Delphi Customer Specific Requirements

For Use with ISO/TS16949: 2002
and ISO 9001: 2000

Effective February 15, 2009

Introduction

This document is structured as a companion requirements document to ISO/TS 16949:2002. The paragraphs to this document are numbered to correspond with the paragraphs to ISO/TS 16949:2002. Where guidance by the customer is referenced, a requirement will be stated to clarify the Delphi interpretation. The requirements of all stated documents are applicable.

Exceptions to any part of these requirements must be approved in writing by the appropriate Delphi functional area contact. Key contacts for interpretation of this requirements document are:

Delphi Corporation:
Robert Todak - robert.todak@delphi.com 716-439-3221 (ISO/TS support)
Linda Nelson - linda.m.nelson@delphi.com 317-402-8670 (Current Production)
Tracy White - tracy.b.white@delphi.com 248-813-6808 (APQP)

1. Scope

This document applies only to external automotive direct suppliers to Delphi.

ISO/TS 16949:2002 and this document define the fundamental quality system requirements for Delphi Corporation. This document contains the Delphi specific requirements supplemental to Technical Specification, ISO/TS 16949:2002, and may also apply to ISO9001:2000 and other similar registrations as applicable and developed within this document.

Indirect and service providers are not included in this requirement, e.g. distributors adding no manufacturing value (Ref. Section 4.1.h), logistics, sequencers, parts packagers, tooling & equipment, Delphi Product & Service Solutions suppliers.

The US English language version of this document shall be the official version for purposes of third party registration. Any translations of this document will be for reference only.

Copies of this document are available at: Delphi Corporation: New Delphi Suppliers and www.aiag.org.

Note: The Delphi Product & Service Solutions (DPSS) Customer Specific Requirements apply to suppliers providing product or services to Delphi Product & Service Solutions (DPSS).

2. Normative Reference Documents

The following reference documents are vital to the development of a quality system that meets Delphi's standards. Therefore, it is expected that the supplier will have the following documents.

Production Part Approval Process, PPAP
Statistical Process Control, SPC
Potential Failure Mode and Effects Analysis, FMEA
Advanced Product Quality Planning and Control Plan, APQP
Measurement Systems Analysis, MSA

Heat Treat Manual (CQI-9 Special Process: Heat Treat System Assessment)
Coating System Manual (CQI-12 Special Process: Coating System Assessment)
Plating System Manual (CQI-11 Special Process: Plating System Assessment)
IATF Guidance to ISO/TS16949:2002: AIAG Edition, 2002.
Automotive Certification Scheme for ISO/TS 16949:2002, Rules for Achieving IATF Recognition, Second Edition for ISO/TS 16949:2002, May 2004.
Technical Specification ISO/TS 16949:2002
Delphi Global Packaging and Shipping Manual

The latest edition of the reference documents listed applies unless otherwise specified by the Delphi procuring division. Copies of **PPAP, APQP, FMEA, MSA, SPC, CQI-9 Special Process: Heat Treat System Assessment, Coating System Manual (CQI-12 Special Process: Coating System Assessment), Plating System Manual (CQI-11 Special Process: Plating System Assessment), IATF Guidance, ISO/TS 16949:2002 Rules, 2nd Edition, and ISO/TS 16949:2002** and other related manuals are available from the AIAG at 1-248-358-3003, or at the following link: www.aiag.org. Copies of ISO documents are available from the American National Standards Institute (ANSI) at (212) 642-4980, or webstore.ansi.org.

3. Terms and Definitions

AQE- Advanced Quality Engineering (AQE) is a group of engineers within Delphi responsible for assessing potential suppliers and taking contracted suppliers through the APQP process until the product is into production. In some regions, the SQE may perform this role.

ASN- Advanced Shipment Notification

Capacity Verification- A verification methodology to demonstrate that a supplier can meet the capacity planning volume requirements as defined in the DGSM Request for Quote (RFQ).

Covisint- Covisint is a business-to-business company that provides services and tools in an online environment.

DGSM- Delphi Global Supplier Management (Delphi's Purchasing and Logistics Organization)

DSP- Delphi Supplier Portal- The Delphi Supplier Portal (DSP) is a web site, accessible through the Internet that allows suppliers to access useful information and interact with Delphi. It is the single point of e-contact between Delphi and its supply base. DSP acts as an integration point for Delphi to enable common systems and processes.

Delphi Divisions: (effective July 1, 2006)

Electronics and Safety Division
Thermal Systems
Powertrain Systems
Electrical/Electronic Architecture Division

Product & Service Solutions
Steering Division
Automotive Holdings Group (AHG)
Shared Services

DUNS Number- A nine-digit number assigned and maintained by Dun and Bradstreet to identify unique business establishments. DUNS numbers are assigned worldwide and include US, Canadian, and international organizations. Delphi also has a process for generating Delphi User Block numbers when a DUNS number cannot be assigned by Dun and Bradstreet.

External Direct Suppliers- Suppliers to Delphi excluding Delphi owned divisions, subsidiaries, or joint ventures with greater than 50% ownership that manufacture customer specified parts for production or service.

Family Parts- These are groups of parts processed on the same production line, using the same control plan, PFMEA and process equipment. The parts differ only in end item value. PPAP for the "family" is approved by using the extreme values of the "family" specification to define the "family" boundary.

FTQ- First Time Quality (FTQ) is defined as a measure of the number of pieces rejected in a manufacturing process versus the total number of pieces attempted. First Time Quality can be measured at any step in the manufacturing process where parts are rejected. First Time Quality is reported in parts per million (PPM) defective.

Gate Chart- A matrix chart used to track and report warranty, customer returns, or first time quality claims. This chart documents problem resolution and monitors effectiveness of corrective actions over time.

GSM- Global Supply Management

Problem Case- A Delphi Problem Solver document to track supplier performance issues that impacts a supplier's Scorecard.

Responsible- The supplier is held accountable to manage and meet the mandatory requirement without the need for direct Delphi verification.

RFQ- Request for Quote

SCRR- Supplier Change Request / Review form - a supplier must notify the responsible customer of any design and process changes as defined in the PPAP manual. This form shall be submitted through the Delphi Supplier Suggestion/Change Request Program application located on the Delphi Supplier Portal.

Supplier Suggestions for Cost Savings- The SCRR form is also used to submit supplier cost savings suggestions and ideas to Delphi. This form shall be submitted through the Delphi Supplier Suggestion/Change Request Program application located on the Delphi Supplier Portal.

Shall- The word “shall” indicates a mandatory requirement.

Should- The word “should” indicates a recommendation.

Site- A specific supplier physical location under one address, such as a manufacturing plant, that can be assigned or has a DUNS or User Block number.

SQE- Supplier Quality Engineer (SQE) is the group of engineers within Delphi responsible for managing the current production quality issues and continuous improvement with supplier.

Sub-supplier- Providers of production materials, production or service parts, assemblies, heat-treating, welding, painting, plating, or other finishing services directly to any Delphi supplier**.**

Supplier- Producers of production materials, production or service parts, assemblies, heat-treating, welding, painting, plating, or other finishing services that ship to Delphi or Delphi’s customers.

