Global Supplier Quality Manual

BRINGING SAFETY TO PEOPLE







IMMI®

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Introduction

IMMI leads the way in designing, manufacturing, and testing advanced safety restraints and seating systems for millions of people around the world. Headquartered in Westfield, Indiana, IMMI's global footprint includes world class, state-of-the-art manufacturing, testing and warehousing facilities in Indiana, North Carolina, Kansas, Mexico, China and the United Kingdom.

For more than five decades, IMMI has engineered and provided innovative safety products that help to protect those who use them. At IMMI, "Bringing Safety to People" is our way of life. As such, we provide special attention to design, build and test systems intended to help keep every member of the family safe; a baby in a car seat, children on a school bus, a truck driver on the road, a construction worker in the field, an adventurer in a sport utility vehicle, and many, many more.

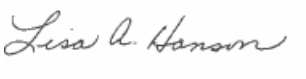
We consider our suppliers to be partners who play numerous key roles in helping IMMI to satisfy our diverse customers and end users. Supplier focus should be on providing raw materials, components and subassemblies that meet or exceed IMMI requirements, specifications and drawings. Suppliers must satisfactorily demonstrate their own product and process capabilities, as well as document and maintain 6-sigma process controls. Each supplier should have robust change controls in place to ensure product consistency and to provide suitable validation of any necessary process changes.

To remain globally competitive and to exceed our own customers' expectations, the IMMI quality focus must be on pursuing the *zero-defect target*. To satisfy our customers *each and every time*, our strategy for success must include working closely with our suppliers to foster a proactive culture of teamwork, continuous improvement, elimination of waste, improved response time and metric-driven management. It is required that all strategic supplier/partners comply with this approach.

The purpose of this Global Supplier Quality Manual is to clearly present what is expected from existing and prospective suppliers of production materials and components coming into our IMMI manufacturing facilities. Our objective is to create a lasting customer/supplier business model that is mutually beneficial. In that light, any successful long-term plan must focus on overall customer satisfaction, and IMMI must seek to provide flawless outgoing quality as a cornerstone of such a strategy. Our suppliers must likewise pursue *zero defects* for all materials coming into each IMMI location. To that end, traceability is a valuable error-proofing tool. Each supplier must practice accurate record keeping, establish and maintain proficient document control, provide compliance certification for product and process requirements, and demonstrate compliance with all regulations mandated by relevant state, federal or country codes.

To support a zero-defect culture, each supplier must provide an overall quality system plan prior to sourcing and/or 30 days after receipt of a request for quote. The supplier's plan must outline critical methodologies for change control during the development process, quality record maintenance and control, cost control, process control, 6-sigma statistical process control and record keeping, incoming material certification and verification practices, lot tracking and traceability methods, and plans for managing incoming supplier raw materials. As a supplier to IMMI, we expect this level of commitment (at minimum) for the products and services that you provide.

We hope the information provided in this Global Supplier Quality Manual will help our suppliers to better understand how IMMI intends to do business with regard to procuring quality products that are to be delivered on time and at a competitive price. Your cooperation and support are greatly appreciated.



Lisa Hanson
Global Director of Quality

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Glossary of Terms

APQP	Advanced Product Quality Planning
ASN	Advanced Shipping Notice
BOM	Bill of Materials
CAPM	Corrective Actions per Million
Collection Plans	Data required for inspection
COC	Certificate Of Compliance
COP	Conformance Of Production
CpK	Short term process index that numerically describes a subgroup or potential capability
DFMEA	Design Failure Mode and Effects Analysis
EDI	Electronic Data Interchange
FMEA	Failure Mode and Effects Analysis
GR&R	Gage Repeatability and Reproducibility
I-Supply Portal	IMMI Supplier Portal (www.imminet.com) ⟶ (Clients/Supplier)
LTA	Long Term Agreement
LPS	Low Performing Supplier
KC	Key Characteristic
NDA	Non-Disclosure Agreement
NC	Non-Conforming (Parts)
PDCA	Plan-Do-Check-Act
PFMEA	Process Failure Mode and Effects Analysis
PpK	Long term process indicator of a process
PPAP	Production Part Approval Process
PPM	Parts per Million
PSW	Part Submission Warrant
QPM	Quality Performance Measurement
RFQ	Request for Quote
RTS	Review of Technical Specifications
SOW	Statement of Work
SPC	Statistical Process Control
SQE	Supplier Quality Engineer

How to Use this Manual

The purpose of this manual is to communicate IMMI's quality and safety requirements to our suppliers, and to ensure the quality of supplied parts. Included are expectations and procedures with links to associated documents to assist in attaining successful supplier status.

Additional information concerning requirements about environment, logistics, corporate social responsibility, cost management and other topics is available in the Key Element Procedures on the I-Supply Portal. Suppliers should consider the procedures as part of a comprehensive approach to fulfilling IMMI expectations.

IMMI's Global Supplier Quality Manual is organized in sections related to our main processes.

The latest version of the Global Supplier Quality Manual is available on the IMMI I-Supply Portal, located at www.imminet.com under the client section on the main web page labeled as "Supplier." Additional guidelines and templates are included in that section as well.

IMMI will comply with all applicable customer and regulatory requirements and will strive for continuous improvement in all aspects of our business as we "Bring Safety to People."

Supplier Quality Metrics

IMMI suppliers are continuously evaluated using a numerical Score Card that includes Quality related metrics. The Quality metrics comprise approximately 1/3 of the overall supplier scorecard and become a critical component in selecting and retaining IMMI suppliers. Today's Quality metrics and target values are shown below in Table 1. IMMI has established a zero-defect culture that is measured by year-over-year improvement of at least 5%. The ultimate goal is to receive absolutely *zero* defective incoming material with *zero* incoming inspection required.

Metric	Target Value
PPM-Rejected Part Per Million	< 10 parts/million with demonstrated annual continuous improvement
Corrective Action Response	< 1,500 CAPM/million
Rejected Receipts	< 0% of total receipts
Warranty Claims	0
Field Events	0
Delivery Compliance	100%

Table 1

IMMI's customers continuously escalate their expectations for performance and responsiveness. Any formal complaints issued by IMMI to a supplier shall require an 8D-format response from the supplier, short-term containment within 24 hours and long-term containment within 48 hours. IMMI may require the supplier to implement Level 1 containment depending on the severity of the event. Multiple complaints within a 30-day period may require Level 2 containment depending on the severity. Containment requirements are detailed in the Low Performing Supplier section of this manual.

Key Quality Procedures and Forms

To operate in accordance with our Quality Policy, IMMI requires that suppliers shall comply with specific procedures and use certain forms as shown below in Table 2. These documents are available on the IMMI I-Supply Portal at www.imminet.com. Suppliers may access the I-Supply Portal using a password provided by IMMI Purchasing. Suppliers are encouraged to check these documents regularly for updates.

Identification	Description
QA-27	Supplier Lot Control Number (Metal Components)
QA-33	Supplier Control and Material Certification
QA-51	Key Characteristics Identification
QA-106	Supplier Lot Sampling
QA-109	Containment (LPS Performance)
QA-679	Certificate of Compliance
QA-748	C=o Sampling Plan
QA-960	Supplier Production Part Approval Process
QA-969	Inspection Report – Multi Cavity
QA-986	Soldering Best Practices-Supplier
QA-987	Inspection Review Checklist

Table 2

Supplier Management System Expectations

▲ QUALITY SYSTEMS	ISO required/TS 16949 preferred certification by an accredited 3rd party
▲ ANNUAL SUPPLIER AUDIT	Minimum score of 70% with plan to exceed 85%
▲ MONTHLY SUPPLIER SCORE	Maintain monthly Quality and Delivery rating
▲ EDI/ASN	100% compliant for Electronic Data Interface
▲ SUB-TIER SUPPLIERS	Supplier has full responsibility for quality of sub-tier suppliers
▲ LABORATORY REQUIREMENTS	All necessary materials & process traceability information on required test components, assemblies, and samples.

