



Westport Fuel Systems Supplier Manual

Rev. 05

Supplier Manual

Note:

All suppliers wishing to do business with Westport Fuel Systems are expected to meet the guidelines within this Supplier Manual, or in the case of suppliers to Westport Fuel Systems subsidiary MTM s.r.l., the guidelines set out in the latest version of the MTM Supplier Manual. The intent is that this manual will act as a guideline for the methodology applied to suppliers for the assessment, evaluation, qualification, monitoring and management of suppliers to Westport Fuel Systems.

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This manual is to be used for the sole purpose as a guide for new and current suppliers to Westport Fuel Systems. This document is not to be copied or reproduced for any other use without written permission from Westport Fuel Systems.

This document is revision controlled and will be continuously updated to ensure the current quality and business protocols are being met. It will be the responsibility of the supplier to ensure all references are being made to the latest released version of the Westport Fuel Systems Supplier Manual.

Any questions regarding this manual should be addressed to:

Westport Fuel Systems

Attention: Purchasing Department

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1 Organization

1.1 Introduction

The Westport Fuel Systems Supplier Manual has been developed as a guide for suppliers to become familiar with the method applied for the initial supplier evaluation process up to the qualification to becoming a key supplier to our company. This manual also defines the level of Quality and Service Westport Fuel Systems requires from its suppliers to meet our customers' and consumers' highest expectations. This manual is intended to be the primary document for communication of our Purchasing & Supply Chain and Quality Philosophies to our suppliers.

It is part of our business strategy to build a long lasting relationship with all suppliers to ensure a strong communication link and support in all areas of our business. Westport Fuel Systems is keen to work with suppliers that can support new product introduction through the concept and prototype stage, up to and including the viable business stage of pilot scale to full production. With this in mind it is envisaged that suppliers with the ability to support design and development will play a key role in product development and evaluation.

1.2 About Us

Westport Fuel Systems engineers, manufactures and supplies the world's most advanced alternative fuel systems and components. More than that, we are fundamentally changing the way the world travels the roads, rails and seas. Our innovative and cost-effective solutions maintain performance while improving efficiency and reducing emissions. Offering a variety of leading brands for transportation and industrial applications, we serve customers in over 70 countries, including some of the world's largest and fastest growing markets.

For an overview of Westport's history, visit www.westport.com/company/about/history

1.3 Mission Statement

- Imagine, build, demonstrate, and commercialize technologies that provide environmental and economic benefits to customers, while exceeding performance and operational characteristics of conventional products.
- Establish and maintain a recognized leadership position within industry through focused analysis of future technical, market, and societal needs.
- Leverage our core research expertise and capabilities to maintain an industry-leading intellectual property portfolio.
- Grow shareholder value through technology, demonstration and product development, marketing and manufacturing alliances, and licensing initiatives.
- Strive for absolute customer satisfaction at every opportunity.
- Adhere to core values that promote teamwork, employee empowerment, innovative thinking, environmental leadership, trust, integrity, and excellence.

1.4 Vision

Creating a Better World through Innovative Energy Solutions.

1.5 Locations

Westport Fuel Systems corporate headquarters and engine test laboratories are located in Vancouver, BC, Canada. Facilities total over 16,150 m² (174,000 ft²) and feature nine engine test cells.

For an overview of Westport's locations, visit www.westport.com/company/about/facilities

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2 Quality System and Environmental Management System

Westport Fuel Systems is driven to provide its customers with the highest quality product and service at all times, and Westport has had its Quality Management System certified to ISO 9001 standards.

In our commitment to adhere to our Quality Policy and to exceed our customer expectations, Westport Fuel Systems and its employees expect all suppliers to work with us in achieving these goals, at minimum, by meeting the expectations and requirements outlined in this manual.

2.1 Quality Policy

Westport Fuel Systems will continuously strive to deliver high value, leading environmental technology products that meet or exceed our customers' expectations. We are committed to continuously improving our products and processes through adherence to, and improvement of the effectiveness of the Quality Management System.

The scope of our quality goals are:

- Exceed Customer Expectation
- Continuous Improvement

2.2 Environmental Policy and Requirements

Westport Fuel Systems is committed to the protection of the environment, the prevention of pollution and strives to be an industry leader in mitigating the environmental impacts of fuel system research, development, testing and assembly. The Environmental Policy Statement below outlines the standards to which our operations are held.

Westport Fuel systems will:

1. Work to ensure that its operations comply with all applicable environmental legislation, industry codes and standards;
2. Work to collaborate with partners and industry stakeholders in the protection of the environment, the conservation of resources and the implementation of pollution mitigating practices;
3. Continue to research, design, and develop alternative fuel engine technologies that preserve environmental health and safeguard employees, customers and the general public from injuries or health hazards;
4. Evaluate and strive to mitigate the environmental impacts of our existing operations and will work to conduct a thorough environmental assessment and risk analysis prior to the implementation of new projects;
5. Abide by internally established standards to utilize energy and other resources efficiently in its operations, including emissions and waste management programs that exceed current legislative requirements;
6. Strive to be an environmentally responsible neighbour in the communities where we operate and to act promptly and responsibly to correct incidents or conditions that endanger health, safety or the environment;
7. Respond to environmental emergencies promptly and effectively in conjunction with external response agencies and trained and coordinated on-site Emergency Response Team;
8. Work to fully investigate all environmental incidents or unplanned releases and to communicate findings as necessary to all affected parties;
9. Train employees on their individual responsibility to protect the environment, to adhere to this Policy Statement, and to cooperate with our efforts in this regard. On-site contractors and others acting on behalf of Westport Fuel Systems are expected to abide by the same environmental code of conduct;
10. Evaluate our environmental performance through regular auditing and assessment of compliance and adherence to this policy and communicate the appropriate information to our stakeholders including our Board of Directors, employees, shareholders, governmental agencies and the general public;

11. Continuously improve our environmental management system and measure the environmental impacts of our operations. Westport Fuel Systems will implement this policy through a comprehensive plan with measurable goals/targets and a rigorous analysis of performance. We will work to provide a candid discussion of our environmental achievements and challenges in its annual sustainability report published on its website.