ISO/TS Clause/Sub-clause #		Supporting Documentation, Forms, or Reference
	4. Quality Management System	
4.1	**General Requirements**. The entire facility shall be registered to the applicable standard. Delphi satisfies the goal of supplier conformity to ISO/TS16949: 2002 as follows (Also see section 4.2.2, 7.4.1.2., and 7.2.3): a. Registration to ISO9001:2000 (minimum) or TS16949:2002 (preferred) applies to suppliers that manufacture direct product or materials to Delphi. b. Suppliers are responsible to comply with Delphi Corporation Customer Specific Requirements. c. Delphi Corporation shall be added to the scope at initial certification or recertification to TS16949:2002. d. Only accredited certification bodies shall be used for registration to ISO9001:2000 or TS16949:2002. See attached links for official lists. e. Every manufacturing site of a supplier to Delphi shall be individually registered either by single site or by corporate scheme. (See IATF Certification Reference or consult the certification body) f. A clear summary definition of what product value added process shall be included in the registration scope (Example: manufacturing, assembly, etc.) along with the address for each manufacturing site.	ISO/TS 16949:2002 Certification Body Official List ISO9001:2000 Certification Body Official List

	g. Suppliers of non-automotive product should contact their Delphi buyer for specific requirements. h. It is the responsibility of distributors or non-manufacturing suppliers to Delphi to ensure their suppliers are certified to either ISO9001: 2000 or ISO/TS 16949:2002. NOTE: Third party certification does not relieve the supplier of the full responsibility of the quality and delivery of the product supplied. NOTE: When a supplier to Delphi either: Provides less than $100,000 APV, and may not have adequate resources to develop a system according to ISO/TS16949: 2002 or ISO 9001:2000, or has automotive business that is less than 10% of their total business. Delphi may waive the ISO/TS16949: 2002 or ISO9001: 2000 requirements. Delphi may also consider the type of product supplied, quality system, manufacturing and delivery systems capability, and any risk to Delphi prior to granting any waiver. See 7.4.1.2 for further clarification of other applicable standards and the requirements.	
4.2.2	**Quality Manual**. All ISO/TS 16949:2002 requirements and the requirements of this document should be integrated into the supplier's quality system.	www.aiag.org
4.2.4.	**Control of Records.** Production part approvals, tooling records, purchase orders and amendments shall be maintained for 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 Delphi for their respective products. This includes any Delphi owned tooling. Production inspection and test 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 inspection shall be maintained for each inspection or test performed. The actual test result (variable or attributes) should be recorded. (Ref. Section 8.2.4.1) Records for internal quality audits and management review shall be retained for three years. Some programs may require longer retention periods than specified above. A supplier may specify the longer retention period in its procedures or specifications.	

	The above shall not supersede any regulatory requirements.	
	5. Management Responsibility	
5.1.1	**Process Efficiency**. Refer to and apply ISO/TS 16949:2002, Section 5.1.1.	www.aiag.org
5.5.2.1	The Supplier's Customer Representative (Primary Delphi Global Contact) is the primary interface to Delphi (Refer to section 7.2.3).	
5.6	**Management Review**. The supplier management is responsible to hold regularly scheduled Quality/Business Operating System performance meetings to review the customer-focused metrics, objectives, and performance trends. Quality and delivery metrics shall be included in the supplier's management reviews and shall use zero defects and 100% on time as the goals. (Refer Section 7.5.1.4)	
	6. Resource Management	
6.2.2.2	**Training**. Refer to and apply ISO/TS 16949:2002, Section 6.2.2.2.	www.aiag.org
6.3.1	**Plant, Facility and Equipment Planning**. To become a Lean Enterprise, a supplier should utilize Value Stream Mapping and other lean tools. Delphi is committed to working with its suppliers to establish a lean enterprise and may engage suppliers in lean supplier development workshops.	www.lean.org
6.3.2	**Contingency Plans**. The supplier shall prepare contingency plans to satisfy Delphi requirements in the event of any production interruption. When the supplier becomes aware of an impending production interruption, the supplier shall make every attempt to notify the Delphi receiving plants (Production Control), the buyer and the SQE within 24 hours. The nature of the problem shall be communicated with the immediate actions taken to assure supply of product. Production interruptions may include (but are not limited to) natural disasters, political unrest, war, capacity issues, quality issues, labor strikes, planned down time or other events that prevent the supplier from meeting the specified capacity volumes or from performing/submitting any APQP event or task that would impact program launch or timing. (i.e. R@R or PPAP). The supplier is required to advise Delphi of the plan for recovery and work toward minimizing its effect on the Delphi plant. Supplier shall provide their contingency plans to Delphi if requested.	
	7. Product Realization	
	APQP	
7.1	**Planning of Product Realization**. The Advanced Product Quality Planning and Control Plan reference manuals shall be used to develop and report progress on new programs. For reporting of APQP status, suppliers shall utilize the associated forms and process flows unless otherwise identified or approved by the responsible AQE/SQE.	Frequently Used Documents

	Supplier Performance Development Process (SPDP). Delphi's process for developing and managing suppliers' quality is the SPDP process. SPDP contains the major standards for Advanced Quality planning and current production cycle. The supplier documents will be posted on the Supplier Portal. (Refer to Section 7.2.3) The Delphi responsible AQE/SQE will communicate any waivers from these processes.	
7.2.1.1	**Customer-designated Special Characteristics**. If Delphi has defined specific symbols for use on control plans, drawings or FMEA's, they must be used. If so, the AQE/SQE will notify the supplier of those requirements. If Delphi has provided no symbols, then the supplier shall define a symbol set consistent with critical and significant characteristics.	
7.2.2.2	**Manufacturing Feasibility**. Suppliers shall perform Manufacturing feasibility reviews and shall include supplier and Delphi team members as appropriate. Product volume changes of 20% or more from Delphi over a previously verified volume capability shall require full volume feasibility studies. The capacity study shall include identification of the capacity constraints and evaluation of risk to Delphi by the supplier. The results of this study shall be provided to the responsible Delphi SQE/AQE. The capacity information provided with the quote should reflect the available daily capacity and operating plan (hrs. /day, days/week). The operating plan should meet weekly volume requirements and current model service requirements and should be 100 hours per week or less. The buyer shall be notified and approve of any operating plan using more than 100 hours per week. Suppliers shall be responsible to have capability to provide 15% above the quoted volume without additional investment from Delphi.	
7.2.3	**Customer Communication.** Suppliers shall register to the Delphi Supplier Portal (DSP) through Covisint and register a Supplier Profile Administrator as required for their locations. DSP is an Internet supplier portal that provides easy access for real time information. DSP acts as an integration point for Delphi to enable common systems and processes. It is the single point of e-contact between Delphi and its supply base. Suppliers are responsible to have the appropriate hardware and software needed to access and use the applications within DSP. It is the supplier's responsibility to obtain and maintain a Duns and Bradstreet DUNS number(s) to support the DSP system applications. (See the Delphi Supplier Portal registration link.) Subscription to Problem Solver is a requirement for manufacturing locations conducting business with Delphi. Suppliers are responsible to have on-line access to our Problem Case system (Problem Solver) to receive copies of problem cases from Delphi	Covisint Registration Link Delphi Supplier Portal Registration Regional Help Desk Numbers Appendix 32 - Supplier Change Request

	and to respond to the Problem Cases. The supplier is responsible to regularly access the system, minimum weekly. However, suppliers shall monitor their problem cases, as they are generated and respond as required. Suppliers who are RED in their Compliance Scorecard for Problem Solver registration will be responsible to take and expedite appropriate corrective action steps. The supplier is responsible to have at least one person for their company, and one back up (preferred) at each of their locations who is familiar with the DSP Applications and the Delphi help desk. The supplier is responsible to utilize the Delphi help desk resource to help resolve DSP problems as needed. **Quality Certification Certificate**. The latest valid and complete quality management system certificate (refer to section 4.1 and Scope section 1) shall be posted in the Supplier Profile application on the DSP and approved by Delphi. Supplier quality certificates should be in English or include an accurate English translation on them. Suppliers are responsible that their certificate name and address information matches the DUNS location that is in Supplier Profile. **Ownership Change.** The supplier shall notify Delphi of any change in ownership immediately. **Manufacturing Site Change**. The supplier shall notify Delphi of any change in Manufacturing site location immediately. Refer to the Delphi Supplier Change Request Program. **Customer Representative Change.** When the customer representative changes, the supplier is responsible to update contact information in the Supplier Profile application on the Delphi Supplier Portal. The Supplier should also notify the impacted Delphi functional areas (GSM, SQE, Engineering and/or Production Control) within 10 business days. **Certification Body/Registrar Notification**. Suppliers registered to ISO 9001:2000 or ISO/TS 16949:2002 are responsible to notify Delphi of certificates being revoked or placed on suspension. Suppliers are responsible to notify their Delphi SQE if they plan to change registrars. **Inquiries** - All suppliers shall respond to all inquires in writing or via E-mail on or before the due date stated on the inquiry. **Suppliers Shipping Into the United States, Customs-Trade Partnership Against Terrorism (C-TPAT).** Delphi suppliers shipping goods into the United States shall provide and verify all information required in the C-TPAT tab portion of Supplier Profile for their applicable DUNS number locations.	Program
7.2.3.1	**Customer Communication- Supplemental**.	

