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# Specification

# Supplier Quality Assurance

# Requirements

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Specification  
Supplier Quality Assurance Requirements

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## 1 Scope and Responsibility

This document defines the quality work scope to be performed by subcontractors and suppliers of Bill of Material (“BOM”) components to Ogin, Inc., referred to as “Ogin” from this point forward in this document.

### 1.1 Purpose

This document is the supplier-facing element of the Ogin quality management system and is designed to establish minimum supplier quality assurance requirements.

In the event of document conflicts, the Ogin standard terms and conditions or signed manufacturing agreement will prevail.

Meeting the minimum requirements outlined in this document in no way relieves the supplier of contractual responsibilities to provide products conforming to Ogin specifications and requirements nor is there relief from acceptance requirements and warranty obligations as agreed upon in the signed manufacturing agreement or Ogin standard terms and conditions.

### 1.2 Document Revisions

This document is a living document, authored and maintained by Ogin. Minor changes, such as normal internal updates to procedures driven by process improvements or organizational changes, not affecting the quality requirements, will not necessitate a revision.

### 1.3 Ogin Priorities

Ogin has established certain priorities and it is expected that suppliers to Ogin will also adhere to these priorities in the order listed below. Note that emphasis is placed on safety, and failure to adhere to safety obligations as defined by the appropriate authorities or Ogin may result in termination of the supplier relationship.

#### Ogin Priorities

1. Safety
2. Quality
3. Time
4. Cost

### 1.4 Ogin Quality Policy

Ogin has established a quality policy to ensure that customer requirements are determined and are met with the intent of enhancing customer satisfaction. It is expected that suppliers understand and support this quality policy.

*Ogin is committed to comply with requirements through our Quality Policy:*

*Quality Excellence*

*Customer Satisfaction through*

*Continuous Improvement*

### 1.5 Environmental, Health, and Safety Compliance

Safety is the first priority at Ogin. All contractors and suppliers of products and services to Ogin shall be in full compliance with all applicable federal, state, and local laws and regulations, codes, standards, and



ordinances. Ogin suppliers are responsible for good safety and environmental management practices that ensure operations are in compliance and executed in the safest way possible during the execution of work and in accordance with requirements of their business plans.

## 1.6 Sustainability

Ogin operates in a green industry and therefore encourages all suppliers and sub-tier suppliers to implement best practices in the areas of sustainability. Guidelines for implementing sustainability practices can be found in a variety of international standards including ISO 26000 Guidance on Social Responsibility, ISO 14001 Environmental Management Systems – Requirements with Guidance for Use, and ISO 50001 Energy Management Systems – Requirements with Guidance for Use.

## 2 Documents and Definitions

### 2.1 Ogin Reference Documents

Supply Agreement

Terms & Conditions

Statement of Work

0000000216 Ogin Quality Management System Manual

0000009522 First Article Inspection Report Template

0000011474 8D Incident / Problem Solving

0000011501 Deviation Request

0000011502 Engineering Change Request

0000031930 NCR – Non Conformance Report

0000014714 Supplier-Ogin Design Review Checklist

0000023693 Supplier Information Form

0000023755 Part Submission Warrant (PSW) Template

0000024583 Pre-Production Supplier Audit Checklist

0000024721 Supplier Kick-Off Meeting Guidelines

### 2.2 Definitions

A-level components/suppliers – Component classification level that is defined by Ogin and identified on the purchase order.

B-level components/suppliers – Component classification level that is defined by Ogin and identified on the purchase order.

BOM (Bill of Material) – a list of materials required to complete a wind turbine.

C-level components/suppliers – Component classification level that is defined by Ogin and identified on the purchase order.

CTQ (Critical-to-Quality) – attributes or features whose variation has a significant effect on the product fit, form, function, performance, manufacturability or service life.



DFMEA (Design Failure Modes & Effects Analysis) – a step-by-step approach for identifying all possible failures in a design to facilitate preventive actions.

ECN (Engineering Change Notice) – notification of directed engineering work scope activities to evaluate a product enhancement that will improve product reliability, manufacturability, performance, leverage new technology or make the product more competitive. These activities generally are a result of engineering change requests that result in initial release or changes to released engineering drawings/documentation.

FAI/FAIR (First Article Inspection/First Article Inspection report) – a detailed inspection process utilized to verify conformance of a component during initial production run.

