GM Customer Specifics - ISO/TS 16949
March 2006

Issued March 31, 2006

General Motors Customer Specific Requirements - ISO/TS16949

Including GM Specific Instructions for PPAP 4th Ed. (see Section 5)

NOTE: For convenience, important changes from the prior editions of General Motors Customer Specifics and PPAP Specific Instructions have been highlighted with underlining, and revisions to the March 31, 2006 issue highlighted in grey shadow . However, it is the organization's responsibility to read, understand and apply the entire document.

1. Scope

ISO/TS 16949:2002, Second Edition, March 1, 2002, "Quality management systems – Particular requirements for the application of ISO 9001:2000 for automotive production and relevant service part organizations," and this document define General Motors fundamental quality system requirements for organizations where automotive customer-specified parts, for production and/or service are manufactured. To satisfy supplier quality system requirements, General Motors will accept, as optional to QS-9000, a third party certification to ISO/TS 16949 that meets the following conditions:

- The certification scope must include both ISO/TS 16949 and the accompanying ISO/TS 16949 GM-Customer Specific Requirements,
- The certification must be conducted in compliance with the IATF recognized automotive certification scheme by a certification body contracted and recognized by an IATF Oversight office.

NOTE: **The Quality System Requirements, QS-9000, 3rd Edition (QS-9000:1998), expires on December 14, 2006.**

All **ISO/TS 16949:2002** requirements and the requirements of this document shall be addressed in the organization's quality management system.

2. References

2.1 DaimlerChrysler, Ford Motor, General Motors **Quality System Requirements (QS-9000), Third Edition,** March, 1998.
2.2 DaimlerChrysler, Ford Motor, General Motors **Production Part Approval Process PPAP), Fourth Edition, March 2006**.
2.3 DaimlerChrysler, Ford Motor, General Motors **Statistical Process Control (SPC), Second Edition, July 2005.**
2.4 DaimlerChrysler, Ford Motor, General Motors **Advanced Product Quality Planning and Control Plan**, June, 1994.
2.5 DaimlerChrysler, Ford Motor, General Motors **Measurement Systems Analysis**, **MSA Third Edition**, March, 2002.
2.6 DaimlerChrysler, Ford Motor, General Motors **Potential Failure Mode and Effects Analysis**, **FMEA Third Edition**, July 2001.
2.8 **IATF Guidance to ISO/TS 16949:2002**, AIAG Edition, 2002.
2.9 **Automotive Certification Scheme for ISO/TS 16949:2002**, **Rules for achieving IATF recognition, Second Edition for ISO/TS 16949:2002,** May 2004.
2.10 **ISO/TS 16949:2002, 1st Edition, March 2002 (Corrected version December 2003)**

The latest edition of the reference documents listed applies unless otherwise specified by the GM Procuring Division. Copies of **QS-9000, PPAP, APQP, FMEA, MSA, SPC, IATF Guidance, ISO/TS 16949:2002 Rules, 2nd Edition, and ISO/TS 16949:2002** and other related manuals are available from AIAG at 1-248-358-3003, or www.aiag.org. Copies of ISO documents are available from the American National Standards Institute (ANSI) at (212) 642-4980, or webstore.ansi.org.

The above documents that are requirements are described in section 4 of this document.

3. Definitions

Where inconsistent terminology exists between **ISO/TS 16949:2002** and this document, this document shall take precedence. Otherwise the definitions from **ISO/TS 16949:2002** apply to this document.

3.1 Accredited Laboratory

Accredited Laboratory is one that has been reviewed and approved by a nationally-recognized accreditation body, or as an alternative a customer recognized accreditation body, conforming to ISO/IEC Guide 58 for calibration or test laboratory accreditation to ISO/IEC Guide 17025, or national equivalent.

> NOTE: The above definition also applies to the reference manuals in Section 2 of this document and currently in effect.

3.2 Active Part

An active part is one currently being supplied to the customer for original equipment or service applications. The part remains active until tooling scrap authorization is given by the appropriate customer activity. For parts with no customer-owned tooling or situations where multiple parts are made from the same tool, written confirmation from the customer Purchasing activity is required to deactivate a part.

> NOTE: For bulk material, "active part" refers to the bulk material contracted, not the parts that are subsequently produced from that material.

3.3 Aftermarket Parts

Aftermarket parts are replacement parts not procured or released by OEM for service part applications which may or may not be produced to original equipment specifications.

3.4 Consulting

For the purposes of **TS16949:2002**, consulting is the provision of training, documentation development, or assistance with implementation of quality systems to a specific customer. If these activities are open to the public, advertised, and not customer specific, they are considered training rather than consulting. Other products, processes or services may be offered directly or indirectly, provided they do not compromise confidentiality or the objectivity or impartiality of its certification process or decisions. Refer to Automotive Certification Scheme for **ISO/TS 16949:2002 (Rules , 2nd Edition). Also see ISO/IEC 17021.**

3.5 Customer

References to "customer" in **ISO/TS 16949:2002** and this document shall be interpreted as the Procuring Division of General Motors for suppliers pursuing third party registration to **ISO/TS 16949:2002** to satisfy General Motors **sourcing requirements** third party quality system assessment registration.

3.6 Ergonomics

Ergonomics is the evaluation of the design of a product or process to assure compatibility with the capabilities of human beings. Analysis of motion refers to capabilities of people with respect to tasks (e.g. lifting, twisting, reaching) to prevent or relieve problems of strain, stress, excessive fatigue, etc. Factors involved include anatomical dimensions of the worker, placement of

products to be worked upon, placement of buttons/switches, physical loads imposed on the worker, and environmental effects such as noise, vibration, lighting and space.

3.7 Initial Process Study

Initial Process Studies are short-term studies conducted to obtain early information on the performance of new or revised processes relative to internal or customer requirements. In many cases, preliminary studies should be conducted at several points in the evolution of new processes (e.g. at the equipment or tooling subcontractor's plant, after installation at the supplier's plant). These studies should be based on as many measures as possible. When utilizing X-Bar and R charts, at least twenty-five subgroups (minimum of four pieces per sub-group) are required to obtain sufficient data for decision-making. When this amount of data is not available, control charts should be started with whatever data is available, or contact the authorized customer representative to develop a suitable plan. See also the **Production Part Approval Process** (PPAP) manual.

> NOTE: **Initial Process Studies.** The purpose of the initial process study is to understand the process variation, not just to achieve a specific index value. When historical data are available or enough initial data exist to plot a control chart (at least 100 individual samples), C_{pk} can be calculated when the process is stable. Otherwise, for processes with known and predictable special causes and output meeting specifications, P_{pk} should be used. When not enough data are available (< 100 samples) or there are unknown sources of variation, contact the authorized customer representative to develop a suitable plan.

3.8 PPM (Parts per Million)

On a monthly basis, GM tracks and reports the current month and the six-month running PPM for each supply organization's duns number.