Expectations for Suppliers

IMMI requires that all suppliers are third-party registered ISO-9001 certified at minimum, but prefers TS 16949:2009 certification. IMMI Purchasing reserves the right to directly assess sub-supplier processes.

IMMI requires the use of the AIAG Production Part Approval Process (PPAP). Suppliers have the responsibility for managing PPAP for their sub-suppliers. Once a part is approved, a request for sub-supplier changes that affect fit, form or function shall be directed to IMMI Quality and Purchasing according to the Product Process Change Notification process.

Laboratory Requirements

The supplier's laboratory facilities shall comply with the requirements of the chapter 7.6 of the TS 16949. Laboratory and measurement reports shall comply with the requirement of the TS 16949, chapter 4.2.4. In particular, laboratory and measurement reports shall include:

- The identity and location of the laboratory used
- The reference to the test methods used
- Any deviation of the test method shall be noted
- Measurement results
- All necessary materials and process traceability information on the tested components or samples

Service Part Requirements

IMMI has the same level of quality expectations for service parts as for production parts.

Sourcing

The award of business to a supplier is one of the most important decisions made by IMMI Purchasing. It impacts the ability of our products to satisfy the customer, remain competitive and to provide successful future development projects. The Global Sourcing Process provides important guidelines toward building a strong positive relationship between IMMI and both new and even existing suppliers.

The supplier plays an active role within this process:

- During the audit performed by IMMI.
- In the implementation of action plans to reach the expected levels of quality.
- By demonstrating achievement in current and future product quality.

The following explains the primary sourcing steps visible to the supplier, what inputs the supplier will receive and what evaluation will be required.

As part of the IMMI sourcing requirements (prior to business award), a potential new supplier must pass an On-Site Process Audit. The audit will evaluate the ability of a supplier to work with IMMI and to meet acceptable levels of quality for the type of parts it manufactures. A minimum score of 70 is required to become a certified supplier.

Once a supplier passes the first steps toward awarded business, the supplier will then be required to comply with the following IMMI agreements:

- Mutual Confidentiality Agreement
- Global Supplier Quality Manual
- Supply Agreement and/or Standard Terms of Purchase
- Tooling Bailment Agreement
- Registration on I-Supply Portal
- Annual Supplier Surveillance Survey

Sign the Mutual Confidentiality Agreement

Before being sent a Request for Quotation (RFQ), the supplier must sign the Mutual Confidentiality Agreement. IMMI recognizes that its suppliers may be exposed to data and/or knowledge in strict confidence. Any intentional or non-intentional breach of confidentiality should be reported to IMMI management or executive level personnel immediately. The Mutual Confidentiality Agreement template will be sent by the buyer.

RFQ – Request for Quotation

The supplier must complete the RFQ in its entirety and then return the requested documents. IMMI expects the supplier to fulfill all of the quality requirements, and IMMI may audit the evidence for fulfillment of these quality requirements. Any exceptions to the requirements must be made in writing and submitted with the returned RFQ.

Supplier Evaluation Audit

New suppliers to IMMI must participate in the Supplier Evaluation Audit, an on-site audit to evaluate each supplier's capabilities. Suppliers must pass the audit to be awarded business.

The Supplier Evaluation Audit is an important tool in our selection process. The objective is to evaluate the supplier from a holistic point of view, in reference to the best in class practices and lessons learned from our supply base. The Supplier Evaluation Audit provides uniformity within our supplier base. A minimum score of 70 must be achieved and maintained in order to be considered for current and future business with IMMI.

The Supplier Evaluation Audit is based on the evaluation of the following four criteria. (Example of Scoring Criteria and the Score Card may be found on the I-Supply Portal.)

1. Leadership and Management
2. Quality and Customer Satisfaction
3. Manufacturing
4. Materials Management

Final Agreement

Once selected, the supplier will then be required to comply with the following IMMI agreements:

- Supply Agreement and/or Standard Terms of Purchase
- I-Supply Requirement Acknowledgement
- I-Supply Portal Acknowledgement
- Bailment Agreement
- Invoicing Payment Policy
- Pull System Stocking Program

The above documents are available on the I-Supply Portal.

Parts Per Million Agreement - PPM

IMMI expects zero defects from our suppliers. IMMI will work with each supplier to create a plan for month-to-month, year-over-year improvement driving zero PPM. The current PPM status can be found on the I-Supply Portal (Scorecard) and PPM is measured each month.

If the supplier does not meet agreed-to PPM targets, then IMMI shall issue a formal corrective action plan (CAR). The CAR shall be re-reviewed with the supplier on a regularly scheduled basis until the permanent corrective action is verified and the agreed-to PPM targets have been reached.

APQP: Advanced Product Quality Planning

IMMI supports our business growth by proposing and developing products to ensure strong competitive offerings for each of our brands. Remaining competitive requires continuous upgrades and improvements to existing product offerings and the regular introduction of exciting new products. A flawless launch is expected for all new product introductions. This requires a well-defined project plan, a proven design, a capable process, and flawless incoming materials.

IMMI organizes all new product introductions into projects. IMMI has adopted APQP as the standard method for planning, in part to support suppliers with a common methodology. Suppliers are expected to create and utilize a detailed APQP-based plan of their own to ensure successful demonstration and overall robustness of each relevant product and production process. Suppliers shall share the status of their APQP with IMMI during APQP reviews as required.

The following describes how APQP is synchronized with Global Development Process (GDP), as well as the IMMI specific requirements.

Scope

IMMI requires suppliers to use Advanced Product Quality Planning (APQP) as a tool to support process development and to demonstrate overall capability. The AIAG publication "Advanced Product Quality Planning (APQP) and Control Plan" should be used as a reference in developing these plans. IMMI's specific requirements shall also be fully addressed, considered and integrated within any product/process related planning.

IMMI believes that the overall quality of delivered parts is ultimately determined during the product's design and development phase. IMMI expects suppliers to create product launch plans to support:

- Launch of new components intended for serial production.
- Development of new manufacturing processes.
- Any significant changes that could affect existing products or process.
- On-going production revisions.

Suppliers are expected to apply lessons learned and perform best practice verifications within their field of expertise, and to be prepared to show evidence of such. IMMI may, at any time, request a review of lessons learned and/or best practices as applied and expects the supplier to provide that information and evidence cooperatively.

- IT IS THE SUPPLIER'S RESPONSIBILITY TO UTILIZE APQP FOR ALL COMPONENTS.
- FOR SELECTED COMPONENTS, APQP IS TRACKED IN DETAIL BY IMMI.
- PPAP IS MANDATORY FOR ALL COMPONENTS

Responsibilities in APQP

Supplier Responsibilities	IMMI Responsibilities
Develop and execute an APQP document for successful production launch.	Initiate project team(s) between IMMI and suppliers.
Organize the supplier-based cross-functional APQP team.	Assign IMMI team members who shall coordinate the completion of APQP activities with the project team.

Table 3

APQP Documentation

The high-level APQP document must be submitted by suppliers with the Request for Quotation. The APQP document should clearly identify the cross-functional tasks to be completed, the expected timing and the assigned responsibility for completion, as well as the critical path of the project. The objective of the planning process is to deliver the project on time, at cost and to meet the quality goals. Responsibilities are highlighted in Table 3.

APQP Reviews

IMMI and the supplier need to jointly verify that each project is on track with respect to deadlines and results. APQP Reviews are formal meetings where IMMI reviews each supplier's APQP documentation. This record is owned and updated by the supplier and shared with the IMMI team during APQP reviews or upon request.

IMMI APQP Specific Requirements

Among the requirements described in the AIAG APQP reference manual, IMMI requests additional focus on the planning and completion of the following cross-functional activities:

- Review of Technical Specifications
- Product Application Agreement
- Part Handling Review
- Process Audit

Review of Technical Specifications (RTS)

The goal of this preventative process is to minimize any need for late design changes and especially any design changes after the PPAP order or Tooling Order has been placed. The Review of Technical Specification helps to ensure that all technical information defining the part or component has been thoroughly reviewed, clearly understood by the supplier, and are feasible to produce. The RTS process also provides the opportunity to collect and incorporate the supplier's comments and suggestions into the drawing and technical specification.