	Suppliers within North America (NAFTA - North American Free Trade Agreement). It is the responsibility of suppliers of direct automotive parts to provide the most current, valid, and appropriate Certificates of Origin and Manufacturer's Affidavit by part number and manufacturing site to Delphi. It is the responsibility of suppliers of direct automotive parts to Delphi to renew NAFTA Certificates of Origin by January 1st of each new year. NAFTA Certificates of Origin only apply to the following countries – United States, Canada and Mexico. The NAFTA Certificate of Origin is needed for the following reasons: • To avoid paying duties into United States, Mexico and Canada • To meet other requirements	
	Supplier shall forward all completed NAFTA / Manufacturer's Affidavit / Additional Plant Shipping forms to the attention of the "Trade Programs Group – NAFTA" using only one of the following options: Option 1 - Email Address provided. Option 2 - Fax Fax #1 – 915-612-6628 Fax #2 – 915-612-6763 Option 3 - Mailing Address M/C: 799-MTC-309 Attention: Trade Programs Group - NAFTA 48 Walter Jones Blvd. El Paso, TX 79906-5315	Email address: DelphiACustomsNaftaRequest@delphi.com Additional Plant / Shipping Location
	Certificate of Origin. To Obtain a NAFTA Certificate of Origin form (CF434), and for Instructions on how to fill out the form, go to the Customs and Border (CBP) Website for a printable on line version. **Country of Origin for Delphi Declarations.** Delphi relies on the supplier provided Manufacturing DUNS for our Country of Origin declarations for supplier provided purchased parts and products. If the manufacturing DUNS address is incorrect or does not reflect the country of manufacture of the product, the supplier is responsible to provide Delphi the correct information in writing without delay. (Refer to section 7.5.3 and 7.5.5) **Shipping Goods Across Borders.** Reference Shipping Goods	NAFTA form and instructions printable version (PDA): NAFTA Form and Instructions NAFTA form and instructions On-line version: NAFTA Form and Instructions On Line Shipping Goods Across

	Across International Borders link. Includes Manufacturer's Affidavit instructions and template for supplier use.	Borders
7.3.1.1	**Multidisciplinary Approach.** A multidisciplinary approach is required for product realization preparation. Refer to and apply section 7.3.1.1 of ISO/TS 16949:2002.	www.aiag.org
7.3.2.3	**Special Characteristics.** (See 7.2.1.1)	
7.3.3.2	**Manufacturing Process Design (Equipment).** Refer to and apply requirements stated in ISO/TS 16949:2002, Section 7.3.3.2.	www.aiag.org
7.3.4	**Design and Development Review**. When reviewing product design and development stages, the supplier shall participate in and execute APQP requirements.	
7.3.5	**Design and Development Verification**. The supplier shall perform design verification to show conformance to Delphi design validation and qualification requirements. At component levels, the supplier shall develop a qualification plan with the design engineering activity at Delphi. Verification methods shall be recorded with the test results. Go/No Go results shall be avoided and where applicable the actual value for variables data will be recorded. Requirements documents are available from Engineering.	
7.3.6.2	**Prototype Program.** Prototype requirements shall be documented through the Delphi DGSM Buyer for that specific program. It shall be the supplier's responsibility to request confirmation of the need for prototype control plans, FMEA's, etc. from Delphi engineering. NOTE: Prototype control plans do not apply to bulk materials. NOTE: Prototype control plans may be required on High Impact parts as defined by Delphi during program development. **Prototype Parts Provision.** Delivery date(s) for samples of prototype components shall be established by Delphi and noted on the purchase order. The delivery date(s) reflect the date(s) parts are to be received at Delphi's docks. All prototype components and shipments shall be identified as prescribed in any relevant documents provided by the receiving Delphi Unit regarding its Prototype Procedure. The supplier shall submit inspection reports with sample delivery as required by the Receiving Unit's Prototype Procedure. If review of the inspection report indicates that the parts do not agree with the prints or examination of the parts discloses an unsatisfactory condition not covered by the report, it shall be the supplier's responsibility to resolve all discrepancies with the Delphi Product Design Engineer. This needs to be communicated in	

	writing to the Delphi buyer. If resolution of the discrepancy results in a tooling, material or processing change, the supplier will correct the situation (at the supplier's expense), resubmit an inspection report on the revised parts, and communicate the resolution in writing to the Delphi buyer as soon as possible.	
7.3.6.3	**Product Approval Process**. The supplier shall comply with the current edition of AIAG Production Part Approval Process (PPAP) manual unless otherwise specified by Delphi. Copies of supplier PPAP's will immediately be made available upon request from Delphi.	Appendicies
	On new or revised materials, notification of PPAP acceptance by Delphi does not authorize shipment. Shipping authorization for the initial shipment will be issued by Delphi Production Control and will contain the delivery due date, quantity to be shipped, and change level to which the material will comply.	
	Run at Rate. When specified in the APQP process, Run at Rate shall be performed as a method for production capacity and quality system verification. The supplier is responsible to develop and implement a FTQ improvement process with appropriate alarms and reaction plans defined. FTQ issues should be prioritized with action plans showing continual improvement over time. A FTQ improvement process should be implemented during APQP and PPM calculations verified at PPAP and Run at Rate. The goal of FTQ should be zero PPM. NOTE: Commodity or batch based products may demonstrate run at rate by a process analysis to determine constraints and show sufficient capacity is in place to support the product release rates.	
7.3.7	**Control of design and development changes**. This requirement includes changes to part design, material, and sub-tier supplier, manufacturing location or process. (Follow AIAG PPAP, current edition). All proposed changes including but not limited to design, process, component, packaging, component suppliers, or facilities, and site changes including supplier proprietary designs shall be submitted to Delphi for approval and obtain concurrence on effect on the part fit, form, function, finish, and durability prior to implementation. The supplier shall not make any changes without prior written notification and approval from Delphi. The supplier shall retain approved change requests, for the life of	See AIAG PPAP manual Appendicies

	the material. Initial shipments of new or revised material will be appropriately labeled with the change level until notified by Production Control, that all superseded materials, have been cleared from the supply chain. **Delphi requested changes** require timely response to Buyer. Response to product or pack change requests shall be reviewed and responded to within 10 business days. **Supplier Change Requests.** Suppliers are responsible to communicate supplier change requests through the Supplier Portal (Refer to Section 7.2.3) for all Delphi divisions via the Delphi Supplier Suggestion/Change Request Program (DSS/CRP) located on the Delphi Supplier Portal (Appendix 32).	
7.4.1.1	**Regulatory conformity** **Material Expectations**. Suppliers shall provide samples, testing, environmental and MSDS (Material Safety Data Sheet) information in the timeframe requested. MSDS is required for bulk or raw materials. MSDS is also required for any rust preventative, grease, lubricating oil, or other chemical material that is on a part or assembly provided to Delphi. Suppliers should be able to provide same material on a global basis, if requested.	
	Substances of Concern and Recycled Content. Materials disclosure is required as follows. Global legal requirements and customer specifications necessitate the need for material content and substance disclosure. The reporting requirements are detailed in the Delphi 10949001 Substances of Concern and Recycled Content specification. This requirement applies to all parts and raw materials that become part of a Delphi saleable product or end item. The specification is part of the standard engineering drawing template and is posted in the Delphi Supplier Portal.	Material Specifications - Substances of Concern
7.4.1.2	**Supplier Development of Specially Designated Small Sub-Suppliers of Direct Automotive Product and Materials.** When a sub-supplier to Delphi is so small as to not have adequate resources to develop a system according to ISO/TS 16949:2002 or ISO 9001:2000 or supplies non-engineered products, certain specified elements may be waived by the Delphi supplier. “Small” here above may refer to the volume supplied to the automotive industry or to the supplier. The Delphi supplier shall have assessment criteria applied consistently to determine the specially designated sub-suppliers for which this provision may apply. Suppliers to Delphi that are certified to ISO/TS16949: 2002 or ISO 9001:2000 may use the Delphi Manufacturing Capability Assessment.	

