Global Supplier Standards Manual

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Purpose

The purpose of the GHSP Global Supplier Standards manual is to communicate requirements and expectations of current and potential suppliers to GHSP. It is the expectation of GHSP that all suppliers of direct material and, as applicable, indirect material and services, comply with the expectations and requirements documented in this manual. GHSP expects that, through clear communication and definition of expectations, both parties can more effectively achieve success. The manual has 4 chapters with embedded hyperlinks to navigate to each chapter.

Scope

This manual applies globally, to all GHSP suppliers of direct material, as well as GHSP suppliers of indirect material and services as defined herein.

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Chapter 1: General Requirements

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1. *General Expectations:*

1.1 Management Standards

GHSP holds an expectation of our suppliers to demonstrate their commitment to quality and the environment. Evidence of this commitment is the implementation of appropriate quality and environmental management standards. The following are minimum expectations for our suppliers:

1.1.1 Direct Material Suppliers

1.1.1.1 Quality System Registration (ISO/TS 16949; ISO 9001:2008 for distributors of commodity materials)

1.1.1.2 Environmental Management Registration (ISO 14001)

1.1.1.3 Materials Certification (MMOG/LE)
1.1.1.4 Requirements for Soldered Electrical and Electronic Assemblies (J-STD-001) compliant to standard as applicable
1.1.1.5 Safety Related Software Development (ISO 26262) compliant to standard as applicable

1.1.2 Indirect Material Suppliers
1.1.2.1 Quality System Registration (ISO 9001: 2008)
1.1.2.2 Environmental Management Registration (ISO 14001)

Note 1: Failure to comply with these minimum requirements will impact the supplier's ability to continue business with GHSP.
Note 2: If a current supplier is not certified to the required level at present time, a plan must be presented no later than June 1, 2014 that shows the roadmap for certification. New suppliers must commit to a certification plan as a condition of sourcing.

1.2 Supplier Development

GHSP is committed to working in partnership with our suppliers to establish development plans which ensure compliance to, and continuous improvement toward, the requirements set forth in this manual. GHSP will establish the development priorities as it sees fit, based on resource availability and impact to the business, but will always make its best effort to assist wherever practical.

1.3 Annual Information Submission (Effective 1/1/15)

As noted in specific sections of this manual, there will be a requirement that each supplier submits, inclusive of all of their plants shipping product into any GHSP plant worldwide, the following information annually no later than January 1st:

- Updated Contact List (corporate and plant specific)
- Quality Certification (each plant)
- MMOG/LE self-assessment (each plant)
- NAFTA Country of Origin-COO (consolidated-all parts)
- AIAG Supplier Sustainability Self-Assessment (corporate)
- Tooling (incl. all assets owned by GHSP or OEM) Inventory & Condition (each plant)
- Updated or renewed blanket certificates or Manufacturers Affidavits covering all parts provided to GHSP.
- C-TPAT annual self-assessment

Note: Supplier will be asked to manually submit some of the above information prior to the self-submission requirement beginning in January of 2015. Suppliers will be informed of the specific process for self-submitting prior to 1/1/15.

2. Global Terms and Conditions

2.1 Terms and Conditions Access

GHSP Global Terms and Conditions may be accessed on our website www.ghsp.com. If a supplier is unable to access the document, please contact your buyer for assistance. The Terms and Conditions are the governing document for any quote, will be referenced in any purchase order, and are the basis of the agreement between the supplier and GHSP unless otherwise declared in another agreement signed by both parties.

3. Social and Environmental Responsibility

3.1 Introduction

Since our founding in 1924, the people of GHSP have been known for our enduring values. One of these values is referred to as 'Steward our Legacy" and is defined as preserving the legacy of our founders while reinventing the business for the next generation. Two ways we live and demonstrate this value are by investing in businesses, people, and communities for the long term, and by taking personal responsibility for health, safety, and our environment. From this it becomes clear that Social and Environmental Responsibility are foundational elements of who we are. Furthermore, since our supply base is an integral part of our business and team, and is a reflection of GHSP and the values we uphold, it is our expectation that our suppliers conduct their operations in a socially and environmentally responsible manner that complies with all applicable laws and regulations.

3.1.1 Suppliers shall complete the AIAG Supplier Sustainability Self-assessment a minimum of one time each calendar year and shall provide a copy of the assessment to GHSP.

3.1.2 Suppliers shall ensure their personnel with responsibility for social and environmental oversight have completed the Supply Chain Corporate Responsibility Training available on the Automotive Industry Action Group (AIAG) website.

3.2 Requirements

3.2.1 Labor and Human Rights

3.2.1.1 Suppliers shall prohibit the use of child labor and ensure the age of employment is in accordance with local labor law.

3.2.1.2 Suppliers shall prohibit the use of forced, bonded, indentured, or involuntary prison labor. All work must be voluntary; workers shall not be forced to hand over government issued identification, passports, or work permits as a condition of employment unless required by local law.

3.2.1.3 Suppliers shall ensure working hours comply with applicable local law regulating hours of work.

3.2.1.4 Suppliers shall provide compensation and benefits that are competitive and in compliance with applicable wage laws including those related to minimum wages, overtime hours, and legally mandated benefits.

3.2.1.5 Suppliers shall maintain workplaces that are free from harassment or discrimination against employees in any form. This includes but is not limited to gender, race, color, caste, disability, veteran status, union membership, political affiliation, national origin, religion, age, marital status, pregnancy, or sexual orientation.

3.2.1.6 Suppliers shall maintain workplaces that are free of physical or mental harassment, abuse, or any other behavior that diminishes a person's integrity or self-esteem. This includes but is not limited to harsh and inhumane treatment in the form of sexual harassment, sexual abuse, corporal punishment, mental or physical coercion, or verbal abuse of workers.

3.2.1.7 Suppliers shall maintain workplaces where workers can communicate openly with management regarding working conditions without fear of reprisal, intimidation, or harassment.

3.2.1.8 Suppliers shall respect voluntary freedom of association including the right to organize and bargain collectively in a manner that is legally compliant. Where worker representation and collective bargaining are restricted by law, efforts should be made to

facilitate open communication and direct engagement between workers and management as an alternative way of ensuring worker rights, views, and needs are considered and acted upon appropriately and in good faith.

3.2.1.9 Suppliers shall maintain a workplace where workers have a safe and healthy working environment that meets or exceeds applicable standards for occupational safety and health.

3.2.1.10 Suppliers shall undertake reasonable due diligence to assure that any of the specified 'conflict minerals' as listed in the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 are sourced from smelters or mines outside of the 'conflict region' or from mines and smelters independently certified as 'Conflict Free'.

3.2.1.11 Suppliers shall not retaliate or discriminate against workers for exercising their rights in compliance with local laws and regulations.

3.2.2 Health and Safety

3.2.2.1 Suppliers shall eliminate safety hazards and take precautionary measures that guard against accidents and occupational diseases. These hazards should be controlled through proper design, engineering/administrative controls, preventative maintenance, safe work procedures, and ongoing safety training. Where hazards cannot properly be controlled by these means, workers shall be provided appropriate and well maintained personnel protective equipment.

3.2.2.2 Worker exposure to chemical, biological, or physical agents is to be identified, evaluated, and controlled. Engineering or administrative controls must be used to control overexposures. When hazards cannot be adequately controlled by such means, suppliers shall provide appropriate personal protective equipment programs.

3.2.2.3 Emergency situations and events are to be identified and assessed, and their impact minimized by implementing emergency plans and response procedures.

3.2.2.4 Procedures and systems are to be in place to prevent, manage, track, and report occupational injury and illness, including provisions to: a) encourage worker reporting; b) classify and record injury and illness cases; c) provide necessary medical treatment; d) investigate cases and implement corrective actions to eliminate root causes; and e) facilitate the return of workers to work.

3.2.2.5 Workers shall be provided with ready access to clean toilet facilities and potable water. If the company provides food and housing to workers the company shall provide sanitary food preparation, storage, and eating facilities. Worker dormitories provided by suppliers or a third party agent shall be maintained in a clean and safe manner and shall have appropriate emergency egress, adequate heat and ventilation, reasonable personal space, and entry and exit privileges.

3.2.2.6 Exposure of workers to the hazards of physically demanding tasks shall be identified, evaluated, and controlled.

3.2.2.7 Production and other machinery shall be evaluated for safety hazards. Physical guards, interlocks, and barriers are to be provided and properly maintained where machinery presents an injury hazard to workers.

3.2.3 Ethics

3.2.3.1 Suppliers shall prohibit any and all forms of corruption, extortion, embezzlement, bribery, excessive gift giving, or other means of obtaining undue or improper advantage. Monitoring and enforcement procedures shall be implemented to ensure compliance.

3.2.3.2 Suppliers shall properly disclose, transfer, and protect business information, customer information, and intellectual property rights in accordance with applicable requirements and contractual obligations.

3.2.4 Environmental

3.2.4.1 Suppliers should adopt an environmental management system compliant with and registered to ISO 14001:2004.

3.2.4.2 Suppliers shall conduct business in a sustainable manner that places the least practical burden possible on the environment while protecting the health and safety of the public.

3.2.4.3 Suppliers shall obtain, keep current, and adhere to all laws and regulations requiring environmental permits, approvals, and registrations.

3.2.4.4 Suppliers shall identify and manage materials that pose a hazard if released to the environment and are to ensure safe handling, movement, storage, recycling or reuse, and disposal of such materials in accordance with local law and regulations.

3.2.4.5 Suppliers shall identify, monitor, treat, and control air emissions, wastewater, and solid waste prior to discharge or disposal as required by local law and regulations.

3.2.4.6 Suppliers shall prohibit the use of restricted or prohibited substances, materials, or waste pursuant with applicable laws, regulations, and contracts.

3.2.4.7 Waste of all types, including water and energy, are to be reduced or eliminated at the source by practices such as modifying production, maintenance and facilities processes, materials substitution, conservation, and recycling and re-use of materials.

3.2.4.8 Suppliers shall agree to and comply with GHSP's Environmental Policy for Visitors when visiting any GHSP facility.

4. Performance Monitoring & Supplier Awards

4.1 Purpose

The GHSP supplier report card is a tool for both suppliers and internal GHSP supply chain team members to measure and monitor the performance metrics necessary to support our organization. The report card also provides some of the metrics to help GHSP monitor trends that are inputs to future GHSP sourcing decisions. It addition, it provides the baseline for detailing issues leading up to a Supplier Management Review event (SMR). The expectation is that suppliers maintain a scorecard rating of 95 points or greater. In the event that the 6 month supplier scorecard is below 95 points, a Supplier Management Review (See Quality Chapter 3) may be initiated.

4.2 Applicability:

Suppliers who ship into GHSP USA Facilities (Grand Haven or Hart) shall receive a monthly scorecard via email that is based on 6 month rolling performance.

4.3 Scoring Calculation:

The supplier ratings will start with 100 points and deductions are determined based on the severity of the effect on GHSP operations.

4.3.1 **"A" Rank – 10pts:** This is a severe level indicating a quality /delivery/service issue that affects GHSP's performance with its customers. Examples include (but are not limited to):

- Customer reject
- Missed delivery to customer
- Missed Customer PPAP date
- Supplier shipped to GHSP non-PPAP approved parts that were used in product shipped to customer. (no deviation)

"A" Rank PTR's require urgent response and frequent communication with GHSP operations to ensure the highest priority of problem solving efforts are being executed expeditiously.

4.3.2 **"B" Rank- 5pts:** This covers one or more of the following conditions:

- Repeat Failure mode in last 6 months
- Created GHSP downtime
- Significant disruption to operations

"B" Rank PTR's require 24 hour containment confirmation (at GHSP) and effective problem solving. GHSP does not have a required format but generally subscribes to the 8-D methodology.

4.3.3 "**C" Rank – 3pts:** This is a condition that does not fit an "A" or "B" rank and requires corrective action. On site containment may be required.

4.3.4 "**D" Rank – 0pts:** This is a condition that generally is not a literal non-conformance or falls under a limited line acCUMulation agreement. The objective of a "D" rank is to communicate the "Voice of the Customer" and drive continuous improvement initiatives.