FAP (First Article Parts) – initial production parts performed with FAI/FAIR oversight

Gauge R&R (Gauge Repeatability and Reproducibility Study) – an analysis to determine the amount of variation that will be produced from the main two contributors of a measurement system: the gauge/test equipment (repeatability) and the operator (reproducibility).

Incoterms (Incoterms 2010) – published by the International Chamber of Commerce; Incoterm rules provide internationally accepted definitions and rules of interpretation for most common commercial terms. Incoterms 2010 refers to the most recent revision of these rules released in 2010.

Material testing/verification report – a quality assurance document that certifies compliance to specifications and industry standards.

MPP (Manufacturing Process Plan) – a brief description of each manufacturing process by operation in chronological order

NCM (non-Conforming Materials) – materials, parts, or components that do not meet the required specification as defined by engineering drawings and other technical documentation.

Part qualification process – the process by which a part or component produced by an approved supplier is verified to meet the required specification. Supplier approval and part qualification are required prior to implementing high volume serial production.

PFMEA (Process Failure Modes & Effects Analysis) – a step-by-step approach for identifying all possible failures in a process to facilitate preventive actions.

PLP (Pilot Lot Parts) – a limited set of production parts produced after First Article Parts that are produced with a reduced set of FAIR oversight, used to demonstrate production capability, and to allow the supplier to rectify any observed non-conformances that occurred during FAI. The specific quantity of parts required is determined by the frequency and severity of out of tolerance conditions observed during FAI.

PSW (Part Submission Warrant) – a signed acknowledgement from the supplier that confirms the revision parts were produced to, summarizes the part qualification process, and certifies that the parts provided meet the requirements as defined by Ogin.

QCP (Quality Control Plan) – a structured document that details the quality control methods used a critical process steps in the manufacturing process. The document usually identifies the process step, quality control method, sample size, acceptance limits, and responsible party.

8D (Eight Disciplines Problem Solving) – a method to identify, correct, and eliminate recurring problems that is also useful in product and process improvement.



## 3 Supplier Quality Requirements

### 3.1 Expectations

Ogin expects that suppliers will:

1. Demonstrate that the systems, procedures and methods being utilized to provide products or services meet the requirements as outlined in the Ogin Supplier Quality Assurance Requirements document.
2. Maintain a functional and documented quality management system (QMS) that meets the requirements of ISO 9001 and that addresses all stages of production, process control, development, manufacturing and delivery. Where this requirement is not met the supplier shall document actual Quality practice and provide it to Ogin in writing. Ogin reserves the right to review/assess the QMS including product & service development processes, as well as manufacturing and process control plans applied to products or services.
  - a. Create and maintain current documentation that reflects process flow, work instructions, quality performance, and production schedules as applicable to ensure component/service quality, cost and delivery.
  - b. Maintain policies and procedures that qualify sub-tier suppliers, services or agents for the benefit of Ogin.
  - c. Maintain a sub-tier supplier selection and approval process that ensures conformance to Ogin requirements as described in Section 3.2.
  - d. Communicate any changes to the QMS or quality control plan that could affect planned outcomes to Ogin.
  - e. Maintain a functional and documented root cause analysis and corrective/preventive action process per Section 3.6
  - f. Maintain an accurate and functional change control system that complies with Ogin requirements as outlined in Section 3.7.
  - g. Conduct internal quality audits using accepted methods of measurement or use impartial third party quality audits that ensure compliance with the Ogin requirements and industry standards.
3. Adhere to Ogin or applicable engineering prints, material specifications, specifications and/or reliability requirements that apply to the commodity or specific part being purchased.
  - a. Ensure product is built to the latest issue of the specifications.
  - b. Ensure product is built to the revision of the drawings that is specified by the Purchase Order (purchase order).
  - c. Contact the Ogin representative to requests the latest revision of all applicable Ogin documents.
  - d. Fully review all of the listed documents and contact Ogin to obtain a copy of the latest revision of additional documents being called out in any of the listed above documents.
  - e. Ensure all documentation needed for production and quality assurance that must be reviewed by Ogin is in English and the language understood by the Supplier's production and quality team members.
4. Comply with industry standards explicitly called out in specifications.