	At a minimum, the Delphi supplier should assess the sub-supplier's size, dollar value of the business, type of product supplied, quality system, manufacturing and delivery systems capability, and any risk to Delphi. Suppliers are responsible for ensuring that sub-suppliers develop a quality management system that facilitates defect prevention, monitoring, and improvement. The supplier is responsible to manage production risk through sourcing to financially stable sub-suppliers and monitoring sub-supplier financial stability.	
7.4.3.1	**Incoming Product Quality.** The supplier shall be responsible for the quality of the parts it produces, their sub-supplier's quality and delivery performance, and subcontracted services, including sub-suppliers directed by Delphi. When the supplier determines incoming inspection of sub-supplier material is necessary, this activity shall be consistent with the risk and quality impact of the supplier. These inspections shall include variables data where appropriate and be used as a key indicator for sub-supplier quality management. Where high risk has been identified in the sub-contracted process, the supplier shall ensure containment is in place to protect the customer. For attribute data sampling, the acceptance level shall be zero defects. Suppliers are responsible to select sub-suppliers (i.e. Heat Treat, Plating) based on Delphi's expectation of Zero Defects, and on the sub-supplier's capability to continually maintain robust processes throughout the life of the product that meet all of Delphi's product requirements. All risks are the responsibility of the supplier to be carefully and correctly evaluated, and to take actions necessary to eliminate any potential risks to Delphi. To assist in the selection and evaluation of sub-suppliers, Manufacturing Capability Assessment is optional, and CQI-9 Special Process: Heat Treat System Assessment (HTSA) published by AIAG is required when heat treating is part of the supplier's value stream. When product coating is part of the sub-supplier's value stream, CQI-12 Special Process: Coating System Assessment is recommended. When plating is part of the sub-supplier's value stream, CQI-11 Special Process: Plating System Assessment is recommended. Suppliers should seek any additional expertise that is necessary, based on the particular sub-processing technology to ensure they are able to select a capable supplier and ensure on-going performance.	Manufacturing Capability (Appendix 58-1 - MCA) (Not Required), and CQI-9 Special Process: Heat Treat System Assessment (HTSA) published by AIAG (Required). www.aiag.org
7.4.3.2	**Supplier Monitoring** Refer to and apply requirements stated in ISO/TS 16949:2002, Section 7.4.3.2..	www.aiag.org
	FMEA and Control Plan Approvals. Delphi Design engineering and Supplier Quality approval is required for FMEA's and control	

7.5.1.1	plans for designated safety items regardless of the site PPAP level. Approval may take the form of PSW approval but the preferred method is to sign the documents. Approval of changes to these documents after initial acceptance is also required. Delphi reserves the right to require approval of FMEA and/or control plans for any part or process from any supplier.	
	FMEA's. The supplier shall prepare documented process FMEA's for all part numbers supplied to Delphi. Where the supplier is responsible for design, the supplier shall prepare documented design FMEA's for all parts it designs for Delphi. FMEA's may be written for families of parts where batch processes and common tooling is used. Families shall be clearly defined and have a full part number listing of the family. Delphi engineering and Supplier Quality shall approve the family designations. Upon request by Delphi, the supplier shall provide a copy of the FMEA documents for review. If the document is considered proprietary, the supplier may provide the applicable section, or provide qualified technical support and bring the FMEA to the requestor for review without retention of copies. A letter stating the proprietary nature shall be included in the Production Part Approval submission package. FMEA's are to be prepared using the AIAG Potential Failure Mode and Effects Analysis reference manual unless otherwise approved by Delphi Supplier Quality. NOTES*: When developing PFMEA's for production parts or material supplied to Delphi, the Delphi rating tables for 'Severity', '**O**ccurrence' and **D**etection shall be used in place of the rating tables referenced in AIAG FMEA 3rd edition, unless otherwise approved by Supplier Quality, based on the specific part or program circumstances. Approval by Delphi of a supplier's PPAP will serve as the approval for the rating method utilized. Potential failure modes with a severity of seven or greater shall be continually improved to reduce the occurrence to a one or reduce the detection to a five or lower.	The AIAG information can be found at: www.aiag.org The AIAG information can be found at: https://delphi.covisint.com/wps/private/delphi/_l/en • Log in using your password and user ID • Go to Frequently Used Documents Section • Select Supplier Standards Link • Select Attachments, Forms and Additional Information Link • Select APQP Forms Link
	Control Plans. The Advanced Product Quality Planning and Control Plan manual, available from AIAG, should be used as a guide in developing and maintaining control plans. A change history shall be maintained as part of the control plan to document implementation of changes.	www.aiag.org

	Delphi reserves the right to require approval of control plans for any part from any supplier. All Delphi parts shall have Control Plans. Family control plans may be used for parts with common processes. The family shall be clearly defined on the control plan so that applicability is defined. Design and process controls shall focus on prevention rather than detection and correction. Special attention shall be placed on the identification of input control characteristics rather than the post processing inspection and containment. Repaired, reworked, or out-of-process product shall be re-inspected to all control plan requirements and documented procedures. The supplier shall develop a control plan that includes, as a minimum, the elements as specified in ISO/TS 16949:2002, Annex A.	
7.5.1.3	**Verification of Job Set-ups.** Set-up verification requirements shall include manual tooling exchanges.	
7.5.1.4	**Preventive and Predictive Maintenance.** The supplier shall have a documented system for preventive maintenance. Refer to ISO/TS 16949:2002, section 7.5.1.4	www.aiag.org
7.5.1.6	**Production Scheduling**. Delphi suppliers shall electronically receive ship authorizations, schedules and forecasts, and send ASN's at the time of shipment.	• Reference "Other Delphi Requirements" under "Shipping"
7.5.2	**Validation of processes for production and service provision. Special Processes –** For suppliers of heat treated, coated, or plated products, suppliers shall comply with the requirements documented in CQI-9, 2nd Edition, Special Process: Heat Treat System Assessment (HTSA), CQI-11 Special Process: Plating System Assessment (PSA), CQI-12 Special Process: Coating System Assessment (CSA), published by AIAG. Suppliers are responsible to apply these requirements to applicable sub-suppliers pursuant to Clause 7.4.1.2.	• www.aiag.org

7.5.3	**Identification and Traceability Labels**. For all Delphi destinations, materials shall be identified in compliance with Delphi Shipping/Parts Identification Label Standard. A sample or facsimile of your label shall be provided with your Part Certification package. Shipping containers shall be identified with the material's appropriate "COUNTRY OF ORIGIN". Containers must be identified with their own country of origin. A legible packing slip shall be affixed next to the master label when skid packed and next to the container label if the shipment is a single container. • Master packing lists are required for each supplier shipment, with individual packing lists on each skid listing the materials on that particular skid. • Master and skid packing lists must be identified with the word “Master” or “Skid” Packing list. • Each packing slip (both master and individual skid) shall contain the formation as referenced in the Label Specification links.	Label specifications links: North American Label Specifications European Label Specifications
7.5.4	**Delphi Property Returnable Containers.** Delphi will control the ownership of all returnable container systems. The supplier is responsible for tracking and maintaining (including repairs and cleaning) returnable containers in their possession.	
7.5.4.1	**Tool inventory/Disposal**. The supplier shall furnish a tool inventory of all Delphi-owned tools (active and inactive) in the supplier’s possession. The tool inventory shall be submitted to the Delphi buyer annually by January 31. The inventory shall contain the following information for each Delphi-owned tool: Tool part number(s) (typed in numerical order) Current tool revision Description Date parts last ordered Total cost of tool Quantity of parts produced from tool Remaining tool life Indicate previous part number if tool has been changed to produce a new part number Delphi Design Engineer name Delphi will determine the disposition of all Delphi-owned tooling and such disposition will be communicated to the supplier in writing by Delphi with a formal letter and a Return Material Authorization. If requested by Delphi, supplier is to mark tooling Property of Delphi, or Property of Delphi’s customer, as applicable.	