4.4 Disputes

The supplier must address any dispute of a PTR within 5 business days of receipt. The dispute must be in written format with supporting documentation. The dispute should be submitted to the appropriate GHSP personnel depending on the nature of the issue. Delivery dispute issues shall go to the Plant Materials Manager, Quality dispute issues shall go to the Supplier Development Manager and Customer Service/Commercial issues shall go to the Buyer. GHSP will provide a final response

to suppliers (yes or no) within 10 business days of a completed dispute response. In the unlikely event of lack of resolution, escalation may be made through the Buyer.

4.5 Suppliers shipping to Non-USA facilities:

GHSP relies on plant Supplier Quality and Materials resources to monitor the open PTR concerns and will compare performance, if available, to USA scorecard to identify any common issues. If no scorecard is available to compare, the performance is monitored by each plant manager.

4.6 Annual Supplier Awards

GHSP values our supply chain partnerships. One way we can recognize supplier performance is through preferred sourcing status and growing our suppliers business with GHSP. Another form of recognition is an annual supplier award. GHSP has 3 types of Supplier Awards:

Master of Quality: This award recognizes exceptional performance in terms of our overall experience. This includes quality response time, continuous improvement capability, design support and timely shipments.

Worry Free Launch: This award recognizes those suppliers whose exemplary work contributes significantly to a flawless launch of a new product/service for GHSP.

Pinnacle: This award recognizes those suppliers who made significant investments on behalf of GHSP; examples include but are not limited to expansion of manufacturing locations closer to GHSP, aggressive cost reduction initiatives and/or product/process innovation advancements.

The supplier award criteria contain a combination of measureable performance in terms of number and severity of issues (Problem Tracking Reports) along with feedback on how we experience the supplier. GHSP forms an internal team from leaders in Materials, Logistics, Purchasing, Supplier Quality/Development and Engineering who nominates suppliers who over the last year, met or exceeded our expectations in terms of Cost, Quality, Delivery and Customer Service.

5. Engineering Requirements

5.1 Introduction

5.1.1 Engineering support from our suppliers for product feasibility, product design, and tooling design / approval may be required for a particular program and/or product. Suppliers shall support design reviews and other collaborative efforts to support lowest total cost solutions for tools, products, and services.

5.2 Requirements

5.2.1 International Material Data System (IMDS)

5.2.1.1 Government and industry regulations on subjects including the environment, safety, corporate governance and product performance are being enforced around the world. The IMDS (International Material Data System) is an internet-based database that has been endorsed by the automotive industry original equipment manufacturers (OEMs) for free-of-charge use by suppliers. IMDS tracks chemical ingredients of parts and assemblies across the entire automotive OEM supply chain. The solution aids OEM's seeking compliance with national and EU regulations related to material handling and disposal. Suppliers shall submit IMDS information to GHSP prior to receiving PPAP approval.

5.2.2 Engineering Data Exchange

5.2.2.1 GHSP's standard format for CAD data exchange is via an STP file extension (Standard for the exchange of Product model data).

6. *Program Management Expectations*

6.1 General

6.1.1 GHSP expects that our suppliers will appropriately staff their team to manage the program requirements of the business they have, as well as the business they seek, with GHSP.

6.2 **Specific**

6.2.1 Suppliers must comply with all program specific requirements as outlined in the specific Supplier Statement of Work (SSOW), purchase order, award letter, or other documents defining the scope of work.

6.2.2 Launch support must be made available by the supplier to support activities including, but not limited to, the following:

- Supplier Kick-off Meetings
- Design Reviews
- Launch Team Meetings
- Advanced Product Quality Planning activities
- Build events at supplier and GHSP

6.2.3 Launch Support is required by the supplier to participate in activities at the supplier facilities such as, but not limited to:

- Supplier Build Events

- Supplier Readiness Reviews
- Supplier Process Sign-off Reviews

7. Procurement/Commercial Requirements & General Service Expectations

7.1 Procurement General Requirements

7.1.1 GHSP purchasing expectations are as follows:

- Suppliers shall provide a cost breakdown form, with complete information, with every quote to the appropriate GHSP Purchasing representative which may be a different person than the requestor.
- Suppliers must send all responses for quotations* to their appropriate buyer and may copy the requestor in the event the request originated from GHSP engineering or program management. * Capital Equipment suppliers are exempted from this requirement.
- Suppliers must clearly note the cost change, and reason for said change, on their cost breakdown for quotes related to revisions in the product being quoted
- Suppliers will be required to participate in Business Reviews as scheduled
- In addition to following the quality processes set forth in this manual, the supplier is required, as soon as the change is determined to be probable, to **immediately inform** the buyer prior to any product or process changes, including changes in manufacturing location.

Chapter 2: Tooling

Purpose

The purpose of the Global Supplier Standards Manual is to communicate GHSP requirements to our suppliers. It is the expectation of GHSP that all suppliers of direct materials comply with all of the requirements and expectations documented in this manual. In addition, GHSP expects this manual to provide the foundation for our working relationship with our suppliers. We will strive for excellence thru working together where priority is placed on understanding, resolving and preventing reoccurrence of issues.

Scope

The scope of this policy applies to all GHSP facilities. The type and amount of involvement with our facilities will be dependent upon the locations that are involved in the purchase of products/services and the locations that experience the consumption of the products and/or services.

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1. Introduction

1.1 Tooling and Equipment is a critical element of product design, product safety, and process safety. As such, all suppliers to GHSP shall provide tooling and/or equipment that meets defined GHSP requirements. This chapter of our Global Supplier Standards Manual is divided into three separate sections; the first which addresses tooling, gauges, and/or equipment purchased by GHSP for use at a GHSP manufacturing facility (GHSP Tooling and Equipment), the second which addresses tooling and/or gauges purchased by GHSP for use at a GHSP supplier for goods or services ultimately sold to GHSP (Supplier Tooling); and the third which addresses commercial requirements applicable to both GHSP Tooling and Equipment, and Supplier Tooling.

2. GHSP Tooling (including gauges) and Equipment

2.1 Product Requirements - Suppliers shall develop and manufacture Tooling and Equipment in accordance with the GHSP standard in effect at the time of contract award and any GHSP statement of work specific to the Tooling and Equipment. The current version of these standards may be accessed at http://www.ghsp.com/Suppliers/Standards.

2.2 Credit/Payment Terms - Suppliers shall invoice GHSP for payment of monies owed after tooling or gauge has been validated through pre-production builds and formal approval of the tool or gauge has been provided by the responsible GHSP Process or Quality engineer. GHSP terms of payment will be 45 days after receipt of invoice.

2.3 Builder of Record - Suppliers shall be the tool 'Builder of Record' for all tools and/or equipment produced in their facilities as well as all tools produced in any subcontracted facilities. This means that the supplier is solely responsible for the performance of its subcontractors which will include, but not be limited to: timing commitments, tool quality, data integrity, tool functional try-outs, quoted cycle times, shipment, delivery, adherence to applicable tool standards, and tool warranty. If tooling issues with subcontractors are not resolved by the supplier, GHSP reserves the right to redirect the subcontractor and any subsequent costs incurred will be the responsibility of the supplier.

2.4 Damage or Loss - Suppliers shall insure and protect GHSP Tooling and Equipment against loss or damage at all times prior to physical receipt of GHSP Tooling and Equipment at specified GHSP manufacturing facility.

3. Supplier Tooling

3.1 Definition

Supplier Tooling is defined as tooling specifically designed for the production of a GHSP part where such tooling is unique to, and only used for said GHSP part. Its intended life (absent substantial modification or alteration) is limited to the production of the part for which it was designed. Capital equipment (i.e. stamping presses, molding machines, automated material handling equipment, etc.) and generic tooling (i.e. perishable tools, drill motors, impact guns, wrenches, etc.) shall not be considered as Supplier Tooling unless provided by GHSP.

3.2 Relocation

Supplier Tooling may be relocated to another supplier for use on that supplier's equipment. Supplier Tooling that is designed specific to a supplier's equipment should be modifiable to suit another supplier with similar equipment.

3.3 Ownership

Supplier Tooling is at all times considered property of GHSP or GHSP's customer. The supplier shall only use GHSP or GHSP customer owned tooling to manufacture product for use in support of GHSP unless otherwise approved by the GHSP Global Purchasing Manager.

3.4 Maintenance and Storage

Supplier Tooling shall be maintained, per TS16949 requirements, by the supplier at the supplier's expense and shall not be altered in any way or disposed of without the written authorization of GHSP Global Purchasing Manager.

3.5 Tooling Inventory

During the first month of each calendar year suppliers shall furnish to the responsible GHSP buyer a list of all Supplier Tooling in the supplier's possession. The list shall include but not be limited to the GHSP tool identification number (asset tag number), tool description, GHSP purchase order number authorizing the acquisition/construction of the tool, and the city and state where the tool is located. GHSP shall be afforded the right to verify / audit at the supplier's facility the status and condition of Supplier Tooling.

3.6 Credit/Payment Terms

Suppliers shall invoice GHSP for payment of monies owed for Supplier Tooling (regardless if the payment is for the original tool or tool changes) upon formal PPAP approval of the component(s) the tool produces and/or the gauge measures. Suppliers must provide evidence of the full PPAP approval by submitting an electronic copy of the customer approved Part Submission

Warrant (PSW) that is directly related to the invoice. GHSP terms of payment will be 45 days after receipt of invoice.

3.7 Damage or Loss

Suppliers shall insure and protect Supplier Tooling against loss or damage.

3.8 Documentation

Suppliers shall complete and submit the GHSP Tool and Gauge Data Form as part of the PPAP submission to GHSP for Supplier Tooling.

4. Other Requirements

4.1 Supplier Quotes

Supplier quotes must include a detailed description for each line item entry such that each element of GHSP Tooling and Equipment or Supplier Tooling is clearly identifiable on all documentation and during any physical review.

4.2 Prints and Specifications

The supplier shall provide any and all prints and specifications associated with GHSP Tooling and Equipment and/or Supplier Tooling to GHSP upon request.

4.3 Marking Requirements

During the operational life of the tool, which includes the production of past-model service parts, the physical tag/marking must:

- Remain permanently affixed to the tool
- Remain legible
- Be durable in its manufacturing environment
- Not impair the operation of the tool
- Tool markings must clearly depict GHSP or GHSP customer ownership as detailed in GHSP requirements.

4.4 Manufacturing Assist Declarations

Suppliers outside of the USA who manufacture and provide products to GHSP plants located in the USA may be required to declare Manufacturing Assists when shipping parts to GHSP USA plants. This requirement will be determined and defined on the tooling purchase order. A Manufacturing Assist is defined as "anything provided to the foreign supplier by the US Buyer which is made available for free, or at a reduced rate, and used in the direct production, inspection, or testing, of the goods produced and imported by the US Buyer". Examples include but are not limited to tooling, fixtures, gauges, testers, assembly aids, and raw materials shipped to the supplier by the US Buyer.

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1. Quality Expectations Scope

All suppliers shipping to GHSP plants, including technical campuses, are expected to meet the quality expectations set forth in this section. Please contact your GHSP contact for questions on any topics covered in this section.

2. General Quality Expectations

A solid systems approach to quality management is essential to achieve the level of quality required by today's demanding customers. Such an approach yields many benefits, including but not limited to:

- A common platform for Quality Management
- Improved communication due to common systems
- Common format for training
- Systemic Change Control and Improvement
- Sustainable Improvement

2.1. Maintaining and Communicating Certifications

The supplier is responsible to submit copies of the valid certifications, for each applicable facility, to GHSP Purchasing, including all renewals prior to the expiration of the current certificate on file. Failure to submit and maintain certification level established at time of approval by GHSP to our approved supplier list (ASL) may jeopardize future business. GHSP may verify compliance to the standard through process audits including verification of systemic corrective actions for problems.

3. Supplier Assessment and Development Plan SAS/SDP

For a new supplier or a new manufacturing location for an existing supplier to be added to the GHSP approved supplier list, a Supplier Analysis and Assessment audit (SAS) must be completed. GHSP may also perform similar audits on an as needed basis or instruct the supplier to complete a self-assessment.

3.1 New Supplier SAS and SDP

The result of the SAS will be one of three outcomes: 1) The supplier demonstrates a benchmark management system that is likely to result in meeting our expectations with no supplier development plan (SDP) and is thus promoted to the preliminary approved supplier list for validation during a product development cycle (award); 2) The supplier demonstrates an adequate management system with some risks that require a supplier development plan (SDP), approved by GHSP Purchasing and Supplier Development in order to be promoted to the preliminary approved supplier list for validation of product development in parallel with an execution of the improvements from the SDP ; 3) The supplier demonstrates significant weaknesses in their management system and is not promoted to the preliminary approved supplier list.