The organization's PPM will be calculated based on the estimated quantity of nonconforming parts, or material from Quality and Packaging PRRs ONLY. The actual quantity nonconforming is used if the PRR is supply organization initiated. See note below for how PPM is calculated.

To impact the supply organization's PPM, a PPR is issued.

> **NOTE: Calculating PPM**
>
> Each "Estimated Quantity Nonconforming" for each PRR for a part number is totaled for the month and is used as the numerator (known as Discrepancies) in the PPM calculation for that part number. The denominator is the number of receipts of that part number for the month. Total discrepancies divided by total receipts multiplied by 1,000,000 equals the PPM for that part number.
>
> PPM for a supply organization manufacturing duns is calculated monthly using the following formula:
>
> 1. Total all the "estimated quantity nonconforming" for all part numbers for that location
> 2. Divide by total receipts for that location
> 3. Multiply by 1,000,000.

3.9 Quality Indices

See current edition of the DaimlerChrysler, Ford, General Motors **Statistical Process Control** reference manual.

3.10 Organization

Organizations are defined as providers of: a) production materials, b) production or service parts, or c) heat treating, plating, painting or other finishing services, directly to General Motors or other customers subscribing to this document.

NOTE: In QS-9000, these providers are typically referred to as suppliers to DaimlerChrysler, Ford and General Motors however for the purpose of this document they are defined as the "organization" or "supply organization." ISO/TS 16949:2002 (See also Section 3 Terms and definitions.)

3.11 Service parts

Replacement parts manufactured to OEM specifications, which are procured or released by the OEM for service part application.

3.12 Suppliers

Suppliers (previously called subcontractors in QS-9000) are defined as providers of production materials, or production or service parts, directly to an organization who is a provider of General Motors or other customers subscribing to this document. Also included are organizations who are providers of heat-treating, painting, plating or other finishing services.

NOTE: The term "tier supplier(s)" refers to suppliers at any tier level in the automotive supply chain.

3.13 Value-Added Production Processes

Activities or operations for which a customer is willing to pay, if given the option.

See also **ISO/TS 16949:2002, Second Edition** (March, 2002), definition of "manufacturing" 3.1.6, "site" 3.1.11, and "remote location" 3.1.10.

4. Requirements

4.1 **ISO TS 16949:2002 (Second Edition),** March 2002- Related Requirements

All references to clauses in this section pertain to ISO/TS 16949:2002, unless otherwise stated.

4.1.1 Management of production tooling

Where warehouses or distribution centers (distributors) are remote sites, the requirements for management of production tooling (cl.7.5.1.5) may not be applicable.

4.1.2 Records Retention

Production part approvals, tooling records, APQP records, purchase orders and amendments shall be maintained for the length of time that the part (or family of parts) is active (see Definitions in Cl. 3.1) for production and service requirements plus one calendar year unless otherwise specified by the customer.

> NOTE: All customer purchase orders/amendments are included in this requirement. Organization purchase orders/amendments for customer-owned tooling are included in this requirement.

Quality performance records (e.g. control charts, inspection and test results) shall be retained for one calendar year after the year in which they were created.

Records of internal quality system audits and management review shall be retained for three years.

Retention periods longer than those specified above may be specified by an organization in their procedures. The organization shall eventually dispose of records.

These requirements do not supersede any regulatory requirements. All specified retention periods shall be considered “minimums”.

> NOTE: GM *ILM POLICIES* Implementation (This Policy only applies and is pertinent to GM Business Records owners as defined in the *GM Information LifeCycle Management and Record Retention Policies (ILM Policies)*. An authorized GM representative of the contracting GM Business Unit or Department will clearly communicate implementation of GM *ILM Policies* to the supplier organization including the *GM Information Classification*, *Retention Period*, and *GM Record Series* at the initiation of the relationship.)
>
> For holders of information designated as GM Information, GM Records or GM Business Records, the GM information and record retention policy is stated in *GM Information LifeCycle Management and Retention Policies (ILM Policies).*

As a reference the following is a list of the 18 requirements from PPAP see Retention/Submission Requirements, Table 4.1 and the GM ILM retention period for each item:

1. Design Record – for proprietary components/details
   - for all other components/details
   Production Run + 50 with review
2. Engineering Change Documents, if any – Production Run + 50 years. with review
3. Customer Engineering approval, if required – Production Run + 50 years. with review
4. Design FMEA – Production Run + 50 years. with review
5. Process Flow Diagram – Production Run + 50 years. with review
6. Process FMEA – Production Run + 50 years. with review
7. Control Plan – Production Run + 15 years.
8. Measurement System Analysis Studies – Maximum 3 years
9. Dimensional Results – Active + 50 years with review
10. Material, Performance Test Results – Production Run + 15 years
11. Initial Process Studies – Production Run + 15 years
12. Qualified Laboratory Documentation – Production Run + 50 years with review
13. Appearance Approval Reports (AAR), if applicable – Production Run + 15 years
14. Sample Products – Active + 50 years with review
15. Master Sample- Maximum 3 years
16. Checking Aids – Production Run + 15 years
17. Records of Compliance- with Customer Specific Requirements – Production Run + 50 years with review
18. Part Submission Warrant (PSW) (Including GM 3660 & related documentation)– Production Run + 50 years with review

4.1.3 Electronic Communication

Reference cl.-7.2.3.1

NOTE: Examples of such systems for suppliers to GM's North American Operations are: 1) requirement planning information such as the Electronic Data Interchange (EDI) ANSI ASC X12 830 transaction set or the EDIFACT DELFOR message, and 2) shipping schedules such as the ANSI ASC X12 862 or 866 transaction sets or the EDIFACT DELJIT message.

4.1.4 Shipment Notification System

Reference cl. 7.2.3.1

NOTE: Examples of such systems for suppliers to GM's North American Operations are: 1) the ANSI ASC X12 856 transaction set, or 2) the EDIFACT DESADV message. For EDI assistance, contact 01-810-947-5566. For EDIFACT assistance, and confirmation of the required implementation date for a supplier, contact 01-248-265-9907.

4.1.5 Special Characteristics

The supplier shall use General Motors **Key Characteristic Designation System** definitions and symbols to comply with **ISO/TS 16949:2002** special characteristics requirements

(e.g. cl. 7.2.1.1), and as provided in 4.2.2, General Procedures and Other Requirements, and 4.2.2.11, **Key Characteristic Designation System (KCDS),** (GM 1805 QN) which defines GM's approach to "special" characteristics.

4.1.6 Design Changes

All design changes, including those proposed by suppliers, shall have written approval by the authorized customer representative, or waiver of such approval, prior to production implementation. See cl. 7.3.7 and 7.1.4. See also the **Production Part Approval Process (PPAP)** manual.

For proprietary designs, impact on form, fit, function, performance, and/or durability shall be determined in conjunction with the authorized customer representative so that all effects can be properly evaluated.

4.1.7 Official Language Version

The English language version of **ISO/TS 16949:2002** or QS-9000, 3rd Edition and related reference documents shall be the official version for purposes of third party registration.