7.5.5	**Preservation of Product.** **Packaging**. Suppliers shall provide packaging in accordance with the Delphi Global Supplier Packaging and Shipping Manual (DAS-GSPM). Any deviation from the guideline shall be directed to the Delphi buyer and approved by Delphi. Suppliers must have access to the Delphi Supplier Portal for communication. The supplier is responsible for maintaining up to date Supplier Packaging Information (SPI) forms and supplier profiles of manufacturing sites. Changes to requirements will be documented through supplier bulletins and compliance time specified within the bulletin.	Delphi Packaging Manual Supplier Packaging Information Form
7.5.5.1	**Storage and Inventory.** Refer to and apply requirements stated in ISO/TS 16949:2002, Section 7.4.3.2.	www.aiag.org
7.6.1	**Measurement System Analysis**. Each gauge used for checking a special characteristic (significant, critical or supplier identified) shall have a gauge study performed in accordance with the methods and timing described in the latest AIAG Measurement Systems Analysis Manual (MSA) to determine measurement system capability. Critical characteristic features or dimensions should have the complete MSA (Bias, Linearity, Stability, Reproducibility, and Repeatability) performed on the gauge or equipment used to evaluate the characteristic. Note: A supplier defined adequate method may be used for evaluating Linearity. Gauges not meeting the specification in the MSA shall have a containment plan (such as 100% inspection, gauge improvement, or other means). Gauge study records shall be maintained. Requirements shall apply to measurement systems referenced in the control plans. (See Appendix 28)	Appendicies
7.6.3.1	**Internal Laboratory**. Refer to and apply ISO/TS 16949:2002, section 7.6.3.1.	www.aiag.org
7.6.3.2	**External Laboratory.** Refer to and apply ISO/TS 16949:2002, section 7.6.3.2.	www.aiag.org
	8. Measurement, Analysis and Improvement	
8.1.1	**Identification of Statistical Tools.** The supplier should use the latest edition of AIAG SPC for manufacturing process controls and AIAG MSA for measurement system equipment management.	
8.2.1	**Customer Satisfaction**	
	Scorecards. Delphi uses the quality section of the Supplier Scorecard to monitor supplier quality performance and drive corrective actions for quality improvement. The Delphi Scorecard provides on-going assessment of quality and delivery performance. Suppliers are responsible to review and verify this monthly update and ensure action plans are developed as applicable to achieve green scorecards. **Scorecard Usage to Drive Improvement**. In the event the	

	scorecard has red indicators or quality scores, the supplier is responsible to establish aggressive plans to drive improvement to green and may enter specific SPDP processes as directed by their SQE or AQE. Suppliers who have yellow quality scores should "stop and take caution" to understand what has driven their scorecard to this level and have action plans to improve to green. Suppliers who are in Controlled Ship Level 2, in New Business Hold, or have a 12 month average quality score of red on their quality scorecard are responsible to take and expedite appropriate corrective action steps. Delphi expects suppliers to establish processes and designs with the ultimate goal of achieving zero defects,100% on time delivery, and green scorecards. **Scorecard Contact Review**. Suppliers are required to review the supplier contact information monthly. Failure to do so will impact the Compliance Scorecard. **Supplier Quality Certification Compliance Scorecard.** Supplier scorecard ratings regarding quality certification requirements are as follows (Refer Sec. 7.2.3): • **Green** – Supplier is certified to minimum requirement of ISO 9001:2000 or the preferred ISO/TS 16949:2002 and has a valid certificate in DSP. • **Yellow** - Supplier has uploaded a valid Start-Up plan for certification to ISO9001:2000 or TS16949:2002 or Delphi has a valid WAIVER in DSP. • **Red** – Supplier is not certified to ISO 9001:2000 or ISO/TS 16949:2002, or allows their certificate to expire. This is not an acceptable certification status. • **NR** – Supplier certification to ISO9001:2000 or TS16949:2002 is 'Not required' by Delphi.	
8.2.2	**Internal Audit**. Internal auditors shall be qualified as recommended in ISO 19011 Guidelines for Quality and/or environmental management systems auditing, Sections 7.1 through 7.5. In addition, internal auditors shall be competent in understanding and applying the Process Approach of Auditing (see ISO/TS 16949:2002, Section 0.2, Process Approach, 8.2.2.1 through 8.2.2.5), the Core Tools (such as PPAP and reference manuals that include APQP, MSA, SPC and FMEA or equivalent VDA documents), and Delphi Customer Specific Requirements, as applicable.	www.aiag.org webstore.ansi.org

8.2.2.2	**Manufacturing Process Audits.** Refer to and apply ISO/TS 16949:2002, section 8.2.2.2.	www.aiag.org
8.2.4	Engineering Specification (ES) Test Performance Requirements In process (IP) testing to the ES is typically specified through an IP test plan/control plan or in the ES. The supplier shall develop a plan to meet those requirements and submit them for approval as part of the PPAP package. Reaction plans to failures shall be included in the IP test plan. Family data shall not be used unless it can demonstrate that the products are a "family" that uses the same process equipment and process specifications. Clarification or approval of the use of family data shall be through Delphi Supplier Quality.	
8.2.4.1	**Layout Inspection and Functional Testing**. It is the supplier's responsibility to annually perform a layout inspection and functional verification (to all engineering material and performance requirements). If discrepancies are found at this point, supplier is responsible to contact Delphi to evaluate corrective action impact. After correction action and communication of the updated documents to Delphi, acceptance is subject to approval by Delphi Supplier Quality. Family data may be used if developed within the prior twelve months and if it meets the requirements of ISO/TS 16949:2002. Delphi Supplier Quality will approve the use of family data in the same manner as any other PPAP submission. Supplier is responsible to annually perform a raw material certification with updated laboratory scope of accreditation.	www.aiag.org
8.2.4.2	**Appearance Items**. Refer to and apply ISO/TS 16949:2002, section 8.2.4.2.	www.aiag.org
8.3	**Control of Nonconforming Product**. The supplier shall have an internal containment procedure that integrates the requirements of the Delphi Supplier Containment Procedure. Refer to Sections 7.4.3.1, 7.5.1.1, and 7.6.1.	See Supplier Containment.
8.5.1	**Continual Improvement**. The supplier shall use the Supplier Suggestion/Change Request Program in conjunction with continual improvement activities.	Appendix 32 - Supplier Change Request Program
8.5.2	**Corrective Action**. Problem Case Response: Suppliers shall monitor and respond to all Problem Cases issued by Delphi. The initial response to a problem is due within 24 hours. Final response, (with verified root cause analysis), is due within 15 calendar days, unless additional time has been requested and	

	approved by problem owner. Cost recovery will be communicated with a Problem Case and through a cost recovery notice in the Delphi Problem Solver System. Suppliers shall respond to the cost recovery notices within 15 days.	
	Suppliers shall complete a **5-Why Analysis** as a means of ascertaining root cause analysis and verification.	Five Why Form Five Why Instruction Five Why Critique Set

Other Delphi Requirements

Other Delphi requirements, not intended to be the primary focus for ISO/TS 16949 certification audits, such as certain conduct or commercial issues, are listed separately.

Other Requirement Subject Title	Other Requirement Description	Links
Commitment to Excellence	In direct support of Delphi's commitment to excellence and desire to "exceed **our** customer's expectations", it is expected that our suppliers work toward exceeding the expectations and requirements of the Delphi Customer Specific Requirements. Excellence means perfection in all that you do: Perfect planning, perfect execution, perfect communications, and perfect parts. This is demonstrated through consistent delivery of quality products to Delphi and our customers. Our suppliers are expected to have zero incidents and zero disruptions, provide products with zero defectives, and have flawless delivery performance and on time responsiveness to issues. Suppliers shall have a philosophy of total quality commitment, with subsequent planning and actions that drive for perfection. This commitment starts with top leadership and is driven through all levels and aspects of their operations. As part of doing business with Delphi, we encourage our suppliers to have a strong environmental management system. Suppliers are also expected to adhere to Delphi principles of “Social Responsibility” and “Foundation for Excellence”. All Delphi employees must conduct their business activities with suppliers exhibiting the highest ethical standards. Such conduct enables Delphi to have mutually beneficial relationships with its suppliers and thus provide competitive advantage to Delphi. If a Delphi Employee solicits a gift or favor from your company, the request is to be tactfully declined. The solicitation of gifts	Ethics Line Gift and Gratuity Policy Social Responsibility Foundation For Excellence