3.2 Existing Suppliers

Existing Suppliers will follow the same requirements as new suppliers in situations where the supplier is adding a manufacturing location that does not currently produce product for GHSP from that location. Existing suppliers may be required to support *a* GHSP led supplier assessment audit or conduct a self-assessment audit to be eligible to be considered for a preferred supplier status.

4. Advanced Product Quality Planning (APQP)

4.1 APQP Planning and Reporting

APQP is an automotive industry standard, used when new products are introduced into the market to monitor launch activities for all suppliers regardless of the GHSP end product. This standard has been demonstrated, when followed, to result in a

worry free product to which the GHSP brand is attached. The GHSP APQP tracking report can be found on the GHSP company website.

The supplier will be notified which parts require report out of APQP tracking. Program kick off meetings are often held to further communicate product/ manufacturing process development requirements as an integral part of the launch process. The Supplier Development Engineer(s) and Tactical Buyer(s) are the primary contacts throughout the launch.

Suppliers may also be required to demonstrate conformance to unique OEM customer specific requirements and/or provide customer specific documents. If this is the case, the supplier will be notified accordingly

The suppliers are expected to manage their own APQP activities in accordance with their program timeline, which is constructed in a manner that is designed to deliver a fully vetted out production ready product/service. GHSP may provide feedback from time to time; however, the APQP process is to be managed by the supplier. The APQP report is a method to communicate supplier readiness to GHSP. Documentation and APQP process evidence may be required to be submitted throughout the launch process for review.

All pre-production part container/packages must be identified with, at a minimum, the GHSP part number, quantity, revision level and purchase order number. Any pre-production parts that are shipped without proper identification as stated above may be returned at the supplier's expense.

Prototype and non PPAP approved pre-production parts must have a full 6 piece dimensional/material/functional layout sent for each lot of a singular *production* event. This ensures that both the supplier and GHSP understand the maturation level of the product.

5. Process Sign Off (PSO)

5.1 PSO Introduction

The Process Sign Off is an in depth, cross functional review of both the process documentation and the actual manufacturing process with trained personnel. By verifying conformance of the documentation as evidence of the intended process and then reviewing the production process is capable of producing quality parts in sufficient quantity for production, this enables GHSP to acquire a first-hand

understanding of the supplier's production readiness. GHSP uses the PSO process as a tool to assure our customer that our suppliers meet all requirements.

5.2 PSO Expectations

The PSO is required to be performed on all new parts or parts whose capacity has been modified*. Parts that have been identified to be of high risk will have a PSO led by a GHSP SDE. Parts that have an acceptable risk assessment will have a supplier led PSO event. Any product or process change that occurs after initial PPAP approval must be reviewed by GHSP to determine whether a new PSO is required regardless of what party will lead the event. PSO's are to be completed prior to supplying parts for saleable vehicles.

5.3 Sub-Supplier PSO

Suppliers are expected to conduct sub-tier supplier PSO assessments prior to the PSO for the product made for GHSP. Sub-tier supplier PSO assessments are not requirement for bulk materials provided that sub-tier supplier has confirmed they have adequate capacity to meet the contractual demand.

5.4 Capacity Verification vs. PSO (Run at Rate)

The PSO event is not synonymous with capacity verification. The PSO event is focused on the end item manufacturing stream and does not account for shared process capacity within the manufacturing cell or upstream of the production line. A separate capacity analysis will be required by the supplier to validate that the supplier has adequate capacity to meet average per week and maximum per week (APW/MPW) requirements. The supplier will work with the tactical buyer to determine the quantity and production time required for capacity verification. Unless otherwise specified, the Ford Capacity Analysis (CAR) form will be used. http://www.ghsp.com/Suppliers/Standards/

**For example; manufacturing capacity can be increased by way of additional capital and/or tooling or capacity may be decreased to support service parts through a process flow re-design converting to a less automated means to re-use capital for higher volume production requirements.*

6. Measurement System Analysis (MSA)

6.1 Measurement System Analysis Introduction

AIAG's Measurement System Analysis Manual (and applicable Customer Specific Requirements) describes the methodology for determining if the measurement technique(s) and equipment are capable of collecting accurate data to use for decision making, up to and including driving improvements. MSA is a complex activity requiring expertise and a strong understanding of statistics to accurately interpret the results and solve issues as they arise. Gauge Repeatability and Reproducibility is commonly referred to as GR&R, but linearity, bias and stability studies are also required elements as described in the AIAG MSA Manual. In general, the GR&R study should use the full range of part to part variation from the process, which

represents expected sources of variation. It is a good practice to collect parts over as many process set ups as possible.

6.2 MSA Expectations

Most MSA studies are performed by using software. It is expected that all GHSP suppliers validate the software they are using through the application of a standardized input data set and check using corresponding expected output results. Example validation data sets are available on the GHSP website.

For variable studies used for PPAP, the GHSP preferred method for calculating Gauge R&R is by using the Analysis of Variance (ANOVA) method with 10 parts, 3 operators and 3 trials, since the ANOVA method enables the assessor to separate out the variation coming from the interaction between the part and the operator whereas the Average and Range or Range methods do not. An initial MSA such as a percent tolerance method should be conducted early with parts from multiple runs (prototype, first shots from production and early maturation runs) to validate that the measurement system is acceptable prior to the significant production run. Prior to conducting the Initial Process study for PPAP; the MSA must be done with parts selected from the data set used for the initial process study. The supplier will report the number of distinct categories. Documentation as evidence of these evaluations will be readily available for review and submitted to GHSP per AIAG PPAP requirements as requested.

6.3 Gauge Certification and Calibration

All part specific gages or checking fixtures used for GHSP product quality will be dimensionally certified as part of initial PPAP and evidence of compliance to drawing included with the PPAP package. Gauges and checking fixtures will have a MSA/gage R&R completed. All gauges or measuring instruments used for controlling GHSP product must be calibrated annually, unless frequency is higher based on manufacturer's recommendations or required based on what is learned from the stability/linearity/bias studies.

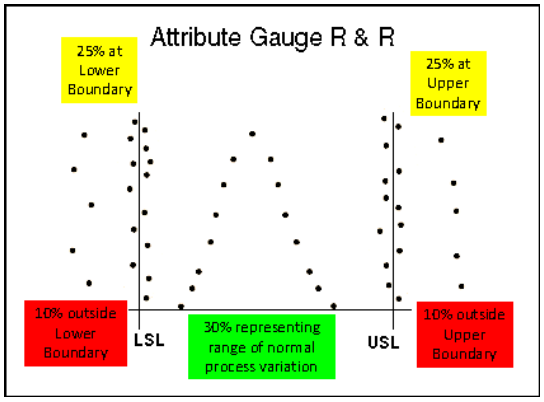
6.4 Gauge R&R Acceptance Criteria

Variable: Gauge R&R as a percent of study variation* of less than or equal to 10% is acceptable with a minimum number of distinct (n.d.c) categories ≥5. The study variation should be representative of the production runs with all known sources of variation. We understand that it is not always feasible to intentionally change sources of variation such as raw material lot variation. GR&R acceptance needs to be in context relative to the initial process or long term process studies (whichever apply) as the GR&R as a %SV is inversely proportionate to the amount of process variation. In the special case where the manufacturing process is very capable, stable and in statistical control; generally a Ppk>2.5, the GR&R % study variation may be in excess of 10%. In this case, the percent

tolerance method may be used. In this case, the number of distinct categories requirement is not required, the values on the range chart are not always within control limits and more than 50% of the values on the Xbar chart may be inside the control limits. If the %Tolerance method is applicable, a value of less than or equal to 10% is acceptable.

Results*	***Interpretation***
GRR <10%	*The GRR meets the acceptance criteria*
GRR>10% <30%	*The GRR does not currently meet the acceptance criteria and risk of shipping non-conforming product requires guard banding until improvements can be made to meet acceptance criteria.*
GRR> 30%	*The GRR does not currently meet the acceptance criteria and requires improvements to be made to meet acceptance criteria. Further, gage cannot be used to for production control methods.*

Attribute: The attribute gauge must reject all parts outside the specification limits. Rejecting good parts may be acceptable if the throughput/capacity losses are acceptable to the team. All Kappa values should be greater than 0.75. Kappa values less than 0.75 may be acceptable if the reason is limited to operators rejecting good parts. The parts used for the attribute study should follow a normal distribution to adequately determine the gauges ability to properly determine if the gauge is capable to separate acceptable from non-conforming throughout the full range of variation and product tolerance. As a general guideline 50% of the parts should be evenly split between the upper and lower tolerance. 30% should represent the expected process variation (selected from initial process capability) and 20% of the parts should be split evenly outside the specification, even if the parts are "specially" manufactured to represent these conditions.



7. Statistical Process Control

7.1 SPC Introduction

AIAG's Statistical Process Control Manual (and applicable Customer Specific requirements) describes the methodology for assessing variation as well as analyzing and monitoring processes. SPC is a complex concept requiring expertise and a strong understanding of statistics to properly apply the technique(s), interpret the results and solve issues as they arise. GHSP expects suppliers to have resources that have proper knowledge and practice in statistical theory to ensure appropriate application of techniques. While the AIAG PPAP manual sets forth requirements, there may exist exceptions where it is improper to blindly use these approaches.

7.2 SPC Expectations

GHSP expects suppliers to establish the appropriate Statistical Process Controls for Critical and Special Characteristics.

7.3Initial Process Studies-

The purpose of the Initial Process study is for the manufacturer to determine if the manufacturing process is likely to produce product that will meet customer requirements. These studies, by their nature, are short term and will not predict the effects of variation over time. Initial Process studies that are assessed by using software are expected to be validated by using standard input data and checked using corresponding expected output results. Example validation data sets are available on the GHSP website.

7.3.1 Design Records without Critical or Special Characteristics: Suppliers must conduct an initial process study on at least 1 product characteristic that would indicate to the manufacturer the level of process stability and predict if the process is expected to meet customer requirements.

7.3.2 Design Records with Critical and Significant Characteristics:
Suppliers must conduct an initial process study on each unique Critical and/or Significant Characteristic(s). ☆ ★

7.3.3 Conducting Initial Process Studies:
Suppliers conduct studies by using at least 125 data points (sample size), sub grouped into 25 groups with a subgroup size of 5, sampled from their significant production run using the expected range of variation from the manufacturing process (e.g the actual manufacturing environment, all tools, all cavities, all manufacturing process streams and expected manufacturing cycle time.). The study must start by analyzing if the process is in statistical control on an Xbar and R chart. If the process is stable, then the supplier must evaluate normality and determine the capability index. If the process is stable but not normal, then the data should be matched to the best fitted distribution for calculating the capability

index. If the process is not stable, the supplier must determine and eliminate the sources of the special cause(s) and repeat the study(s) until the stability criteria can be met.

7.3.4 Acceptance Criteria for Initial Process Study

Results	***Interpretation***
Index≥1.67	*The process currently meets the acceptance criteria*
Index<1.67	*The process does not currently meet the acceptance criteria and risk of shipping non-conforming product requires modified control methods that are 100% effective until process improvements can be made to meet acceptance criteria.*

7.3.5 Advanced Statistical Techniques

Suppliers with resources with demonstrated understanding of statistics are encouraged to apply more sophisticated techniques (for example, Johnson's Transformation in the event the initial process study is not normal or use long term historical standard deviations in place of the short term standard deviation).

7.4 Control Requirements for Special Characteristics:

GHSP has 3 primary Special Characteristics: 1)A Critical Characteristic is a feature if non-conforming has a high likelihood of causing a safety critical failure on the GHSP end item or a severity of >=9 on our DFMEA. 2) A Significant Characteristic is a feature that if non-conforming, would have a high likelihood of affecting customer satisfaction. A Pass-Thru Characteristic is a characteristics associated with a GHSP customer requirement (OEM) that is NOT inspected in the GHSP process and if non-conforming would have high likelihood of being passed onto GHSP's customer. 3) PTC inherently has higher liability risks to the supplier if a non-conformance is found. The Symbols are shown below

CC – Critical Characteristic is denoted with a star outline symbol 

SC – Significant Characteristic is denoted with a solid star symbol 

PTC – Pass-Thru Characteristic is denoted with a PTC Flag 

7.4.1 Critical Characteristics(CC)

CC's require controls which prevent shipment of any non-conforming product regardless of the location in the supply chain (Tier 1 through Tier N) of the manufacture of the physical characteristic(s) associated with the Critical Characteristic. Prevention controls may be 100% error proofing or100% error detection with 100% machine segregation locking out defective parts from

potentially getting mixed. Ongoing SPC is required with data records retained. Supplier may use the long term control charts as evidence of meeting ongoing process capability requirements for annual revalidation PPAP.