5. Demonstrate ability to meet:
  - a. Design, performance and reliability requirements.
  - b. Process controls and capability requirements.
  - c. Other documented requirements as specified by Ogin.
6. Allow onsite audits as requested by Ogin (this includes sub-tier suppliers). Ogin will provide advance notice when practical.
7. Participate in design for manufacturability (DFM) and cost-out activities in partnership with Ogin.
8. Produce and maintain schedule documentation as described below. Provide such documentation to Ogin on a weekly basis or as agreed upon. These schedules shall be created in Microsoft Project (or other similar program) and be maintained by the Supplier:
  - a. Production Schedule: Maps out the various milestones in production and clearly identifies completion and delivery dates for all components.
  - b. Qualification Milestone Plan: Maps out the activities required for Ogin serial production qualification with the following clearly defined: responsible people, initiation dates, and completion dates.

### **3.2 Sub-Tier Supplier Management**

All Ogin suppliers shall maintain a sub-tier supplier selection and approval process supported by appropriate documentation available for review by Ogin. This process must have defined criteria including but not limited to previous experience, safety, quality, performance, schedule, cost, intellectual property, risk, and commitment with the intent to ensure product or service conformance to Ogin requirements. There must also be a documented sub-tier supplier monitoring process with appropriate documentation available for review by Ogin.

Any changes to sub-tier suppliers shall be communicated to Ogin.

### **3.3 Supplier Control and Flow Down**

Each supplier to Ogin is required to ensure that sub-tier suppliers receive the flow-down of relevant product specifications and requirements. Appropriately, sub-tier suppliers are required to apply the same process control requirements. This direction is flowed down in the purchase order and additional requirements may be included for items where a Statement of Work (statement of work) is required.

Any changes to the supplier's sub-tier manufacturing processes, including but not limited to special processes such as welding, brazing, plating, heat treatment, painting, coating, finishing and non-destructive test shall be brought to the attention of the supplier for review and approval prior to incorporation. All such changes shall also be communicated to Ogin.

### **3.4 Critical to Quality Items**

Where Ogin or the supplier determines a part, component or manufacturing process is critical to quality (CTQ), the supplier shall provide written description of the method of control throughout the product realization process. A Quality Control Plan (QCP) describing the methods of control and its implementation shall be available to Ogin for review prior to the start of production. CTQ's are attributes or features whose variation have a significant effect on the product fit, form, function, performance, manufacturability, or service life.



### **3.5 Product and Process Assessment**

Ogin reserves the right to conduct periodic assessments of work products (deliverables, reports, analysis) and to verify compliance as well as product & process performance. All suppliers shall maintain records in accordance with this plan and with Section 3.10.

Ogin reserves the right to conduct an audit or assessment of any work products of the project at the supplier's facility or work sites. Any deficiencies or non-conformances noted during the assessments shall be documented and tracked to closure appropriately. An 8D may be required as described in Section 3.6.

### **3.6 Corrective and Preventive Action**

The supplier shall employ a closed-loop Corrective and Preventive Action system (8D method or similar) to correct non-conformances, systemic quality issues and/or prevent non-conformances and to implement continuous improvement. This process shall include Root Cause Analysis and implementation of corrective/preventive actions. Verification and validation shall be done to confirm compliance to the improvement plan and effectiveness of the incorporated actions. Lessons learned should be incorporated and communicated for problem prevention.

### **3.7 Change Management**

The supplier shall maintain a documented change management process. This process shall ensure that current revisions of all design documents, product specifications, and quality/production processes are available to relevant personnel. All previous revisions of such documents shall be collected and appropriately stored or destroyed to prevent use of incorrect documentation in planning and production.

In the event of Ogin-approved or issued design changes while in production, the supplier shall identify the point of cut-in for the changes by component serial number, batch/lot number, or purchase order line item number (as applicable). This cut-in point shall be submitted to and agreed upon with Ogin prior to the implementation of the design changes.

### **3.8 Calibration Management**

The supplier shall maintain a documented calibration program for tooling, gauges, and other applicable equipment. This program should at minimum include tracking of a calibration schedule (including expiration dates), identification of calibrated tools and equipment, active removal of tools and equipment from service after expiration, and traceability to national or international standards such as NIST, NORAMET, EURAMET or other recognized standards laboratories.

### **3.9 Continuous Improvement**

The supplier shall engage in continuous improvement processes utilizing appropriate methods such as lean management, problem prevention, etc. Any continuous improvement activities that impact production processes, the QMS, or product conformance shall be communicated to Ogin. Continuous improvement activities should focus on ensuring customer requirements and targets for safety, quality, time and cost as well as achieving performance targets.