Westport Fuel Systems requires Production Suppliers to be ISO 14001 certified. Suppliers without a valid ISO 14001 certification are required to provide an 18 month action plan in order to attain certification, or unless otherwise specified and approved by the Purchasing and Supply Chain group.

All Suppliers are required to submit data in the International Material Data System (IMDS), a tool used by the automotive OEMs and Supply Chain to manage environmentally relevant aspects of the different parts supplied for use in vehicles.

Westport Fuel Systems/ Westport Power Inc. is registered in IMDS portal which is used to verify and ensure that the received Supplier submissions of Material Data Sheets (MDS's) providing information on materials and substances used in the manufacture of supplied products comply with the EU End of Life Vehicles (ELV) legislation; Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), and the Global Automotive Declarable Substance List (GADSL). Please see 'Appendix 1 - IMDS Information Sheet' for details.

3 Purchasing

3.1 Organizational Philosophy

Westport Fuel Systems endeavours to supply its customers with leading edge technology, while maintaining the highest quality and the most cost-competitive products available in the industry. To support this objective, our organizational philosophy is to develop relationships with Suppliers who best demonstrate their commitment to these goals through 100% on time delivery, consistently meeting quality requirements and competitive pricing.

While aiming to build a strong supplier base, Westport Fuel Systems takes the steps to involve the supplier in the early stages of product/part development. This early involvement with the supplier will ensure that there is a solid communication link that allows both groups to review and consider Design for Manufacturability & Assembly (DFMA), while looking at cost drivers and quality concerns. We believe that this open relationship will result in a robust and reliable design resulting in products that meet or exceed our expectations.

Westport Fuel Systems evaluates and selects suppliers at two different capabilities: prototype suppliers and production suppliers.

Suppliers will be monitored and evaluated on their technical, commercial and quality capabilities. Westport Fuel Systems has an established process for supplier performance monitoring. We will continually communicate findings to the supplier, and as we are always seeking opportunities for improvements, we will discuss with suppliers development and implementation plans, to meet performance requirements.

All sourcing activities will be conducted by the Purchasing & Supply Chain group supported by the Westport Fuel Systems process of supplier evaluation and qualification. Ongoing support will be provided to develop products through their life cycle with focus on continual improvements resulting in improved reliability and manufacturability along with reduced product cost.

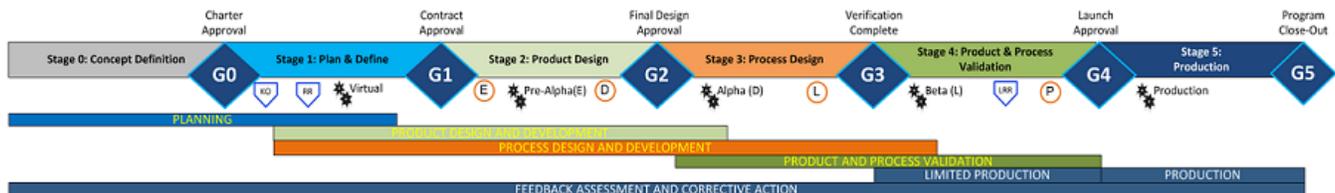
3.2 Operational Philosophy

Westport Fuel Systems remains focused on continuous improvement by using a variability reduction philosophy. This philosophy will allow us to remain competitive and continue to lead in the field of alternative energy and environmental emission controls.

Our objectives are clear: to provide customers with a high quality product, on time and to budget. In all cases we feel customer satisfaction is paramount. To meet our objectives, continuous communication is necessary to ensure all issues are addressed in a timely and efficient manner. Suppliers are expected to have operating philosophies which are compatible with these core values.

3.3 Communication between Westport Fuel Systems and Suppliers

Westport Fuel Systems works closely with suppliers on all components. Many components are unique and are designed, developed or modified to meet our requirements. The product maturity stages are described in six gates:



Accurate communication on design and functional intent is critical. This will ensure that consideration is given to the product for various elements of quality, design for manufacturability, capacity, technical feasibility and cost.

In order to streamline and manage the communication flow, the Westport Fuel Systems buyer is the primary contact for all internal and external communication and must be included in all supplier related issues including

technical, quality and commercial issues. All communication involving purchase orders, Long Term Supply Agreements (LTSA), volume, order forecasts and lead-times will be managed directly by the Purchasing & Supply Chain group.

All documentation must be communicated in the English language unless otherwise specified and approved by the Purchasing and Supply Chain group.

3.4 Non-Disclosure Agreement

Much of the design and product development work being done at Westport Fuel Systems is proprietary. We recognize that suppliers may be asked to share proprietary or confidential business information with Westport Fuel Systems to assist in the establishment of a solid and open relationship. In order to protect proprietary, product development and business information being communicated, we may require suppliers to sign a non-disclosure agreement protecting the interests of both parties as applicable.