7.4.2 Significant Characteristics(SC)

Ongoing SPC is required with data records retained. Supplier may use long term control charts as evidence of meeting ongoing process capability requirements for annual revalidation PPAP.

7.4.3 Pass Thru Characteristic(PTC)

There are no specific SPC requirements for PTC's. However, supplier will be liable for 100% of costs from GHSP's customers related to any non-conformances of a PTC. Error-proofing or 100% end of line failure detection is strongly encouraged.

8. Production Part Submission Process (PPAP)

8.1 Supplier Part Submission Introduction

Supplier PPAP activity is primarily for the manufacturer and not for the customer. The PPAP submission is a documented physical and functional inspection process to verify that defined manufacturing methods are capable of producing an acceptable product as specified by applicable customer design records such as engineering drawings, material and/or performance specifications, purchase orders, etc during actual production at a given quoted rate.

GHSP utilizes common industry practices and forms as outlined in the AIAG Production Part Approval Process manual (latest published version). Suppliers are required to follow these standard practices when preparing to PPAP to GHSP. Suppliers are expected to execute ALL applicable elements of PPAP regardless of what evidence we request the supplier to submit for approval. GHSP submission requirements also include International Material Data System (IMDS) reporting, regionally accepted equivalent documents and other documentation required by specific OEM customers.

8.2 Supplier Part Submission Applicability

Suppliers to GHSP are required to prepare and provide part submission packages for new parts, corrections to a previous submission, engineering changes, and any other changes to design, process or facility. Submission and subsequent GHSP approval is required PRIOR to first production shipment. Any material received at GHSP from an unapproved PPAP will be deemed non-conforming. In the event that unapproved material passes through our organization and is shipped to an OEM, such material will be deemed non-conforming and all liability of costs to quarantine and replace the

end product will be the supplier's sole responsibility, including freight and transportation.
Submission process applies to initial production runs using planned manufacturing processes, tooling, equipment, materials, and operators to validate a significant quantity of parts for future use. Prototype parts or parts built using methods different from those intended for the normal production process are not considered to be initial production runs, nor are subject to part submission requirements (unless specifically communicated by the appropriate GSHP quality contact for the program).
Additional details regarding other planned changes and related submission requirements can be found in Section 15-Supplier Request for Change.

8.3 Supplier Part Submission Process

For new launch business, the start of production date and PPAP timing requirements are communicated by the designated buyer in the sourcing events. The GHSP Supplier Development Engineer (SDE) will communicate what elements of PPAP are required to be submitted using the Supplier APQP Report form.
For current production business in North America, the GHSP Supplier Quality Engineer (SQE) will communicate what elements of PPAP are required for submission. For current production business in Asia, the GHSP SDE will communicate what elements of PPAP are required for submission.
The supplier is responsible to prepare and submit the PPAP package to the designated GHSP representative (SDE/SQE) for approval. Unless otherwise stated, Level 3 submission is required for parts used for the GHSP significant production build for the purpose of PV testing. The GHSP representative may choose to validate the PPAP submission package content at the supplier's facility. At GHSP's discretion, a submittal review may also be conducted at a supplier's sub-tier suppliers.
The submission package is approved or rejected based on conformance to all requirements. The GHSP representative notifies the supplier of disposition and documents status in the submission package. Suppliers are expected to submit conforming PPAP's and not use the customer to inspect the quality of the submission. Failure to submit conforming PPAPs may result in customer service PTR's and if a pattern of submitting defective submissions is detected, it may result in GHSP notifying the supplier's registrar of the systemic breakdown. A signed approved PSW warrant from GHSP signifies that supplier has authorization to ship parts for production per the MRP requirements. The first shipment of the production parts from a PPAP will be marked on the outside of the packaging ***"First Shipment of PPAP Approved Parts"*** to communicate to the GHSP production facility. If the submission package is rejected, the designated representative works with the supplier to resolve any discrepancies and to establish timing for a revised submission.

Production shipments cannot begin until part submission approval is received. GHSP may choose to approve a Supplier Deviation Request or grant an interim approval if it is necessary to utilize the parts prior to full submission approval. Suppliers are responsible for implementing additional containment measures that protect the customer during the period in which the Interim PPAP Approval or Approved Deviation is effective. Suppliers are responsible for the costs related to resubmission.

8.4 Annual Revalidation Requirement

GHSP suppliers will complete an annual revalidation in order to demonstrate continued conformance to proper engineering levels and performance to design intent. The annual revalidation will be documented on the supplier's production control plan. The annual revalidation will be completed and available upon request for parts produced more than 1 year from the last full PPAP approval date. Suppliers are not required to submit annual packages unless requested. However, suppliers are responsible to develop a system to conduct annual revalidation, independent of GHSP's request and annual revalidation submission packages should be readily available according to the retention policy described in Section 8.5. Annual revalidation packages require a minimum:

1) 6 piece dimensional layout with all cavities represented if mold has <= 6 cavities
2) Material Certifications less than 1 year old, unless raw material turn is <= 1 turn per year.
3) Annual Performance testing (DVP&R) per annual revalidation section of control plan approved at original PPAP.
4) Long term data that demonstrates that all SC's and CC's are capable and are in statistical control. Control charts are acceptable provided the control limits are consistent with an Index>1.67 and there is supporting evidence of adequate reactions to all out of control points.

Non-conformances found during the annual revalidation process must follow the corrective action (8-D) methodology including notifying GHSP that supplier is containing the defect. If the issue cannot be contained, then the supplier must stop shipment and immediately contact the buyer to determine action plan.

8.5 Quality Document Retention

Suppliers to GHSP will maintain quality records such that they are retrievable and legible upon request by GHSP. GHSP requires record retention duration of 10 years from initial full PPAP approval. Records related to nonconforming product for trend analysis and problem identification will also be maintained for the same period of time. This requirement extends into sub-tier 1 through N.

8.6 Configuration Control and Lot Traceability

The supplier will be responsible for controlling/tracking the actual configuration of material of parts to the approved engineering documents in addition to any changes to ensure that the end product meets specified functional and physical requirements as contracted. Additionally the supplier will have a robust system in place to provide (upon request) lot or part traceability back to the raw material stock for all material shipped to GHSP.

8.7 Customer Specific Requirements

Suppliers must also meet all applicable OEM Customer Specific Requirements (CSR), as specified in the supplier statement of work and must be able to show records of compliance. The applicable requirements are exclusive to those that are in the public domain including the GHSP website, AIAG websites and OEM specific websites. Requirements that are only available in secured locations (username/passwords) that are not made directly accessible to GHSP suppliers by OEM's are excluded from this requirement. Exceptions to CSR's must be resolved and reflected in the statement or work or on the design record, if exception is related to part form, fit or function.

9. Quality Performance Reporting

9.1Key Process Indicators

Key Process Indicators (KPI's) are used by GHSP to measure the effectiveness of internal business processes. Suppliers are required to define KPI's that are relative to their operation, set targets for these metrics, measure them relative to the established targets, report their findings, and develop improvement plans based on the results. KPI's are to be regularly reviewed by management and must be available upon request during an SMR event. Examples of KPI's that are relevant to a manufacturing facility may include (but not limited to):

Quality Measures	**Manufacturing**
Customer PPM	Schedule Attainment
Internal PPM	Scrap %
# Repeat Problems post Corrective Action	Inventory Costs
Supplier PPM	First Time Capability (FTC)
Shipping	**Safety**
On time delivery	Lost time Accidents
Premium Freight Costs	Recordable Accidents

10.0 Quality Deliverables

10.1 PPM Expectations

The expectation for supplier performance is 0 PPM (0 defects)
Product that is received into GHSP facilities that does not conform to the drawing specification(s) and /or agreed upon standards will be counted against a suppliers PPM record. Quantities will be reported in the units of measure in which they are purchased. This applies to production parts**. The following conditions are considered Quality PPM designated by A, B or C rank PTRs:**

- Production Parts that do not meet drawing specifications, dimensional, functional and/or appearance standards as called out in the specification or from an approved boundary sample by a GHSP representative.
- Production parts damaged as a result of inadequate packaging, regardless of GHSP approval of the packaging form. Production parts damaged from transportation for which the supplier is responsible.
- Shipments that are received with mixed parts or parts that are the wrong revision level after the clean point has been established. Reject/Defect quantity is for the quantity of incorrect parts only.
- Any defects outside the boundaries of an approved deviation for cases where supplier may be shipping prior to PPAP approval.
- Out of specification parts shipped prior to PPAP approval without an approved deviation. This includes production samples used during product development cycle (launch) that have a design record at REL level or beyond.

The following are examples of situation where Quality PPM is not applicable:

- Parts that meet drawing specifications and/or boundary sample requirements but are not useable.
- Parts that meet drawing specification and/or boundary sample requirements that are rejected by a GHSP facility.
- Parts that have not been released for production (i.e. not at revision REL or beyond on a design record). This excludes prototype parts off prototype tooling.
- Parts that have an approved deviation for a non-conforming condition(s); these parts cannot be assigned PPM if the problems is only associated with the deviated characteristic.

10.2 Correcting PPM

When a quality issue requires containment, the suspect material must be sorted 100% for all material including parts at all GHSP locations, in inventory at supplier, and material in transit. If suspect parts are removed from the GHSP location (and moved to non-nettable inventory) and sorted off site (at supplier or 3rd party) the supplier must complete the sort and return certified material to GHSP in a timely manner including reporting any defects found. The plant will update the PTR defect quantity in accordance to the finding. A timely manner is defined such that the GHSP production

facility is uninterrupted by the sorting activity. Suppliers are encouraged to work with GHSP materials planners to understand when they need certified material to maintain uninterrupted production schedules. If a supplier identifies, communicates and takes appropriate action to correct a potential problem before the problem is identified or before parts are used in a GHSP facility, then the parts will not be counted against PPM and no points will be deducted from the supplier's scorecard. Suppliers may authorize scrapping material if it does not interrupt GHSP production.

Parts which are out of specification may be used "as-is" with an approved deviation signed by GHSP Engineering and Quality representative, if the purposed is to maintain production to prevent potential interruption at GHSP's end customer. In these cases, PPM may be assigned based on risk, non-conformance history, and severity as determined by the DFMEA from GHSP Engineering.

10.3 Degradation of Quality Control of Critical Characteristic.

A Critical Characteristic is considered the highest level issue within GHSP because of the safety and liability implications that could occur as a result of the non-conformance(s). In the event that a Critical Characteristic(s) are found to be non-conforming after the production controls, per the control plan, were executed, this is an indication that the control system has degraded (worsened). Supplier containment and immediate notification to request approval for a change in production control plan will be required until such time the root cause(s) can be identified, verified and corrected. Containment can take the form of a downstream error proofing activity on the GHSP assembly line provided that the supplier agrees to fund the costs and GHSP is able to maintain cycle times. The goal is the most effective detection method of the defect. **One CC defect is one defect too many.**

10.4 Degradation of process capability of Significant Characteristic

A Significant Characteristic is considered the second most issue of priority within GHSP because of the functional impact as well as the impact to our First Time Capability measure reported to OEM customers. In the event that the ongoing SPC controls indicate that the overall process capability has degraded below 1.67, the supplier is expected to notify customers, identify 100% effective containment measures and request approval to implement the change in the production control plan until such time the root cause(s) can be identified, verified and corrected. The objective is to implement the most effective detection method thus suppliers may consider alternatives at the first assembly station error detection at GHSP provided that the supplier funds the investment in the equipment and the change does not have *a significant impact on GHSP's schedule attainment.*

10.5 Outgoing Inspection and Reaction to GHSP Incoming Inspection Concern for material shipping to GHSP China

GHSP China manufacturing facilities have unique requirements in regards to receiving outgoing inspection reports from suppliers to be used to compare to GHSP incoming inspection data. The purpose of this is to verify that each shipment we receive when inspected, matches the outgoing data from the supplier on critical, significant and in some cases, pass thru characteristics. Detection of outgoing quality issues is the supplier's responsibility and any incoming inspection done at GHSP, will be driven by risk and/or past problem history with the specific supplier. Outgoing Final Quality Checks (FQC) will be documented on the supplier's production control plan.