### **3.10 Data and Record Retention**

Suppliers shall ensure that project records, specifications, manufacturing methods, test plans, certificates of compliance, and quality records are maintained and available for review upon request for a minimum period of 5 years.

All records should be appropriately organized and stored with a redundant back-up system. A written



records retention policy shall be available for Ogin review.

## 4 Initial Supplier Evaluation and Approval Process

All suppliers of BOM components shall be approved for a specific work scope or deliverable through an objective selection process. The selection process is transparent and based on a set of defined criteria (e.g. previous experience, safety, quality, performance, schedule, cost, intellectual property, risk and commitment). The reasons for non-selection may be provided to a supplier upon request.

The supplier selection process begins with the completion of the Supplier Information Form (0000026963). The prospective supplier must complete and return the completed information form to Ogin to be considered for supply of BOM components. All information provided in the information form shall be true and accurate to the best of the supplier's knowledge.

An on-site assessment will then be completed by an Ogin team. This assessment is intended to provide Ogin with an introduction to the supplier, supplier facility, production capability and processes, EHS management system, and QMS. The assessment typically requires the team to be on-site for 1 day and will be scheduled in advance with the supplier.

Following the completion of the on-site assessment, Ogin will review all necessary information and determine if the supplier will be approved for the purchase of BOM components. Information included in the decision process includes but is not limited to supplier quotations, supplier terms and conditions, and results of all assessments performed. Pricing and terms negotiations may also take place prior to or concurrent with the approval decision.

After a supplier has been approved for the production a supply agreement or task order will be executed and a purchase order will be issued. The execution of both the supply agreement/task order and the purchase order shall be considered an authorization to proceed with manufacturing activities. No manufacturing activities (including the purchase of raw materials or tooling) shall take place prior to the execution of the supply agreement/task order and issuance of a purchase order unless specifically directed by Ogin. Note that in some cases, C components may not require a contract or task order (refer to Process for Procurement 0000023708 for more details).

## 5 Pre-Production Activities

### 5.1 Kick-Off Meeting

A project kick-off meeting will be scheduled with the supplier shortly after the issuance of a purchase order for an A- or B-level component. The purpose of this meeting is to discuss and agree upon requirements and expectations for the supplier-customer relationship as well as specific components to be manufactured.

The kick-off meeting can occur in person or via teleconference depending upon the complexity of the relationship or component. There are three primary topics of discussion for this meeting:

- Technical review
- Quality review
- Commercial review

The kick-off meeting will be documented using 0000024721 Supplier Kick-off Meeting Checklist. The supplier will be asked to review, contribute to, and sign the checklist to indicate agreement.



## 5.2 Pre-Production Readiness Review

Ogin reserves the right to conduct readiness reviews or process assessments to verify planned outcomes are achieved. A supplier pre-production readiness review is required prior to the start of production. The readiness review is not to be confused with the on-site assessment performed during the supplier selection and approval process; the pre-production readiness review is intended to be a more in-depth examination of the supplier's quality management system, work processes, and ability to consistently meet required quality levels.

The readiness review will be performed for all A and B-level component suppliers and may be applicable to C-level components at the discretion of Ogin.

All elements of the quality management system (QMS) and manufacturing processes will be reviewed along with objective evidence to demonstrate the implementation and effectiveness of the QMS. The supplier pre-production readiness review may be accomplished in two phases: a desk review of associated documents, procedures, work instructions, etc. and an on-site assessment for implementation verification. Ogin may provide a document request to the supplier to facilitate a desk review.

Every effort will be made to provide advance notice and coordinate such activities with the supplier.

## 6 Part Qualification and Acceptance

### 6.1 Part Qualification Process

The part qualification process is intended to ensure that a component meets Ogin technical/performance requirements and will consistently meet these requirements. Ogin will use a part qualification process to define, validate and freeze the processes used for production parts.

At the discretion of Ogin, any or all of the part qualification items may be reviewed onsite at the supplier facility as part of the part qualification process.

The part qualification process should be executed with parts produced by the actual production processes and at anticipated production volume rate.

It is the responsibility of the supplier to contact Ogin as requirements are completed and/or to address any difficulties in meeting the requirements.

### 6.2 Applicability of Part Qualification Process

The part approval process is only applicable to primary components that are critical to turbine safety and reliability. Generally, off-the-shelf components will not undergo a formal part qualification process; however Ogin maintains the right to impose certain quality requirements on off-the-shelf component suppliers if deemed necessary.