The supplier shall complete the RTS compliance matrix and return the document with the RFQ. After completion, the RTS shall be jointly signed by IMMI and the supplier to signify agreement that all the Technical Requirements, IMMI Standards and General Specifications applicable to the part have been received, reviewed, understood, and are feasible. Any exceptions, comments, and/or action items should be discussed and documented by this point and agreed to as well.

Part Handling Review

To ensure that supplier product quality is not compromised after receipt at the IMMI facility, IMMI offers suppliers the opportunity to participate in a Part Handling Review, where supplier representatives visit and audit the IMMI facilities that will be receiving their product(s). The purpose of the audit is to allow the suppliers to make on-site observations and to provide inputs regarding methods used by IMMI for the receiving, storage, handling, installation, testing and shipping of the supplier's part(s). Reactions and comments may then be reviewed and shared between the supplier and IMMI, and any notable actions may be assigned and documented.

Process Audit

One or more Process Audit(s) at the supplier's facility may be required during early phases of a new product launch. IMMI will communicate this requirement to the supplier during the development of the APQP activities.

Prototype Marking

Part Marking methodologies and requirements for prototype parts shall be jointly discussed and agreed to between IMMI and the supplier to ensure that all prototype parts are clearly identifiable in the production environment. This is to ensure that prototype parts are uniquely identified and obviously different from PPAP-approved release parts.

All suppliers are required to clearly mark prototype parts per agreed-to methodologies. At the minimum, use of bright orange labels with block lettering marked "PROTOTYPE" are to be clearly affixed to all incoming prototype product.

Software

For supplier software development, Quality Assurance methodologies are supported and enforced through a series of design reviews, called Software APQP Reviews.

There are five formal Software APQP Reviews in a normal software development project including:

- Project Planning Review
- Requirements Review
- Initial Design Review
- Final Design Review
- Software PPAP Review

These reviews are to be held during the product development phases; however, the Software PPAP Review shall be held prior to release of the final hardware design and the final intended software version. After the Software PPAP Review has been held and the software revision approved, all subsequent releases of software for said product shall 1) be under change management control, and 2) shall require a different part number with a separate release approval event.

Conformity of Production

Governmental authorities, the National Highway Traffic Safety Administration (NHTSA) and environmental organizations have developed guidelines and regulations that are placed on manufacturers. These regulations apply to the customer and to related manufacturing processes for the product. Ensuring compliance to these regulations is referred to as Conformance of Production (COP).

Where such legal requirements exist for individual components, products or systems, these shall be clearly stated within the Technical Specifications. In some cases, the supplier may carry the full responsibility for securing component approval from the appropriate agency. However, the expectations of all related directives and regulations concerning Approval and/or Certification System must be met for a product to be approved.

Suppliers must be well acquainted with requirements dealing with regulatory and/or certification issues, as applicable, for their supplied components. Suppliers must take full responsibility to guarantee compliance to these requirements for each individual product they provide.

▲ ALL PRODUCTS SHALL BE IN CONFORMANCE WITH REGULATIONS

IMMI warrants against introducing any product changes following the PPAP approval until a new part number, separate verification and a related approval have all been obtained. It is mandatory that all test samples and related data/

documentation (including test list/control plan, test reports and certificates at minimum) be kept by the supplier for a defined period of time (per agreed to documentation retention policies). Table 4 describes expected characteristics:

Conditions	COP Characteristics Level
If process is under surveillance, normally distributed and with no risk of unpredictable events	C_{pk}≥1.33. (*exception is C_{pm}≥ 1. 1 for unilateral tolerances if applicable*) **AND** SPC w/ recordings (values stored electronically or via control charts) Min. of 30 parts per production run. Data should be captured and conform to periods of ongoing production.

Table 4

Key Characteristics (KC-1/KC-2/KC-SPC)

QA-51 describes a system to highlight and grade certain Key Characteristics (KC) within Technical Specifications. There are intended to ensure correct, error-free performance for the product involved.

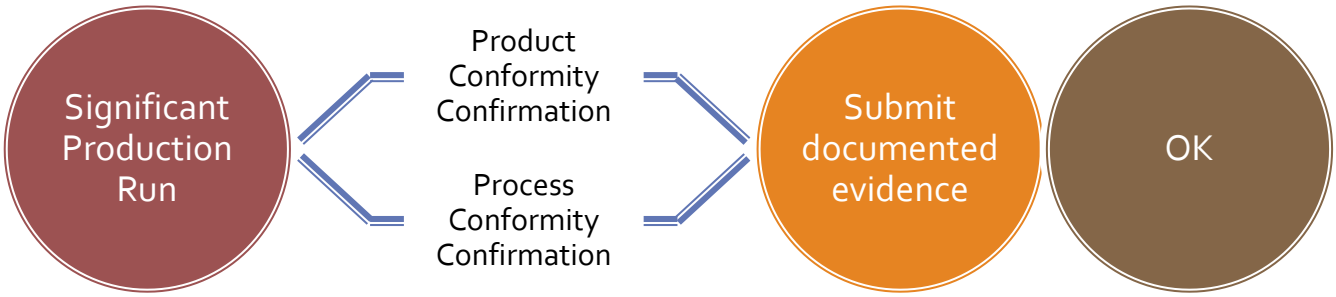
The **KC-1** Critical Characteristic will identify dimension(s) or feature(s) considered to be Key Characteristics that affect fit, form or function of parts and must be shown on the control plan and/or inspection sheet. The KC-1 must conform to print but does not need to show statistical capability.

For **KC-SPC & KC-2** characteristics, the following requirements described in Table 5 apply:

Conditions	KC-SPC Critical Characteristics	KC-2 Critical Characteristics
If the process is under control and normally distributed	Initial process capability at PPAP submission must be ≥1.67 (Ppk) Ongoing process capability must be ≥1.33 (Cpk). Ongoing capability shall use the following methods: X-bar & R-charts or I-Mr. charts (preferred) or CpK study for each lot of material submitted.	Initial process capability at PPAP submission must be ≥2.00 (PpK) Ongoing process capability must be ≥1.67 (CpK). Ongoing capability shall use the following methods: X-bar & R-charts or I-Mr. charts (preferred) or CpK study for each lot of material submitted.
If the process is not under control but is normally distributed	The plan must have: 100% control/inspection + traceability	The plan must have: 100% control/inspection + traceability
Preferred Alternative	Poka-Yoke Methodology (Effectiveness verified once per shift)	Poka-Yoke Methodology (Effectiveness verified once per shift)

Table 5

PPAP: Production Part Approval Process



The Production Part Approval Process (PPAP) demonstrates that a manufacturing process used to produce parts for IMMI has been fully developed, thoroughly verified, and is capable of serial production of parts that must all conform to the Technical Specifications.

Within APQP, IMMI follows PPAP requirements as applied to Levels 1 through 4 respectively. To establish PPAP compliance, sample parts and supporting documentation must be submitted by the supplier to show evidence that:

- The design records and specifications have been properly understood and met.
- The manufacturing process has the capability to produce conforming parts in the actual production environment.
- The manufacturing process has the capacity to support production quantities at a consistent quality level.

IMMI shall evaluate any exceptions regarding Levels 1-4 requirements on a case-by-case basis.

Reference

Suppliers shall ensure that the PPAP documentation and sample submissions are in accordance with the requirements of the Automotive Industry Action Group (AIAG) PPAP Manual. Additional guidelines and the Part Submission Warrant (PSW) template are posted on the IMMI I-Supply Portal at www.imminet.com.