11. Supplier Chargeback

11.1 Supplier Chargeback Communication & Expectations

Suppliers are notified of nonconforming material through the Problem Tracking Report (PTR) Notice. Nonconforming material is defined as suspect or rejected product that is deemed defective according to the design record(s), product specifications or established appearance boundary samples. PTR's are subject to a $250 USD administrative fee for quality, delivery and service issues. If the problem results in a line down situation, a minimum of a $750 USD administrative fee will apply. No RMA's are required for administrative fees. Suppliers are expected to issue a return material authorization (RMA) within 24 hours of PTR notice to the GHSP designate (shown below) to authorize actions including, but not limited to, scrap, re-work, sorting on site, or returning material to vendor. Supplier chargebacks should be targeted for closure within 30 days and can only be extended with the written acknowledgement of the commodity buyer.

Issue Type	Representative
Quality issues at GHSP NA factory:	Plant Supplier Quality Engineer
Quality issues at GHSP Asia factory:	Commodity Supplier Dev. Engineer
Delivery Issues at any GHSP factory:	Material Planner
Customer Service:	Buyer

12. Problem Solving Documentations

12.1 Supplier Problem Solving Expectations

The 8D Problem Analysis Report is the GHSP preferred problem solving format for use by all GHSP facilities. The 8-D Problem Analysis Report provides a means for the definition and resolution of issues through problem solving.

Each supplier is responsible for appropriate and timely application of the 8D and for ensuring their organization possesses the knowledge and skill level to solve problems. It is expected that a completed 3-D is submitted within 24 hours (1business day) of receipt

of PTR notice to contain issues where the manufacturing location and GHSP factory giving notice are in the same relative time zone. In the event that the supplier is providing product from a foreign location greater than 8 hours' time difference, the containment period will be less than 3 days' time.

Each supplier is expected to submit evidence to prove potential root cause(s) are real and in some cases, prove them not to be real. The permanent corrective actions will be directed at a method to detect the cause of failure mode, not an action that is intended to detect the failure. Failure detection costs may be an interim control to protect GHSP but cannot be the basis to close out a problem as this drives non-value add waste in our supply chain that has the potential to become new business practices creating uncompetitive supply lines. Supplier can dispute a PTR and request it to be deleted if adequate evidence is provided that root cause could not have occurred at supplier. Suppliers are expected to follow the PPAP requirements (Section 8) for permanent corrective actions that fall under the scope of PPAP. GHSP has contractual OEM obligations to request Tier 1 to N changes thus it is critical to follow the change notification and request sequence with absolute discipline. It is an expectation that suppliers manage their corrective actions and avoid letting them age beyond 90 days. In the event that the supplier has submitted permanent corrective actions (PCA) and GHSP is restricting supplier's ability to implement PCA, please notify the GHSP Strategic Buyer to escalate the concern. Suppliers are expected to verify PTR closures via monthly reviews of supplier scorecards. The suppliers are encouraged to raise concerns to the buyer if they believe that PTR's closures have not been correctly reflected in their scorecard.

13. Supplier Management Reviews (SMR1)

13.1 SMR Introduction

A Supplier Management Review is an escalation process used to ensure that the supplier is placing the proper focus on a systemic issue(s) and establishing corrective actions that result in a substantial change in performance over time, as reflected in supplier scorecards.

13.2 The SMR Review and New Business Hold Criteria

SMR/ New Business Hold Criteria	SMR #1	SMR #2	Hold New Business
Chronic documented unresolved problems in the area of Quality, Service, Logistics and/or Delivery.	X		
Special Characteristics (CC, SC, PTC) that have been received as non-conforming in any GHSP facility. Discovery that a supplier has not submitted PPAP packages for	X		

changes as required by 4th Edition PPAP requirements.			
Discovery that a supplier has shipped production product to GHSP without PPAP approval or a valid GHSP deviation.	X		
Production suspended at GHSP resulting in a customer disruption, or significant cost to GHSP due to a suppliers' product quality, part shortage or logistical issues unrelated to a force majeure event.	X		
Chronic, documented, unresolved SMR problems spanning more than 2 quarters or deemed high risk requiring immediate action.		X	X
Unreasonable response from the supplier or indications that no progress has been made to resolve SMR1 issues.		X	X
Suppliers inability or unwillingness to work with GHSP to make fundamental quality system improvements.		X	X
Unresolved special product characteristics, as defined on the print, do not meet Ppk or Cpk requirements as expressed in the AIAG PPAP requirements and/or engineering documents.		X	X
Continued customer dissatisfaction of a supplier's product quality, delivery or logistical issues, including resourcing sub-contractor(s) to known capable supply chain.		X	X
Significant single event issue (Quality, Delivery, Cost, Other)	X	X	X

13.3 SMR Notice and Expectations of Conducting SMR Review

The Supplier Management Review is the opportunity to discuss the important concern(s) of GHSP and review the corrective action plans. The SMR 1 level is intended to be conducted by the supplier's management staff. The SMR 1 notice is initiated by sending a Meeting Notice form to the supplier. Focus must be placed on effective critical thinking, systemic root cause analysis, and identification of meaningful countermeasures. All quality and delivery problems are to be supported with appropriate data. The supplier is expected to bring a permanent corrective action plan for all the items referenced in the agenda. The buyer is responsible to collect detailed meeting minutes, including any additional agreed upon action items to be taken, and subsequently distributing the minutes to all attending parties. The buyer determines if the action plan is acceptable with or without minor changes. If the corrective action plan is not acceptable then an SMR 2 may be called. The SMR 2 is intended to be conducted with the supplier's executive (C level) staff.

13.4 SMR Exit Criteria

The supplier will implement the GHSP approved systemic corrective action plan and will provide evidence of corrective actions along with data demonstrating a measurable impact. The data required is commensurate with the issues experienced. For example, if the issues are regarding chronic delivery, the data may be several weeks to months of on

time delivery reports or production schedule attainment charts. If the issue is chronic quality issues, the evidence may be a combination of demonstration of mastery problem solving and incorporation of the learning into design, equipment or manufacturing standards. On site verification of improved process may be required. If the corrective action is not satisfactory, or insufficient evidence is presented, a determination is made whether to escalate the SMR to the next level.

13.5 SMR Escalation and Expectations of Final Resolution

The SMR 2 notice is initiated by a member of GHSP Supply Chain Management staff and is sent to the appropriate supplier senior management. An SMR 2 indicates that a substantial degradation has occurred with ineffective corrective action or corrective action at a pace that indicates a likelihood of continued impact in our operations and/or launch team. The SMR 2 is an executive discussion. In rare, extenuating circumstances and at GHSP discretion, a contractually allocated resource may be assigned to the supplier to lead initiatives to ensure sustainable improvements are made. The outcome of the review will determine whether the supplier is placed on new business hold or whether the supplier may still be considered for quoting new business during the recovery timeframe.

14. Containment

14.1 Purpose of Containment for Production

Containment is accomplished through deployment of additional controls in the supplier's process to identify known or potential non-conformances and to prevent such non-conformances from shipping to GHSP.

Additional controls can include but are not limited to: statistically based inspection audits, dimensional measurements, SPC checks, appearance checks, part functionality checks (EOL tester), label verification systems, check fixtures/gage and poke-yokes.

The goal of containment is to protect GHSP and its customers from defective material escapes during the initial product and process startup (pre-production), throughout production and in reaction to a quality issue identified at any location in the supply chain. The following section details our expectations for each of these phases:

14.2 Pre- Production/Launch Containment Expectations

Pre-production containment applies to any parts produced for prototype, pilot or saleable vehicle builds at GHSP prior to full production. Pre-Production containment activities are a requirement of the suppliers APQP process and must be documented on the prototype or pre-launch control plan whichever applies. The Pre-launch control plan

includes increased frequencies and additional tests over and above the Production Control Plan to ensure heightened product and process quality until the supplier's production process is validated. The exit criteria to validate the production process will be documented on the pre-launch control plan. During pre-production, the sample size and/or frequency of product inspection is typically 100% and does not replace the final part audit. The GHSP SDE reviews the pre-launch control plan which is typically done during the Process Sign Off event. Open issues from the PSO will drive deployment of additional controls and documentation in the pre-launch control plan.
Issues that remain 90 days post GHSP SOP may be subject to 3rd party containment if the SDE deems it to be appropriate as supplier has had reasonable time between suppliers PPAP due date and the program SOP date to resolve issues.

14.3 Containment Exit Expectations

Criteria for exiting containment will be approved by the GHSP quality contact. Exit criteria will be based on reaching a predetermined quality level and not a number of parts or days sorted. To exit containment, the supplier must achieve a predetermined quality level (generally 0 defects) and maintain this level for a minimum of 30 days or 3 production lots.

15 Supplier Request for Change

GHSP acknowledges that suppliers may have a need to request a permanent change to their product and/or manufacturing process. Changes include, but not limited to, VA/VE improvement initiatives, increased capacity requirements, manufacturing footprint optimization, sub-tier supply resourcing or other changes. We further recognize, that deviations to requirements may be requested and expect suppliers to manage the risk of approved deviations accordingly. A deviation is defined as a short term change from an approved, usual, expected or planned process. Examples of a deviation would include, but not be limited to, requesting approval to ship production parts without full PPAP approval, requesting approval to implement re-work as a containment activity or utilizing non-returnable packaging as a substitution for approved returnable packs.

15.1 Supplier Change Request and Approval Process

The process below defines the steps for supplier product or process changes to ensure that they meet GHSP requirements and the OEM's Customer Specific Requirements. All suppliers are expected to follow the process as outlined.
GHSP requires advance notification and written approval prior to all changes and /or transfers, failure to do so may result in the supplier being placed on New Business Hold

Status, a formal notification to the TS16949 or ISO9001 supplier registrar and/or financial consequences.

Product and/or Process Changes that require GHSP approval to implement:

- Any change that could affect form, fit or function
- Any product change that would be reflected on the design record(s)
- Supplier manufacturing process change (permanent)
- Change in manufacturing or shipping location
- Change in sub-supplier
- Modified equipment or tooling
- New or refurbished tooling or equipment (excludes perishable tooling)
- Changes in test/inspection methods
- Revisions to the line layout or work station

Steps for obtaining approval to MAKE the requested change:

1. Prepare and submit a completed GHSP Process/Product Change Request form with supporting detail. The form is located on our corporate website **www.ghsp.com** Incomplete forms will be rejected.
2. GHSP Supplier Quality or Supplier Development will evaluate the request and if acceptable, will seek internal approvals as needed.
3. Supplier receives approval to move forward with change request or rejection.
4. Supplier submits PPAP and PPAP samples (if needed) to GHSP quality contact for disposition.
5. If PPAP is rejected, supplier is required to make the changes needed to overcome the objections
6. If Supplier PPAP is approved (Full or Interim), supplier may begin shipping product with a label on the outside of the container to indicate the first shipment of the change. The GHSP quality contact will provide the tracking number that will be included on the label for internal traceability.

15.2 Supplier Deviation Request and Approval Process

The process below defines the steps for suppliers to request approval to implement a deviation.

Steps for obtaining approval to MAKE the requested change:

1. Prepare and submit a completed GHSP Supplier Deviation Request form with supporting detail. The form is located on our corporate website **www.ghsp.com** Incomplete forms will be rejected.
2. GHSP Supplier Quality or Supplier Development will evaluate the request for completeness and if complete, will seek internal approvals as needed.

3. Supplier receives approved or rejected deviation request. If approved,
4. Supplier implements the temporary deviation including any edits documented on the form. If the deviation affects product, we may require that the product or outside package is identified, to alert GHSP that we are receiving material under deviation.