	from suppliers by Delphi Employees is strictly prohibited. In the event a Delphi Employee does solicit a gift from your company, the Delphi Ethics Line should be notified. The phone numbers for the ethics line are provided in the Ethics link.	
Pricing	Suppliers will be expected to be globally competitive, which will be benchmarked by Delphi buyers. When requested by the Delphi buyer, suppliers will complete the Piece Price Breakdown Form and the Tooling Cost Detail Breakdown Form and submit with the supplier's response to the Request for Quote. These forms and instructions are available on the Delphi link. All quotations shall include a separate itemized price for 1.) Expendable packaging and 2.) Returnable packaging; when specified. All quotes shall be prepared using Delphi forms as provided. During the request for quote response, the supplier will verify the data exchange formats with Delphi. The Buyer will assist in the coordination of the definition of these requirements. All communications/documents shall be in English, unless there is prior agreement. Suppliers should utilize electronic print file formats. For molded parts, all product definition will be communicated in 3D Solid model Unigraphics native language file format. Suppliers will work with Delphi to continue to develop appropriate C4 capability (CAE, CAD, CAM, and CAT. Suppliers are expected to have a continual cost reduction improvement process in order to manage their costs. With this in place, it is expected that increased costs are not passed on to Delphi. In addition, suppliers are expected to work with Delphi buyers toward annual cost reductions, via long-term contracts and Master Supply Agreements. Suppliers are expected to participate in the Supplier Suggestion/Change Request Program. When appropriate, Delphi can provide assistance in cost reduction issues, through various workshops. For further information, contact your buyer. Suppliers who provide prototype/pre-production part requirements are expected to provide them at production	Supplier Home

	pricing. Delphi will not accept quotations, or issue contracts or purchase orders with minimum order quantities.	
Currency	Supplier is to quote in the currency specified by Delphi, which is the currency that Delphi sells the final product to its customer. Exceptions to this requirement will result in a risk factor being added to the quoted price from the supplier, thus impacting the competitiveness of the supplier's quote.	
Payment	Delphi's payment terms are established by contract as per Delphi Terms and Conditions.	
	For North America, to affect electronic funds transfer, new suppliers will complete an Enterprise Activities Group (EAG) "EFT Payment Authorization.	EFT Payment Authorization Form
	This is required only prior to issuing first payment or if remit name, address or "Ship From" Duns number changes. Payments cannot be issued until the following documented remittance information is provided to the EAG Disbursement Services.	See example FRR at: Foreign Receiving Report
	The Foreign Receiving Report or FRR is the official document that shall be used by supplier receiving locations to document that material has been received under a Delphi Purchase Order at their respective locations. The FRR will be provided by Delphi and is to be completed by the receiving location and returned to Delphi to input receipts, which will generate payment to the supplier.	
Equipment	Suppliers' equipment should meet industry quality; maintenance, safety, changeover and production yield requirements. Supplier's manufacturing process design output shall be expressed in terms that can be verified against manufacturing process deign input requirements and validated. The manufacturing process design output should include specifications, drawings, layouts, PFMEA's control plans, work instructions, process approval acceptance criteria, data for quality, reliability, maintainability, and measurability, error-proofing, and rapid detection and feedback of product/manufacturing problems. **Tools**. If tooling is to be paid by Delphi, suppliers will be paid for tooling contingent on full PPAP approval. Maintenance and refurbishment of Delphi-owned tooling are the responsibility of the supplier. If the supplier is tool design responsible, then reproducible tooling prints shall be completed by supplier within 6 weeks after PPAP approval (or at start of regular production, whichever comes	

	first) on all new program tools, tools undergoing an engineering change, and current tools that are revised. Supplier, upon request from Delphi, shall provide reproducible tooling prints for existing tools.	
Transportation	Routing instructions will be provided by Delphi for all suppliers who ship under Delphi paid freight terms. All shipments shall be made by normal mode at the prescribed ship window time on the Delphi authorized carrier, unless otherwise specified by Delphi. The supplier will pay supplier caused premium transportation. Suppliers will use authorized carriers for all modes of transportation, <u>including supplier fault premium transportation.</u> Excess transportation costs incurred, as a result of using incorrect carriers, will be debited from the supplier's account and corrective action taken in the form of a Problem Case. Premium freight to be paid by Delphi shall have an assigned Premium Transportation Authorization (PTA) number, issued by the receiving location and appearing on the bill of lading, and, if transportation is paid by the supplier, on the invoice. For North American domestic shipments, material ownership and freight terms for all material received by Delphi are FOB Destination, freight collect (FOB Destination FC) unless otherwise agreed to by Delphi Purchasing, Delphi Production Control & Logistics and the supplier, and documented in the purchase agreement. Delphi will assume liability for insurance on the in-transit material when Delphi specifies the carrier. In the event the carrier is supplier owned, the insurance liability is the responsibility of the supplier. For international shipments, (i.e. Outside North America or intercontinental shipments to North America) material ownership and freight terms for all material received by Delphi are Title Transfer Our Plant, FCA Origin 2000 INCOTERMS (FCA Origin TTOP) unless otherwise agreed to by Delphi Purchasing, Delphi Production Control & Logistics, and the supplier and documented in the purchase agreement. If required, offshore suppliers will be responsible for the transfer of parts to small lot containers prior to delivery to the Delphi receiving plant. Delphi will not carry any inventory cost associated with this process. International shipments must meet Delphi and country	

	specifications. The supplier shall generate advanced forwarder information and customs documentation on time and to specifications.	
Shipping	Suppliers who fail to provide valid, timely, and accurate ASN's may be subject to a cost recovery by the receiving Delphi location and will be expected to participate in the Problem Report and Resolution process on the Delphi supplier portal. Delphi expects ASN's will be sent a maximum of 30 minutes after the shipment leaves the dock. Fabrication Authorization terms will be 2 weeks and Material Authorization will be 2 additional weeks for a total of 4 weeks. All information beyond 4 weeks is for planning purposes only. Exceptions to these terms shall be agreed upon during the quoting process and documented in the purchase agreements. Delphi will establish the shipping frequency for each production part. The supplier shall be able to ship daily at a minimum. Supplier shall ship to the exact quantities, dates, and times specified on the release: no over, under, early or late shipments and no freedom of the week delivery. All Delphi schedules shall be in standard pack quantities in the smallest approved standard pack container. Suppliers shall have shipping capability that matches the Delphi receiving plants normal production schedule. At the time of pick up, the supplier shall allow the authorized carrier's driver to check the shipping quantities against the scheduled quantities. Over-shipments will not be accepted, if an over-shipment occurs it will be returned at the expense of the supplier. If for any reason the supplier is unable to meet the schedules communicated, it is the responsibility of the supplier to notify proper Delphi PC&L personnel immediately and receive authorization for the under-shipment. Suppliers will make up all under-shipments via supplier paid premium transportation on Delphi authorized carriers to meet the originally scheduled destination window. If Delphi's and/or its customer's production is interrupted by the failure of the supplier to deliver contracted goods within the terms of the contract, all costs that are incurred by Delphi and/or its customers will be the sole responsibility of the supplier and corrective action taken in the form of a Problem Case.	

	<u>Scheduling Lead Time</u> The scheduling lead-time will be quoted in calendar days and should quantify the time from receipt of order to ship availability. Steady state lead-time (when schedule and/or forecast are routinely available) is 10 calendar days or less. Exceptions to this lead-time requirement must be approved by PC&L and Supply Management, and must be documented it in the purchase agreement.	
Sourcing	In order to work with suppliers via the SPDP process, Delphi will need access to suppliers' facilities and appropriate documents. In some cases, this may require access to sub-tiers' facilities and documents. Supplier's Involvement Prior to Sourcing ➢ In preparation of or as part of the RFQ, suppliers will be required to submit a **Team Feasibility Commitment Letter.** ➢ Suppliers may also be asked to submit the **Required Quality Information Letter** and requested to participate in a **Technical Review** with Delphi Personnel when required. ➢ Delphi utilizes the **Manufacturing Capability Assessment** (MCA) prior to contracting a business relationship with a new supplier or a new supplier facility. A supplier assessment may also be used if a technology or part family is new to an existing supplier's manufacturing location. ➢ Suppliers may be requested to participate in a MCA with Delphi Personnel or conduct a pre-assessment prior to a Delphi on site meeting. ➢ Other commercial and technology assessments may be performed prior or in conjunction with the MCA**.** Suppliers shall participate in and meet APQP requirements for all new parts. Suppliers will receive specific instructions from the Supplier Quality Engineer. These requirements are further detailed in SPDP and the AIAG APQP manual. The following are some of the key requirements: • Participate in **Design Reviews** • Participate in **Program Reviews and lessons learned.** • Provide and maintain **Timing Charts and Open Issues tracking lists**	Required Quality Information Manufacturing Capability Assessment

