriate to meet Polaris Design Record requirements. However, when Polaris requires the use of T&ME, it will be specified in the Design Record and supplier must meet the requirements of the Design Record.

Suppliers must properly identify all measurement equipment as well as perform internal calibration activities with a validated method in accordance with ISO 10012 or equivalent. The supplier may contract external calibration activities with a calibration supplier who is accredited to ISO 17025 or equivalent, and whose scope of accreditation includes all equipment they are being contracted to calibrate. Inspection gauges, along with test equipment, must be controlled and comply with a calibration schedule that is consistent with the organization's calibration reliability target. Additionally, suppliers must treat all T&ME with reasonable care to prevent loss, damage or out-of-calibration conditions. Suppliers shall not ship product to Polaris tested or measured with T&ME that is not in calibration, not verified for calibration per the calibration schedule, or not in good working order. If product tested or measured with T&ME in this described condition escapes the supplier's location, Polaris must be notified immediately with part number, shipping information, and calibration results by contacting their assigned SQE and the Planning representative of the Polaris shipping destination.

In some cases, such as when the T&ME is considered to be non-standard, Polaris will provide T&ME to suppliers. The supplier is responsible for the care, maintenance, safekeeping, and proper use of Polaris-owned equipment. Please refer to the *Supplier Business Practice Manual (SBPM)* for additional requirements for Polaris-owned tooling. Suppliers must promptly report any loss, damage, or destruction of gauges and test equipment. This does not include normal wear and tear; although, the supplier is responsible for maintenance of wear and tear that affects the functionality of the equipment. Polaris and the supplier will determine who has responsibility for calibration and specify the calibration interval of all Polaris owned T&ME. If Polaris assumes responsibility for calibration, the supplier must return the recalled T&ME within the timeframe requested. Parts that utilize the equipment must meet production requirements while the T&ME is being calibrated.

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6. POLARIS DEVELOPMENT PROCESS & SOP READINESS

6.1. POLARIS DEVELOPMENT PROCESS (PDP)

Overview: PDP is a 5-phase business process for integrated product development and validation designed for speed and flexibility. This process emphasizes quality and teamwork, focusing heavily on analyzing risk to make well-informed decisions. PDP is in line with Polaris' strategic purpose of being a customer-centric, highly-efficient growth company.

Fig. 1: Polaris Development Process



Some of the highlights of the PDP process include:

- A phase-gate process for integrated product development and validation.
- Major, Intermediate, Minor, and sourced levels that can be tailored based on the size and scope of individual programs.
- Gates which allow management to assess programs to prioritize and make go/no-go decisions.
- Pre-production builds which allow teams to validate products and processes from concept to SOP.

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- Key deliverables provided at builds and reviews during product development.

Polaris Long Range Product Planning kicks off the PDP ideation cycle and is a key indicator for Supply Chain Design (SCD). Prompt support of all Requests for Information (RFI) and Requests for Proposal (RFP) is necessary for a successful SCD.

Pre-Gate 1 – Advanced Development: Suppliers will receive RFIs and RFPs from NPI Strategic Sourcing Lead. Suppliers should work with the NPI Strategic Sourcing Lead to brainstorm new and creative ways to tackle customer challenges/opportunities.

Gate 1 — Opportunity: Suppliers will continue to see RFIs and RFPs from NPI Strategic Sourcing enters their Assess & Estimate Phase.

Gate 2 — Development & Validation: The Supply Base focuses on the milestone of being 100% production-intent tooled at Validation Build (V Build). Suppliers will also see first material requirements to support the Validation Build and are asked to provide tooled parts for the build along with a Sample Inspection Report (SIR).

Next, suppliers target a smooth ramp to the start of production with a 100% PPAP approval of part(s) by Gate 3 in alignment with Production Verification Build (PV Build). Communicate immediately any issues with NPI Strategic Sourcing Lead.

Gate 3 — Finalize and Approve Phase: Suppliers should be 100% on Polaris production processes and receiving communications from multiple teams within Polaris. This marks the Polaris internal Start of Production (SOP) milestone. Suppliers should see parts forecasted on the Polaris planning supplement and should be using the prescribed Advanced Shipping Notice (ASN) process. Communicate immediately any issues with NPI Strategic Sourcing Lead.

Gate 4 — Launch Phase (“Go/No-Go”): This is a milestone for full SOP. Suppliers should see parts and forecasted ramp up to full rate of production on the Polaris planning supplement, using the prescribed Advanced Shipping Notice (ASN) process. Communicate immediately any issues with NPI Strategic Sourcing Lead.

Gate 5 — Assess Phase: Suppliers should collect feedback throughout the project to provide after SOP to the NPI Strategic Sourcing Lead. As a supplier, your voice is important. Provide the voice of the supplier as part of the lessons-learned process.

6.2. ADVANCED PRODUCT QUALITY PLANNING (APQP)

Overview: APQP is a project management framework used to develop a capable, reliable, and repeatable part through a mutual understanding of requirements and customer expectations.

Effective product quality planning depends on a company's top management being committed to the early engagement required to identify risks and implement effective process controls. Some of the benefits of Advanced Product Quality Planning include:

- Transparent understanding of requirements with suppliers.
- Early identification of product failure modes and process risk.

- Avoidance of late changes and faster time to market.
- Collaboration leads to better product quality with optimized cost

The Polaris APQP process utilizes the AIAG 3rd Edition Manual as its framework and aligns with the Polaris Development Process (PDP) timeline. At the start of a project, Polaris will complete a risk assessment to identify components that require higher levels of oversight and monitoring including (but not limited to):

- Safety critical component
- New technology
- New manufacturing process
- New material
- Key aesthetic requirements
- Performance critical
- Requirement for extensive validation
- New manufacturing facility
- Poor past performance of existing supplier
- New supply partner

The Polaris APQP process is defined in three levels. APQP level 3 requires the highest level of oversight and monitoring. Level 2 is medium risk and designed to be customizable for specific risks that apply to the part. Level 1 includes only a Team Feasibility Commitment and Production Readiness Commitment.

The Polaris APQP process is defined by milestones that align with the Polaris Development Process. These include Team Feasibility Commitment, Sample Inspection Report (SIR), Process Flow Chart, PFMEA, Control Plan, Production Readiness Commitment, Production Trial Run and Safe Launch. An APQP Plan form is used for parts in APQP Level 2 and 3. The plan form defines all elements required and timing for completion.