3.5 Supply Agreements

Supply Agreements for high-volume, repetitive requirements are negotiated by the Purchasing & Supply Chain department. Established suppliers are encouraged to discuss the mutual benefits of long-term supply agreements centered on continuous improvement and productivity sharing.

3.6 Pricing

Westport Fuel Systems continues to develop markets, and as a result of this our focus on pricing policy supports cost reduction and/or a minimum of cost maintenance.

Suppliers are expected to recommend ways to reduce cost; these might include alternate products and materials and process improvements. It is expected that Westport Fuel Systems and its suppliers will collaborate on initiatives and activities to find ways to reduce costs and manage cost control for products.

Suppliers may be asked for input on design for manufacturability where potential cost reduction opportunities may be realized. Cost reduction initiatives may also include the elimination of waste, streamlined inspection activities, inventory management activities and reduced warranty claims.

A formalized document can be established that allows suppliers to present opportunities for improvements and cost reduction. Proposals are reviewed internally and feedback is given to the supplier on whether the change will be implemented or not.

3.7 Supplier Discontinued Product

If for any reason a supplier discontinues a product that is currently being purchased or used by Westport Fuel Systems, it is the obligation of the supplier to notify Westport Fuel Systems at least 18 months in advance and advise the date of final production. The supplier must also offer Westport Fuel Systems the opportunity to do a last time buy to protect our production line from going down.

This will give our team a time window to obtain a suitable replacement part. We invite suppliers to advise any recommended replacements and/or substitutions for the discontinued product; however Westport Fuel Systems is not obligated to accept the recommended replacement or substituted product.

3.8 Payment, Terms and Conditions

For Standard payment terms and our Terms and Conditions please contact Westport Fuel Systems Purchasing, or visit www.westport.com/company/supply/terms-conditions/

3.9 Supplier Compliance with Laws

Westport Fuel Systems is committed to a culture of honesty, integrity and accountability, and it is our intent to maintain the highest standards of behavior while conducting business. As such, Westport Fuel Systems requires that its suppliers comply with all applicable laws, rules and regulations in conducting their business. This

includes, but is not limited to, laws, rules and regulations relating to labour and employment practices, anti-corruption and bribery, health and safety, and environmental matters.

3.10 Conflict Minerals

As a result of a law in the United States, the Dodd-Frank Wall Street Reform and Consumer Protection Act, Section 1502 (e) (4) related to Conflict Minerals, Westport Fuel Systems has the obligation to conform to the guidelines of this law as a manufacturer where “conflict minerals” are potentially necessary to the functionality or production of our products. The full text of the law is available at the following link:

<http://www.sec.gov/about/laws/wallstreetreform-cpa.pdf>

To clarify Conflict Minerals; the rule defines “conflict minerals” as: cassiterite, columbite-tantalite (known as tantalite; an ore from which niobium and tantalum are obtained), gold and wolframite, as well as their derivatives. Other minerals can be designated by the US Secretary of State. Conflict minerals are those obtained from the following “Covered Countries”: Democratic Republic of the Congo (DRC), Central Africa Republic, South Sudan, Zambia, Angola, The Republic of the Congo, Tanzania, Burundi, Rwanda and Uganda.

Our obligation is to conduct a reasonable, good faith country of origin inquiry to determine whether any of the conflict minerals that are used to manufacture or used in the production process of our products, originated in the Covered Countries and are not from recycled or scrap sources.

Steps must be taken to document status through the EICC declaration process, and we will require this documentation when completed, and annual updates or validation. Please send updates to:

Westport.Purchasing@westport.com

Please visit <http://www.westport.com/company/supply/quality> to download the ‘Conflict Minerals EICC Reporting Form’

4 Supplier Quality Management

4.1 Quality Systems

Suppliers are required to have active certification for ISO 9001:2015 and/or ISO/TS 16949:2009 and maintain it during the business relationship with Westport Fuel Systems. A valid quality certificate of the manufacturer and/or each production location must be provided in the initial supplier evaluation process and after renewal.

In the event that a supplier is in the process of obtaining their certification, a certification plan must be provided to Westport Fuel Systems. This plan must include a proposed certification date along with the details of the status of the quality system at the time of evaluation. There may be unique exceptions where we will work with suppliers that are not quality certified or where plans for quality certification have not been developed. In such situations we will ensure a certain level of quality compliance is met.

All suppliers are expected to have Change Control procedures in place. (Refer to 6.5)

4.2 Supplier Approval Process

Westport Fuel Systems has a process for supplier approval, commencing from a process for supplier selection, evaluation and qualification. All products purchased are reviewed for criticality and decisions made on the level of supplier qualification activity related to the supplier approval process. Various forms and documents are used to obtain information from the supplier; this allows various groups to come to agreement on a supplier with which we continue doing business.

Upon completion of initial screening process, the group responsible for the approval will meet and review the outcome. This group will make a determination whether the supplier qualification process will continue. Further follow-up and/or corrective actions may be requested of the supplier. If the results are considered acceptable the process continues. The supplier is identified as a potential supplier to Westport Fuel Systems, a self and/or on-site assessment based on the impact of the product or process being sourced will be completed. The results of the assessment will be reported and maintained.

Various considerations are made for the supplier approval process as following:

4.2.1 Business Assessment

Westport Fuel Systems has to understand the business acumen of all suppliers in order to ensure on-going support and stability of the performance and maturity of the company. These considerations are outlined in the initial documents provided to the supplier at the outset of any business discussion.