Sanctioned translations shall:

- be for reference only,
- reference the English language as the official version,
- not contain **ISO 9001:2000** text verbatim, and
- include General Motors in the copyright statement.

Any other language translations are not authorized.

4.1.8 Part Approval Process

The organization shall comply with the Chrysler, Ford, GM **Production Part Approval Process (PPAP)** manual to comply with cl. 7.3.6.3

> **NOTE: *PPAP-Vehicle Assembly Centers (Assembly Plants)***
> Unless otherwise specified by the Customer, PPAP requirements for vehicle assembly centers shall be taken from a specified production run of saleable pilot vehicles.

4.1.9 Customer Satisfaction

Trends in quality system performance and customer satisfaction (see Cl. 5.2, 5.6.1.1, 7.4.3.2, and 8.2.1.1) should be compared to those of competitors, or appropriate benchmarks, and reviewed by top management.

4.1.10 Internal Auditor Qualifications

Internal auditors should be qualified as recommended in **ISO 19011, 1st Edition – Sections 7.1-7.5, for Quality Management Systems application.** In addition internal auditors should be competent in understanding and applying the Process Approach of Auditing (See "Process Approach", Section 0.2 of ISO/TS 16949:2002), Core Tools including PPAP and other reference

manuals including APQP, MSA, SPC, and FMEA as applicable, and GM Customer Specifics, as applicable.

NOTE: A process and plan with implementation monitoring for assurance of qualified internal auditors is evidence of compliance.

4.1.11 Supplier Quality Management System Development (cl. 7.4.1.2)

Note 1: This supplier development clause, cl.7. 4.1.2, applies to suppliers of the organization who are providers of production materials, or production or service parts, directly to a supplier to Chrysler, Ford, General Motors or other customers subscribing to this document. Also included are providers of heat-treating, painting, plating or other finishing services.
Indirect and service providers are not included in this requirement, e.g. distributors adding no manufacturing value, logistics, sequencers, parts packagers, tooling & equipment.

Note 2: The use of customer-designated suppliers to the organization (subcontractors) does not relieve the supplier of the responsibility for ensuring the quality of subcontracted parts, materials and services.

4.1.11.1 Customer acceptance of QS-9000:1998

Until December 15, 2006, registration to QS-9000:1998, (QS-9000, 3rd Edition) shall be accepted as an alternative to registration to ISO 9001:2000, or customer acceptance of 2nd Party Audits.

4.1.11.2 Customer acceptance of 2nd Party Audits and Criteria for Approval

General Motors Corporation will recognize 2nd Party audits as compliance to ISO/TS 16949:2002, Clause 7.4.1.2 and as an alternative to ISO 9001:2000 certification. The statement of authorization below provides the requirements and conditions for GM approval.
The organization that utilizes 2nd party assessment to comply with clause 7.4.1.2 is required by General Motors to utilize second party assessors who satisfy all elements of the criteria specified as “GM approved 2nd Party requirements” stated below.

GM-approved 2nd Party requirements:

1. The organization (2nd Party) must be IATF certified and registered to ISO/TS16949:2002.

2. The organization (2nd Party) cannot be on ISO/TS 16949:2002 probation or suspension.

3. The organization (2nd Party) must utilize a qualified ISO Lead Auditor, or a qualified Internal Auditor with evidence of their successful completion of training, such as AIAG "Internal Auditing for ISO/TS 16949:2002," or evidence of a minimum of five internal ISO/TS 16949 audits under the supervision of a qualified Lead Auditor.

4. The organization (2nd Party) must audit annually each qualifying supplier for whom it has performed a 2nd Party assessment, and maintain records of these audits.

5. The duration of these audits must conform to the full application of the Audit Day Requirements table of the current edition of *Automotive Certification Scheme for*

ISO/TS 16949:2002, Rules 2nd Edition, for achieving IATF recognition.

6. Any of the IATF recognized and currently approved auditors may perform such audits when contracted by the organization.

4.1.11.3 Supplier Development of Specially Designated Small Suppliers

When a supplier to an organization is so small as to not have adequate resources to develop a system according to ISO/TS 16949:2002 or ISO 9001:2000, certain specified elements may be waived by the organization of their supplier. The organization shall have decision criteria for determining "specially designated small suppliers"'. Such decision criteria will be in writing, and applied consistently in the application of this provision. The existence and use of such decision criteria shall be verified by 3rd party auditors.

Note1: ISO9001:2000 and ISO/TS16949:2002 contain fundamental quality management system requirements of value to any size of provider of production/ service parts/ materials. There are a number of methods to implement a compliant system, so it is recognized that a simpler Quality Management System approach could be used for the smaller suppliers of organizations to which ISO/TS 16949, clause 7.4.1.2 applies.

Note 2*: "Small"* may also refer to volume supplied to automotive.

4.1.12 Heat Treating Processes

Clause 8.2.2.2 of ISO/TS 16949:2002 requires that the organization shall audit each manufacturing process to determine its effectiveness. Applicability and effectiveness of heat treating processes shall be determined utilizing *CQI-9 Special Process: Heat Treat System Assessment (HTSA),* published by AIAG, and records maintained. The effectiveness evaluation shall include the organization's self-assessment, actions taken, and that records are maintained.

This requirement shall also apply to heat treat suppliers to the organization pursuant to Clause 7.4.1.2 (supplier development clause).

Note 1: Implementation is 90 days following the effective date of the release of *CQI-9 Special Process: Heat Treat System Assessment (HTSA)*. Based on the release date of *CQI-9*, the effective date of implementation is August 1, 2006.
Note 2: 2nd Party assessment by a competent auditor and meeting the above requirements will satisfy the self-assessment requirement.
Note 3: Implementation effectiveness should be based on evidence that the organization has a process in place that includes elements such as auditors identified, schedule for self-assessment in place including schedule adherence, supplier development process identified for applicable suppliers, monitoring of progress, defined corrective action process and record-keeping.

4.2 General Motors - Specific Requirements

4.2.1 Third-Party Registration Requirements

Production and Service Part Organizations (direct supply organizations) to General Motors, including GM Holdens, shall be third-party registered to **ISO/TS 16949:2002,** including the requirements in this document, by an IATF-recognized certification body using the current edition in effect of the automotive registration scheme, "**Automotive Certification Scheme for ISO/TS 16949:2002, Rules for achieving IATF recognition."** In the alternative, supply organizations for which certification applies, may satisfy General Motors third party registration requirements by obtaining certification to ISO/TS 16949:1999 by an IATF recognized certification body in accordance with the appropriate and current "Rules" for certification until December 15, 2003, or to QS-9000:1998 by an automotive registration scheme recognized by General Motors until December 14, 2006. Such certification shall include the requirements in this document, or in the case of QS-9000:1998, the General Motors-Specific Requirements.