15.3 APQP Linkage to Process Change Request, PPAP and Value Add/Value Engineering (VA/VE)

GHSP expects suppliers to continuously improve by applying the APQP methodology, as well as other methods (kaizen, quality circles, value stream mapping, etc.). When quality issues occur and effective problem solving is executed, the corrective actions most often can fall under one or more conditions requiring a revised PPAP submission. PPAP is a process, not an event. The PPAP submission is a key milestone event that is the sum of the APQP activities and as such, we expect that suppliers maintain internal PPAP records for each element for every change point. The evidence we ask a supplier to submit is not equivalent to the obligation of work. ALL elements of PPAP must be considered and updated to reflect the lessons learned as applicable. Suppliers may be tasked with VA/VE goals and GHSP expects that the supplier consider the APQP process when planning/implementing the initiatives.

Chapter 4 Material & Logistics

Purpose

The purpose of the Global Supplier Standards Manual is to communicate GHSP requirements to our suppliers. It is the expectation of GHSP that all suppliers of direct materials comply with all of the requirements and expectations documented in this manual. In addition, GHSP expects this manual to provide the foundation for our working relationship with our suppliers. We will strive for excellence thru working together to proactively prevent issues and continuously improve.

Scope

The scope of this policy applies to all GHSP facilities. The type and amount of involvement with our facilities will be dependent upon the locations that are involved in the purchase of products/services and the locations that experience the consumption of the products and/or services.

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1 Materials Management and Logistics

1.1 Introduction

The materials management and logistics organizations at GHSP contribute to manufacturing excellence in quality, cost, and delivery to the customer. Specifically, these teams ensure the on-time delivery of component materials and subsequent shipments of finished goods at the lowest cost and best value to customers. Continuous improvement in our supply base relative to materials management and global logistics is required and, if managed correctly, sustained improvement will provide a competitive advantage for GHSP and our supply chain. To fully leverage the potential of these

innovative systems and processes, the knowledge and capabilities of GHSP's extended enterprise must be flexible and capable of meeting our replenishment requirements.

1.2 Global Standards

World-class materials management and logistics is achieved via execution of comprehensive, standard business processes. As such, suppliers of direct materials to GHSP will:

- Maintain certification with ISO/TS 16949:2009 (applies to suppliers of direct materials used in automotive products at GHSP);
- Maintain certification with ISO 9001:2008 (applies to suppliers of direct materials used in non-automotive products at GHSP);
- Maintain compliance via annual self-assessment with Materials Management Operations Guidelines / Logistics Evaluation (MMOG/LE) as published by the Automotive Industry Action Group (AIAG) (applies to all GHSP suppliers of direct materials).

1.3 Fundamental Systems

Suppliers of direct materials to GHSP will ensure the following expectations are in-place and are included in their business processes:

- Communications take place electronically between trading partners;
- Lean Manufacturing principles and practices are employed in the organization;
- Customer demand is analyzed, schedule variation is reacted to, CUM quantities (CUMs) are reconciled weekly, for suppliers shipping to schedule release; and demand is compared to available capacity.
- Communications are proactive relative to potential issues in meeting demand requirements;
- Shipments are made according to routing instructions;
- 100% on-time delivery is required and measured from sub-suppliers;
- Materials Management and Logistics team members have development plans which focus on increasing their abilities and experience in the areas of materials management and logistics processes, technical capabilities, problem solving, and leadership.
- Materials Management and Logistics systems are audited to ensure compliance;
- Key measures are identified, monitored, and reviewed for continuous improvement of performance.

2. Electronic Commerce

2.1 Introduction

GHSP and our automotive customers require that Electronic Data Interchange (EDI), or an alternate web based solution, is utilized throughout the Supply Chain. This includes the ability for suppliers to integrate releases and send ASN's without manual intervention. All of our initiatives, policies, and transaction sets comply with the guidelines for Materials Management Operations Guideline / Logistics Evaluation (MMOG/LE) as set forth by the Automotive Industry Action Group (AIAG). Our suppliers must have the capability to interface with us through the use of the QAD Supply Chain Portal (SCP), formerly Supplier Visualization (SV). Any updates, new releases, system changes, etc. will be communicated to our suppliers through the Supply Chain Material Systems and/or Purchasing teams.

2.2 Advanced Shipping Notice (ASN)

An ASN is the electronic transfer of shipment data from a supplier to a customer. The customer plant utilizes the information contained within the ASN in three ways:

- Determine and confirm goods are in transit
- Verification against the shipment as product is received
- If the supplier is ERS (Evaluated Receipt Settlement) approved, the ASN serves as an electronic invoice that will generate payment to the supplier

Accuracy of ASN's is imperative in order to maintain the integrity of information related to inventory records, supplier schedules (MRP), and invoice payments. ASN timeliness is critical to information accuracy and the functionality of GHSP systems. Failure to send ASN's may result in non-compliance on your Supplier Scorecard through the issuance of a PTR (Problem Tracking Report), and the potential for a charge-back.

The ASN must be created upon finalization of the shipment and be received by GHSP within one hour from departure of the suppliers shipping location, or prior to its arrival at the GHSP facility, whichever is earliest.

In order for the ASN to be identified as complete, all of the specified information listed below must be contained within the ASN. A PTR may be issued for failure to send an accurate ASN.

- A unique Shipper / Packing slip / BOL number for each shipment
- Shipment Date / Time

- Carrier name
- Carrier reference / tracking number
- Part Number(s)
- Quantity Shipped per part
- Purchase Order Number
- UOM

3 Shipping and Replenishment Performance

3.1 Introduction

The standard for GHSP suppliers is 100% on time arrival of all parts required by the GHSP manufacturing site. This means shipping the correct quantity of the correct product to the correct location in the correct method at the correct time.

It is mandatory that the supplier contact the GHSP facility, immediately upon recognition of an issue, if the release schedule cannot be met. This includes the review of all weekly forecast releases to the APW/MPW and/or the EAU as quoted to GHSP.

GHSP expectations are that suppliers procure materials to the authorized raw/fab as reflected on the releases. Notify your GHSP Materials contact and/or GHSP Materials Manager if you receive 2 or more subsequent releases which show a decreasing authorization without receipt of a balance out notification.

Suppliers are expected to import forecasts and releases electronically into their systems without manual entry as stated by AIAG in the MMOG/LE.

3.2 Forecast Expectations

The forecast will grant raw & fab authorizations per the commercial terms between GHSP and the supplier. GHSP raw & fab authorizations will be provided in accordance with the authorization being provided by our customers. An example is that GHSP may provide 4 weeks raw and 2 weeks fab, for a total of 4 weeks (i.e. you are authorized to convert 2 weeks of the raw to fab, not carry an additional 4 weeks raw). This information will be provided to the suppliers via the releases in SCP. Certain commodities may be granted different standards, but all commercial terms will be reflected on the releases. Deviations from the standard must be authorized by GHSP and will be communicated in the Purchase Order as well as on the release. The authorization on a release is the GHSP financial commitment for released material. Authorization for a CUM amount and the lead-time required for a shipment are not synonymous. Lead-time is defined as the amount of time between recognition

of an order and receipt of an order (and may include manufacturing time as well as transportation time). This does not translate directly into the amount of weeks GHSP will provide firm releases or financial commitment authorization. Any questions or concerns on Raw/Fab authorizations reflected on releases should be directed to the appropriate GHSP Buyer.

3.3 Shipping and Delivery

Authorization to ship product to GHSP will be communicated through the GHSP facility designated replenishment method (supplier release or min/max as set in SCP). If replenishment methods should change, GHSP material planners will communicate the change to the supplier. During launch or pre-production GHSP will use MRP supplier releases or discrete/spot buy PO's. Replenishment methods will vary from site to site.

The requirements on the releases will show as either a ship date or a delivery date.

- A Delivery date defines when the goods are to be ultimately received by the GHSP facility. A delivery date is NOT the date that material should be delivered to the carrier. Transit time must be determined and the product shipped to account for receipt at GHSP facility on the date reflected on the release.
- A Ship date defines when the supplier is expected to ship the goods. This is the date GHSP expects the freight to be delivered to the carrier.

Contact the GHSP facility if you have any questions as to which date is being transmitted.

The supplier is required to:

- Control its processes to assure that the physical shipments correspond with the GHSP demand.
- Have the ability to meet either a 20% week to week net schedule increase or a 20% CUM increase over the period authorized within the raw/fab authorization. This does NOT apply to balance out material.
- Contact the GHSP facility Materials Representative(s) if the supplier is unable to meet the replenishment schedule and supply the following information:
  - The quantity of parts showing required (based on CUMs) by date

- The plan to get back on schedule by assigning the necessary resources to resolve any delivery issues.

- Contact the GHSP facilities materials representative for an agreement on transportation method, if the release schedule cannot be met

  - Obtain approvals from the GHSP facility on the mode and carrier chosen for all expedited materials.

  - Make every effort to reach an agreement on the expedited freight responsibility at the time of shipping

    - If the supplier is responsible for freight costs, you may use the logistics company of your choice. However, the supplier is then responsible for tracking the in-bound freight to GHSP and advising the GHSP facility materials representative as to the shipping status. This includes all updates (i.e. departure, customs clearance, ETA) as freight is in-transit, including off hours where applicable.

    - If GHSP is responsible for the freight, it is expected that the freight is moved through either CH-Robinson or Expeditors International, as directed by the GHSP Materials representative.

- Take Responsibility for downtime and other associated costs (i.e. premium freight or charter costs) due to their inability to meet delivery requirements that are in accordance with the purchasing terms and conditions.

4. CUM Order Quantity Maintenance

4.1 Introduction

The generation, verification, tracking, and reconciliation of CUM order quantities (CUM's) is the standard for Automotive Tier 1 suppliers, including GHSP. CUMs are a way to identify the amount of product required to ship to your customer. GHSP expects the supplier to reconcile CUMs upon receipt of each release. Identifying and initiating the resolution process of CUM order quantity discrepancies is the responsibility of the supplier. The definition of the process is defined below.

4.2 CUM Order Quantity Maintenance Communication

GHSP will provide the supplier with the following:

- Starting 'CUM Received Qty' of 0 upon issuance of a new purchase order
- 'CUM received' quantity will be noted on each new release and includes the last receipted ASN number, quantity, and date the part was received into the GHSP ERP system.
- 'CUM received' may be changed if one of the following conditions exists:
  - Issuance of a Problem Tracking Report (PTR) due to a receiving variance (qty is over/under the packing slip quantity issued by supplier)
  - A Supplier Material Return has been processed by the quality department
  - CUM resets (may be done annually and suppliers will be notified of the reset prior to the action being taken)
  - Prior receiving error corrections
- A revised electronic or manual release if errors are found in the electronic release pulled from SCP. The release will show the required quantity due at the GHSP facility based on MRP (Req Qty), Total CUM required to be shipped to ('CUM Req Qty'), and the quantity remaining open after receipts have been processed ('Net Req Qty'). These will be shown by line, with the corresponding due date reflected.
  - Dates on Releases will be represented as either Delivery Date (supplier accounts for transit time from supplier to GHSP facility) or Ship Date (GHSP accounts for transit time from supplier to GHSP facility).
- 'Prior CUM Required Qty' field on the release represents the CUM total quantity due, prior to the first date shown on the new release. Any past due requirements will be reflected in the prior 'CUM Required Qty' and 'Net Req Qty' fields.
- Physical copy of PTR's or Return to vendor transactions to support CUM resolution

GHSP expects the Supplier to:

- Track and accumulate all production part shipments. This will become the suppliers CUM (CUM) shipped quantity.

- Update suppliers CUM shipped quantity when the supplier is issued a return to vendor or a PTR (i.e. incorrect packing slip/ASN to parts physically received).
- Identify past due quantities using the most recent release. The formula is, prior CUM required minus the CUM received minus in-transit quantity.
- Identify the GHSP CUM required by date using the most current release. The formula is CUM received plus prior net CUM required plus req qty by the due date.
- Net quantity required is calculated using the most current releases' CUM required minus the GHSP CUM received quantity by date shown. If material is in-transit, the CUM received will not match the suppliers CUM shipped in the suppliers ERP system and this should be subtracted from the suppliers Net Req qty to ship to GHSP. The supplier is responsible to determine the CUM shipped compared to the CUM required to determine accurate shipping quantities.
- Resolve any CUM discrepancies with the appropriate GHSP materials personnel at the plant immediately.

Please direct any questions regarding CUM maintenance to the GHSP plant materials contacts and escalate to the Supply Chain Team as necessary.

5. Replenishment Methodology Requirements

5.1 Introduction

In order to standardize supply chains, optimize inventory levels, and minimize freight expense, GHSP has defined three replenishment methods to order material from our supply chain partners.