The Supplier Initial Evaluation Form has to be completed as the first step of the process. Visit <http://www.westport.com/company/supply/quality> > Supplier Initial Evaluation Form to complete the questionnaire.

4.2.2 Technical Assessment

Many of Westport Fuel Systems products are technically complex. We review the supplier's ability to provide technical support, to conduct product testing, process capability, and analysis, controls and records of processes. Parts to be designed will require the supplier's ability to have in-house design capabilities and product support.

4.2.3 Quality Assessment

As most of our key customer base will be automotive we need to be satisfied not only on the quality of the product but the supplier's ability to supply appropriate documentation related product validation and qualification. We are working towards minimising incoming inspection and therefore work with suppliers to ensure they have systems in place to provide a product that meets or exceeds design intent.

4.2.4 Supplier Quality Audit

As part of the qualification process a detailed quality systems audit has been developed. The audit is used to become aware of any gaps in the suppliers quality system and in turn develop plans for improvements. Ratings will identify where the gaps are and what development plans are needed.

Third party quality system registration such as ISO 9001 or ISO/TS 16949 may be recognized in lieu of an on-site assessment if the Westport Fuel Systems group deems it appropriate.

4.2.5 Supplier Site Visit

It is expected that a site visit takes place with suppliers to understand the business, technical and quality aspects. At this point the business opportunities will be discussed and potentially a design and specification review will be held to understand any manufacturing concerns or considerations for improved manufacturability will be raised. At the end of the visit the Westport Fuel Systems representative will complete a visit report based on his or her findings.

4.2.6 Process and Documentation Review

One key aspect of the site visit is to conduct a process and documentation review. The aim is to understand the process control of manufacturing or production process from start to finish. In most industries it would be expected to see incoming material up to final inspection and part shipment. All processes on handling of goods, documentation, processing of non-conformances to outgoing shipments and packaging will be assessed. This review generally takes place prior to the supplier producing any parts for the customer so the intent is to get a general overview of the process at the suppliers.

4.3 Supplier APQP Requirements

A kick-off meeting will be arranged before Advanced Product Quality Planning (APQP) begins. The Westport Fuel Systems Buyer and Supplier Development Engineer (SDE) will communicate the goals as following, but not limited to,

- Product and process development including technical and quality requirements, Key component decisions
- Milestones (timing, key path)
- Feedback and communication methods

The AIAG publication “Advanced Product Quality Planning (APQP) and Control Plan” latest edition should be used as a reference in developing these plans.

4.3.1 Scope

Westport Fuel Systems expects suppliers to create product launch plans to support:

- Launch of new components intended for serial production
- Development of new manufacturing processes
- Significant changes to existing products or process

IT IS THE SUPPLIER’S RESPONSIBILITY TO PERFORM AND DRIVE APQP FOR ALL COMPONENTS.

4.3.2 Key Components Definition

Key Component – a component identified as critical due to complexity, cost and lead time during project development activities.

Key components are chosen by a cross functional project team in Westport Fuel Systems and will be clarified with supplier in RFQ stage. For any questions please contact your Buyer.

4.3.3 Responsibility in APQP

The **SUPPLIER** is responsible to:

- Develop and execute an APQP Plan for successful product launch,
- Organize the cross-functional APQP team, and
- Utilize and submit the APQP Key Supplier Status Report if Supplier is designated as “key” by Westport Fuel Systems. This report is intended to track the supplier’s progress throughout the APQP and launch processes.

Westport Fuel Systems is responsible to:

- Identify the Westport project team members and
- Assign the SDE who shall coordinate the completion of APQP activities with the internal project team.

4.3.4 APQP Planning

The first Advanced Product Quality Planning (APQP) is expected from suppliers with the answer to the Request for Quotation (RFQ).

Suppliers are required to generate an Advanced Product Quality Plan in accordance with the AIAG APQP reference manual for review by the Project Team. This plan shall include, but is not limited to:

- Notification of risks that affect product integrity or the project plan.
- Implementation of error-proofing (poka-yoke) to achieve Zero Defects to Westport Fuel Systems.
- Identification of changes needed to product or process specifications.
- Satisfaction of project milestone

4.3.5 APQP Stage Review

Key suppliers must report the progress of their APQP plan regularly during the project development. In case of any delay or deviation an action plan needs to be submitted by the supplier.

This file is owned by the supplier, updated by the supplier and shared with the Westport Fuel Systems team during APQP reviews.

4.3.6 Special Characteristics

Special Characteristics are any product or process characteristics that affect safety or compliance with regulations, fit, function, performance or subsequent processing of product.

In accordance with the requirements of ISO/TS-16949, Special Characteristics shall be identified and specifically addressed in the Design or Process Failure Mode and Effects Analysis (DFMEA or PFMEA), Control Plans, Process Flows, Work Instructions and other associated documents. Westport Fuel Systems designated Special Characteristics are identified on drawings/specifications. Suppliers are responsible to fully understand the usage of their product and also identify Special Characteristics, as appropriate.