6.2.1. **APQP Responsibilities**

A complete list of responsibilities is available in the APQP Element Master Requirement. Below are the key areas of responsibility for both Polaris and supplier.

Supplier Responsibilities:

- Assign a dedicated project manager or APQP leader
- Organize a cross-functional project team
- Develop and execute APQP in accordance with Polaris established milestones elements, and requirements

- Provide supporting APQP documentation in English
- For APQP Level 2 and 3 parts, complete and maintain APQP plan form with each milestone including supplier-determined due dates and completion dates

Polaris Responsibilities:

- Identify cross-functional team members
- Assign an NPI Supplier Quality Engineer to lead APQP activities
- For APQP Level 2 and 3 parts, provide an APQP plan form with required elements and Polaris-required completion timing

When requested, at the sole discretion of the Polaris Supplier Quality Engineer, APQP execution is required as a condition of doing business with Polaris. APQP reviews will be held on a reoccurring basis. Suppliers shall submit required documents in the APQP Reliance module. APQP elements are expected to be completed within the time frame outlined in the Polaris APQP Reliance module to ensure successful product launch and avoid impacts on the supplier's APQP timeliness metric.

RELIANCE

ADVANCED PRODUCTION QUALITY PLANNING (APQP) PROCEDURE (DOC CONTROL 01156)
APQP ELEMENT MASTER REQUIREMENTS (DOC CONTROL 02822)
EXTERNAL APQP WORK INSTRUCTIONS (DOC CONTROL 02821)

SUPPLIER UNIVERSITY OF POLARIS

ADVANCED PRODUCT QUALITY PLANNING (APQP) PROCESS TRAINING
ADVANCED PRODUCT QUALITY PLANNING (APQP) SYSTEM TRAINING FOR SUPPLIERS

6.3. TEAM FEASIBILITY COMMITMENT

Overview: An agreement between Polaris and the Supplier regarding design aspects of the part.

The drawing, model, and specifications are part of the Design Record, and a clear understanding of Polaris requirements is essential for mutual success. Suppliers are responsible for the thorough review of the Polaris drawings, models, and related specifications/standards, including KPCs and CCs, to ensure comprehension and the ability to meet the requirements as defined. The Team Feasibility Commitment (TFC) is an alignment between Polaris and the supplier on the manufacturing feasibility of the newly designed or revised part.

The goal of this process is to mitigate development and production issues with clear agreement on the design, models, and specifications. At the request of Polaris, this will be completed during APQP for a newly designed Polaris part. When requested by Polaris, the supplier shall complete, in collaboration with Polaris, a Design for Manufacturability (DFM) checklist as a pre-requisite to completing the TFC process.

6.4. SPECIAL CHARACTERISTICS

Overview: Special Characteristics are identified on Polaris drawings to separate critical dimensions or specifications from less significant characteristics. Special characteristics are subject to more intensive care within the manufacturing process to prevent nonconformance and improve detection.

Polaris uses two types of Special Characteristics: Key Product Characteristics (KPC) and Critical Characteristics (CC). A Key Product Characteristic can significantly impact customer satisfaction and safety through fit, form, function, or performance and are sensitive to variation within the tolerance. KPCs are identified by the symbol of a diamond (◊) on drawings. KPCs require ongoing statistical control (SPC) monitoring with Cpk analysis completed with every production run (not to exceed 30 days) to ensure that the process is centered on the specification target and meets the Cpk requirements.

A Critical Characteristic is like a KPC but is less sensitive to variation within the tolerance. CCs are used on features where variable data cannot easily be obtained. CCs are typically applied to characteristics that are measured or verified via attribute gages. CCs are identified by the symbol of an inverted delta (∇) on drawings. CCs require technical error proofing, ongoing Statistical Process Control (SPC) with Cpk verification, 100% inspection, or an agreed-upon audit frequency documented in the control plan.

Please refer to the Drawing Special Characteristic Designation Standard for additional details, and the Production Part Approval Process (PPAP) Supplier Work Instructions and PPAP Submission Checklist for details regarding the requirements to achieve PPAP for parts with Special Characteristics.

RELIANCE

DRAWING SPECIAL CHARACTERISTIC DESIGNATION STANDARD (DOC 00443)

PPAP SUPPLIER WORK INSTRUCTIONS (DOC 01455)

PPAP SUBMISSION CHECKLIST (DOC 01913)

6.5. SAMPLE INSPECTION REPORT (SIR)

Overview: A Sample Inspection report is a formal method of understanding the conformance of a sample part or parts. Conformance means the ability of the part to meet the design requirements communicated on the part drawing and/or CAD model. In more detail, the SIR consists of dimensional measurements as well as verification or inspection of any other specifications included on the drawing and/or CAD. SIR's may be requested for any part and at any time during pre-production and/or production.

During the Polaris part development life cycle, the part/drawing/s and requirements may change. These changes could require a singular, or multiple, SIR submissions based on the intent and/or quantity of Polaris pre-production build needs. It's important to understand that a SIR request is intended to capture the conformance of the part to the drawing specifications at that point of development. The drawing used for the SIR could be work in progress (WIP) or fully released. All SIR submissions should be made electronically and in English through the Polaris Reliance System.

All Polaris suppliers have an obligation to prove that the parts they are supplying meet the drawing requirements and suppliers are responsible for that financial responsibility.

6.6. **PRE-PRODUCTION BUILD MATERIAL SUPPLY: ENGINEERING & QUALITY REQUIREMENTS**

Overview: Material ordered outside of the production order system (e.g. PE or PN order types) AND ordered under unreleased or Work-In-Process (WIP) drawings shall be exempt from normal quality processing controls such as:

- **Process Change Request (PCR)**
- **Production Part Approval Process (PPAP)**
- **RMO**
- **Deviation**
- **Design Change Request (DCR)**

Only released drawings can be processed through Polaris PCR, PPAP, RMO, deviation, and DCR systems. For this reason, Polaris engineering shall control the disposition of non-compliant material purchased outside of the production system. Products ordered for engineering purposes are expected to conform to the current unreleased drawing at the time of order. If production inspection equipment is not in place for pre-production components, the supplier shall conduct alternative inspection/measurement methods to confirm the part meets the drawing requirements.