NOTE 1: Supply organizations to General Motors certified to ISO/TS 16949:1999 may upgrade certification to ISO/TS 16949:2002 for the period of up to one year after 15 December 2003, consistent with the surveillance cycle.

NOTE 2: Supply organizations to General Motors who fit the applicability requirements of ISO/TS 16949:2002 and are not certified to ISO/TS 16949:2002 by 14 December 2006, at a minimum, are subject to New Business Hold – Quality status. See also 4.2.3, ISO/TS 16949:2002 Applicability, and 4.2.8, Certification Body Notification and Certification – New Business Hold-Quality.

NOTE 3: Waiver of supply organization certification for those organizations who meet the applicability requirements of ISO/TS 16949:2002 is not permitted unless approved in writing by an authorized representative of GM and consistent with current GM GPSC policy and procedure.

4.2.2 General Procedures and Other Requirements

The GM publications listed below contain additional requirements or guidance that shall be met, if applicable, by GM supply organizations, or unless otherwise specified by GM Procuring Divisions. Specific questions on the content of these publications should be directed to the appropriate contact at the GM Procuring Division. (The latest revisions for these documents can be found on the GM SupplyPower website.)

GM Supply Organizations shall verify annually that they are using the latest version of these documents:

4.2.2.1 Pre-Production/Pilot Material Shipping Procedures, (GM 1407). .

4.2.2.2 Shipping Parts Identification Label Standard, (GM 1724).

4.2.2.3 Component Verification & Traceability Procedure, (GM 1730).

Note: APPLICABILITY OF GM 1730 IS LIMITED TO GM POWERTRAIN.

4.2.2.4 Traceability Identifier Equipment (TIR 15-300), (GM 1731).

4.2.2.5 Bar Code Standard for Part/Component/Module Identification and Traceability (GM 1737).

4.2.2.6 GP-5 Supplier Quality Processes and Measurements Procedure, (GM 1746).

4.2.2.7 Continuous Improvement Procedure, (GM 1747).

4.2.2.8 GP-10 Evaluation and Accreditation Test Facilities, (GM 1796/A).

- See **ISO/TS 16949:2002**, cl., 7.6.3

4.2.2.9 Shipping and Delivery Performance Requirements, (GM 1797).

4.2.2.10 Key Characteristic Designation System (KCDS), (GM 1805 QN).

4.2.2.11 GP-11 General Procedure for Pre-Prototype and Prototype Material, (GM 1820).

4.2.2.12 C4 Technology Program, GM - Supplier C4 Information, (GM 1825). .

4.2.2.13 GP-12 Early Production Containment Procedure, (GM 1920).

4.2.2.14 Run-at-Rate Procedure, (GM 1960).

NOTE: Access the GM SupplyPower web-site for the current version of the above documents.

4.2.3 ISO/TS 16949:2002 Applicability

ISO/TS 16949:2002 with this document applies to all applicable contracted GM supply organizations (see Definitions 3.9) utilizing ISO/TS 16949 to satisfy General Motors third party certification requirements for quality system assessment.

NOTE: QS-9000:1998 (3rd Edition) expires December 14, 2006, and QS-9000 certified supply organizations are strongly urged to upgrade to ISO/TS 16949:2002. Failure of supply organizations to achieve or maintain certification to ISO/TS 16949:2002 results in the organization being placed in New Business Hold - Quality by GM.

4.2.4 UPC Labeling For Commercial Service Applications

GM Service Parts Operations (SPO) requires use of UPC labeling for certain commercial applications rather than AIAG labeling. Contact your SPO buyer for instructions.

4.2.5 Layout Inspection and Functional Test

Unless specified otherwise by a GM Procuring Division, there is no customer-established frequency for layout inspection after receiving production part approval (**PPAP**). Reference is made to **ISO/TS 16949:2002,** cl..8.2.4.1

4.2.6 Customer Signature on Control Plan

General Motors does not provide waivers to organizations for control plan approval because General Motors signatures on the Control Plan are not required.

4.2.7 GM Holdens-Specific Requirements

Previously listed specific requirements for additional documents for GM Holdens in Australia are obsolete. GM Holdens operates in accordance with GM Customer Specifics.

4.2.8 Certification Body Notification and Certification Status – "New Business Hold – Quality"

The organization shall notify its Certification Body within 5 business days after being placed in GM New Business Hold – Quality. The status of "New Business Hold – Quality" shall be a violation of clause 8.2.1.1 Customer satisfaction – Supplemental.
The certification of the organization shall be placed on immediate suspension * by the certification body of record upon receiving notice of GM "New Business Hold – Quality."

*See Annex 4, ***Automotive Certification Scheme for ISO/TS 16949:2002, Rules for achieving IATF recognition."***

1. In the event of certification suspension as a result of an organization receiving notice of General Motors "New Business Hold – Quality," the organization shall complete a corrective action plan. The organization shall submit the corrective action plan to the Certification Body of record and to the affected customer(s) within 10 business days of the date of the letter of notification of probation. The corrective action plan of the organization shall be consistent with the affected customer(s) requirements including correction steps, responsibilities, timing information, and key metrics to identify effectiveness of the action plan.

2. Before any suspension can be lifted, the Certification Body of record will conduct an on-site assessment of appropriate length to verify effective implementation of all corrective actions.

If suspension is not lifted within four months of its issuance, the Certification Body of record shall revoke the ISO/TS 16949 certificate of the organization. Exceptions to this revocation shall be justified in writing by the Certification Body based upon its on-site review of the effectiveness of

the organization's corrective action plan and agreement obtained in writing from the authorized GM customer representative.

NOTE 1: The permitted suspension period for General Motors Europe (GME) is six (6) months.

NOTE 2: The GM special status conditions of CS I (Controlled Shipping – Level I), or CS II (Controlled Shipping – Level II) are performance indicators of organization product realization problems. Such status should have resolution, or credible resolution and corrective plans in place, which are confirmed by the customer.

4.2.9 Controlled Shipping Level II (CSII) - Notice to Certification Body

The organization shall notify its Certification Body within 5 business days after being placed in Controlled Shipping – Level II (CS II) Status.

NOTE: This clause will be implemented 30 days following the issue date of this document.

4.2.10 Management Review

Management review of quality system performance (Cl. 5.6.1.1) at a minimum shall be conducted at planned intervals, but not less than annually.

5. PPAP – GM Specific Instructions

5.1 Applicability

These requirements shall apply to production, service, and unitized service parts, raw materials purchased by or contracted to GM, These requirements also apply to all commodities supplied by external independent organizations, GM Allied and Affiliated supply organizations, plus all commodities supplied to these organizations (e.g. subcontractors and tier suppliers). Please note that for bulk, raw, or indirect material, it is the Procuring Division's decision whether **PPAP** is required. When conducting a bulk material PPAP, use conventions as detailed in Section 1 and Appendix F – Bulk Material – Specific Requirements.