Class	Customer Effect	Possible Consequences	Process Requirements
C (Critical) 	Safety issue / Emission code violation	Non conformity - if occurs may lead to a potential safety issues and/or code violation	required cpk > 1.67 All critical characteristics that do not comply with an acceptable Cpk require an action plan and should be inspected 100% until Cpk values are considered acceptable.
M (Major) 	Mission disabling failure / Reduced performance / Parts will not fit	Non conformity - if occurs may lead to a potential mission disabling or a customer disturbance / dissatisfaction	Cpk 1.33 – 1.67 – Acceptable for short term only, improvement required Cpk > 1.67– Westport Fuel Systems target

4.3.7 Process Capability and Control

Suppliers are required to meet the process capability requirements as defined in the AIAG Production Part Approval Process (PPAP) and Statistical Process Control (SPC) reference manuals, unless otherwise specified by Westport Fuel Systems. The supplier is responsible to ensure process capability and control requirements are documented in their control plan and that capability indices are achieved and improved throughout production. (See also Special Characteristics)

4.4 Supplier Performance Requirements

4.4.1 Prototype Requirements

Westport Fuel Systems Product Development Process has four build levels:

- **E release Prototype:** Early Design Lifecycle, created in order to obtain feedback on the design and/or changes from the project organization. This level has the highest engineering flexibility.
- **D release Prototype:** Design is completed and fully specified. All aspects of fit, form, and function, and performance have been fully verified. It is expected that any changes to D stable designs should be small enough that the risk to starting the production process development is low and long lead time production tooling can be ordered.
- **L release Prototype:** Processes used to produce the parts are production intent. Verification of the design (including durability & reliability) is complete and the design is considered “Frozen” with no changes expected that would significantly affect the process. Adequate validation has been completed to justify frozen status and field trials may be on-going.
- **Production Builds:** All production validation testing has been completed. Supplier PPAP for BUY parts and internal PPAP for MAKE parts is complete (signed PSW).

Unless otherwise agreed between the supplier and Westport Fuel Systems SDE/SQE, all prototypes are required to be measured 100% and the results made available to Westport SDE/SQE upon request. Control Plans for all builds must be in place prior to start manufacturing the parts.

4.4.2 Part Approval Process

Supplier is requested to follow AIAG APQP and PPAP requirements for part validation and qualification. Please refer to the latest edition of the APQP and PPAP manual.

Prior to production commencing the Westport Fuel Systems SDE will discuss the part validation requirements and what elements of PPAP will need adherence. A PPAP Submission Checklist will be co-signed by the SDE and supplier representative. In the absence of a co-signed PPAP checklist the default level is Level 4 per AIAG requirements. Depending on the level of PPAP, the following documentation may be required:

- Design Record
- Engineering Change Documents
- Customer Engineering approval
- Design FMEA
- Process Flow Diagrams
- Process FMEA
- Control Plan
- Measurement System Analysis Studies
- Dimensional Results
- Material, Performance Test Results
- Initial Process Studies
- Qualified Laboratory Documentation
- Appearance Approval Report (AAR)
- Sample Product
- Master Sample
- Checking Aids
- Records of Compliance
- Part Submission Warrant (PSW)
- IMDS submission
- Packaging Data Sheet

The supplier is responsible for the PPAP preparation and execution:

- Full documentation with 100% dimensional layout to all specifications is required for five samples per cavity/tool of each part number, selected from the Significant Production Run (SPR)
- SPC studies for special characteristics must be completed on a minimum of 30 pieces
- The supplier is responsible to plan and approve sub-supplier PPAP, resulting corrective actions, follow-up and retention of the sub-supplier PPAP. At the minimum the sub-supplier PSW must be included in the PPAP submission to Westport Fuel Systems

Part quantity and delivery schedule for PPAP will be described in PPAP Parts RFQ.

The PPAP samples have to come of a Significant Production Run (SPR), using production tooling/equipment, production facility, production environment, including trained production operators and in the requested cycle time. The supplier should make sure the number of parts produced during the SPR is adequate to ensure the process is fully tested and ready for a safe launch.

Westport Fuel Systems may also request certificates of compliance, accreditation(s) and certifications for the supplier and sub-suppliers.

Westport Fuel Systems (WFS) requires PPAP approval (signed PSW by WFS SDE) and written approval from Supply Chain **prior** to shipment of the parts called out on the PPAP PO. In addition the WFS approved PSW is prerequisite for production shipments.

Shipment of the parts produced for PPAP has to be clearly marked/identified (documents and all packaging units) as “PPAP Parts”.

4.4.3 Supplier Safe Launch

To ensure product and process stability safe launch planning has to be implemented for all key components, or as requested by Westport Fuel Systems Supply Chain. It is the supplier’s responsibility to develop a pre-launch control plan with increased controls and separate inspection audits to identify non-conformances in the production process during ramp up and early production stages of a new part launch. Purpose of the safe launch plan is to protect Westport Fuel Systems and its customers from quality problems until process controls are refined and all start-up problems have been identified and resolved.

The production batches undergoing safe launch measures have to be identified with a green sticker “Safe Launch Components” (at a minimum the first production batch, or as defined by Westport Fuel Systems Supply Chain). This sticker needs to be applied clearly visible to all shipping containers and signed by the quality manager accountable.

4.4.4 Quality Performance Requirements

Westport Fuel Systems monitors the quality of products purchased from suppliers. We also monitor the overall business quality of suppliers in order to ensure the delivery of quality products and correct business acumen.