6.7. **PULSE ORDERS**

Overview: Pulse orders are a risk-mitigation tool used throughout the PDP process to evaluate the readiness of a supplier's production process prior to SOP. They are designed to benefit the supplier by giving them a chance to run their production process and produce a significant run of production-ready parts.

Pulse orders are focused on critical parts and critical suppliers. They benefit Polaris and Polaris suppliers by allowing the suppliers to:

- Verify manufacturing processes can hit quoted production rates.
- Identify and fix any potential problems that could impact full production.

- Perform Production Trial Run, PPAP, capability studies, and other APQP activities in advance of SOP, allowing time to react to identified issues prior to production.
- Refine work instructions, procedures, and processes.
- Avoid expedite and downtime charges caused by late process learnings.

While there are inventory-carrying costs and possible expedites on limited quantities that can be associated with pulse orders, those costs are far outweighed by the potential to miss out on the above benefits which could lead to the following risks:

- Quality issues
- Delivery issues
- Failure to hit Polaris requirement of PPAP completion by PV build

6.8. PRODUCTION TRIAL RUN AUDIT

Overview: Performing Production Trial Run audits allows suppliers and Polaris to proactively identify and correct issues discovered in the supplier's processes before they become production problems.

The purpose of Production Trial Run audits is to provide evidence that all customer Design Records are properly understood by the supplier and that the manufacturing process has the capability to produce product consistently, meeting these requirements during an actual production run at the quoted production rate using production tooling, equipment, facility, gauging, and personnel.

Production Trial Run audits are targeted to be completed before Production Verification Build, and before Production Part Approval Process (PPAP) submission. The Production Trial Rate audit shall be performed onsite at the supplier manufacturing site and audited by a Polaris supplier quality engineer. Suppliers must coordinate the date and time of the trial run with their Polaris SQE representative. Suppliers are required to complete the self-assessment and a current print, control plan, and process flow chart during the audit. Failure to be prepared for production trial runs or cancel production trials within 1 week of the agreed date will result in chargeback to the supplier.

RELIANCE

POLARIS RUN AT RATE ASSESSMENT TEMPLATE (DOC CONTROL 00591)

SUPPLIER UNIVERSITY OF POLARIS

RUN@RATE PROCEDURE

6.9. PRODUCTION PART APPROVAL PROCESS (PPAP)

Overview: PPAP is a structured process to qualify production parts, verifying that they meet drawing requirements prior to use in production. This document outlines the high-level introduction, workflow and responsibilities of all parties associated with the part qualification process. The Polaris PPAP process is based on *Production Part Approval Process (PPAP) 4th Edition* by the Automotive Industry Action Group (AIAG).

Polaris reserves the right to issue a PPAP at any time. Table 3 shows the most frequent conditions that trigger a PPAP. More information about PPAP conditions can be found in the *PPAP Supplier Work Instructions*.

Table 3: Parts Require PPAP Under the Following Conditions

PART	EXAMPLES
New or Changed Parts	<ul style="list-style-type: none"> * New or revised part or product, regardless of tier designation * Correction of a discrepancy on a previously submitted part * Any change to materials used in a previously approved part or product
Tooling Changes	<ul style="list-style-type: none"> * New or modified tools (except perishable tools), dies, molds, and patterns, including additional or replacement tooling * Upgrade or rearrangement of existing tooling or equipment * Tooling and equipment transferred to a different plant site, from an additional plant site, or from a manufacturing/assembly line move within the plant * Tooling has been inactive for volume production for twelve months or more
Supplier Changes	<ul style="list-style-type: none"> * New supplier for parts, non-equivalent materials, or services (for example, heat treating or plating) * New source of raw material from new or existing supplier
Process and Product Changes	<ul style="list-style-type: none"> * Product and process alterations related to components of the production product manufactured internally (supplier) or manufactured externally (sub-supplier) * New technique in test or inspection method (no effect on acceptance criteria)
Appearance Changes	Alterations to product appearance attributes (this drives an Appearance Approval Report [AAR])

There are several overall expectations for suppliers to be aware of as a part of PPAP:

- Polaris does not accept separate charges for the cost of PPAP development. Suppliers shall factor the cost of PPAP development into the overall cost of doing business. This includes the cost of PPAP and SIR samples requested by Polaris to satisfy an element on the PPAP. This applies to the lifetime of the part.
- PPAP sample and duty costs are to be paid by the Supplier. This applies to the lifetime of the part.

- A PPAP is required for all sub-supplier components. The Tier 1 supplier is responsible for qualifying all sub-supplier components. Polaris reserves the right to request that Tier 1 suppliers provide sub-component PPAPs.
- Polaris uses a module in Reliance to manage PPAP requests and documentation. Use of Reliance establishes a formal process for tracking, defining, submitting, accepting, and rejecting PPAPs. Additionally, communication is made easier via Reliance, and reports and performance metrics can be readily gathered.
- All PPAP elements must be submitted using the same measurement system dimensions as noted on the Polaris drawing.
- Parts with unreleased drawings/models cannot undergo PPAP, but are subject to Sample Inspection Reports (SIR).
- Once the PPAP request is approved, any changes to the part drawing or any aspect of the production process must be documented by the supplier using a PCR or a DCR, each of which initiates a new PPAP request.
- Parts not conforming to the drawing will require an approved deviation to gain interim approval to ship or use.

Table 4: Part issue actions and follow-ups

ISSUE	IMMEDIATE ACTION	FOLLOW-UP ACTION	FINAL STATE
Part does not meet the drawing specification, but will correct issue to meet the drawing	Approved deviation for temporary shipment/use	N/A	Part meets the drawing specification
Part does not meet the drawing specification, requesting specification change		Submit DCR for drawing change	Part manufactured to the updated drawing rev with approved PPAP
Part meets the drawing specification, requesting process change		Submit PCR for process change	Part meets the drawing specification with approved PCR + approved PPAP

- Deviations can be used in conjunction with a PPAP for interim approval, but not as a substitute; meaning, a supplier cannot request a deviation to bypass PPAP.
- Suppliers must retain the submission records and a master sample of each position of a multiple cavity die, mold, tool or pattern, or production process for one year after discontinuation (the same period as the production part approval records), or until a new master sample is produced for the same part number for Polaris approval. Master samples must be identified as such and must show the Polaris approval date.