5.2 Requirements for Part Approval

5.2.1 PSW Form (CFG-1001and Appendix A) (See AIAG PPAP 4th Edition Section 2 PPAP Process Requirements 2.2.18

NOTE: A copy of all signed PSW Forms and any related PPAP forms that require approval signatures (e.g. GM 3660, Proof of Validation, Final GM 1829, GM 1411, AAR(s) etc.) shall be attached to the correct sample submission in the GM GQTS system and submitted electronically using the GM GQTS system.

1. A separate PSW shall be completed for each customer part number.
2. The Supplier code referred to on the PSW and on the Appearance Approval Report is the full code assigned to the manufacturing location on the Purchasing Order, also referred to as DUNS number
3. PSW forms will not be accepted if any information is missing.
4. Reporting of Part Material Composition (See AIAG 4th 2.2.1.1 and GM Specifics 5.2.7.1) – the organization shall use the International Material Data System (IMDS) to report required information. Approval in IMDS is required in order to obtain an Approved PPAP Status in the IMDS Lab; lack of IMDS approval for all components on vehicles produced in GM Europe, GM Powertrain and effective January 1, 2006 GM North America shall result in the maximum of a Saleable PPAP status in the IMDS Lab.
5. Marking of Polymeric Parts (See AIAG 4th 2.2.1.2) - Polymeric parts shall be identified with appropriate ISO marking codes if applicable
6. The organization shall confirm that all Customer Tooling is properly tagged and numbered.

5.2.2 Appearance Approval Report (See AIAG PPAP 4th Edition Section 2, Appearance Approval Report (AAR) 2.2.13

1. Appearance Approval Report (AAR) (CFG-1002 is required for all parts with color, grain. gloss or textiles

NOTE: An AAR is not required for surface quality of body in white (BIW) parts. Refer to the General Motors North America Surface Buyoff Procedure for Surface Requirements of BIW parts.

2. Appearance Approval may occur concurrently with part inspection and testing.
   NOTE: Organizations should contact the appropriate Appearance Approval group for the specified GM PPAP Approval organization **as soon as possible** to make arrangements for AAR sample submission. Parts may be submitted for AAR approval as soon as all materials are approved

5.2.3 Sample Production Parts (See AIAG PPAP 4th Edition Section 2, Sample Production Parts 2.2.14)

1. If submitting for level 2 or 3, the organization shall submit two sample parts unless otherwise specified by the Procuring Division. For multiple processes, two sample parts per process e.g. two parts per cavity, tool, cells assembly lines are required unless otherwise specified by the Procuring Division. The sample parts do not have to be the same part(s) that were dimensionally measured and documented on the marked drawing or check sheet. All sample parts should be labeled with part number, change level, and organization name.

5.2.4 Control Plans (See AIAG PPAP 4th Edition Section 2, Control Plan 2.2.7)

1. GM requires organizations to document and submit (depending on submission level, see AIAG PPAP 4th Edition Retention/Submission Requirements Table 4.2) their Pre-Launch Control Plan. General Motors General Procedure GP-12 "Early Production Containment" proceduralizes the Pre-Launch Control Plan. All parts requiring production part approval (PPAP) shall also comply with GM-12 Early Production Containment.

   Note: Whenever an organization is required to submit a Production Control Plan, they shall also submit a Pre-Launch Control Plan, as defined by GP-12.

5.2.5 *Design Records (See AIAG PPAP 4th Edition Section 2, Design Records 2.2.1)*

1. A marked drawing can be used for PPAP submission provided the drawing is signed by the GM Lead Engineer, contains an EWO number and is dated.
2. All Organizations design records shall be GM approved.
3. The Organization shall furnish evidence of conformance to print specifications of each detail component when requested.
4. For CAD parts that are data-banked, the current level in the GM design databank is the inspection referee. The source of the data shall be provided with change level and date.

   NOTE: The Engineering Change Level and Drawing Date listed on the PSW must match the GM record on file.

5.2.6 Design Failure Mode and Effects Analysis (Design FMEA) if the organization is product design-responsible (See AIAG 4th Section 2, 2.2.4)

Organizations that are design responsible should contact the Customer Engineer organization for clarification of acceptance of a single DFMEA to be applied to a family of similar parts or material. Conditions impacting the applicability of a single DFMEA include differences in environment, and any change that impact the physics of the design.

5.2.7 Material / Performance Test Results (See AIAG PPAP 4th Edition Section 2, Records of Material / Performance Test Results 2.2.10 and Performance Test Results 2.2.10.2)

1. When Supplier (Organization) Performance / Validation requirements are specified in the Commodity Specific Statement of Requirements (SOR), the Organization shall obtain approval from the specified GM Customer representatives per the Commodity Validation Sign-off process GM 3660. Detailed instructions explaining this process may be accessed through the following web address: **https://www.gmsupplypower.com/apps/supplypower/NASApp/spcds/CDSRetrieval?lob=quality&subnav=library&togglefolder=23563**
2. A signed, approved GM 3660 form accepted by the appropriate GM engineering representatives is required to obtain an Approved PPAP status for the Functional/Durability lab in GQTS. If an Organization's PPAP submission lacks a completed, signed, GM 3660 form accepted by the specified GM engineering representatives a PPAP status of either Non-Saleable or Saleable will be entered for the Functional/Durability lab as applicable.
   Signature requirements may vary by region, reference the above web site for details or contact the appropriate GM Engineering organization.
3. When Supplier (Organization) Performance / Validation is specified per the Commodity Specific Statement of Requirements (SOR) and **all items are not completed at the time of PPAP submission**, a PPAP Worksheet GM 1411 shall be completed by the Organization and submitted with the PPAP PSW. The GM 1411 shall contain a detailed action/recovery plan for each item including the organization's individual responsible for completing each item with timing. (See GM Customer Specifics Customer PPAP Worksheet Instructions 5.4.1)

5.2.7.1 International Material Data System (IMDS) (See AIAG 4th PSW Appendix A)

The International Material Data System (IMDS) is to be used by Tier 1 supply organizations to report material content information. IMDS reporting is required for all components on vehicles produced in GM Europe, GM Powertrain and effective January 1, 2006 GM North America. This requirement is optional at this time for parts being shipped for use in vehicles in GM Asia Pacific (GMAP) or GM Latin America (GMLAAM). The IMDS requirements are:

1. PPAP Approval in GQTS in the IMDS Lab including overall part Approval will not be attained until parts receive approval in IMDS.
2. Any part the requires a PPAP submission that contains changes impacting material or part weight shall require a new IMDS submission
3. Information entered into IMDS will generate a unique IMDS ID Number and IMDS Version,

4. The PSW requires the IMDS ID Number, IMDS Version, IMDS Status and the Create Date of the IMDS record for the submission

5. The DUNS number on the PSW must match the DUNS number of the IMDS submission; separate IMDS entries are required for each DUNS location on contract.
6. If at the at time of PPAP PSW submission the IMDS submission is not approved and or the GMW3059 requirements are not completed a PPAP Worksheet GM 1411 shall be completed listing all items not completed including timing to complete each
7. IMDS information must be submitted to the correct facility code; commonly requested codes include the following:

GM North American Powertrain Facility Code: 5754
GM North American Vehicle Operations (includes GM Mexico) Facility Code: 5751
GM North American Service Pars Operations Facility Code: 31433

Adam Opel AG (includes GM Portugal and Vauxhall) Facility Code: 104

NOTE: Access the following web sites for additional Facility Codes and additional information:
www.mdsystem.com – site includes information on the system, a substance list (GADLS), training, Frequently Asked Questions (FAQs) contacts plus additional information.
www.gmw3059.com –site includes IMDS Instruction manual, various presentations, on-line video, FAQs, Global regional contacts plus additional information.