IMMI requires its suppliers to follow the Customer Notification and Submission requirements as specified in the AIAG PPAP Manual. This includes:

- All new components
- Changes to an existing part
- Drawing changes
- Corrections to a prior discrepancy
- Supplier process change
- Material changes or substitutions
- Tier 1 and Tier 2 manufacturing location changes

Process

The supplier is responsible for the PPAP preparation:

- PPAP shall be planned by the supplier as a milestone in APQP.
- The supplier must provide the shipment date to its respective Purchasing Buyer and Supplier Quality.
- Suppliers (Tier 1) are responsible for the planning, approval, corrective action follow-up and retention of their sub-supplier PPAP submissions.

The IMMI Buyer shall issue a PPAP sample order to the supplier to confirm the date when PPAP parts and submissions are required (except if another clear agreement exists between IMMI and the supplier).

- Under special circumstances (long lead tooling, fast tracked projects, etc.) the supplier may receive a Sample Order only to anticipate activities for production release.
- PPAP submissions shall only be approved on Production drawings (serial production drawings). The sample part for PPAP approval must be produced during a production run.
- The supplier must notify IMMI of the planned shipment date (PPAP Due Date).
- Supplier must indicate if this PPAP part has been produced off of new, revised or refurbished IMMI-owned tooling including our Purchase Order Number as reference.
- PPAP parts are produced with a requirement of minimum 30 pieces with C_{pK} studies, of which 5 parts shall have full documentation unless otherwise specified.
- Unique component situations with an annual forecast below 30 parts shall be evaluated jointly on a case-by-case basis with IMMI with regard to determining part approval.

Upon satisfactory completion of all required measurements and tests, the supplier shall record the required information on the Part Submission Warrant (PSW).

- A separate PSW shall be completed for each part number unless otherwise specified.
- The PSW shall be signed by the authorized supplier representative before submission to IMMI.

IMMI will review all PPAP packages and assign a status as indicated below:

- Fully approved and in compliance with all specifications.
- Interim Approval.
- Not Approved.

In the case where an interim approval is assigned, it must be accompanied by a deviation agreement approved by both IMMI Production Development and IMMI Quality. To receive interim approval status, the supplier must submit an acceptable plan to accomplish full approval, and this plan must accompany the deviation agreement.

Significant Production Run

The Significant Production Run (SPR) is to be conducted using production tooling/equipment, environment (including production operators), facility, and cycle times. The Significant Production Run shall be performed by the supplier as part of the Production Part Approval Process to verify that the production process is capable of meeting program volumes and meeting target quality levels.

All suppliers shall perform a SPR for all new part introductions. The SPR requires that an adequate quantity of parts be produced to allow:

- Overall process stabilization time
- Accurate calculation of manufacture cycle time
- Determine production throughput from warehouse to shipment
- Sufficient volume for completion of capabilities studies

The minimum quantity of parts to be produced during the SPR shall be specified by IMMI, but can be increased by the supplier. An exception for minimum quantity may be appropriate and may be permitted by IMMI pending discussion. Samples used for the PPAP must be taken from the parts produced during the SPR.

The SPR provides a good opportunity to identify and correct potential manufacturing process bottlenecks for future improvements. The observed capacity of the SPR should take into account measured Overall Equipment Effectiveness (OEE) results during processing, any planned or unplanned down time, and any scrap or rework produced during the SPR. However, NO rework may be involved in the production of the PPAP samples.

Packaging & Labeling

Supplier Packaging Guidelines (PUR-03) and Supplier Labeling Requirements (PUR-02) describe packaging rules and mandatory labeling requirements. Additional packaging requirements are found in PUR-007 and PUR-018. A Packaging Data Calculator (PUR-019) is provided to assist in determining a proposed container size. IMMI Purchasing will provide the supplier the calculator in excel format upon request. The supplier shall work jointly with IMMI to determine the optimal standard pack or box quantities that best comply with IMMI internal manufacturing flow and cycle times.

Reference the pertinent procedures located on IMMI (I-Supply Portal)

Supplier Labeling Requirements (PUR-02)

Packaging Guidelines (PUR-03)

Supplier Container Decision Flow Chart (PUR-018)

Supplier Container/Type Calculator (PUR-019/PUR-007)

Supplier Freight Routing Guide (PUR-020)

Documentation Requirements – Level of Submission

Suppliers are required to submit a Level 3 PPAP package for all components unless other arrangements have been agreed to between IMMI and the supplier.

Suppliers shall only submit PPAP packages for production-released drawings. Depending on circumstances, IMMI may ask for additional information along with the PPAP package. It is recommended that suppliers should contact IMMI prior to PPAP submission to verify whether any additional documentation may be required. Proprietary documents that cannot be physically submitted to IMMI must be made available for a complete and sufficient review upon request.

Exceptions to PPAP Level 3:

Under special circumstances, the supplier may be allowed to submit alternate PPAP Levels, but must first contact IMMI for approval.

Supplier Lot Sampling Procedure

Reference Supplier Lot Sampling procedure found on I-Supply Portal document QA -106.

Production Requirements

Supplier Selection and Expectations

IMMI pursues suppliers who offer Superior Value and Quality.

IMMI Supplier Portal: Suppliers will be given access rights to the I-Supply Portal. Access to the I-Supply Portal allows the supplier to view forecast information, quality records and pertinent procedures. The supplier shall work with an IMMI Business Person for access to the I-Supply Portal. Training on the I-Supply Portal shall be provided to the supplier. It is very important the supplier has a full understanding of the I-Supply Portal. The supplier is held accountable for delivering the need-by date on the purchase order based on a continuous review of the forecast. The supplier is expected to have one month of finished goods on hand (based on the forecast) as well as one month of raw materials on hand (based on the forecast) and to operate in accordance with the Min-Max Pull System Agreement.

Cost Competitiveness: Suppliers are expected to be globally competitive. IMMI will benchmark suppliers to ensure competitiveness. In addition, suppliers are expected (through joint continuous improvement) to agree on annual price reductions that are effective January 1st each calendar year.

Continuous Improvement: Suppliers are expected to perform VA/VE (Value Analysis/Value Engineering) on a routine basis and strive to eliminate waste. The supplier is expected to control and manage cost and avoid contractual price changes. All changes are required to be approved by IMMI Purchasing prior to implementation. Any product or process change that is not related to a change in specification will not be approved for a price update unless IMMI Purchasing approves the request, and the supplier has provided the requested details regarding material, labor and overhead to support any claim.

Reliable Delivery: Suppliers are to provide on-time delivery that meets the IMMI quality and quantity standards.

- IMMI requires all suppliers to deliver scheduled product quantities on-time 100% of the time. "On-time" is defined as delivering on the need date provided by IMMI. Early or late deliveries will not be tolerated unless pre-approved by IMMI's production control and logistics contact.
- Quality is expected and measured based on Parts per Million (PPM) and/or Corrective Actions per Million (CAPM)/Rejects as a percent of Total Receipts. Levels of performance are listed on the supplier scorecard.
- *All suppliers are expected to supply 100% compliant incoming parts*.
- Quality planning must incorporate methods into the process that will ensure zero defects.
    - IMMI expects immediate supplier support if quality problems occur. This support shall include, but not be limited to, providing the personnel necessary to sort, quarantine, contain and remove non-conforming materials and to apply proper resources for rapid problem resolution.
    - IMMI has developed business processes that are lean and efficient. There is a negative financial impact when these processes are disrupted. If these processes are disrupted due to the supplier's failure to follow the requirements contained within this manual and/or following good business practices, then the supplier will be held financially liable.
- In addition, the supplier is responsible for entering and maintaining all shipment and quality records in line with IMMI quality collection plans. Access to such records is available thru the IMMI I-Supply Portal, located at www.imminet.com.

Flexibility and Responsiveness: IMMI will issue annual blanket orders and procure product based on weekly issuances of 4-week firm and 6-week forecasted demand. These forecasts are based upon our best estimates of our customers' needs. The supplier must have manufacturing systems with sufficient flexibility to adjust to fluctuations. IMMI will take delivery for the products weekly per the firm schedule. Any major changes in the forecast will be negotiated with the supplier for delivery of materials.