### 6.3 Prototype Parts

Prototype parts are primarily used for design validation purposes and purchased in small quantities (~1-2 turbines' worth). Prototype parts will not undergo a formal part qualification process. Ogin will provide specific acceptance requirements to the supplier for each prototype part and will actively participate in the qualification of prototype parts.

### 6.4 First Article, Pilot Lot, and Serial Production Parts

A and B-level components have minimum part qualification requirements as listed in this section.



Additional documentation may be requested on a case-by-case basis.

For all A and B components Ogin will require a first article run of a set quantity of parts accompanied by all of the requirements in this section (first article parts or FAP). The quantity of FAP will be defined in the drawings, specifications, or purchase order.

In some cases Ogin may require a pilot run of a set quantity of parts with reduced FAI oversight (pilot lot parts or PLP). PLP are used to demonstrate production capability and to allow the supplier to rectify any observed non-conformances that occurred during production of FAP. The specific quantity of parts required is determined by the frequency and severity of out-of-tolerance conditions observed during FAI.

Serial production will commence after the completion and review of all PLP.

All parts manufactured during PLP and serial production shall be manufactured under frozen quality control plans (QCP), manufacturing production plans (MPP), and work instructions. Any changes made to the QCP, MPP, and work instructions during PLP or serial production that change any processes that can affect form, fit, or function will restart the PLP count. Changes to the production process that do not affect form, fit, or function will not restart the PLP count.

#### **6.4.1 Design Records and DFMEA (if applicable)**

Applicable only if the supplier has design responsibilities.

The supplier will supply applicable design records (including engineering and/or shop drawings) for review by Ogin. There may be several design review steps required during the design process that will be described in the contract documents. The supplier is required to participate in these design reviews at Ogin's request and to make applicable documentation available for these reviews. A preparatory checklist may be supplied by Ogin to ensure the supplier is adequately prepared for the design review.

The supplier will use the DFMEA as a preventive analytical technique tool to proactively measure cause and effects of potential failures to meet customer requirements during the design process. If necessary, Ogin will partner with the supplier to support the DFMEA activity.

Potential design failures will be prioritized using the DFMEA and clearly identified to Ogin with Risk Priority Number (RPN) ranking logic. The supplier documented DFMEA RPN defines actions to be taken and detail steps taken that establish controls for prevention based on risk priority.

The DFMEA is a living document and shall be revised as risk is added or removed or as changes are made to the product or process.

For those instances where Ogin has design responsibility, we reserve the right not to share the DFMEA with suppliers, but Ogin will share a list of all CTQs so they can be addressed on the supplier's PFMEA and Quality Control Plan.

#### **6.4.2 Manufacturing Production Plan**

A Manufacturing Production Plan (MPP) provides a brief description of each manufacturing process by operation, in chronological order. The following is a detailed description of information the MPP must contain:

- Cover Sheet
  - Supplier name and address of manufacturing location
  - Applicable Ogin Assigned document number
  - Supplier internal document number, revision level and date
  - Applicable top level Ogin drawing number(s), and revision level



- Document List
  - Indicate all applicable Ogin material/process specifications and revision levels, as well as all applicable Supplier process, quality, and testing instructions and revision levels
- Material Supplier List
  - Revision controlled listing of approved suppliers of all raw material, functional components, direct services and sub-suppliers, including item or service supplied, contact name, address and phone number
- Process Flow Diagrams
  - A complete process flow diagram(s) that clearly describes the production process steps and sequence beginning at material receipt through packaging and shipping, including operations performed by outside sources. CTQ's will be clearly identified at different process steps where applicable.
  - A single process flow diagram may apply to a group or family of products that are produced by the same processes in the same sequence.
  - Once reviewed by Ogin, the operational sequence and workstation utilization cannot be changed without requesting prior authorization from Ogin. Changes to the MPP may require re-qualification and submission of a new Parts Submission Warrant (see Section 6.4.8.1).

Ogin reserves the right to request copies of all applicable supplier procedures, work instructions, quality inspection check sheet templates, and any other documentation applicable to the manufacturing and quality control of Ogin components.

#### 6.4.3 Process FMEA

The supplier will use the PFMEA as a preventive analytical technique tool to proactively measure cause and effects of potential failures in a product or a process. Potential manufacturing or process failures will be prioritized using the PFMEA and clearly identified to Ogin with Risk Priority Number (RPN) ranking logic.