- All PPAP requirements shall have interim or full approval prior to shipping and fulfilling production purchase orders. The only exception to this would be if parts are needed for any builds prior to Production Validation (PV) build.
- Compliance to the supplier due date assigned to the PPAP request is critical to maintain Polaris production schedules.
- Polaris does not require suppliers to submit elements using standard forms; however, templates are available for the following elements (these can be used in lieu of, or as a supplement to, a supplier's form):
 - Process Failure Mode and Effects Analysis (Element 6)
 - Process Control Plan (Element 7)
 - Dimensional Results (Element 9)
 - Initial Process Study (Element 11)
 - Appearance Approval Report (Element 13)
 - Shipping Label (Element 14)
 - Part Submission Warrant (Element 18)

Additional requirements and process instructions related to PPAP can be found in the PPAP Submission checklist and PPAP Supplier Work Instructions standards within Reliance Document Control.

RELIANCE

PPAP SUBMISSION CHECKLIST (DOC CONTROL 01913)

PRODUCTION PART APPROVAL PROCESS (PPAP) SUPPLIER WORK INSTRUCTIONS (DOC CONTROL 01455)

SUPPLIER UNIVERSITY OF POLARIS

PRODUCTION PART APPROVAL PROCESS (PPAP) TRAINING

PRODUCTION PART APPROVAL PROCESS (PPAP) SYSTEM TRAINING FOR SUPPLIERS

6.10. **SAFE LAUNCH**

Overview: A quality-control method that manufacturers and suppliers use to ensure production excellence at launch. Safe Launch adds a temporary layer of additional inspection and real-time reporting that provides evidence that the supplier is able to repeatably meet print requirements.

The goal of Safe Launch is verify part conformance to the design record and process repeatability through a period of time or number of lots as defined through the Safe Launch plan. Safe Launch is to be used on any part where Polaris determines that the part has significant risk.

SUPPLIER UNIVERSITY OF POLARIS
SAFE LAUNCH PROCEDURES AND CRITERIA

7. PROCESS MANAGEMENT

Supplier will not make any changes in the design, materials, manufacturing location, manufacturing equipment, production process, changes between a manual and an automated process, subcontracting any process, or any other processes related to the Goods, their labeling, or packaging without Polaris' prior written approval. Supplier will provide prompt written notice of any such potential changes. At least six (6) months prior to any such proposed change (including end of life), Supplier will submit a detailed plan to Polaris for written approval. Supplier will flow down the requirements in this Section in all of its subcontracts and purchase orders for purchased goods or process-related services required for the Goods.

7.1. CORROSION

Overview: Polaris does not accept corroded material(s) nor product with inadequate protection from corrosion.

Corrosion is the gradual destruction of material by chemical reaction with its environment (e.g., oxidation). Corroded features such as red rust (oxidized ferrous material), white rust (zinc/aluminum casings), or degradation of ceramics or polymers is not allowed.

Polaris shall not accept product exhibiting corroded features. Irregular causes contributing to corrosion while under the control of Polaris shall be reviewed on a case-by-case basis.

Use of corrosion inhibitors, candidate lubricants, and all other chemicals is subject to Polaris SDS guidelines and must be pre-approved by Polaris EH&S team.

7.2. SAFETY DATA SHEET REQUIREMENTS (SDS)

Overview: Document that contains information on the potential health effects of exposure to chemicals or other potentially dangerous substances, and safe working procedures when handling chemical products. Per OSHA regulations and to ensure safety standards, suppliers of incoming materials and products shall utilize chemicals that comply with general lubrication guidelines and provide complete SDS documentation as proof of that compliance.

The first priority is the safety of Polaris/supplier employees. Polaris production processes rely on the ability to fully clean metal by removing oils, soils and contaminants in the existing wash process. Suppliers of incoming materials and products are obligated to utilize chemicals that comply with general lubrication guidelines and provide complete SDS documentation as proof of that compliance.

Approval of candidate lubricants and all other chemicals shall be processed through an SDS submission.

7.3. PRODUCT ASSURANCE

Overview: Sustainable quality control is a key element in ensuring that supplier parts and assemblies consistently meet Polaris drawing requirements and specifications.

To ensure that product quality is maintained, Polaris quality personal may periodically request data and documentation and/or request an audit. This is to verify compliance with the operational requirements of the part quality control plan, product specification, and/or contract requirements Polaris does not accept separate charges for the cost of maintaining product assurance. Suppliers shall factor any addition costs for ongoing quality assurance needs into the overall cost of doing business.

7.4. PACKAGING, LABELING, & LOGISTICS

Overview: Accurate labeling, proper packaging, and on-time delivery are critical to maintaining production schedules at Polaris' worldwide assembly plants.

Receipt of mislabeled parts will negatively impact the supplier scorecard. Due to the severity and impact of the mislabeling issue, Polaris will seek escalating recovery fees in relation to mislabeled material (recovery fees are defined in the *Supplier Business Practices Manual*).

The supplier shall control all processes related to delivery (including materials used) to the extent necessary to ensure conformance to the requirements outlined in the *Supplier Delivery Manual*.

RELIANCE

SUPPLIER PART PACKAGING SPECIFICATION FORM (DOC CONTROL 00551)

POLARIS SUPPLIER PORTAL

SUPPLIER DELIVERY MANUAL (SDM), LOCATED UNDER RESOURCES > SUPPLIER MANUALS

SUPPLIER UNIVERSITY OF POLARIS

PACKAGING, LABELING, AND SHIPPING PROCEDURES

7.5. PROCESS CONTROLS

Overview: Suppliers are responsible for ensuring all parts sourced through them meet Polaris requirements, regardless of their process sources (for example, process is handled by sub-tier).