The three methods for production replenishment are:

- Supplier Release determined through MRP – using the standard release method to communicate the required shipment quantities. The requirements may be reflected in many different "buckets", such as daily, weekly, bi-weekly, monthly, quarterly, annually, etc.
- Kanban – Kanban can be communicated either via email, internet, or through the GHSP visibility tool Supply Chain Portal (SCP) / Supplier Visualization

(SV). This method may require the supplier to monitor inventory levels and calculate the required shipment quantity or it may require GHSP employees to monitor, calculate, and communicate the required quantities.

- Min/Max – Through the use of the SCP visibility tool, the Min/Max provides a range of acceptable inventory levels that the supplier must maintain. Suppliers must ship at the frequency designated by the GHSP receiving facility in order to keep inventory levels within this range.

  Exceptional Conditions only:

  A manual replenishment release would be acceptable in conditions where it is not possible to use one of the three designated GHSP replenishment methods.

  - System failure, power outages, scheduling failures (MRP failed to process)
  - Critical requirements: GHSP recognizes that there may be times where demand may have to be prioritized for a supplier in critical inventory situations.

Our goal is three-fold:

- Optimize turnover , truck utilization, and prevent premium freight by using one of the 3 standard methods
- Maximize internal & external visibility of component parts
- Appropriate use of technology & electronic commerce to communicate replenishment signals

This means that a supplier could receive different replenishment signals from different GHSP receiving plants, and a single GHSP plant could use multiple signals with different suppliers. A supplier should not experience multiple signal strategies unless the parts shipped to GHSP are in different product life cycles (i.e. launch, balance out, etc.).

The determination of which method is used is based on many factors and is dependent upon:

- Lean manufacturing strategy and where the GHSP facility is in their progression of lean
- Stability or predictability of customer demand
- Supply Chain footprint; i.e. how close the shipping point is from supplier to the end GHSP facility.

To determine the optimal replenishment method used for each component, GHSP will review operational and supply chain conditions (life cycle, supplier location of production facilities, etc.). GHSP will communicate any changes to the supplier as soon as possible to ensure proper training on tools is identified and completed.

5.2 Visibility Replenishment Tool Used for Min/Max and/or eKanBan (NA only)

Two of the above methods utilize the GHSP defined tool (SCP) for visibility and lean replenishment. If the GHSP customer facility determines that either the min/max or eKanBan are the appropriate methodology, they will contact each supplier to advise them of the decision.

Each supplier is responsible to gain access to the tool, review training documentation (and request further training if required), and work with the customer plant to define and implement the operating procedures and parameters for using the visibility/lean replenishment tool. This requirement must be met in order to be considered for an annual award. GHSP will periodically review the current replenishment method to ensure the current replenishment method is still optimal. If it is determined that the current replenishment strategy should be changed, the GHSP facility will work with the supplier to implement the change.

5.3 Important Documents and Supplementation to section:

See link to references below

http://www.ghsp.com/Suppliers/Supplier%20Visualization/

6. Materials Management Operations Guidelines / Logistics Evaluation

6.1 Introduction

The Materials Management Operations Guidelines / Logistics Evaluation (MMOG/LE) is a global document jointly created by the Automotive Industry Action Group (AIAG), Odette representatives, OEM representatives, and automotive suppliers.
It is a document with recommended business practices for the supply chain management processes of automotive industry suppliers, and is intended to establish a common definition of materials “best” practices to facilitate effective communication between

supply chain partners. The MMOG/LE has the same technical process approach as ISO/TS, but focuses on the supply chain processes, whereas TS focuses on quality management.

Beginning in January 2015, GHSP suppliers will be required to submit the MMOG/LE to GHSP on an annual basis. The self-assessment should be emailed in a zip file to your GHSP buyer no later than the 31st of January each calendar year. At this time, GHSP is not requiring suppliers to be certified at a level A. GHSP reserves the right to audit MMOG/LE scores by requesting supporting documentation or by conducting an onsite review of the supplier facilities.

Suppliers are expected to purchase a download of the MMOG/LE publication and if needed, attend training on how to use the assessment by contacting AIAG on the internet at www.aiag.org .

6.2 Supplier Assessments

An MMOG/LE will be completed for each supplier shipping location supplying product to a GHSP facility, i.e. if the supplier has a China manufacturing location that ships to GHSP Shanghai and a N. American facility that ships to GHSP-Hart, then two separate MMOG/LE's (one for each supplier facility) will be supplied to GHSP.

7. Balance Out and Claims Process

7.1 Introduction

GHSP believes that obsolete material claims can be avoided by minimizing lead times, strictly adhering to production schedules, and properly managing inventory at all tiers in the supply chain. Most obsolete material claims occur at the balance out of a product. Balance out is defined as the end of a model as well as current model engineering changes. Our goal at balance out is to have zero obsolescence, and this requires our suppliers to closely manage their inventory on an on-going basis, and especially during the balance out event.

7.2 Balance Out and Claims Process

7.2.1 Our balance out process requires the GHSP materials plant representative to provide a balance out letter that states all parts and approximate date of last mass production purchase to the source supplying the components. GHSP notification of balance out, as well as defined balance out filing parameters, will take place outside of the established authorization window. Claims received after the established deadline will not be honored.

7.2.2 After receiving balance out notification, any supplier planning to produce a contractual minimum run order which exceeds raw/fab authorization must first receive written approval from the GHSP Materials Planner or GHSP Purchasing Buyer.

7.2.3 In the event that obsolescence occurs due to the discontinuation of a part, the following procedure must be followed to file a claim:

7.2.4 Determine the highest RAW and FAB (fabricated) material authorizations issued by GHSP. To determine the highest RAW/FAB authorizations, a CUM release history must be reviewed. The high point is the highest CUM release for the period prior to B/O notification. Suppliers should refer to the "High Release" and/or their Purchase Order for RAW/FAB authorizations.

7.2.5 Fill out the "Obsolescence Claim Form" and attach the supplier schedule/release documents (including release ID), purchase order, and any minimum run authorizations to support the claim. All claims must be received within 15 days of balance out date to be eligible for reimbursement. All late claims will be denied.

7.2.6 All obsolete material must be segregated and stored, pending audit and final disposition by GHSP and/or the OEM.

7.2.7 Suppliers are encouraged to submit all claims to GHSP, regardless of value. However, external supplier claims less than $250.00 dollars may not be paid, as it is dependent upon the total claim submitted to the OEM. GHSP claims to the OEM totaling less than $500.00 aggregate will not be submitted to the OEM, nor paid to the supplier.

7.2.8 Supplier must obtain GHSP plant authorization in order to sell claimable material because it is no longer auditable by an OEM.

8. Logistics Requirements

8.1 Introduction

These requirements are intended to give the GHSP Supplier a clear understanding of what is needed and how to ship product to GHSP, as well as the expectations and requirements needed to ensure deliveries are received on time and worry free. The requirements are intended to be used for collect shipments to GHSP, where GHSP is responsible for the transportation cost. This applies to all shipments domestic and international.

The supplier is encouraged (but not required) to use a GHSP preferred carrier/forwarder when making shipments where the supplier is responsible for the cost of transportation. This enables the supplier and GHSP to maintain visibility and track the product while in transit.

If the supplier is part of a GHSP, routed dedicated run (milk run), all expectations noted in this document apply.

8.2 GHSP Freight Forwarders

GHSP uses global freight forwarders in conjunction with FedEx to move products and materials throughout the world. All freight shipments (151 lbs. or more) where GHSP is responsible for the cost will be handled through one of these forwarders unless specific deviation instructions are provided to you by GHSP. Parcel shipments or shipments totaling 150 pounds or less will be shipped directly to GHSP using GHSP's preferred Parcel carrier FedEx. Please contact your Materials planner or your GHSP Buyer for the correct account number(s).

8.3 Third Party or Drop shipments

Shipments that do not originate from, or deliver to, a GHSP location will require specific authorization and processing if the charges are to be billed to a GHSP freight account. The supplier must first obtain written approval from a GHSP material planner that is knowledgeable of the situation requiring this move. The supplier must then provide this person's name to the carrier/forwarder moving the material, to use as the shipment reference that will show on the carrier invoicing that GHSP will receive. In the event that GHSP receives a freight invoice for 3rd party or drop shipments that does not contain this information, the invoice will be disputed with the carrier and the charges will be billed back to the shipper.

8.4 Shipment Frequency

Production Suppliers are required to ship at the frequency reflected on the releases found on the QAD Supply Chain Portal (SCP) / Supplier Visualization (SV) website.

The standard shipping frequency is communicated on the material releases; deviations are subject to supplier chargeback.

Multiple shipments to the same GHSP facility on the same day, back to back shipments, or multiple shipments in the same week require prior GHSP authorization. Deviations from the standard without written authorization from GHSP could result in a PTR. Shipping on Friday one week and Monday of the next is considered back to back shipments and would require prior GHSP authorization.

The shipping frequency for an International Supplier may vary and will be reflected on the release you receive from each GHSP facility. Shipments made early, multiple shipments, or shipments via a mode other than specified on your PO, require GHSP approval prior to booking. Deviations from this standard could result in a PTR with freight charges billed back to the supplier.

8.5 Over/Under Shipments

Suppliers must ship to their release. Shipping more or less requires GHSP approval. This includes shipments where a supplier may ship more than once per week. Shipping short one day and over the next to make up the difference requires prior written approval.

8.6 Domestic Shipment Requirements

Standard domestic shipments to GHSP are to be made under "Collect-supplier dock" terms. Shipments will be made using the designated GHSP logistics service providers as referenced in 4.11.2.

8.7 Domestic Shipment Documentation Requirements

All suppliers are required to provide accurate and complete documentation to GHSP and the carrier/forwarder at the time of tender. Suppliers are required to ensure correct billing for freight by implementing dock procedures that ensure the Bill of Lading provided by the designated GHSP logistics service provider is provided to the actual carrier driver who has picked up the freight. Not using the correct Bill of Lading could result in the direct billing to GHSP by the carrier at a considerable increased cost. Violations to this requirement will be addressed through GHSP's Problem Tracking Report (PTR), with violations carrying actions for cost recovery. Shipment delays, additional administrative activities, excess transportation costs, or any other process deviation resulting from non-compliance will also be handled through the PTR process.

8.8 Packing Slips

A packing list must be attached to every shipment that arrives at a GHSP facility regardless of mode or method of transport. This includes items that arrive by personal delivery. The following information is required on each packing slip:

- GHSP Purchase Order number
- Complete GHSP part number as stated on PO (discrete or blanket)
- Total pieces by part number
- Net Weight of complete shipment
- Gross Weight of complete shipment
- GHSP part description of each part
- Contact name of person requesting the shipment for non-production items or discrete PO's

8.9 Parcel Shipments

For parcel shipments (FedEx or UPS) the following information is required.

- In the listed reference fields:
  - Reference #1 – GHSP PO#
  - Reference #2 – name of GHSP person requesting shipment
  - Reference #3 – pack slip number
  - Reference #4 – at least 1 GHSP part number as stated on the PO
- Customs documents (as required)

8.10 International Shipment Requirements

It is the supplier's obligation to provide all necessary commercial trade documents and trade related information required to process the shipment through Customs and across borders efficiently and in compliance with all trade regulations defined by the country of destination. All suppliers are required to provide accurate and complete documentation to GHSP and the carrier/forwarder at the time of tender. Shipment delays, additional administrative activities, excess transportation costs, or any other process deviation resulting from non-compliance will be handled through the PTR process. PTR's can negatively affect a suppliers Quality rating and may contain debits for cost recovery.

8.10.1 Ocean freight routing from offshore suppliers

Materials shipped from offshore suppliers should be booked to follow these guidelines:

- 15 cubic meters (530 cubic feet) or less should ship LCL (Less than Container Load)
- 16 to 30 cubic meters (565 to 1000 cubic feet) should ship on a 20' container
- 30 to 66 cubic meters (1000 to 2328 cubic feet) should ship on a 40' container

Suppliers may be required to modify certain documents to enable the separation of the shipment(s) to optimize the logistics.