The supplier documented PFMEA RPN defines actions to be taken and detail steps taken that establish controls for prevention based on risk priority. The results of the PFMEA should be fed into the Quality Control Plan to ensure adequate controls are placed into production.

The PFMEA is a living document and shall be revised as risk is added or removed or as changes are made to the product or process.

#### 6.4.4 Quality Control Plan

The Quality Control Plan (QCP) follows the PFMEA steps, and provides more details on how the potential issues are checked in the incoming quality, assembly and/or manufacturing process or during inspections of finished products.

The QCP will detail all manufacturing, inspection, and testing processes and procedures of the subject part, component, product or service. The documented QCP will describe the actions required at each phase of the processes that are required to successfully manufacture the Ogin product. An acceptable QCP will provide a complete road map of a confirmed process, including monitoring and control methods that will ensure compliance to proven and tested manufacturing methods.

Information required in the QCP:

- Listing of all technical documents that govern the inspection or test activity (i.e., supplier



documents, Ogin specifications, industry codes/standards)

- Identification of the test or inspection criteria in an itemized listing. Each line item must identify what is to be inspected (to the characteristic level), inspection method, inspection frequency, inspection timing performed (where in the manufacturing process), who is to perform the inspection (e.g., Operator, Inspector, etc.), and the acceptance criteria.
- Specific attention must be paid to the control of CTQ's.
- Completion of each inspection and test will be accompanied by appropriate sign-off documentation. This documentation may be in the form of test reports, inspection reports, check sheets, or included on the manufacturing traveler.

The QCP is identified by part number/part family, revision level, and applicable Ogin purchase order number.

#### **6.4.5 First Article Inspection**

The supplier shall conduct and prepare a FAIR (First Article Inspection Report) for Ogin review. The FAI report shall be made available to Ogin upon completion. A 100% dimensional inspection is the default criteria for a first article inspection. Additional requirements may be described in the drawings, specifications, supply agreement, or purchase order. Ogin reserves the right to witness or participate in the FAI.

#### **6.4.6 Material Testing/Verification Reports**

The supplier, or a national accredited/certified independent third party, must supply specific material, performance and/or durability test results. Actual results must be compared with agreed upon specifications. Ogin may require third party testing for certain components.

This item will include also raw material verification per print or specification.

#### **6.4.7 Gauge R&R**

Gauge Reproducibility and Repeatability (Gauge R&R) studies shall be conducted on all CTQ requirements as well as for any deviating criteria observed during FAP to ensure capability of the supplier measurement system. The supplier shall identify all required gauge R&R studies in the QCP and confirm applicability with Ogin.

Unless otherwise defined in drawings or specifications, a gauge R&R should be conducted by having 3 operators inspect 3 pieces 3 times each (quantity of operators, pieces, and trials listed are minimum requirements – quantities can vary on a case-by-case basis and may be specified by Ogin). All pieces should be production pieces, the order of pieces presented to the operator should be random, and all pieces should be numbered but blind to the operators.

Whether reported as a percent of tolerance or a percent of process variation, the calculated gauge R&R statistic is interpreted as the following:

- 0-10%: Acceptable
- 10-30%: Marginal
- 30-100%: Unacceptable

Any gauge R&R statistic greater than 10% will require an 8D problem solving activity and report presented to Ogin for review.



#### 6.4.8 Part Submission Warranty

The Part Submission Warrant (PSW) form is a signed acknowledgement from the supplier that confirms and certifies that the parts or services being provided meet the requirements as defined by Ogin.

Unless otherwise specified on the PSW, approval is valid for the life of the contract or until revoked by Ogin.

The Ogin PSW form will be used at all times without exception.

##### 6.4.8.1 PSW Change Management

After part qualification and the submission of the signed PSW, suppliers will not make any changes without written notification and approval from Ogin.

The scope of change management includes the supplier, the supplier tier providers and the supplier's service providers and agents engaged in support of the manufacture of Ogin product.

Changes are defined as any alteration in the product design, purchased parts, materials or services, manufacturing location, method of manufacture, testing, storage, packaging, preservation or delivery.