	• Provide and maintain **DFMEA (if design responsible)** • Provide and maintain **Process Flow, PFMEA and Process Control Plan(s)** • Perform and provide **Measurement System Analysis/Gage Reviews** • Provide an **Early Production Containment** and **Pre Launch control plan** • Complete Part Certification **(PPAP)** requirements, prior to shipment of initial production. Follow the current edition of AIAG PPAP • Perform and pass **Run at Rate** • Provide up-to-date and accurate Supplier Packaging Information **(SPI)** forms. For APQP, suppliers are expected to meet program timing, keep commitment dates, and support early builds and pre-launch requirements.	
Improvement and Development Management	When necessary, Delphi will provide suppliers with tools and expertise for improvement activities. One tool suppliers may utilize is the **Manufacturing Capability Assessment (MCA)** to help identify management and process gaps and to develop appropriate corrective actions. **(Not Required)** Log in using your password and user ID Go to Frequently Used Documents Section Select Supplier Standards Link Select Attachments, Forms and Additional Information Link Select Supplier Assessments Link **Confidentiality** Suppliers shall maintain confidentiality of Delphi products and information as documented in Delphi contracts. **Property Rights** This section on Property Rights applies when Delphi pays a direct charge for engineering and development, even if those charges are amortized into the unit cost.	Supplier Home

CSR Change Log

Section: Supplier Quality	Date

❑ *Format modified to column format.*	*11/1/2007*
❑ *Deleted Table of Contents*	*11/1/2007*
❑ *Introduction modified.*	*11/1/2007*
❑ *Commitment to Excellence and Excellence in relationship moved to added section 'Other Requirement Description'*	*11/1/2007*
❑ *Scope modified – was Section IV – DPSS reference added – Direct Automotive Supplier application highlighted.*	*11/1/2007*
❑ *Section 2 – Normative Reference combines Section II. And III. CQI manuals added. Added "Delphi Global Packaging and Shipping Manual"*	*11/1/2007*
❑ *Terms and Definitions – terms added and was Section 5 in previous issue.*	*11/1/2007*
❑ *Lean Enterprise references moved to 6.3.1.*	*11/1/2007*
❑ *Contact name changed in Introduction to Lana Boor.*	*11/1/2007*
❑ *Reference documents added in section 2.*	*11/1/2007*
❑ *Language added in Section 2.*	*11/1/2007*
❑ *Some term definitions changed, added or deleted in Section 3.*	*11/1/2007*
❑ *Section 4.1 language reorganized to address supplier quality certification requirements. Language regarding the Delphi Supplier Portal moved to Section 7.2.3.*	*11/1/2007*
❑ *Section 4.1.b "Suppliers shall" changed to "suppliers are responsible".*	*11/1/2007*
❑ *Language in Section 4.2.2., replaced "include" to "integrated into".*	*11/1/2007*
❑ *Section 5.1.1 verbiage changed to refer back to ISO/TS16949:2002. Other sections changed similarly are 6.2.2.2, 7.4.3.2, 7.5.1.4, 7.5.5.1, 7.6.3.1, 7.6.3.2, 8.2.4.2.*	*11/1/2007*
❑ *Section 5.5.2.1., reduced to definition of Primary Contact. Remainder of language moved to 'Other Requirement Description'*	*11/1/2007*
❑ *Section 5.6, verbiage leaned and focused.*	*11/1/2007*
❑ *PCL changed to Production Control in document.*	*11/1/2007*
❑ *Section 6.3.2, supplier "shall" added and other minor verbiage changes.*	*11/1/2007*
❑ *Section 7.1 reorganized and language updated. APQP references directed to AIAG manuals. Other language moved to 'Other Requirement Description'.*	*11/1/2007*
❑ *Section 7.1.3 – moved to "Other Requirements".*	*11/1/2007*
❑ *Section 7.1.4 moved to Section 7.3.7*	*11/1/2007*
❑ *Section 7.2 moved to Section 7.4.1.1*	*11/1/2007*
❑ *Section 7.2 and 7.2.1., Assessment, Pricing, currency, and payment reworded and moved to 'Other Delphi Requirements' section.*	*11/1/2007*
❑ *Section 7.2.1.1 – Note for bulk materials removed.*	*11/1/2007*
❑ *Section 7.2.2.2, language changed from "shall' to "be responsible to have".*	*11/1/2007*
❑ *Section 7.2.3 added, Customer Communication. Added Delphi*	*11/1/2007*

Supplier Portal, Quality certification information, and other additions. Added C-TPAT requirements.	
❑ *Section 7.2.3.1, verbiage moved to Pricing in 'Other Requirement Description'. Added document requirements for NAFTA, Certificate of Origin, Country of Origin, and Shipping Across Borders. Manufacturer's Affidavit instructions and template.*	*11/1/2007*
❑ *Section 7.3.1.1, verbiage changed from "shall" to "it shall be the supplier's responsibility".*	*11/1/2007*
❑ *Section 7.3.3.2, referenced to Technical Specification ISO/TS 16949:2002*	*11/1/2007*
❑ *Section 7.3.4, verbiage "as part of SPDP" removed.*	*11/1/2007*
❑ *Section 7.3.5, added requirements for Heat Treated Products AIAG CQI-9, Plating System Assessment, CQI-11,Coating System Assessment, CQI-12. Section 7.3.5 and Normative Reference, added CQI-11 and CQI-12 Special Processes.*	*11/1/2007*
❑ *Section 7.3.6.2, minor verbiage changes.*	*11/1/2007*
❑ *Section 7.3.6.3 – added Run at Rate – revised verbiage.*	*11/1/2007*
❑ *Section 7.3.7 added requirements for control of design and development changes, supplier change request process outlined.*	*11/1/2007*
❑ *Section 7.4.1.1, verbiage added regarding regulatory conformity, Substances of Concern, and recycled content.*	*11/1/2007*
❑ *Section 7.4.1.2, reorganized verbiage to address supplier responsibilities for sub-suppliers to Delphi. Semiconductor requirement removed – obsolete. Added "The supplier is responsible to manage production risk through sourcing to financially stable sub-suppliers and monitoring sub-supplier financial stability."*	*11/1/2007*
❑ *Section 7.4.3.1, minor verbiage changes. References and links added.*	*11/1/2007*
❑ *Section 7.4.3.2, major reorganization and deletion of verbiage regarding the process Delphi follows regarding Scorecard. Some verbiage moved to Section 8.2.1.*	*11/1/2007*
❑ *Section 7.5.1.1 and 7.5.1.2., control plan detail deleted in CSR. Reference made to Annex A in Technical Specification ISO/TS 16949:2002.*	*11/1/2007*
❑ *Section 7.5.1.6, moved most verbiage to: 'Other Delphi Requirement's Section under 'Shipping'.*	*11/1/2007*
❑ *Section 7.5.4. Tools moved to 'Other Delphi Requirements" section under ' Equipment'.*	*11/1/2007*
❑ *Section 7.5.5 – changed verbiage and added SPI after "Supplier Packaging Information".*	*11/1/2007*
❑ *Section 7.5.5 some elements moved to 'Other Delphi Requirement's includng Transporation and others.*	*11/1/2007*
❑ *Section 7.5.1.2. deleted*	*11/1/2007*
❑ *Section 7.5.3 – List of 'Packing Slip Label' requirements replaced with a reference to the 'Label Specifications' links.*	*11/1/2007*