5.2.8 Customer Notification of Supplier – Initiated Changes

Note: The following does not include initial submissions or changes described in AIAG PPAP 4th Submission to Customer Table 3.2. Prior notification to, or communication with, the authorized customer representative is assumed

1. The Organization shall review the proposed change with the Procuring Division prior to implementation to obtain concurrence per the division's local practice. A Production Trial Run may be required, contact the GM PPAP organization authorized customer representative for applicability.
2. Sufficient information shall be provided to explain the detailed reason(s) for the change. Attachments and graphics are encouraged
3. Upon approval of the proposed change, the Organization shall complete the appropriate level of documentation required per the PPAP level of submission.
   Note: PPAP Level 3 is the default level for PPAP submission unless otherwise directed by the authorized GM PPAP organization.

5.2.9 Submission Levels (See AIAG PPAP 4th Section 4 – Submission to Customer – Levels of Evidence and Retention / Submission Requirements Table 4.2)

1. Organizations are not required to maintain full documentation from their suppliers (subcontractors) if they have decision criteria and a process in place to establish the level of evidence required from their suppliers (subcontractors), and the appropriate level of evidence on file at their location. Upon a Procuring Division's request for PPAP documentation, organizations must comply within a reasonable period of time.

5.3 Part Submission Status (See AIAG PPAP 4th Customer PPAP Status Section 5)

5.3.1 Approved – Approved PPAP status indicates the part meets all customer requirements per the design record. The GQTS system will reflect an Approved status. (See Driver Codes 5.4 below)

1. Upon customer notification of an Approved status in GQTS, the Organization is authorized to ship quantities per customer releases.

Note: If Validation / Performance requirements are specified in the Customer Specific SOR a signed, GM 3660 approved and accepted by the appropriate GM Engineering representatives is required to be submitted with ALL Organizations PSW submissions for **Approved** status.

5.3.2 Saleable PPAP – (See AIAG PPAP 4th Section 5, Interim Approval 5.2.2)

1. If a part does not meet all design record requirements necessary to obtain an Approved PPAP status and the customer has deemed it acceptable for limited use a part may receive a status of **Saleable PPAP** in GQTS. The Saleable PPAP status will authorize the organization to ship to the customer for a limited number of pieces or a specified period of time. (See Driver Codes 5.4 below)
2. All Saleable PPAP submissions require a corrective action/recovery plan to be submitted with the PPAP submission. Items identified do not meet requirements as specified but it is determined that they will not impact vehicle assembly or customer satisfaction. The PPAP Worksheet GM 1411 is the form to be used for this purpose and submitted by the Organization with the PSW submission. (See GM Specifics Section 5, PPAP Worksheet GM 1411, 5.4.1 for detailed instructions)

5.3.2.1 Examples of conditions resulting in a Saleable PPAP status include but are not limited to the following (contact the designated PPAP approval organization for clarification:

1. Documentation improvements required; examples include DFMEA, PFMEA, Process Flow Diagram, Process Control Plan, Work instructions.
2. Process Capability Studies do not meet requirements; capability study completed on less than 300 pieces and in the judgment of the SQE, satisfactory stability and capability has not been achieved. The supplier shall implement containment actions to ensure no defective parts escape the process until capability is achieved
3. Dimensional layout with one or more dimensions out of specification requiring rework to bring part to specification prior to shipment
4. Parts are produced off non-production process or Low Volume/temporary tooling
5. Parts have not been manufactured completely at the manufacturing site/environment
6. Part and drawing (design record) do not match and a part change is not desired or anticipated. The direction for correction is to make a drawing change; the GM 1411 must document the change required and the date to be corrected. GM Engineer signature required on GM 1411
7. Dimensional, material testing, or appearance characteristics do not meet design record requirements but, will not impact vehicle assembly or customer

satisfaction; GM Validation and or Lead Engineer signatures required on the GM 1411 as applicable to items listed

8. Performance/Validation requirements specified in the Commodity Specific SOR to be completed by the Organization (supplier) are not completed, but requirements 1 & 5 on the GM 3660 are completed; GM Validation Engineer and GM Lead Engineer signatures required on the GM 1411
9. Performance / Validation requirements specified in the Commodity Specific SOR to be completed by the Organization (supplier) are NOT fully met and or validation is incomplete; **however**, status is acceptable to status the part as "Saleable PPAP"; GM Validation Director AND GM Release Director and SQ Director (or per regional direction) signatures required on the GM 1411

***5.3.3 Non-Saleable PPAP** – (See AIAG PPAP 4th Section 5, Interim Approval 5.2.2)*

1. If a part does not meet all design record requirements necessary to obtain an Approved or Saleable PPAP status the customer may deem it acceptable for limited use and assign a PPAP status of **Non-Saleable** in GQTS. These parts require retrofit with an Approved or Saleable PPAP level part. (See Driver Codes 5.4 below)

2. A Non-Saleable PPAP status authorizes the Organization to ship a specified number of pieces or for a specified period of time. A corrective action/recovery plan is required to be submitted with the PPAP PSW submission. The PPAP Worksheet GM 1411 is the form to be used for this purpose and submitted by the Organization with the PSW submission. (See GM Specifics Section 5, PPAP Worksheet GM 1411, 5.5.1 for detailed instructions)

5.3.3.1 Examples of conditions resulting in a Non-Saleable PPAP status include but are not limited to the following (contact the designated PPAP approval organization for clarification (See Driver Codes 5.4 below):

1. Dimensional, material testing, or appearance characteristics do not meet design record requirements and will impact vehicle assembly or customer satisfaction; GM Validation and or Lead Engineer signatures required on the GM 1411 as applicable to items listed

5.3.4 Rejected PPAP – (See AIAG PPAP 4th Section 5, Rejected 5.2.3)

1. The part, associated documentation, testing etc. does not meet design requirements. A resubmission shall be required.
2. The Organization is not authorized to ship any part with a Reject PPAP status.