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Suppliers shall provide at any time evidence to Polaris that they have standardized, documented, applied, and monitored all aspects of their manufacturing operations to prevent defective product from being delivered to Polaris and to ensure on-time delivery. This is best done using a 6M approach:

- **Method:** The supplier shall document, for each phase of the process, the necessary operating instructions for process control, approval, monitoring, and execution. Process inspections shall be referenced in a Control Plan that is approved by Polaris. Acceptance/reject/reaction criteria and parameters must be documented in the Control Plan itself. All the operating instructions shall be accessible at the appropriate workstation for usage by the personnel responsible. A method to deploy Polaris Traceability requirements (see the “Product Identification & Traceability” section of this manual) through sub-supplied material and internal processes must be established and described in a specific procedure. All failure modes identified in the FMEA as red/high action priority risk per the VDA AIAG standard require error proofing to reduce the action priority to yellow/medium risk or green/low risk.
- **Man:** Qualification of the employees responsible for their application must be documented and ruled out by internal procedure.
- **Measurement:** A plan to assure qualification and suitability of all the instruments used to control, approve, and monitor the internal processes must be documented and ruled out by internal procedure. Evidence of the results must be kept available.
- **Materials/Components Outsourced:** The supplier shall document procedures and operating instructions to receive, inspect, and approve outsourced material/components. Supplier shall provide evidence of procedures to qualify the related suppliers and monitor their quality performance. First In First Out (FIFO) for incoming material, material in process, and finished products shall be respected and assured.
- **Machine:** The supplier shall document, for each tool/machine/equipment of the process, the reactive and predictive maintenance tasks and schedules necessary to ensure with continuity the requested contracted capacity.
- **Management:** The supplier should give evidence of reaction, problem solving, and internal escalation procedures ability to contain, correct, and prevent any quality issue from affecting Polaris. Management shall promote the systematic application of the Polaris APQP methodology in the development and ramp up phase of any new product (see the “Polaris Development Process & SOP Readiness” section). Management should promote an error-proof methodology and apply it to potential or occurred quality problems.

Any changes in raw material, sub-suppliers, or internal equipment and process are subject to the PCR process (see the “Process Change Request (PCR)” section).

7.6. PRODUCT IDENTIFICATION & TRACEABILITY

Overview: Polaris requires that all components have traceability to product characteristics and processes down to the lowest level properties, including sub-tier suppliers. As a Polaris Supplier it is required to establish and maintain procedures and records that support the traceability of each component.

Polaris defines traceability as the product identification (barcode and content) and the manufacturing data tied to a serial number or lot number for a component.

Product Identification is the means of communicating information from the supplier to Polaris. Polaris requires lot traceability on every component as defined in the Supplier Delivery Manual (SDM) but may require additional levels. If additional levels of content are required for a specific component, the Design Record will drive this requirement.

Per Polaris Component Traceability Standard (QUA-STD-01161) the supplier is required to provide the data detailed in the Minimum Traceability Data Requirements Table within 48 hours of request. To ensure alignment, the Traceability Evidence Form will be required for PPAP approval

RELIANCE

POLARIS COMPONENT TRACEABILITY STANDARD (DOC CONTROL 01161)
COMPONENT 2D MARKING AND QUALITY STANDARD (DOC CONTROL 01162)
TRACEABILITY EVIDENCE FORM (DOC CONTROL 01346)

POLARIS SUPPLIER PORTAL

SUPPLIER DELIVERY MANUAL (SDM), LOCATED UNDER RESOURCES > SUPPLIER MANUALS

SUPPLIER UNIVERSITY OF POLARIS

SUPPLIER TRACEABILITY REQUIREMENTS TRAINING

7.7. DEVIATION REQUEST

Overview: Polaris must control the products and services provided by our global Supply Chain based on approved/validated products and processes. Polaris requires notification and has right of refusal for any proposed deviations to the Design Record. Formally documented Polaris approval is required BEFORE a supplier ships any deviated product.

A deviation request shall be initiated to request temporary acceptance to ship product that is nonconforming to the Polaris drawing, engineering specification, or quality standards. Suppliers shall exhaust all suitable options to manufacture parts to Polaris requirements prior to submitting a deviation request. Deviation requests must define a set quantity of affected product for shipment within a prescribed time frame. Approval to ship is obtained through the Electronic Deviation System. A copy of the approved deviation shall be printed and fixed to a container until the deviation has expired, or is no longer needed (for example, parts can now be made to meet the print requirements,

but all deviated product have shipped). All approved deviations expire after 1 year regardless of quantity. At the time of expiration, the supplier shall request a new deviation if necessary.

A supplier shall never request a deviation in order to bypass the PPAP process. Deviations can be used in conjunction with a PPAP approval or interim approval, but not as a substitute. Deviations shall specify what specific requirement cannot be met as well as what deviated requirements can be met.

The request for deviation shall be accompanied by a corrective action and implementation date. All deviation requests shall be submitted via the online electronic deviation system found on the Polaris Supplier Portal.

POLARIS SUPPLIER PORTAL

LOCATED ON THE APPLICATIONS & TOOLS TAB

SUPPLIER UNIVERSITY OF POLARISDEVIATION, DCR, PCR CHANGE REQUEST PROCESS TRAINING

7.8. DRAWING CHANGE REQUEST (DCR)

Overview: Process for the supplier to request a permanent design change to a Polaris drawing, engineering specification, or quality standard.

If a supplier would like to submit a request for a design change to a Polaris drawing, engineering specification, or quality standard, they shall submit a formal DCR to Polaris through the Polaris Supplier Portal. If the DCR is approved, engineering will then update the Polaris drawing and release a new print under a new part number or drawing revision. This will trigger a PPAP to be completed by the supplier. Upon approval of the PPAP, the supplier will be able to ship product according to the new drawing requirements.

If a DCR aligned to a non-conformance within a PPAP is submitted and approved, the supplier can upload this detail to the PPAP for full PPAP approval.

POLARIS SUPPLIER PORTAL

LOCATED ON THE APPLICATIONS & TOOLS TAB

SUPPLIER UNIVERSITY OF POLARISDEVIATION, DCR, PCR CHANGE REQUEST PROCESS TRAINING (OPS B SQ 01087)

7.9. PROCESS CHANGE REQUEST (PCR)

Overview: Polaris controls the products and services provided by our global supply chain based on approved/validated products and processes. Polaris requires notification and right of refusal to any proposed changes BEFORE a

supplier implements a process change. A PCR documents any change in the supply or manufacture of material/product.

Suppliers shall submit a PCR for all changes that occur after PPAP approval, including any changes to process or materials from sub-tier suppliers. This requirement includes the rework of material, which is done outside of the approved process (for example, rework not documented on the PPAP approved process flow diagram, PFMEA, and production control plan). A Polaris cross-functional team will validate the proposed change for acceptance. Supplier must receive an accepted PCR prior to implementing any change; although, an approved PCR does not give the supplier approval to ship. Approval to ship is obtained via an approved PPAP. PCR approval will trigger the PPAP creation within Reliance.