Initial Supplier Selection & Existing Supplier Evaluation: Supplier selection and evaluation is addressed in TS-7.4.1 Supplier Evaluation. Part of the selection process includes receipt of a Mold Information Sheet (PUR-005) or a Die Specifications & Stock Information Sheet (PUR-006) from the supplier awarded new business. The supplier is expected to provide updates to this information as required.

Static Routing: Suppliers are required to follow the IMMI Static Routing Instructions (PUR-020). Failure to comply may result in charge back(s) as outlined in PUR-024. The routing instructions and charge back letter are referenced in the Procedures, Forms, Expectations section. This section follows the Supplier Selection and Expectations part of the manual.

A supplement to the Routing Instructions, IMMI Brownsville Transit Time is included in the Procedures, Forms, Expectations section of the manual, and further clarifies routing requirements that pertain to suppliers who ship to IMMI Brownsville. The use of Third Party Logistics carriers is directed by the IMMI Global Transportation Manager and does not pertain to all suppliers.

Supplier Pull System Agreements: Supplier pull system agreements are strongly encouraged and sometimes mandatory, wherever it makes good business sense. Typically a part number with medium to high volume and a relatively consistent usage is a good fit for a Pull Process. A copy of a generic pull system agreement can be found on the I-Supply Portal.

Need-By Date: An acknowledgement to the "IMMI need-by date confirmed on the IMMI Purchase Order" is mandatory. The supplier must acknowledge the need-by date. The acknowledged date is entered into the IMMI Planning System and this date is then referred to as the "promise date".

Customer Service Representative: Business needs to be conducted and executed on a timely basis. IMMI requires a back-up Customer Service Representative for the person who is normally responsible for the day-to-day interface with the IMMI Purchasing and Planning functions. When there is a change to the Customer Service Representative, it is the supplier's responsibility to notify IMMI Purchasing in a timely fashion.

Production Interruption: The supplier shall notify IMMI Purchasing as soon as possible (and no later than 24 hours before a scheduled delivery) of any production interruption. The nature of the problem shall be communicated with the immediate actions to be taken to ensure supply of product. Production interruptions may include, but are not limited to, natural disasters, political unrest, war, capacity issues, quality issues, labor strikes, or other events that prevent the supplier from meeting IMMI's Purchase Order requirements.

Electronic Data Interchange (PUR-04): Electronic Data Interchange (EDI) is an initiative by IMMI designed to improve communication throughout the entire supply chain. IMMI is in the initial phases of working with suppliers to discuss EDI capability. The minimum capabilities are likely to include:

- Purchase Order transmission to the supplier.
- Acknowledgement back from the supplier to the Purchase Order
    - Supplier is expected to acknowledge the IMMI need-by date and quantity ordered.

Chargebacks: IMMI Procedural Chargeback Form (PUR-024) confirms any chargeback reasons and rates. Claims will be debited to the supplier for not performing in accordance with IMMI's performance expectations. Examples include but are not limited to late deliveries, nonconforming packaging, quality rejections, sorting fees and downtime charges.

Tooling and Parts Bailment Agreement: Suppliers are required to complete a Tooling and Parts Bailment Agreement whenever the supplier has possession of IMMI property. Examples of IMMI property are tooling, machinery, or parts owned by IMMI that may be used by the supplier in support of IMMI Purchase Orders.

While IMMI strives to encourage a culture of continuous improvement, we do expect stability and conformity for both production parts and production processes with respect to what has been previously PPAP approved.

IMMI challenges our suppliers to be best-in-class with regard to cost, quality and delivery. Suppliers who meet this challenge can be rewarded with increasing business opportunities. However, changes from a supplier cannot be implemented without specific approval in writing prior to the change implementation. Suppliers who do not conform to IMMI's change control processes will be identified for levels of containment and held accountable for necessary next steps. Accountability may range from creating proactive corrective plans, subsequent rigorous joint follow-up reviews until all required improvements have been completed, or perhaps being placed in a "new business hold" category until all needed corrections have been finalized. Figure A below generally describes the decision process for change approval. Further information on supplier containment is discussed in the section on Low Performing Suppliers (LPS).

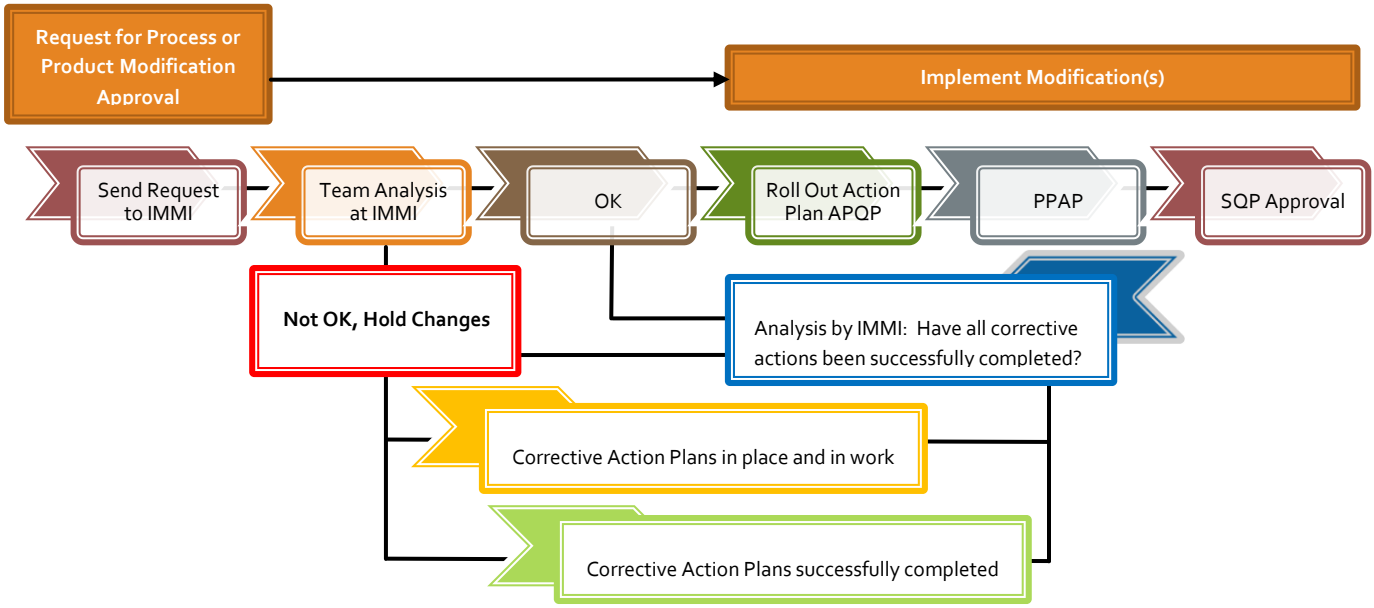


Figure A: Process for Change Approvals

Product Process Change Notification – (PPCN)

The purpose of the PPCN is to prevent quality and delivery issues for IMMI's receiving plants and to protect the final customer from potential field issues during the implementation of supplier modifications.

According to ISO/TS, PPAP and IMMI Purchasing terms, a supplier must ***NOT*** implement a change on **a product or to a process** that may impact any conditions of the approved PPAP ***without IMMI written approval.*** This applies but is not limited to the following cases:

- Any transfer of the production line; in part or in total, to or within a new or existing plant, building or facility; whether in the same or another county, city, state or country.
- Any change in a Tier Supplier's part, process, handling, shipping or warehousing.
- Any new or proposed revision to a production layout.
- Any packaging changes or modifications to repackaging operations.
- Any Tier Supplier change that can affect fit, form or function of the product.
- Any renewal of current tooling.
- Any change of raw material.
- Any outsourcing plans/actions associated with the production part.
- Any request for product design changes.