5.4 Driver Codes

1. Driver Codes are short descriptions that explain why a part does not meet the design requirements. Starting in January 2005, GM implemented the use of Driver Codes to define the acceptance level of a part in the GQTS system
2. Each Lab category has a specific list of applicable Driver Codes; more than 1 driver code may be selected under each lab to describe the status of a part.
3. The applicable Driver Codes should be identified on the PPAP Worksheet GM 1411 and included in Section 3 in the Issues area with the corresponding Action Plans
4. A complete listing of Driver Codes including a Matrix with regional use may be accessed through GM Supply Power at the following web address: https://www.gmsupplypower.com/apps/supplypower/NASApp/spcds/CDSRetrieval?id=55467&togglefolder=2364&doc_lang=en&lob=quality

   NOTE: Driver Codes are updated periodically to reflect current business conditions; GQTS will be updated automatically to reflect changes in Driver Codes when they occur. The Driver Codes Matrix in GM Supply Power will include brief explanations for each Driver Code and direction for regional applicability. The Driver Code Matrix may be accessed through the following web address:

5.5 PPAP Worksheet GM 1411

The Organization is responsible to complete the GM 1411 completely and ensure all information is accurate prior to obtaining any customer signatures. When GM Engineering signatures are required these shall be obtained prior to the GM 1411 being submitted to the responsible customer PPAP organization/SQE.

1. When Required -if a part is being submitted on the PSW for a PPAP status other than Approved (e.g. Saleable or Non-Saleable), a PPAP Worksheet GM 1411 shall be submitted along with the PSW to the Customer PPAP Approval group.
2. Form Completion - the Organization is responsible to complete the GM 1411 following the instructions listed below in 5.5.1 (Instructions are also included as sheet 2 of the GM 1411 form)
3. Required Information - the Organization shall complete ALL information on the GM 1411and ensure information is accurate including dates, action plans and persons responsible for action items **prior** to obtaining signatures from the customer. Forms will NOT be signed or approved if information is missing or not accurate resulting in PPAP status delays.
4. Customer Signatures – the appropriate Organization representative shall obtain GM Engineering signatures prior to obtaining the responsible PPAP organization/SQE signatures as applicable; GM engineering signatures are required whenever item 2 or 3 is checked in Section 2 for Supplier Performance and Validation Requirements.
5. The most current revision of the GM 1411 shall be completed and electronically submitted in GQTS with the completed PSW. The most current revision of the GM 1411 may be accessed through GM Supply Power at the following address: https://www.gmsupplypower.com/apps/supplypower/NASApp/spcds/CDSRetrieval?lob=quality&subnav=library&togglefolder=1604
6. If an extension is required, a new GM 1411 is required with updated information, Action Plans, dates etc., including appropriate signatures; the Organization is responsible to generate the new GM 1411.

5.5.1 Detailed Instructions for Completing the GM 1411

GM Customer Specifics - ISO/TS 16949
March 2006

Issued March 31, 2006

Header Information

Supplier Name:	1	Name assigned to manufacturing location
Supplier Code:	2	Supplier assigned DUNS number of the manufacturing location
Re-submission Date:	3	New promise date or PPAP submission date. The Organization's commitment date to have the Corrective Action Plan item(s) completed and resubmitted to the PPAP responsible group. Part Readiness tracks the re-submission date for follow-up when required. The re-submission date must be prior to the Saleable / Non-Saleable expiration date.
GM 1411 Expiration Date:	4	The expiration date is the last acceptable date an Organization is authorized to make a shipment of the part numbers listed on the GM 1411 form meeting the PPAP status and specific conditions detailed on the GM 1411
Application:	5	List programs where the part is used
Part Name:	6	Engineering released finished end item name
Part Number:	7	GM 8 Did get Part Number submitted for PPAP
EWO # / E 2:	8	Engineering Work Order number or E 2 number, of the associated PPAP submission that authorizes print changes
ECL:	9	Engineering Change level of the associated PPAP submission
ECL Date:	10	Date of Engineering Change Level submission
Submission Level:	11	Submission Level 1-5, Enter the submission level determined by the procuring division
KG Wt.	12	Enter the actual weight in kilograms to three decimal places
Sample #	13	The number of samples received under that part # for a given DUNS location
Inspector/SQE:	14	Customer use only; Inspector or SQE initials
Additional Sample:	15	Additional sample parts required, specified by the PPAP lab
PPAP Activity Code:	16	PPAP Activity Code is a GQTS system generated number assigned to each sample when sample is created in the system

Section 1

Select Master Status :	17	Shade or circle the box corresponding to the Master Status that is being requested; S=Saleable, N=Non-Saleable. Complete Sections 2 & 3, as applicable NOTE: A Non-Saleable status here may be overridden by Section 2 signatures
Lab Status:	18	Enter the appropriate status for EACH Lab; A=Approved, S=Saleable, N=Non-Saleable, R=Rejected, NR=Not Requested

Section 2

Supplier Performance and Validation Requirements	19	This section captures the status of **any** Performance/Validation requirements stated in the Commodity Specific SOR that the Organization (supplier) has responsibility to complete. Item 1, 2, OR 3 MUST be completed with **all** GM 1411 submissions; if there are no Organization (supplier) required Performance/Validation items in the SOR Item 1 should be checked N/A. ~ When external Organization (supplier) Performance/Validation is specified in the SOR, a copy of the GM 3660 with GM Validation Engineer and GM Lead Engineer signatures indicating Sign-Off Complete is required to obtain Approved PPAP. Organization (supplier) to include a copy of the approved and signed GM 3660 form (including required attachments for Proof of Validation Letter and the final GM 1829) with the PSW PPAP submission and retain in their PPAP files.

Complete this section per the following conditions:

Item 1: YES indicates the Organization (supplier) has provided a signed and approved GM 3660 form from the Customer Validation group **and** the Organization (supplier) is requesting a Saleable or Non-Saleable status for a reason **other than** Performance/Validation incomplete; Validation group signatures **not** required on GM 1411; **N/A** indicates no external Organization (supplier) Performance/Validation requirements specified in the SOR and the supplier is requesting a deviation to Approved PPAP status for a **non-validation** related reason.
Item 2: YES indicates requirements 1 & 5 on the GM 3660 are completed making the part a "Saleable Status" but the final GM 3660 is not signed and approved; GM Validation Engineer and GM Lead Engineer signatures required (or per regional direction) on the GM 1411 form; **No** indicates requirements 1 & 5 NOT satisfactorily completed and part is NON-Saleable; GM Validation and GM Lead Engineer signatures (or per regional direction) required on GM 1411 form.
Item 3: NO indicates part is Non-Saleable due to external Organization (supplier) Performance/Validation requirements NOT fully met and/or validation is incomplete; **however,** status is acceptable to move part to "Saleable Status" ; GM Release Director **AND** GM Validation Director, and SQ Director (or per regional direction) signatures required on the GM 1411 form. (Engineering signatures required prior to SQ Director signature).