In the event where the PCR process is not properly followed, Polaris shall take appropriate action needed to recover costs incurred as outlined in the *Supplier Business Practice Manual*.

POLARIS SUPPLIER PORTAL
LOCATED ON THE APPLICATIONS & TOOLS TAB

SUPPLIER UNIVERSITY OF POLARIS
PROCESS CHANGE REQUEST (PCR) SUPPLIER TRAINING

SUPPLIER UNIVERSITY OF POLARIS
DEVIATION, DCR, PCR CHANGE REQUEST PROCESS TRAINING (OPS B SQ 01087)
PROCESS CHANGE REQUEST (PCR) SUPPLIER TRAINING (OPS E SUP 00027)

8. QUALITY EVENT RESOLUTION & PREVENTION

Overview: Polaris has a detailed procedure in place to track quality events and drive solutions as well as prevention to ensure the highest quality products and services to our customers.

Polaris continuously works to improve its systems, processes, and products to ensure high customer satisfaction and expects similar continuous improvement from its suppliers.

8.1. REJECT MATERIAL ORDER (RMO)

Overview: The RMO process has been established to document and disposition product that is nonconforming to the Design Record.

Rejection of purchased material is documented and communicated electronically via an RMO.

Suppliers shall follow the procedure below once notified of an RMO:

- Stop shipment of part number(s) defined per the RMO

- Execute and document containment actions for part number/s defined per the RMO as well as any other PN's that may be affected due similar manufacturing processes or manufacturing shared equipment
- Identify any product currently in transit and notify Polaris/determine if shipments can be reversed or contained upon receipt at Polaris
- Inspect and/or rework (all rework requires an approved PCR from Polaris) parts for certified shipments
- Take appropriate measures to avoid interruption of Polaris production and continuity of supply

In the event of potential production interruption, Polaris shall authorize or request the following:

- Third-party containment at supplier expense
- Polaris sort at supplier expense
- Supplier-executed containment
- Supplier paid expedited freight of certified components

Suppliers shall respond with requested material disposition to all RMOs as soon as possible but no later than 1 business day from the date/time of notification. If a response is not received within that period, the material may be shipped back to the supplier at the supplier's expense.

All RMOs receive a material disposition that is communicated via code.

8.1.1. **RMO Disposition Codes**

00 – Inventory Adjustment: This code is used when an inventory adjustment is required to adjust received quantity versus labeled quantity. Misidentified parts/materials may be sorted and returned to the supplier at the supplier's expense. This code shall be used for over/under shipment unless the discrepancy is identified upon receipt; instead, use a Delivery Discrepancy Report (DDR).

01 – UAI (Use As Is): This code is used when a nonconformance is identified, but components or material are able to be used in production without further rework or sorting operations. A request for deviation shall be completed and approved for all UAI dispositions prior to the parts being released to production.

02 – RTV (Return to Vendor): This code is used when components or material is identified with a nonconformance and are returned to the supplier.

03 – Scrap at Supplier Expense: This code is used when components or materials are identified with a nonconformance and are scrapped at Polaris. The supplier is debited for the cost of the components.

04 – Rework/Sort at Supplier Expense: This code is used when components or materials are identified with a nonconformance and are sorted and/or reworked.

All disposition codes shall affect the supplier's QSTAR rating when it is determined that the supplier is responsible for the nonconformance.

Note: All costs incurred by Polaris as a result of an RMO are subject to recovery at the supplier's expense as provided in the SPBM.

In the event of incorrect labeling and incorrect quantities identified upon receipt, the supplier shall be charged with a one-piece quantity in the RMO per occurrence (see example 5 in the "Rejection Rules for RMOs" appendix). The above consideration is for goods stored in areas external to production only.

Any mislabeled product that enters the production or assembly areas shall be issued at full-part-piece quantity RMO, including costs associated with the correction.

Mislabeled product is considered a non-conformance and is subject to RMO.

RMOs shall be issued for delivery of production material that underwent an unapproved process change (see the "Process Change Request (PCR)" section for additional information).

As a result of the rejected material the supplier will be required to replenish stock with appropriate counter measures such as, Certification ID, PDI, supplier CAPA, third-party containment, or other requirements as defined by Polaris to ensure the impact to Polaris production is minimized.

8.1.2. **Rejection Rules for RMOs**

Polaris uses an escalating decision matrix to determine whether to issue a CAPA or CAR against an RMO. Details on the decision matrix and about the factors that lead to a CAPA or CAR can be found in section 6.1 of the *CAPA User Manual*.

RELIANCE

CAPA USER MANUAL (DOC CONTROL 00906)

8.1.3. **RMO Rejection Examples**

Example 1 – RMO Qty: A lot of material received contains 2,500 pieces. A non-conformance is identified; the supplier is notified and elects to sort the material at the point of receipt. Twelve pieces are found to be defective and are returned to the supplier as a material rejection (RMO). Only the 12 defective pieces found are counted in the DPM calculation: $(12/2,500) * 1,000,000 = 4,800$ DPM.

Example 2 – RMO Qty: A lot of material received contains 2,500 pieces. A non-conformance is identified; the supplier is notified and elects not to sort the material at the point of receipt. All pieces are returned to the supplier as a material rejection. Investigation by the supplier provides evidence that only 12 of the returned pieces are

nonconforming. If the evidence provided indicates that only 12 pieces were nonconforming, the RMO shall be adjusted and only the 12 defective pieces found are counted in the DPM calculation: $(12/2,500)*1,000,000 = 4,800$ DPM.

Example 3 – Rejection Dispute: A lot of material received contains 2,500 pieces. A non-conformance is identified; the supplier is notified and elects not to sort the material at the point of receipt. All pieces are returned to the supplier as a material rejection. Investigation by the supplier provides evidence that 100% of the returned product is conforming. The supplier shall provide that evidence to the receiving facility for review. If the evidence proves that an error was made by the receiving facility in the disposition of the rejected material, the assembly facility shall change the Quality Indicator on the material rejection (RMO). No pieces returned are counted in the DPM calculation: $(0/2,500)*1,000,000 = 0$ PPM. If again nonconformance is found after the returned suspect material is shipped back to Polaris as Certified, the Quality Indicator shall not be changed and the full amount of the rejection shall be reflected in the DPM Calculation: $(2,500/2,500)*1,000,000 = 1,000,000$ DPM.