The supplier desiring or requiring a change shall submit a completed PPCN-Product and Process Change Notification to IMMI Supplier Quality. Suppliers may be required to submit additional information to support evaluation of the proposed change.

▲ NO CHANGES CAN BE MADE WITHOUT IMMI APPROVAL

After receipt by IMMI, the supplier's request is submitted to a team for analysis. Based on the impact to IMMI and any risk associated with the change, the PPCN may have one of the following decisions:

- Authorize the supplier modification.
- Do not authorize but request different or additional details with regard to the information about the supplier modification. IMMI may request a due date.
- Do not authorize but request further actions/verifications to be performed. IMMI may request a due date.
- Do not authorize and request that the supplier cancels the proposed modification. IMMI may request a due date.

Once approved, the supplier can implement the modification project, securing product quality and deliveries and a new PPAP must be submitted. The level of PPAP will be determined by IMMI. Authorization to start shipping (with the changes implemented) is only granted via the return of the signed PSW following PPAP approval.

The supplier is responsible for:

- Informing IMMI of their modification project PPCN notification in advance of PPAP.
- Requesting agreement from IMMI regarding the modification.
- Working with IMMI to implement and communicate any necessary constraints, for example product cut-in dates, first date codes with the change included, etc.
- Implementing the modification as approved by IMMI.

Actions that may be taken if the supplier introduces changes without IMMI approval for information:

- Supplier shall be notified that such change is unacceptable. All costs related to the uncontrolled change will be charged back to the supplier.
- Containment of existing product shall be performed at the supplier's expense.
- Using evidence that the supplier did not follow his own quality system or the customer requirements, the 3rd party certification body may be sent a notification letter.
- Supplier may be placed on new-business hold.

Treatment of Non-Conforming Parts

IMMI shall take all necessary actions to protect the supply of conforming product. It is imperative for both IMMI and the supplier to identify non-conforming parts as quickly as possible. In the event that non-conforming parts or material have been identified, IMMI notifies suppliers using the IMMI Collection Plan.

IMMI expects the supplier to respond and ensure that all receiving plants are protected within 24 hours. Suppliers are expected to notify IMMI immediately if non-conforming material is found to have been shipped to IMMI.

IMMI has developed a set of guidelines for determining the non-conformance quantity for each Inspection Report. If circumstances dictate, the supplier shall be asked to ship replacement parts per a stated schedule and to provide sufficient support and/or resources to perform short-term sorting and replacement activities. As determined by IMMI, and depending on the type of non-conformance and the overall material situation, parts may either be scrapped or returned to the supplier. Additional expenses associated with extra handling and actions within IMMI, including costs for adjusting, sorting, disassembly, reassembly, administrative support, etc. may be charged back to the supplier according to the Charge Back Policy. The Charge Back Policy is available for review on the I-Supply Portal, located at www.imminet.com.

It is of vital importance that the supplier starts the problem-solving and 8D documentation process immediately upon notification. It is critical that appropriate actions occur quickly, as described below, to contain the problem and avoid any further disturbances to production or potential quality.

- A CAR (CORRECTIVE ACTION REPORT) IS REQUIRED FOR ALL TECHNICAL NON-CONFORMANCES UNLESS OTHERWISE DIRECTED BY IMMI.

When notified of a technical non-conformance, suppliers are requested to react within these maximum timeframes:

- **24 Hours**: Quick response/Containment → sorting at IMMI (3rd party sorting is allowed).
- **48 Hours:** Containment actions fully implemented (selection, temporary action in supplier process).
- **10 working days:** Root cause analysis done for occurrence & non detection, permanent corrective action defined and implemented.
- **20 working days:** Effectiveness of permanent corrective action checked and recurrence prevented.
- If the resolution time lasts longer than 20 days, the supplier must reach an agreement with IMMI for containment prior to shipment until permanent corrective action is validated.
- All suspect parts must remain in containment by the supplier and each box of verified conforming materials labeled as "certified material" until corrective action is fully verified and approval given by IMMI to eliminate containment and special labeling requirements.

Other Corrective Actions

Each time a non-conformance has been identified; the root cause(s) for the issue(s) must be investigated, documented and reported. The supplier must respond using the IMMI 8D format, the problem-solving tool used in responding to customer returns or major quality issues. The 8D provides a guide and defines the steps toward problem resolution including containment of the problem, root cause analysis, problem correction and future problem prevention. The 8D report addresses resolution of the CAR.

Deviation Requested by the Supplier

In the case where the supplier wishes to request a deviation to supply parts that do not fully comply with requirements, the supplier must inform IMMI Supplier Quality and request approval. The supplier must request a deviation by logging into the I-Supply Portal at www.imminet.com and submitting form QA-653 (Temporary Deviation Request).

The minimum information required in writing is:

- Date of request
- Supplier name and contact information
- Part number and part name
- Plant(s) the component is being shipped to
- Description of deviation being requested (specifically, what IMMI requirement is not being met)
- Number of pieces being affected or date deviation is to expire
- Expected date of failure
- Expected date of compliance

First In/First Out - (FIFO)

Suppliers must ensure that no obsolete material is shipped to IMMI. **The supplier shall utilize first in/first out (FIFO) inventory management practices.** This means all material should be used and manufactured in the order it was received.

Lot Traceability

Guidance: Traceability by the supplier shall be provided to facilitate successful analysis of all root causes.

Definition:

- "Lot/batch traceability" refers to a one-to-one relation between a lot/batch traceability number and a certain quantity of produced parts.
- "Serialization" refers to a one-to-one relation between a traceability number (serial number) and one produced part. (See QA-27 located on I-Supply Portal)

General requirements for all parts:

- All suppliers shall have an effective lot definition and traceability procedures based on risk analysis.
- Suppliers shall ensure that their lot traceability system maintains its integrity throughout the supply chain, including not only raw material, but also purchased components/products and sub-contracted operations, if any.
- IMMI may, at any time, request a review of these lot definition/traceability procedures and systems.

General requirements for safety related parts:

- The supplier's lot definition and traceability procedures shall be sufficient and effective so that all delivered product can be traced back to:
    - The finished parts.
    - The subcomponents/blanks.
    - The raw materials.
- In addition, the history of the processes applied to the product must being fully traceable, including:
    - Any rework operation.
    - Product and process special characteristics, including test records (according to the control plan).
    - Influential process parameters.
    - Influential machine settings.
    - Maintenance of equipment, jigs, gages and testers.
    - The operators and personal qualification.
- Risk analysis should be utilized to minimize the size of batch compared to the risk of product recall.
- The period of storage for related information is set according to legal requirements. The minimum retention period is 15 years from date of manufacturing.
- Any labeling or marking solution used on the part should support product investigation during the life of the part(s). Suppliers should indicate the lot number on actual parts and it should be easily visible when applicable.

Preferred solutions (unless otherwise specified on product documentation):

- Serialization
- If a bar code is the standard practice, IMMI recommends the use of AIAG Formatting.
- Recording the value of safety critical product or process parameters is preferred. Attribute data is acceptable as long as there is evidence of a 100% effectiveness of the check.

Record Retention Requirements

Document Type	Example	Shall be Maintained for
APQP and PPAP documentation	Technical specifications, design details, drawings, process flow charts, control plans, FMEAs, manufacturing instructions, etc.	The length of time that the part (or family of parts) is **active** for production and service requirements plus **one calendar year** unless otherwise specified by IMMI.
Quality Performance Records	Control charts, Inspection and Test results, Product Audits, Layout Inspection, Functional Testing, etc.	The length of time that the part (or family of parts) is **active** for production and service requirements **plus one calendar year** unless otherwise specified by IMMI.
Quality System Records	Internal Quality System Audits and Management Reviews.	Three calendar years
Product Safety Related Records		A minimum of 15 years from the date of manufacture.

Table 6

The lengths of time indicated in Table 6 shall be regarded as minimums. Retention periods longer than those specified above may be specified by a particular organization or customer within its procedures. These requirements do not supersede any regulatory requirements.