8.11 International Trade Compliance

GHSP expects that all suppliers, when required or directed by GHSP, will ship materials across international borders in a manner that ensures GHSP and the supplier are meeting all regulatory trade requirements assigned to the transaction by the governments of the origin and destination countries. The supplier will ensure that all customs and shipment documentation is accurate, complete, and provided in a timely manner to any agent, forwarder, or broker, working in conjunction with, or on behalf of, GHSP. Should GHSP incur fines, penalties, or other costs resulting from inaccurate completion of these documents, traceable to the supplier's failure to respond to a Customs inquiry, audit, or verification, GHSP will hold the supplier accountable for reimbursement.

The supplier may also be responsible for any cost associated with the need to expedite freight as a result of materials being held in customs due to inaccurate, incomplete, or missing documentation.

8.11 NAFTA – North American Free Trade Agreement

In order to receive the preferential duty rates on products made in North America under NAFTA, GHSP must sign a NAFTA Certificate of Origin. The NAFTA Certificate of Origin declares that the goods covered by this certificate are made in North America. The NAFTA Certificate must be provided to the requesting Customs officials at the time goods are exported to NAFTA countries. For GHSP to issue its Certificate of Origin, we must be able to provide documentation verifying that the goods covered by the Certificate are made in North America. This requires some assistance on the part of our supplier.

GHSP requires written origin declarations for all parts from all suppliers. The preferred method is for the supplier to qualify their products under NAFTA and provide a signed NAFTA Certificate of Origin if the products qualify. This would require that an officer, or other authorized representative, from the supplier sign a NAFTA Certificate attesting to GHSP that each item listed satisfies the NAFTA Rules of Origin. GHSP imports also require a NAFTA Certificate of Origin, so if the supplier is shipping to GHSP across borders within the NAFTA region, a NAFTA Certificate is required.

GHSP requires supplier NAFTA Certificates to cover shipments for up to one year (a "blanket" certificate). Supplier certificates will have to be renewed on an annual basis. To complete the NAFTA Certificate of Origin and supply the information

requested, the supplier must carefully analyze each item provided to GHSP to determine whether it meets the NAFTA Rules of Origin. The text of the treaty, the interim implementing regulations, the Statement of Administrative Action, and the legislative history may assist in the needed analysis. For additional assistance in qualifying items, please utilize: http://www.cbp.gov/xp/cgov/trade/trade_programs/international_agreements/free_trade/nafta/

Only items that qualify for NAFTA preferential duty rates should be included on the NAFTA Certificate of Origin. For any non-qualifying items, such as goods of foreign origin, supplier must provide a Manufacturer's Affidavit on company letterhead, clearly declaring the country of origin for the foreign made article.

DEFINITION: Product of the United States. A product of the United States is an article manufactured within the Customs territory of the United States and may consist wholly of United States components or materials, of United States and foreign components or materials, or wholly of foreign components or materials. If the article consists wholly or partially or foreign components or materials, the manufacturing process must be such that the foreign components or materials have been substantially transformed into a new and different article, or have been merged into a new and different article.

We require that the NAFTA Certificate of Origin and Manufacturer's Affidavit include not only a description of the article, but also the supplier ID number, GHSP's item ID number, and the full 10 digit United States Harmonized Tariff Schedule classification number. Please send the completed, signed NAFTA Certificate of Origin and Manufacturer's Affidavit to GHSP to the attention of your buyer, or to the GHSP requestor when responding to annual NAFTA and country of origin solicitations.

Please be aware that when GHSP signs its own NAFTA Certificate of Origin, it is relying on the accuracy and validity of the information its suppliers have provided. Any changes to the information you supply must be immediately communicated to GHSP in writing. Should GHSP incur fines, penalties, or other costs resulting from inaccurate completion of these documents traceable to the suppliers failure to respond to a Customs inquiry, audit or verification, or a loss of NAFTA-organization status, GHSP will hold the supplier responsible for reimbursement.

Foreign suppliers located outside of the NAFTA territories (United States, Canada, and Mexico) may also be required to provide similar information and comply with certain expectations associated with any free trade agreements established between

the relevant origin and destination countries. GHSP will notify each supplier of their obligations, should these documents be required.

***Note –** All GHSP suppliers are required to provide, their GHSP Buyer with updated or renewed blanket certificates or Manufacturers Affidavits covering all parts provided to GHSP, at a minimum, each year by December 31st. Documents must be dated to cover the following fiscal year.

8.13 C-TPAT and Supply Chain Security

GHSP is currently C-TPAT certified to a tier II level in the U.S. and operates under the same security processes within its facilities around the world. As a requirement to maintain this certification, GHSP must conduct a periodic review of its supply chain and ensure all suppliers are in compliance with and demonstrate that they are meeting the minimum security criteria. For more information specific to the requirements of C-TPAT, please visit: http://www.cbp.gov/xp/cgov/trade/cargo_security/ctpat/

Supply chain security audits can be performed at any time and without notice to the supplier. In most circumstance, audits will be conducted in person and onsite at the supplier's location and scheduled in advance to ensure proper resources are available at the supplier to facilitate an effective evaluation. A supplier survey will be sent to the supplier for completion prior to the evaluation. Audits may also require visits to sub-suppliers or contractors that provide services necessary to produce the materials provided to GHSP. In rare cases, or in the event GHSP is undergoing a "revalidation" these supplier visits may be accompanied by U.S. Customs and Border Protection officials. Suppliers will be made aware of these situations in advance.

Note –GHSP requires suppliers to perform a supply chain security self-assessment annually and provide the results to their GHSP Buyer by December 31st of the current year.

8.14 Bill of Lading and Packing Slip (Reference 1.5.2 and 1.5.3 above) –

In addition to the standard information required on the domestic Bill of Lading, all international shipments will also require the Incoterms to be called out on this document. Please reference your PO, contract, or terms and conditions for the agreed to term. Incoterms are required to follow the "Incoterms 2010" version as defined by the International Chamber of Commerce (ICC), and must also include the defined "named place" where applicable.

8.15 Commercial Invoice Requirements

The following information is required on all commercial invoice documents:

- Full description of merchandise in English; including HTS Code appropriate to the destination country
- Country of origin
- Piece count
- Value per item
- Total invoice value
- Currency of given values – must be in destination country currency i.e. (USD, MXN, CNY)
- Foreign shipper/manufacturer name and address
- Document must clearly state "Commercial Invoice"

You can also find the official requirements here:
http://edocket.access.gpo.gov/cfr_2011/aprqtr/pdf/19cfr141.86.pdf

8.16 Shippers Letter of Instruction (SLI)

Suppliers are required to complete a shipper's letter of instruction for all international shipments handled by a GHSP Freight Forwarder.

8.17 Parcel or Small Package Shipments (less than 150 pounds to any GHSP location)

Will be shipped via FedEx Express standard ground service (within the US) or FedEx Express International Economy (if originating outside of the US) using the appropriate GHSP account number associated with the final GHSP destination plant. Please contact your Material Planner or your GHSP Buyer for the correct FedEx account number.

The following information is required for all Parcel shipments made under GHSP accounts:

- Reference #1 –GHSP Purchase Order number
- Reference #2 –name of GHSP person requesting shipment
- Reference #3 –pack-slip number
- Reference #4 – at least 1 GHSP part number, as stated on the PO

Use of UPS or any other parcel carrier requires GHSP written approval.

9. Packaging and Labeling Requirements

9.1 Introduction – Packaging is a critical component within the value-stream as it serves to protect goods and facilitate efficient storage, transport, and handling. General Packaging Requirements - Products shipping to GHSP will always be banded or wrapped tightly to the skid. Heavy items will be placed on the skid first with lighter items stacked on top - only if the packaging will support the weight and allow for damage free transport thru to final delivery. Use of oversized or odd sized skids must be pre-approved by GHSP. Product must ship on standard 48 inch by 45 inch wooden skids unless an approved alternate packaging design has been provided. Suppliers must use care when building the shipment to ensure the product travels in a safe and secure manner.

9.2 International Packaging Requirements - For international shipments strict enforcement of the ISPM 15 wood packaging standard will be imposed. Shipments held in customs or any cost associated with re-packaging due to uncertified or non-compliant packaging being used will be billed back to the supplier. Please reference the following link for specific information regarding packaging containing wood and wood products: http://www.maff.go.jp/pps/j/konpozai/pdf/ISPM_15_English_2006.pdf

9.3 GHSP Packaging Standards – Suppliers are responsible for the following:

- Quoting packaging as requested by GHSP (supplier-owned returnable packaging, customer-owned (GHSP) returnable packaging, expendable packaging, or a combination of returnable and expendable packaging;
- If quoting supplier-owned returnable or expendable packaging, designing a pack which ensures shipments are received in acceptable (damage-free) condition and are efficiently and economically packaged per the planned transportation and handling methods;
- Providing all dunnage necessary for component part packaging;
- Ensuring part quality from point of manufacture to point of use;
- Obtaining GHSP approval after submission of Packaging Sketch Form and prior to ordering dunnage;
- Defining a standard pack so that full container weight does not exceed 30 lbs.;

- Maintaining (repairing/replacing) supplier-owned containers in response to any damage stemming from normal usage;
- Securing containers to pallets by shrink-wrapping or banding.

9.4 Labeling Requirements

Suppliers must ensure that each and every tote/box/container of material shipped to GHSP is correctly labeled and that the labels are properly attached. When labeling, verify that there are two labels per container on adjacent corners. The label must be placed in the upper left-hand corner of the major side. Whenever possible the label printing should be a bold black type with at least 25mm high letters. Supplier owned packaging must have "Return to" labels located in a clearly visible area that does not interfere with the production identification labels.

Label protection against moisture, weathering, abrasion, etc., may be required in harsh environments and is encouraged wherever practical. Care must be taken to assure that labels meet reflectivity and contrast requirements and can be scanned with contact & non-contact devices.

It is the supplier's responsibility to remove labels on returnable containers and affix a new label prior to shipment, unless prior arrangements have been made with the GHSP receiving plant. When release quantities require cartons of mixed material on one pallet, a special "Mixed Load" label must to be used in addition to being labeled per GHSP specifications. All containers must be loaded to cubic capacity in order to maintain load density, package integrity, and obtain optimum transport utilization. The following criteria must be observed when shipping mixed loads to a GHSP plant:

- Cartons must be uniform in size to maintain load stability.
- Each pallet must have material / product for only one GHSP plant.
- Avoid shipping less than a full layer whenever possible.

For unit load packaging that is shrink wrapped, the master label and mix load labels must be applied to the outside. When individual containers are palletized and made into a unit load for mechanical handling, the master label will be attached to two adjacent sides of the unit load.

All containers must have the final GHSP destination information affixed either as a master label on the skid or within the standard label format affixed to each container. Data required includes GHSP site name, address, city, state and postal code.

Suppliers will ensure that all labels used for GHSP product meet the following requirements:

- Standard Label Size – Nominal dimensions of 4" high and 6.5" wide
- Barcode fields can be Code39 or Code128
- Font can be Ariel, Sans Serif or similar type font used with a bold setting
- Font should be 20 to 36 points high as appropriate
- Labels must include the following:
  - **PART NO**. Field - GHSP Part Number and barcoded GHSP Part Number with a P identifier
  - **QTY** Field – Quantity and barcoded Quantity with a Q identifier
  - **PO** Field – GHSP PO Number and barcoded GHSP PO number with A identifier
  - **LOT** Field – Supplier Lot Number and barcoded Supplier Lot Number with 1T identifier
  - **SUPPLIER** Field – Supplier Name on 1st line and GHSP Supplier Code on 2nd line
  - **MFG DATE** – Manufacturing date in YYYYMMDD format
  - **MADE IN** Field – Country of Manufacture or Country where the product last underwent significant transformation – Shown using 2 digit ISO 3166 alpha country code
  - **SERIAL** Field – Supplier shipping serial number
  - **REV LEVEL** Field – Use Revision Level /Engineering Change Level values as needed
- Labels can include the following:
  - **DESCRIPTION** Field – Part or material description and other pertinent information as needed
  - **MFG PART NO**. Field – Supplier part number as needed.
- Labels must be printed with black characters on white background
- Adhesive labels and/or standard card stock labels will be accepted as dictated by the application
- Labels must be placed in appropriate cardholders when present on totes – do not permanently affix the label to tote.
- Labels must be affixed to corrugated boxes
- Labels must be verified as legible by the supplier and easily scanned

Below is an example of an acceptable label; questions regarding labeling should be referred to the assigned GHSP buyer.