Suppliers are monitored on their quality performance in the areas of:

- **Quality of product** – Defects found in materials, product or subcomponent non-conformances. (Non-conformance Reports or NCRs, Supplier Corrective Actions or S-CARs, etc.)
- **Packaging** – Wrong containers, mislabelled parts, not labelled or damaged.
- **95% on time delivery** – Problems such as late delivery, wrong quantities, wrong parts, wrong documents, etc.
- **Customer Satisfaction.** – Opportunities to improve customer satisfaction.
- Or as agreed in supply agreements

Suppliers are evaluated on their commercial performance in the areas of:

- **Supply level and assurance** – Stock outs, customer satisfaction, etc.
- **Economic value** – Price justifications, cost maintenance and/or reduction activities
- **Solution values** – Ability to support global manufacturing, account representative(s), business flexibility
- **Problem Solution & Continuous Improvement** – Responsiveness to quality complaint(s) and company focus towards Continuous Improvement

Westport Fuel Systems policy is to receive all goods the day of arrival. Suppliers are considered to have met 100% on-time delivery when deliveries arrive within three (+3) days of the promised delivery date or two (-2) days after the promised delivery date.

All deliveries arriving beyond two days from the promised delivery date are considered late. Supplier deliveries and ratings are reduced based on the number of shipments delivered in the following time frames from the promised delivery date:

Period 1: 2 to 5 days after promised delivery date

Period 2: 5 to 10 business days after promised delivery date

Period 3: 10+ business days after promised delivery date

Delivery ratings are monitored on a regular basis and results might be reviewed with suppliers every six (6) months unless delivery performance is consistently below the delivery requirement.

Westport Fuel Systems Purchasing shall select suppliers who need to prepare corrective action plans for the missed target metrics. The designated Buyer and SDE will follow-up the effectiveness of corrective actions.

4.4.5 Non-Conformances and Corrective Actions

Westport Fuel Systems will inform the supplier immediately of any product non-conformities and will issue the supplier a Supplier Corrective Action Report (S-CAR). We expect suppliers to follow the 8D problem solving approach with 5-Why analysis in determining the root cause. The decision to issue an S-CAR will be made by Westport Fuel Systems and will be for major non-conformances and all non-conformances affecting our customers. Though all non-conformances will be communicated the expectation is that minor non-conformances will be handled at a minimum with acknowledgement and responded to via email with the corrective action to prevent re-occurrence communicated.

Containment and temporary corrective actions must be documented and forwarded to the SDE/SQE within 24 hours of receipt of the S-CAR, and full documentation submitted within 5 business days of the date of issue. Documentation will include root cause analysis, decision on disposition of non-conforming product, a corrective action plan and an implementation plan for the corrective action. These completed documents will be required plus drill deep drill wide to ensure all part numbers with similar processes and/or tooling will not see the same failure mode in the future. Submission of effectiveness of permanent corrective action is required within 20 working days.

The supplier will be charged for any associated costs of necessary actions caused by non-conformities.

Having received a complaint note from Westport Fuel Systems or a sub-supplier of ours, the supplier shall:

- Analyze, whether the affected material (or similar parts or parts manufactured with same/similar production processes) is also shipped to any other Westport Fuel Systems facilities or sub-suppliers
- If any other locations are involved, inform those instantly about the non-conformity
- Include those locations in any containment activity (sorting, rework, recall of shipments, etc.)
- Send copies of the 8D including updates to those locations
- Set up any other necessary communication with involved locations (e.g. common phone conferences etc.)

The supplier must identify non-conforming material and reworked material accordingly.

- Contained material needs to be identified in all locations with the non-conformity and NCR number provided by Westport Fuel Systems
- First three deliveries after containment of non-conformity must be labeled as “free from defects” of affected NCR numbers; packing slip and every shipping container requires labelling

Any reworks of parts supplied to Westport Fuel Systems have to be authorized and approved by the SDE/SQE prior to shipment of these parts. Parts and packaging have to be identified appropriately, and if possible be delivered as a separate shipment.

The supplier must ensure that the reworked parts are inspected for full compliance to the agreed upon rework standards by the supplier's Quality Department prior to shipment.

Related documentation must be made available upon request.

4.4.6 Supplier Request for drawing change (SRDC) or process change

In exceptional circumstances, where Westport Fuel Systems drawing requirements and quality standards cannot be met, the supplier may request a deviation. The validity of a deviation is restricted to a limited time or quantity.

- A 'QF-73-01-6 Supplier Request For Drawing Change (SRDC) form must be used to request a change, unless supplier form is approved by SDE/SQE.
- Material delivered under deviation approval, must be clearly marked with the deviation number and a copy of the deviation approval; packing slip and every shipping container requires labelling
- All deviations not covered in the deviation approval will be considered as non-conforming.

4.4.7 Continual Improvements

Supplier development activities within Westport Fuel Systems allow us to work closely with our suppliers and assist in driving their improvement effort by focusing on: Improving process control

- Improving quality systems
- Improving product design and quality
- Improving supplier delivery
- Reducing costs
- Improving supply chain effectiveness
- Reducing lead time
- Improving productivity
- Increasing capacity, and
- Optimizing the supply chain, and
- Training

Westport Fuel Systems will select suppliers for development who present the best opportunity for improvement and who present the greatest potential impact to the organization. Criteria for selecting suppliers for development opportunities include:

- Strategic growth suppliers
- Key parts
- Risk revenue partner
- Critical to manufacturing flow
- Performance issues

4.4.8 Documentation and Records Retention

Through the regular course of business, it is expected that various Westport Fuel Systems documents will be forwarded to suppliers. At times it is necessary to share documents that are confidential and contain proprietary information. The supplier is expected to safeguard and control all documents forwarded by Westport Fuel Systems to ensure integrity, confidentiality and availability are controlled to the highest standard.