I-Supply Portal: Supplier Quality/Incoming Inspection

For parts that require incoming inspection, IMMI Quality Records for incoming inspection are listed for each supplier by part number within the I-Supply Portal. Each supplier is required to register as a user and maintain a working knowledge of the I-Supply Portal.

It is the responsibility of the supplier to provide all pertinent information for Quality Records prior to shipment using the I-Supply Portal at www.imminet.com.

The supplier shall provide at least one of three inputs into the I-Supply Portal.

1) Attribute Data with calibrated gaging or fixtures
2) Variable Data using calibrated measurement instruments
3) Certificate Of Compliance (QA-679)

Suppliers must enter Quality Records into IMMI I-Supply collection plans by lot number. The input of such data must occur prior to shipment.

Products that do not conform with regard to stated collection plans must not be shipped unless accompanied by a signed deviation (QA-653).

If it is determined that a suppliers shipped non-conforming product without prior authorization by IMMI then the supplier will be subject to further action.

Managing Performance

Supplier performance is monitored on a continual basis and gauged against some or all of the following key performance parameters:

- PPM LEVEL
- CAPM LEVEL
- DELIVERY PRECISION
- PRODUCTION INTERRUPTION
- RESPONSIVENESS
- CONTINUOUS IMPROVEMENT

Score Card Presentation

The Score Card is a tool for monitoring the performance of a supplier. It should be used by suppliers to proactively manage their production quality. The Score Card supports observation of quality trends and can serve as an ALERT in the case of LOW PERFORMANCE. An example is indicated below in Figure B.

IMMI maintains a Score Card of the quality and delivery performance for each supplier who provides parts to an IMMI facility. The measurements on the Score Card are reviewed by IMMI to track supplier performance and identify specific trends. The Score Card is updated monthly and ratings are based on a three-month rolling average. This information is available for supplier review over the I-Supply Portal. It is recommended that suppliers examine this information on a regular basis. Frequent review of their performance data may allow suppliers to proactively address problems and trends before IMMI is required to take action with the supplier.

Supplier Score Card

- Supplier address and company structure
- Supplier quality and delivery performance

May 2013 IMMI Supplier Report Card for:
IMMI Purchasing Contact:
IMMI Quality Contact:

Scoring Category	Raw Number	Points Possible	Points Scored
Quality Category			
PPM (< 50 PPM = 100% or 18 pts)	0	18	18.0
CAPM (< 3000 CAPM = 100% or 12 pts)	0	12	12.0
Quality Category Total	100%	30	30.0
Audit Category	90	10	9.0
Delivery Category			
On time delivery of discreet and pull system shipments	97.0%	25	24.3
VA/VE / Cost Reduction			
Have submitted ideas to reduce IMMI cost in the last 6 months	0.0	10	0.0
General Service Category			
Innovation, Technical Support, and New Ideas	5.0	5	5.0
Price Competitiveness	5.0	5	5.0
Ease of Order Placement	5.0	5	5.0
Flexibility, Response to Change	5.0	5	5.0
Accuracy & Timeliness of Paperwork & Quotations	5.0	5	5.0
General Service Category Total		25	25.0
Total Supplier Rating		100	88.3

VA/VE (Value Add / Value Engineering) / Cost Reduction Ideas

2.5%	1 new idea submitted in past six months.
2.5%	2 new ideas submitted in past six months.
2.5%	3 new ideas submitted in past six months.
2.5%	4+ new ideas submitted in past six months.

2013 Monthly Summary

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	YTD
Quality	30.0	30.0	3.6	30.0	30.0								25
Audit	9.0	9.0	9.0	9.0	9.0								9
Delivery	25.0	21.0	21.8	22.0	24.3								23
VA/VE	5.0	0.0	0.0	0.0	0.0								1
Service	24.0	24.0	25.0	25.0	25.0								25
Total	93.0	84.0	59.4	86.0	88.3								82

IMMI Notes

This example provides a snap shot of how IMMI examines a supplier's performance as related to Quality and Delivery.

Suppliers should contact their buyer at IMMI to gain access to this information.

Figure B: Example Supplier Score Card

Parts Per Million (PPM)

PPM is a key indicator of the quality of products shipped to IMMI. PPM reflects the percentage of non-conforming parts and is calculated as the number of non-conforming parts identified divided by the number of parts delivered, then normalized over one million parts. PPM is calculated at the beginning of each month but for the previous month. PPM performance is visible on the supplier Score Card, based on a rolling three month period.

In addition, CAPM stands for corrective actions per million and reflects the impact of non-conforming parts on IMMI. The score is combined with PPM scores to create the QPM metric described below.

Quality Performance Measurement (QPM)

Quality Performance Measurement (QPM) provides an objective method for reviewing supplier performance. QPM has proven to be a better indicator of supplier performance than PPM alone and is reflective of the impact that delivery of non-conforming product can have on IMMI.

QPM is measured monthly based on the formula QPM= (PPM Score + CAPM Score) and reviewed as an average annual score. During the second week of each month, the QPM value is re-calculated using the most recent full month of data. Relative QPM levels are indicated in Table 7.

QPM	Parts Per Million		Corrective Actions Per Million	
%	PPM Score	Pt. Score	CAPM Score	Pt. Score
100%	10-0	18	3,000-0	12
90%	11-50	16.2	3,001-6,000	10.8
80%	51-100	14.4	6,001-9,000	9.6
70%	101-150	12.6	9,001-12,000	8.4
60%	151-200	10.8	12,001-15,000	7.2
50%	201-250	9	15,001-18,000	6
40%	251-300	7.2	18,001-21,000	4.8
30%	301-350	5.4	21,001-24,000	3.6
20%	351-400	3.6	24,001-27,000	2.4
10%	401-450	1.8	27,001-30,000	1.2
0%	>451	0	>30,000	0

Table 7

Delivery Precision

A supplier's delivery performance score is also available on the Score Card. The supplier's delivery performance is based on meeting delivery metrics including on-time delivery and delivery of correct quantities. These two measures are compared to the total of the supplier's deliveries to determine the score. The delivery precision indicator is automatically calculated on the Score Card. Questions related to delivery performance should be addressed to the supplier's contact within the IMMI materials group.

Continuous Improvement

Suppliers are expected to utilize lessons learned from each previous incident to improve processes and/or design, and if necessary, underlying business systems as well. The goal is to eliminate any possibility of similar incidents, by making procedural and process adjustments on the manufacturing floor, and/or eliminating the root cause that allowed the issue to surface. Lasting improvement may also require adjusting the supporting business infrastructure and strategies. The supplier should use statistical data to continually refine their processes and to reduce variation. Analysis of quality incidents, PPM rates, causes for scrap, reasons for equipment downtime, and other available metrics should be reviewed, grouped and ranked in a manner conducive to customer-focused evaluations.

The supplier should have improvement projects in work that target at least two or three of their largest problem areas, based on pareto analysis or similarly useful statistically-based data. The supplier shall demonstrate a positive trend over time in reducing overall incidents with specific focus on any repeated incidents. Suppliers should show evidence that lessons learned for all similar products or processes have been utilized and incorporated (often referred to as horizontal deployment). The supplier shall be open to cooperatively sharing their continuous improvement decision-making data on occasion with IMMI for constructive discussions and potential future planning. In addition, IMMI very much supports using proactive internal reviews or audits as a tool to drive continuous improvement. This is also required by the ISO: TS 16949 standard.

Supplier Process Audit

Process Audit(s) are a tool used to drive continuous improvement and we expect our suppliers to build a robust improvement plan to close any gaps identified during an audit event. Process Audits shall be performed periodically by IMMI Supplier Quality and under the following circumstances:

- During APQP
- After the PPAP approval when the supplier is beginning production ramp up.
- For any new supplier
- For any new process/material
- For any new supplier location
- For poor performance with regard to cost, quality and/or delivery
- After a major incident

IMMI reserves the right to perform additional Process Audits when determined necessary, with reasonable time of notice. IMMI also expects suppliers to perform their own proactive Process Audits. The IMMI template for a Process Audit is available on I-Supply Portal along with Supplier Verification Form (PUR-029).