Example 4 – Supplier Rework: A non-conformance (as determined by the assembly facility operations/quality division) is identified after the receipt of material at the receiving facility. The supplier requests the opportunity to perform minor rework. In addition to following normal sort practices as described in the “Reject Material Order (RMO)” section, all re-work must be approved by Polaris. All non-conformance pieces received by Polaris, reworked or not, shall be counted against the supplier’s DPM: $(2,500/2,500)*1,000,000 = 1,000,000$ DPM.

Example 5 - Mislabeled: Supplier has shipped and Polaris facility has received 1000 pcs of part number 1234567 in accordance with a scheduled release. The 1000 pcs container is delivered to production area and is determined to be part number 1357891(mislabeled product). Since part number 1357891 does not meet the Design Record of the part ordered (1234567), an RMO is issued to the responsible supplier. The mislabeled part was installed on 5 units that needed rework, and 15 more units were lost from production schedule when the correct PN was identified and brought to the assembly line. The resulting DPM shall be charged to the supplier’s DPM performance per the actual quantity that impacted production, e.g. units lost due to lack of correct part number, product rework caused by actual mislabeled parts installed into Polaris product, etc. In this example an RMO for 20 pcs is issued to the responsible supplier. This transaction is completed even if the parts are subsequently received under their actual part number. If, on the other hand, the correct PN was readily available and there was no impact to production, the resulting DPM shall be charged to the supplier’s DPM performance per occurrence (regardless of shipment size). This means in this scenario the RMO issued is for 1 piece only.

Example 6 - Corrosion: Corrosion has been identified as a non-conformance in a product stored in the warehouse as it is delivered to the line. The intended storage life and conditions shall be checked and verified prior to RMO disposition. If the material has been stored longer than the expected life of the corrosion protection, resulting

reject charges shall not be charged to the supplier's performance (90 days FOB from Polaris suppliers). In all cases, corrosion protection shall be adequate to provide a minimum of 90 days FOB from date of shipment from supplier to Polaris, unless otherwise specified.

Example 7 – Damage Report: Damaged material is delivered to a receiving facility. It is determined that parts are no longer in the original supplier provided packaging, have been repackaged or otherwise forwarded without adequate packaging protection by a third party. The damaged material shall be rejected to the third-party provider. If the purchase order needed to complete this rejection is not available, the material shall be rejected internally to the division/section responsible for managing the third-party provider.

Example 8 – PPAP Approval: Polaris requires an expedited engineering change to a part number or a new part number release. A PPAP has not been submitted on the new change or part number and the supplier is pressured to ship. Supplier does not receive PPAP approval or PPAP interim approval prior to shipment. In all such cases, Polaris requires one of the forms of PPAP approval before the supplier may ship material. Accordingly, the entire lot shipped without PPAP approval is subject to an RMO upon receipt, resulting in PPM charges against the supplier and possible recovery fees.

Example 9 – Damage Packaging: The packaging has failed in the delivery truck; the load is visibly damaged upon receipt. The supplier has conformed to the documented packaging requirements. The owner of the packaging design, specification or third-party repackaging shall receive the charge to the PPM reporting. If the trucking company damaged the load, a shipper damage claim or the equivalent documents shall be filed. The appropriate parties shall handle the recovery for damage. Suppliers shall be held harmless for transit damage that is outside their control, such as transit forklift damage, falling off the truck, smashed containers, and so on, if the supplier complied with Polaris approved packaging.

Example 10 – RRDM of Additional Costs: Material is received and processed at Polaris. During the processing (assembly or testing) the supplier supplied product is found to be defective. The defective material is subject to processing as an RMO but also the value add to the product shall also be added to the RMO under extended costs or processed as recovery fees. Suppliers shall be held liable for all losses attributed to the defective material. If the part is defective due to damage and it is unclear who was responsible for the damage, the decision for accountability shall be discussed and agreed upon by both Polaris and the supplier.

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8.1.4. Nonconforming DPM Rate

The nonconforming Defects per Million (DPM) rate is defined by the following calculation:

$$DPM = 1,000,000 * (Reject Part Count / Received Part Count)$$

For performance purposes, a supplier's DPM is expressed as a part of their QSTAR rating on their scorecard.

The following shall be counted against a supplier's DPM:

- All nonconforming material received at the Polaris assembly site
- Nonconforming material received prior to a Polaris approved deviation
 - Deviation approval after the occurrence shall not affect the RMO's disposition
- Nonconforming material received prior to a Polaris approved PPAP associated with an approved DCR or PCR
 - PPAP approval associated with a DCR or PCR after the occurrence shall not affect the RMO's disposition
- Production material received prior to PPAP approval
- Production material received after an PPAP interim approval has expired
- Non-conforming material identified through warranty claims
- Product that underwent a process change without advance approval from Polaris

The following shall not be counted against a supplier's DPM:

- Supplier notification to Polaris of nonconforming parts prior to Polaris discovery and use; including removal and certified replacement of product without impacting the production schedule.
- Nonconforming parts shipped to Polaris with an approved deviation prior to shipment.
 - Copies of the deviation shall be attached to all containers affected by the deviation.
- Product that is not fit for use but conforms to the Polaris Design Record with the exception of unauthorized process changes.

8.2. CONTROL OF NONCONFORMING PRODUCTS & CORRECTIVE ACTION PROCEDURES

Overview: Suppliers shall have a written procedure and system controls in place for control of nonconforming product. Supplier shall also have a written process in place for identifying root cause and completing corrective and preventive actions. These processes shall extend to the supplier's sub-tier levels.

At a minimum, the supplier's policy and systems shall contain:

- Documented reaction plan for a quality event.
- Documented reaction plan for a quality event.
- Identification of nonconforming material.
- Containment of nonconforming material throughout the value stream with controls to prevent further material from entering.
- A robust process to evaluate conformity of work in process (WIP) in both directions of the value stream at the point of discovery.
- Immediate notification to Polaris is required in the event that a supplier suspects or confirms a quality escape. Polaris requires written notification of the escape to your Sourcing representative and your SQE representatives.
- Quantitative production controls and metrics must be utilized to drive continuous improvement or validate corrective actions.
- Documented procedures for the creation, validation and implementation of internal Corrective And Preventive Actions (CAPA).

8.2.1. Supplier Corrective Action & Preventive Action (CAPA)

Overview: Supplier corrective and preventive actions are required to establish root cause and prevent occurrence or recurrences of nonconformities.