Suppliers are required to maintain production part approval process (PPAP) packages, annual layout and validation records, tooling records, traceability records, engineering records, purchase orders and amendments for the length of time that the part (or part family) is active for production and service

requirements plus one calendar year or a minimum of 15 years, whichever is longer, unless otherwise specified.

Corrective Action records are to be retained for 5 years. Quality performance records such as control charts and inspection and test results are retained for 15 years.

The above time periods are considered “minimum”. All retention times shall meet or exceed the above requirements, governmental requirements and Westport Fuel Systems OEM Customer Requirements.

5 Logistics

5.1 Shipping of Goods

When Westport Fuel Systems is responsible for the cartage of the shipment, the supplier shall use the carrier identified.

Upon shipment of goods, the supplier must notify the Westport Fuel Systems Buyer with the shipment tracking information.

5.2 Packing List

Packing lists must accompany all shipments. All packing lists must contain:

- Purchase Order (PO) number (legible and in bar code format)
- Part number and revision level
- Proper shipping address
- Name of the Westport Fuel Systems buyer.

5.3 Packaging Responsibilities

Packaging needs to meet all handling requirements and regulations. It is the responsibility of the supplier to ensure all packages or parcels arrive at point of delivery intact, in a timely manner, and have been packaged in a manner that protects the product from handling and carrier damage. Packaging provided should warranty a shelf life of at least 6 months.

When packaging standards and specifications have been provided by Westport Fuel Systems it is the responsibility of the supplier to ensure that all packaging complies with these requirements.

5.4 Packaging Labelling and Identification

All shipping containers must be clearly marked on the outside showing shipping address, PO number (bar coded) and the number of shipping containers in the shipment.

Packing lists must be attached to the outside of the shipping container, and a copy of the packing slip must be placed inside the shipping container. In the case the shipment has more than one shipping container; the packing list must be placed inside the first shipping container (identified as 1 of XX where XX is the total amount of containers).

A sample shipping label may be requested for PPAP parts and for any other special handling conditions (i.e. hazardous materials, fragile, time sensitive). This label or any special handling conditions must be clearly marked on all shipping containers.

All labels shall be compliant to AIAG standard B-10 that can be found on AIAG.org. If any deviation is required, the Buyer shall be notified prior to shipment.

5.5 Customs Documentation

It is the responsibility of the supplier to provide all necessary customs documentation for all shipments. All shipments must be accompanied with completed commercial invoices, packing slips and weigh bills (waybills) and any other documentation required by customs.

5.6 Management Operating Guidelines Logistics Evaluation (MMOG/LE)

Suppliers are required to complete the Self-Assessment of Odette/AIAG Materials Management Operating Guidelines Logistics Evaluation (MMOG/LE) and report the resulting score.

To become a long-term supplier for Westport Fuel Systems a rating of A+ is required in the MMOG Self-Assessment.

6 Risk Management

Suppliers are expected to have plans in place to address and manage risks associated with their production capabilities.

6.1 Facility Management

It is expected that suppliers have documented procedures in place to manage risks associated with each facility. These procedures must include fire protection (structural protection, sprinklers, etc.) protection and management of natural hazards (flooding, earthquakes, etc.) machine or tooling breakdown, and security management.

Further it is expected that there are tools and procedures in place to support computer and software protection and storage.

Evidence of insurance for facilities, machinery or tooling may be requested by a Westport Fuel Systems Buyer.

Specific arrangements for Westport Fuel Systems owned tooling and maintenance will be discussed by the Westport Fuel Systems Buyer.

6.2 Union Relations and Considerations

Suppliers will be asked to provide information regarding union relations when and where a union is involved in the production and delivery of the product. Union contract expiration dates are required to consider implications or preventive actions. Strike protection plans are expected to ensure an uninterrupted flow of material to support production demands.

6.3 Contingency Planning

Suppliers are required to prepare contingency plans (e.g. utility interruptions, labour shortages, key equipment failure and field returns) to reasonably protect Westport Fuel Systems supply of product in the event of an emergency, excluding natural disasters and acts of God or conditions of war. Insurance coverage is expected for customer owned goods and/or equipment as well as adequate protection from catastrophic loss due to fire, flood, earthquake, etc.

6.4 Alternate Production Site

Suppliers may be asked to provide information and plans for alternative production sites when a problem occurs impeding the supplier from producing and delivering product. Required in this information will be the location of the alternate production site along with start-up lead times and capacity. If the supplier intends to cooperate or partner with an alternate company, the identity of the company must be provided to Westport Fuel Systems. Before any shipping starts from the alternate production site, PPAP approval for this site shall be completed.

6.5 Changes to Approved Product and Processes

Suppliers and sub-suppliers are not to make any unauthorized changes to a product (e.g., material, component, subassembly, etc.) or the process used to produce a product that has been previously PPAP approved by Westport Fuel Systems.

Notification and submission requirements are required to comply with the AIAG PPAP manual. The Buyer and SDE/SQE shall be notified of intentions to change a product or process at least 12 weeks prior to making any changes. Meanwhile, the supplier must submit a "Product/Process Change Request" and receive written authorization from the Westport Fuel Systems Buyer to proceed with the change prior to change implementation. Re-PPAP conditions for this change have to be discussed with the SDE/SQE.