Low Performing Supplier – LPS

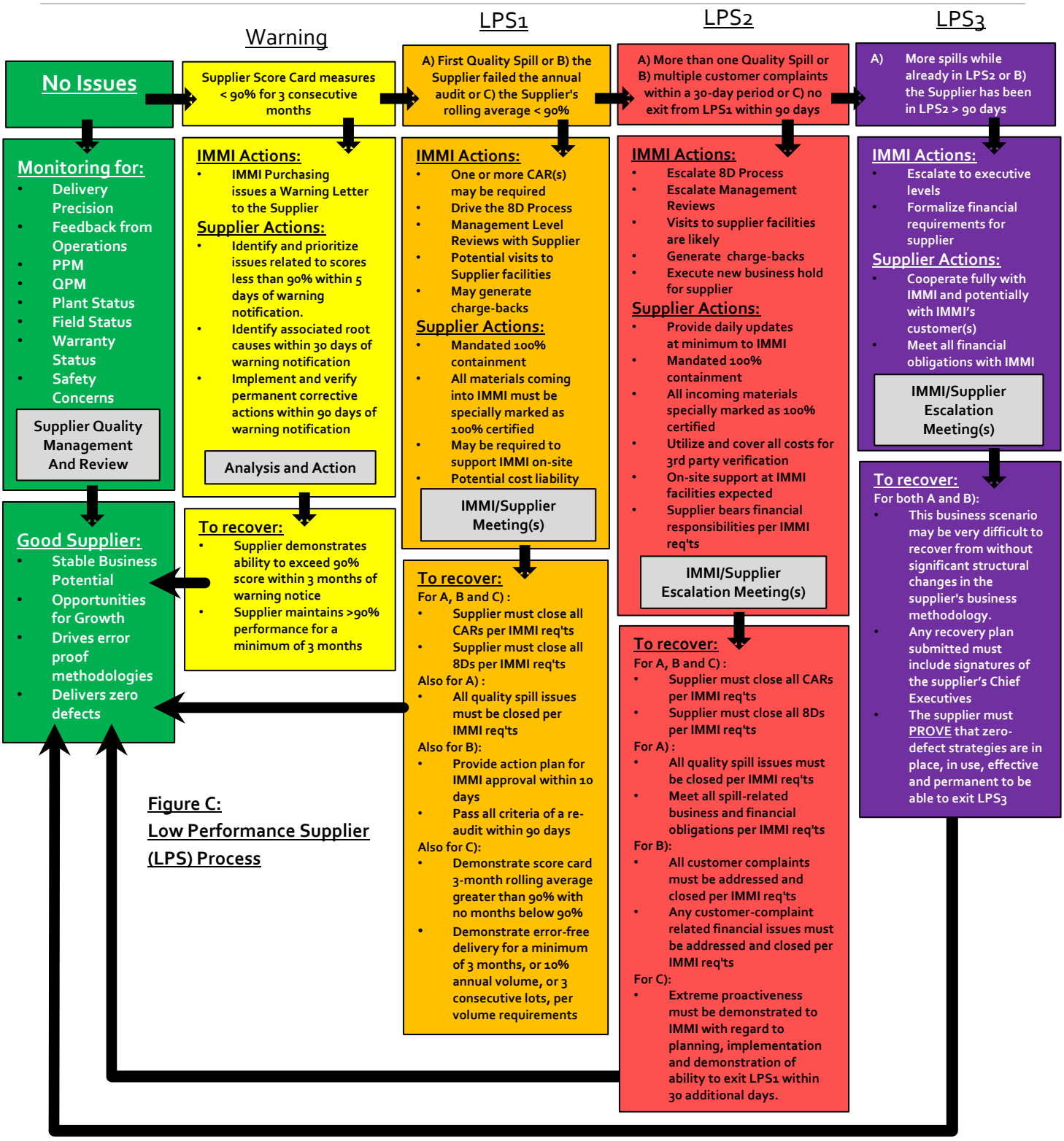


Figure C:
Low Performance Supplier (LPS) Process

The Low Performing Supplier (LPS) process, highlighted in Figure C, is intended to identify, initiate and encourage quality improvement activities with IMMI suppliers (per QA-109). The process drives the responsibility on the supplier to monitor and improve any low performance issues within their own shop. The Low Performing Supplier process will be managed by monitoring defined performance parameters. When observed indicator(s) signify the beginning of a negative performance

trend or a potentially significant abnormality, the supplier will be evaluated and managed with regard to LPS status including any detailed analysis and actions required.

Falling Quality, Inaccurate Deliveries, and inconsistent Score Cards (perhaps falling below 90%) are all metrics for consideration when contemplating LPS containment actions. However, immediate LPS action may occur as a result of non-conforming material being received by IMMI without prior notification.

Supplier improvement activities to recover from an LPS status assignment shall be initiated and managed through a multi-stage performance improvement process. Each stage shall have actions and exit criteria identified to establish a basis for measuring improvement. Exit criteria are to be based on documented and reported results from planned improvements.

Per Figure C, if the supplier does not meet the prescribed exit criteria by the scheduled completion date, or if the quality situation becomes worse, then the supplier may be demoted into the next LPS level. Each time the supplier reaches a less desired stage, the actions required to recover become cumulative. Once all exit criteria have been successfully met, then the supplier may be moved back to the "No-Action Required" or Monitoring status.

A supplier may be placed in a particular LPS stage either on an individual part number basis or on a multiple part number basis. Once in the LPS system, the supplier will continue to be tracked until completion of any long-term preventative action(s) has been verified. Release from a respective LPS containment level depends on successful completion of all necessary actions and demonstrated performance with no further issues per agreed to timeframes.

Compliance Management

IMMI strives to minimize risks for operators and passengers when accidents happen. IMMI products are known for providing safety and for saving lives. Our suppliers help contribute in two important ways:

1. Assisting with the development of new safety products and features for the final customer.
2. Delivery of robust products designed and manufactured to be defect-free for the final customer.

Providing conforming parts to IMMI must be a top priority for our suppliers and is part of their contractual commitment. It is the responsibility of the supplier to meet or exceed all Technical Specifications and applicable standards, as well as contractual and legal obligations.

IMMI's objective is to thoroughly understand the overall capabilities of the product from both design and process standpoints. For suppliers having design responsibility, all special characteristics must be clearly identified and documented appropriately, fully evaluated from a design-level FMEA standpoint, and subsequently verified and validated. Any critical characteristics involving manufacturing processes shall be identified within the supplier's documentation as well, and should at minimum include process-level FMEAs, control plans, work instructions for operators, and so on.

The supplier must consider and apply effective strategies for each of the following expectations:

- Identify and document any operations that may have a direct or indirect influence on critical characteristics.
- Provide clear and unambiguous work instructions at workstations.
- Provide training, certification and/or necessary authorizations for people working at each respective workstation.
- Provide a clean, organized and safe work environment that complies with 5S standards and methodologies.

The supplier is responsible to verify all the above requirements within their own supplier chain. In the event of a non-conformance or a risk for the final customer, the supplier shall notify IMMI immediately to communicate the potential issue and then subsequently provide action plans within an agreed to timeframe to protect the final customer.

During APQP and PPAP related activities, the supplier shall work cooperatively with Supplier Quality Engineers from IMMI to provide and verify evidence of completion of requirements for the concerned products.

Release History:

Revision	Date	Released by	Comments
Initial Release	14OCT2013	M. Henderson	Initial QA-1000 GSQM document release
Revision A	05DEC2013	M. Henderson	Correct errant imminet.com link connections

Note: The IMMI Supplier Quality organization welcomes suggestions from our global supplier base with regard to improving this "Global Supplier Quality Manual" and making it more effective for all parties concerned. Please feel free to send your suggestions to supplier.quality@imminet.com. We appreciate your comments and support. Thank you.