Section 3

Action Plans Issue:	20	Issues: List all Labs and associated Driver Codes that are preventing this part from reaching Approved PPAP status
Action Plans to Reach Approved PPAP:	21	List specific action plans required to obtain Approved PPAP status for EACH Driver Code (item) ; MUST also include the name of the person responsible to complete the Action Plan
Completion Date:	22	Include the date the Action Plan is to be completed
On GP-12 Plan	23	For each Issue listed, indicate if the GP-12 Plan for this part incorporates any checks associated to the issue listed
Supplier (Authorized Signature):	24	Required supplier authorized signature from the responsible Organization (supplier) official to ensure compliance to the information provided for the Sample Status being requested on the GM 1411.
Customer Approvals:	25	Obtain signatures from the appropriate Customer areas as follows or as specified by regional processes: ~ Supplier Quality Engineer signature required on all GM 1411 forms ~ Product Engineer required when a Design related or validation related issue is listed ~ Validation Engineer required when Performance/Validation issues listed ~ Lab / Material Engineer, Appearance / Paint Engineer and any other signatures such as Buyer, Assembly Plant, Quality Manager etc. signatures required when issues listed involve the specific area and as indicated by regional processes ~ Reference the "Driver Code Guide" for clarification on signatures required for specific Driver Codes. NOTE: Requirements are subject to change and my vary for each procuring division/region, contact the

GM Customer Specifics - ISO/TS 16949
March 2006

Issued March 31, 2006

division/region SQE for details

GM Customer Specifics - ISO/TS 16949
March 2006

Issued March 31, 2006

GM

Instruction Sheet

PPAP WORKSHEET (GM 1411)

Supplier

SUPPLIER NAME: 1 **PART NAME:** 6

SUPPLIER MFG DUNS CODE: 2 **PART #:** 7

GM 1411 EXPIRATION DATE: 3

RESUBMISSION DATE: 4 **EWO #/ E2 #:** 8

APPLICATION: 5 **ECL:** 9 **DATE:** 10

SUBMISSION LEVEL: 11 KG WT: 12

SAMPLE #: 13 INSP/SQE: 14 ADD. SAMPLE: 15 **PPAP Activity Code #:** 16

Supplier/Customer

Section 1 Master Status

17 **Master Status:** Select status being requested and complete section 2 & 3 as applicable **(Shade or circle box)** | **S** | **N** |

18 **Lab Status:** Enter appropriate status for each lab (A=Approved, S=Saleable, N=Non-Saleable, NR=Not requested)

DIM/STAT: ____ **FUN/DUR:** ____ **APP/COL:** ____ **MTL:** ____ **IMDS:** ____ **MTCH:** ____ **TR:** ____

Customer

19 **Section 2 Supplier Performance and Validation Requirements (required unless otherwise specified in the commodity-specific SOR** (Item 1, 2, OR 3 must be checked)

1. Performance/Validation requirements met, signed copy of GM 3660 submitted in package Yes: ____ N/A: ____

2. Performance/Validation requirement items 1 & 5 on GM 3660 completed satisfactorily Yes: ____ No: ____

3. Performance requirements NOT fully met; status acceptable to move to a Saleable status * Yes: ____

* GM Release Director AND Validation Director signature required; may vary per region

GME: If Supplier's Validation is not complete, the Supplier Validation plan with status and timing must be attached

NAVO: For "Approved Status", Action Plans specified below and detailed on Engineering's 5-Phase Action Plan CG180, must be completed as indicated and a signed GM 3660 accepted by the GM Lead Engineer and GM Validation Engineer.

Supplier

20 **Section 3 Action Plans - MUST be completed - Additional sheets attached as necessary**

ISSUES: List Lab and ALL Driver Codes that apply with explanation for each:	21 **ACTION PLANS to reach Approved PPAP and Owner** for each	22 **Comp. Date:**	23 **GP-12 Plan**

24 **SUPPLIER (Authorized signature):** **PHONE:**

NAME AND TITLE (Print): **FAX:**

PART SUBMISSION WARRANT MUST BE INCLUDED WITH CUSTOMER APPROVALS IN ORDER TO PROCESS YOUR REQUEST AND SEND TO THE PROCURING DIVISION.

Customer

25 **CUSTOMER APPROVALS:**	SIGNATURE	NAME (Print)	PHONE	DATE
(as applicable)				
Supplier Quality Engineer:				
Supplier Quality Director:				
Product Engineer (DRE):				
Validation Engineer:				
Release Director:				
Validation Director:				
LAB / Material Engineer:				
Appearance / Paint Engineer:				
OTHER (Buyer, Assembly Plant, etc.):				

PPAP WORKSHEET (GM 1411)

Su

SUPPLIER NAME: _____ **PART NAME:** _____

SUPPLIER MFG DUNS CODE: _____ **PART #:** _____

GM 1411 EXPIRATION DATE: _____

RESUBMISSION DATE: _____ **EWO #/ E2 #:**

APPLICATION: _____ **ECL:** _____ **DATE:** _____

SUBMISSION LEVEL: _____ KG WT: _____

SAMPLE #: _____ INSP/SQE: _____ ADD. SAMPLE: _____ **PPAP Activity Code #:** _____

Sup

Section 1 Master Status

Master Status: Select status being requested and complete section 2 & 3 as applicable **(Shade or circle box)** | **S** | **N** |

Lab Status: Enter appropriate status for each lab (A=Approved, S=Saleable, N=Non-Saleable, NR=Not requested)

DIM/STAT: _____ **FUN/DUR:** _____ **APP/COL:** _____ **MTL:** _____ **IMDS:** _____ **MTCH:** _____ **TR:** _____

Cu

Section 2 Supplier Performance and Validation Requirements (required unless otherwise specified in the commodity-specific SOR (Item 1, 2, OR 3 must be checked)

1. Performance/Validation requirements met, signed copy of GM 3660 submitted in package Yes: _____ N/A: _____

2. Performance/Validation requirement items 1 & 5 on GM 3660 completed satisfactorily Yes: _____ No: _____

3. Performance requirements NOT fully met; status acceptable to move to a Saleable status * Yes: _____

* GM Release Director AND Validation

Su

Section 3 Action Plans - MUST be completed - Additional sheets attached as necessary

ISSUES: List Lab and ALL Driver Codes that apply with explanation for each:	**ACTION PLANS to reach Approved PPAP and Owner** for each:	**Comp. Date:**	**GP-12 Plan**

SUPPLIER (Authorized signature): _____ **PHONE:** _____

NAME AND TITLE (Print): _____ **FAX:** _____

PART SUBMISSION WARRANT MUST BE INCLUDED WITH CUSTOMER APPROVALS IN ORDER TO PROCESS YOUR REQUEST AND SEND TO THE PROCURING DIVISION.

Cu

CUSTOMER APPROVALS: (as applicable)	SIGNATURE	NAME (Print)	PHONE	DATE
Supplier Quality Engineer:				
Supplier Quality Director:				
Product Engineer (DRE):				
Validation Engineer:				
Release Director:				
Validation Director:				
LAB / Material Engineer:				
Appearance / Paint Engineer:				
OTHER (Buyer, Assembly Plant, etc.):				