Any such change made without prior written approval by Westport Fuel Systems would not only constitute a breach of our purchase order terms and conditions, but would also be a serious breach of standard automotive practice. Suppliers who do not adhere to this requirement will be held responsible for all damages, losses and



liabilities attributable to any unapproved change made by the supplier or one of its sub-suppliers (e.g. customer rejections, customer line stoppage penalty fees, field failures costs, warranty expense).

7 Acronyms and Definitions

AIAG	Automotive Industry Action Group
APQP	Advance Product Quality Planning
COC	Certificate of Compliance
COA	Certificate of Analysis
DFMA	Design for Manufacturability & Assembly
DFMEA	Design Failure Mode and Effects Analysis
FMEA	Failure Mode and Effects Analysis
MSA	Measurement System Analysis
NCR	Non-Conformance Reports
NDA	Non-Disclosure Agreement
PFMEA	Process Failure Mode and Effects Analysis
PM	Project Manager
PPAP	Production Part Approval Process
RFQ	Request for Quotation
S-CAR	Supplier Corrective Actions
SPC	Statistical Process Control
SDE	Supplier Development Engineer
SQE	Supplier Quality Engineer

Appendix List:

1. Appendix 1 – Westport Power Inc IMDS Information Sheet

Rev. #	Description & Reason	Author	Date of Rev.
01	Initial release	M. Feregrino	21/10/2011
02	Included IMDS, MMOG Extended section of Environmental Policy, symbols of special characteristics and some minor changes and formatting	M. Feregrino	18/11/2013
03	Formatting changes	M. Feregrino	16/12/2013
04	Corrected Westport IMDS ID to 125883 Included Conflict Minerals	M. Feregrino	25/08/2014
05	Wording clarification throughout the document Added business language English in Section 3.3 Added clarification in section 4.3.6 Special Characteristics Added section 4.4.1 Prototype Requirements Reworded section 4.4.2 Part Approval Process Added section 4.4.3 Supplier Safe Launch Revised section 4.4.5 Non-Conformances and Corrective Actions Added section 4.4.6 Supplier Request for drawing change (SRDC) or process change Included Corporate update from Westport to Westport Fuel Systems, Logo change	M. Weber	30/09/2015

Approved by	Digital Signature
Monica Feregrino M.Eng. P.Eng. Vice President, Global Purchasing and Supply Chain	

Appendix 1

IMDS Information Sheet Westport Power Inc. IMDS ID: 125883

The registration in IMDS for Westport Fuel Systems can be found under Westport Power Inc., IMDS ID: 125883

What is IMDS and why is it needed?

The International Material Data System (IMDS) is a collective, computer-based material data system used as a tool by the automotive OEMs and Supply Chain to manage environmentally relevant aspects of the different parts supplied for use in vehicles. IMDS has been adopted as the global standard for reporting and tracking the material content of components used in the automotive industry. Suppliers declare, register and submit material / substance information used in the manufacture of components for their customers into the various fields in the IMDS database.

Westport Power Inc.'s IMDS portal is used to verify and ensure that the received Supplier submissions of Material Data Sheets (MDS's) providing information on materials and substances used in the manufacture of supplied products comply with the EU End of Life Vehicles (ELV) legislation; Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), and the Global Automotive Declarable Substance List (GADSL).

- EU ELV – European directive which focuses on making vehicle dismantling and recycling more environmentally friendly. More information can be found at http://ec.europa.eu/environment/waste/elv_index.htm
- REACH – European regulation on chemicals and their safe use. It aims for the industry to assess hazards and risks of substances, and implement risk management measures to protect both humans and the environment. More information can be found at http://ec.europa.eu/environment/chemicals/reach/reach_intro.htm
- GADSL – Global effort of representatives from the automotive industry to standardize the information of certain substances. More information can be found at <http://www.gadsl.org/>

Once a request for substance information from Westport Power Inc. has been received by the supplier, the relevant data shall be submitted by the supplier through IMDS using a Material Data Sheet (MDS).

Westport Power Inc. – the recipient of this data, can then either accept the MDS if the information is correct or decline the MDS if the information is incorrect, sending the MDS back to the supplier with the reason(s).

It is the responsibility of the supplier to ensure that all parts and materials comply with all the above regulations and standards.

Where the system can be accessed?

IMDS can be accessed from the internet at the following web address. Please note that pop-ups must be enabled on this site to accept the TOS.

<http://www.mdsystem.com>

Useful information and guides:

- Full User Manual – https://www.mdsystem.com/html/data/imds_usermanual_en_7.2.pdf
- What you should know about IMDS – http://www.mdsystem.com/html/data/what_you_should_know_about_imds.pdf
- New User Guide – <http://www.mdsystem.com/magnoliaPublic/en/public/New2IMDS.html>
- FAQ – <https://www.mdsystem.com/magnoliaPublic/en/public/faq.html>
- Creating a Component – https://www.mdsystem.com/html/data/imds_create_tips_components.pdf
- Creating a Material – https://www.mdsystem.com/html/data/imds_create_tips_materials.pdf
- Sending an MDS – <http://www.mdsystem.com/magnoliaPublic/en/public/faq/HowToTips/mainColumnParagraphs/014/document/Send-Propose%20Tips-7.1.pdf>
- IMDS Training – <http://services.mdsystem.com/magnoliaPublic/en/services/training.html>

Who to Contact?

Westport Power Inc.: WestportIMDS@westport.com

IMDS Tech: <https://www.mdsystem.com/magnoliaPublic/en/public/contact/Helpdesks.html>