❑ *Sections 7.6.3.1, 7.3.1.1, 6.2.2.2, 5.1.1 changed to a reference to Technical Specification ISO/TS 16949:2002*	*11/1/2007*
❑ *Section 8.2.1, Verbiage changes related to certification body notification, scorecard usage, compliance ratings, and driver of continual improvement. Notification to Delphi of ISO or TS suspension moved to Section 7.2.3.*	*11/1/2007*
❑ *Section 8.2.1.1. moved under Section 8.2.1.*	*11/1/2007*
❑ *Section 8.2.2.1 moved to Section 8.2.1.*	*11/1/2007*
❑ *Section 8.2.2.2, verbiage deleted and reference to Technical Specification ISO/TS 16949:2002.*	*11/1/2007*
❑ *Section 8.2.4.1, "shall" changed to "supplier's responsibility".*	*11/1/2007*
❑ *Section 8.3, added requirement to have an internal Containment Procedure that integrates into the Delphi procedure.*	*11/1/2007*
❑ *Section 8.5.1, added requirement to use the Supplier Suggestion Change Request program.*	*11/1/2007*
❑ *Section 8.5.2, minor verbiage deleted to eliminate redundancies.*	*11/1/2007*
❑ *Transportation, "freight collect, title transfer our plant (FOB/FC TTOP)". Entire section moved to "Other Requirements".*	*11/1/2007*
❑ *Section V, Terms and Definitions, added definition for APQP Process.*	6/20/05
❑ Section 7.1 Planning of Product Realization – Removed Potential Supplier Assessment, Added Manufacturing Capability Assessment, Appendix 58_1, Added Appendix 15 – Run at Rate, Added Appendix 57_3, Step Down Chart, Removed Appendix 32_1, SCRR Instructions, Changed Appendix 32_2 to Appendix 32, SCRR Form, Removed Production Process Audit, Appendix 39 and replaced with Manufacturing Capability Assessment, Appendix 58_1, Changed Appendix 42 to Appendix 42_1, Added Task 37, Layered Audit. Improvement and Development Measurement – changed Supplier Assessments to Manufacturing Capability Assessment	6/20/05
❑ Section 7.4.1.2, Supplier Quality Management.	6/20/05
❑ Yellow – changed definition to exclude the June 1 deadline, added concept of Delphi accepted plan, and added "supplier shall not allow their current certificate to expire during transition".	6/20/05
❑ References to the Semiconductor Assembly Council were deleted as the council has been discontinued and not replaced.	6/20/05
❑ Section 'F' added – specify distributor and non-manufacturing supplier certification requirements for sub-suppliers.	6/20/05
❑ Added certificate requirements – English or bi-lingual, all pages must be uploaded.	6/20/05
❑ Added supplier responsibility to match certificate information to Supplier Profile prior to uploading of certificate.	6/20/05
❑ Section 7.4.1.3, Incoming Product Quality	6/20/05
❑ Emphasized supplier responsibility for sub-suppliers quality and	6/20/05

performance throughout the life of the product.	
❑ Suggested Delphi documents for suppliers to use for sub-suppliers.	6/20/05
❑ Added need for containment of high-risk sub-supplier issues.	6/20/05
❑ Section 7.4.3.2, Supplier Monitoring	6/20/05
❑ Added reference to quality section of the Supplier Scorecard to monitor supplier quality performance and drive corrective actions for quality improvement.	6/20/05
❑ Added Delphi expectations of suppliers to establish processes and designs with the ultimate goal of achieving zero defects and 100% on time delivery.	6/20/05
❑ Added expectations of all suppliers at the manufacturing site level to achieve and maintain a green rating status on their scorecards. In the event the scorecard is not green; the supplier is required to establish aggressive plans to drive improvement.	6/20/05
❑ Added warning that suppliers with a 12-month average score of RED on their quality scorecard will be considered to have a major non-conformance during a third party audit.	6/20/05
❑ Section 7.5.1.1, FMEAS	6/20/05
❑ Changed wording for PFMEAs to “When developing PFMEAs for production parts or material supplied to Delphi, the Delphi rating tables for 'Severity', 'Occurrence' and Detection shall be used in place of the rating tables referenced in AIAG FMEA 3rd edition, unless otherwise approved by Supplier Quality, based on the specific part or program circumstances. Approval by Delphi of a supplier’s PPAP will serve as the approval for the rating method utilized.”	6/20/05
❑ Reworded “and” to “or” for “Potential failure modes with a severity of seven or greater shall be continually improved to reduce the occurrence to a one or reduce the detection to a five or lower.”	6/20/05
❑ Section 7.6.1, Measurement System Analysis	6/20/05
❑ Added note for linearity, “Note: A supplier defined adequate method may be used for evaluating Linearity.”	6/20/05
❑ Section 7.6.3.1, Internal Laboratory. Added entire section from the TS16949: 2002 standard.	6/20/05
❑ Section 8.2.1.1, Customer Satisfaction Supplemental – Specified Scorecard as a measure of Customer Satisfaction that suppliers must review monthly. Problem cases to be addressed as they happen	6/20/05
❑ Section 8.5.2, Corrective Action – Minor non-conformance for suppliers that are RED in their Compliance Scorecard for Problem Solver registration.	6/20/05
❑ Section 7.4.1.2, Supplier Quality Management, re-added section e, Semiconductor suppliers shall comply with the requirements of the AEC Customer Specific Requirements (ISO/TS 16949:2002) Semiconductor Community.	10/10/05

❑ Supplier Performance Development Process (SPDP) Section, Page 10, Added links to all APQP and Production Cycle sections.	11/22/05
❑ Updated APQP references in Section 7.1	2/1/06
❑ Added PPAP checklist reference Section 7.1	2/1/06
❑ Added to sentence in section 7.4.1.2 the words: For external suppliers as underlined on page 17.	2/1/06
❑ Added words “only” and “direct” to last sentence in 1st paragraph of Section IV Scope.	5/23/06
❑ Added link to new appendix 20_3 – Delphi SQ Interim PPAP Worksheet.	5/23/06
❑ Corrected several broken links within document due to Covisint web address change.	5/23/06
❑ Section 7.1 - Strike "Task 37", leave the heading "Layered Audits". Correction.	6/28/06
❑ Section 7.4.1.2, added "Suppliers shall provide their registrar with evidence of aggressive corrective action plans in place, confirmed by the customer, for their next third party audit, in the event they are still on NBH or CS Level 2. Otherwise, the supplier will be considered to have a minor non-conformance during the third party audit.”	6/28/06
❑ Section 7.4.1.2, based on language added to the GM Cust. Spec. Req. March 2006 revision. GM's language is "Small may also refer to volume supplied to automotive". Included language for small supplier, “Supplier’s automotive business is less than 10% of their total business”.	6/28/06
❑ Section 7.4.3.1, removed 59-2 and 58-2 reference. Also added CQI-9 assessment option for supplier use with sub-suppliers. Added “or AIAG” comment.	6/28/06
❑ Section 7.5.4.1, added statement “If requested by Delphi, supplier is to mark tooling Property of Delphi, or Property of Delphi’s customer, as applicable.” in response to Fords Directive E-108.	6/28/06
❑ Section 8.2.2.2 added.	6/28/06
❑ Section 7.4.3.1 changed language to “initial and periodic assessments of sub-suppliers shall be available for Delphi’s review as requested.	6/28/06
❑ Section IV Scope added new division names	6/28/06
❑ Section 6.3.2 added language “or from performing/submitting any APQP event or task that would impact program launch or timing.”	6/28/06
❑ Section 7.1 added language “to help identify management and process gaps and to develop appropriate corrective actions.”	6/28/06
❑ Section 7.2 changed language of entire section.	6/28/06
❑ Section 6.3.2 added language, “or from performing/submitting any APQP event or task that would impact program launch or timing. (i.e. R@R or PPAP)”	6/28/06
❑ Section 7.2.1 removed, some language placed under “Other Requirements”	6/28/07

❑ Payment section – payment terms updated to Terms and Conditions	8/28/08
❑ Deleted, under section 7.3.5, verbiage related to CQI processes to be reworded and moved to section 7.5.2 Validation of processes for production and service provision. Special Processes	9/26/08
❑ Added Section 7.5.2, Validation of processes for production and service provision - Special Processes - for CQI processes assessments.	9/26/08
❑ Changed Other Delphi Requirements Payment – Terms and Conditions specify payment terms.	9/26/08
❑ Scope - Changed Company to Delphi - clarification	1/26/09
❑ Introduction – Changed Lana Boor to Linda Nelson and added Tracy White	1/26/09
❑ 7.4.3.1 – removed “Initial and periodic assessment documents of sub-suppliers shall be available for Delphi's review as requested”	1/26/09
❑ Commitment to Excellence added “As part of doing business with Delphi, we encourage our suppliers to have a strong environmental management system. Suppliers are also expected to adhere to Delphi principles of “Social Responsibility” and “Foundation for Excellence”.” And links to Social Resposibility and Foundation for Excellence.”	1/26/09