The supplier shall establish and maintain documented procedures per Polaris requirements for implementing and communicating corrective and preventive actions.

When a quality event occurs, Polaris may request the execution of a CAPA-CAR with required submission for review and approval. Suppliers are expected to complete CAPA-CAR in a timely and thorough manner. Failure to do so can result in recovery fees being assessed as stated in the *Supplier Business Practice Manual (SBPM)*.

Regardless of Polaris request, it is expected that suppliers execute CAPAs for all quality events that occur.

The supplier shall implement and record any changes resulting from the CAPA-CAR to any affected documentation.

RELIANCE

CAPA – CORRECTIVE ACTION PREVENTATIVE ACTION PROCESS OVERVIEW (DOC CONTROL 00347)

CAPA – CORRECTIVE ACTION PREVENTIVE ACTION WORK INSTRUCTIONS (DOC CONTROL 00610)

SUPPLIER UNIVERSITY OF POLARIS

CORRECTIVE ACTION PREVENTIVE ACTION (CAPA) PROCESS TRAINING

CORRECTIVE ACTION PREVENTIVE ACTION (CAPA) SYSTEM TRAINING FOR SUPPLIERS

CAR (CORRECTIVE ACTION REQUEST) SYSTEM TRAINING FOR SUPPLIERS

8.3. CONTROLLED SHIPPING LEVELS

8.3.1. Pre-Delivery Inspection (PDI)

Overview: Pre-delivery inspection (PDI) is a secondary act of inspecting a product for quality defect(s) prior to shipment to ensure nonconforming product does not reach the customer.

Suppliers should implement PDI as a quality gate to:

- Certify a known nonconformity has been properly contained or corrected
- Validate the effectiveness of corrective or preventive action(s)

Suppliers shall implement PDI if Polaris determines it is necessary to prevent disruption to Polaris production. In effect, PDI shall be required based on potential impact to the Polaris production system and need for continuous supply per the delivery schedule.

Polaris shall reserve the right to utilize third-party resources or internal personnel to conduct PDI activities where needed within the value chain as required.

Upon a quality event, Polaris’ minimum requirement is that the next 5 shipments shall be inspected by the supplier at the rate of 100% and marked as certified. If additional discrepancies are found at Polaris, all shipments are subject to 100% sort. If other instruction is provided by Polaris regarding the number of shipments and inspection rate, such instruction supersedes the PDI guideline.

PDI shall be a temporary procedure to drive corrective actions and shall not become an integrated part of the day-to-day process. All PDI products shall be identified in accordance with certified ID requirement section. Any defects found in a certified shipment that are within the scope of PDI will result in third-party containment. Refer to “Third-Party Containment” section for details.

RELIANCE

PRE-DELIVERY INSPECTION (PDI) PROCEDURES AND CRITERIA (DOC CONTROL 00589)

SUPPLIER UNIVERSITY OF POLARIS

PRE-DELIVERY INSPECTION (PDI) PROCEDURES AND CRITERIA

8.3.2. Third-Party Containment

Overview: The act of inspecting and/or sorting a product for quality defect(s) by a third party to ensure nonconforming product does not reach Polaris' assembly lines.

Third-party containment is required when a supplier has been unable to provide sustainable corrective action to a quality issue, or a single quality issue bears high risk to Polaris' customers. Third-party containment is the most stringent inspection standard implemented by Polaris and suppliers who participate in the process must do so through a third party of Polaris' choice. Third-party shall provide the daily sorting status.

If Polaris personnel or a third party hired by Polaris conducts a supplier-caused inspection and sort, the charges for the inspection and sort shall be the responsibility of the supplier. However, if a supplier is already shipping certified product through PDI and Polaris chooses to conduct its own sort, directly or through a third party, the supplier will not be charged for the sort unless nonconforming material is found. If nonconforming material is found, the supplier will be given 48 hours (72 hours for Asian suppliers) to replace stock at no cost. Labor charges for an inspection and sort by Polaris will be calculated per the current Polaris burden rate, which is typically higher than that of a third party.

RELIANCE

THIRD-PARTY CONTAINMENT PROCEDURE (DOC CONTROL 00590)

8.4. CERTIFIED ID REQUIREMENT

Overview: Certified ID requirements define how to properly identify material when requested to ship certified product.

When requested, suppliers shall affix the proper identifying labels and part markings per Polaris requirements as defined in the Certified ID Label Form in Reliance.

If a defect is found within a certified shipment related to the reason it was certified, Polaris shall, at its discretion, begin sorting subsequent certified shipments related to the original issue.

Polaris will use, if needed, a third-party sorting company, in which case the cost of the sort(s) as described above shall be the responsibility of the supplier.

Suppliers shall not be charged for sorting certified material without just cause.

Material received without certification ID when required shall be considered suspect material and therefore be subject to sort or rejection.

RELIANCE

POLARIS CERTIFIED ID REQUIREMENTS PROCEDURE (DOC CONTROL 00586)

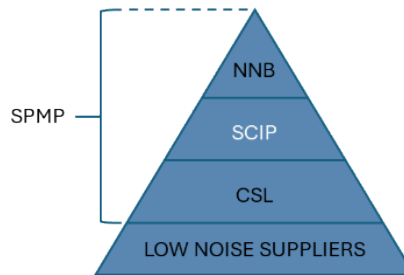
SUPPLIER UNIVERSITY OF POLARIS

CERTIFIED ID REQUIREMENT PROCESS TRAINING

8.5. SUPPLIER PERFORMANCE MANAGEMENT PROCESS (SPMP)

Overview: SPMP is an escalating process used by Polaris to improve the quality of a previously qualified supplier.

Fig 2: SPMP Escalation



The CSL (Critical Supplier List) is an internal tool that allows Polaris to monitor supplier performance as required due to Quality concerns.

SCIP (Supplier Continuous Improvement Process) is a program for Polaris to assist an underperforming supplier in making systemic improvements to their Quality Management System (QMS). If sufficient progress is not made within a timely manner, then escalation into the No New Business (NNB) process will occur.

NNB Status allows Suppliers to maintain their current contracts but prevents them from being awarded new business. If chronic performance issues persist within NNB, then a Supplier Exit will occur resulting in a loss of business.

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9. **APPENDIX**

10. **REFERENCES**

Listed in topic sections to which they pertain.

11. **END OF DOCUMENT**

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