Changes include, but are not limited to:

- Correction of a discrepancy on a previously shipped part.
- Product modified by a change to engineering design records, specifications, or material through an Engineering Change Notice (ECN).
- Implementation of a previously approved alternate process, substitute material or optional tier supplier.
- Production from new or modified tools (except perishable tools), dies, molds, patterns, including additional or replacement tooling.
- Production following refurbishment or rearrangement of existing tooling or equipment.
- Production following any change in process or method of manufacture to include changes in lubricants, mold release agents, or other process solutions.
- Production from tooling and equipment transferred to a different plant location or from an additional plant location.
- Change of source for key subcontracted parts, materials or services (for example: heat treating, plating).
- Product re-released after the processes or tooling used for Ogin product have been inactive for twelve months or more.
- As a result of the supplier request to suspend or delay shipment due to a sub-tier supplier quality non-conformance or non-compliance.
- Any other activity that will result in a change to the approved part qualification process.

Ogin reserves the right to re-qualify the product due to permanent product changes resulting from design or specification revisions.

Supplier will provide an updated PSW and part qualification documentation where applicable for all approved changes.

The supplier will utilize a deviation request form to notify Ogin in the event of change(s) that would void the signed PSW. In this circumstance no shipments are allowed unless written consent is provided by the



Supplier Quality representative.

The deviation request will be reviewed by Ogin and a disposition regarding the status of the part qualification will be made as either:

- PSW update only.
- Part qualification process resubmission. The appropriate part qualification steps must be redone and all documentation resubmitted as a single package.

## 6.5 Product Acceptance

Ogin and its subcontractors shall verify that the goods and services provided are complete and compliant with the Requirements Specification, Bill of Materials or statement of work as listed in Section 6 and in conformance at the time of delivery. This can be demonstrated through checklists, material certifications, Test & Inspection Reports, Certificates of Compliance or equivalent to signify that the item(s) are complete and compliant to the requirements specified for the product.

Once the part or materials are completed per the purchase order, contract, and engineering drawing requirements, the supplier will notify Ogin that material is ready to ship. Ogin will review the components and related documentation to verify completion and conformity prior to taking delivery or authorizing shipment (dependent upon contractual Incoterms). The method for review of components will be at the discretion of Ogin and may include review of quality/manufacturing documents, on-site inspection, or any other method deemed applicable.

Acceptance of components will be performed at the agreed upon delivery point according to contractual requirements and as per applicable purchase order or manufacturing agreement Incoterms. Inspection and acceptance by Ogin in no way relieves the supplier of contractual responsibilities to provide products conforming to Ogin specifications and requirements nor is there relief from acceptance or warranty obligations as agreed upon in the signed manufacturing agreement or Ogin standard terms and conditions.

## 6.6 Deviations or Waivers

Any request for product deviation or waiver shall be brought to the attention of Ogin utilizing a Deviation Request form (0000011501). A product deviation request may only be utilized prior to the production of the component; all product deviation requests initiated during or after production of the component must be processed as non-conformances.

The deviation request form shall also be utilized to notify Ogin of any key process changes, sub-supplier changes, tooling or equipment change, or any other changes that may void the PSW.

Deviation Request forms can be obtained from Ogin.

## 6.7 Non-Conforming Material

Any non-conformance or non-compliance to requirements by the supplier must be brought to the attention of Ogin. A Non-Conformance Report (0000031930) must be submitted to Ogin for disposition.

Non-Conformance Report forms can be obtained from Ogin.

## 6.8 Traceability

Where required by Ogin or other industry standards/codes, suppliers and sub-suppliers are to ensure that traceability of components or raw materials is implemented and such records are available for review upon request by Ogin. Traceability may be accomplished via serial numbers, batch/lot numbers, etc. as deemed appropriate. Ogin reserves the right to assign serial numbers to suppliers and in such cases will endeavor to



do so prior to the start of production.

## 6.9 Material Handling, Preservation, and Packaging

All suppliers shall provide sufficient safe guards during design, manufacture, test and transfer of products and equipment to ensure items are properly handled, protected and segregated, to prevent damage or otherwise adversely impact workmanship. In the event products will be shipped internationally, (water/air), they will be prepared, packaged in accordance with commercial best practice with special care to ensure that items are protected to avoid damage to internal electronics, components, including ESD protection of sensitive devices. Ogin reserves the right to review packaging prior to shipment.

## 7 Supplier Monitoring

Ogin continuously monitors the performance of all suppliers during production. Particular attention is paid to A- and B-level BOM component suppliers utilizing a supplier balanced scorecard during PLP and serial production. The supplier balanced scorecard will monitor supplier performance in the following areas:

- Quality performance
  - Count and percentage of delivered deviation requests within the preceding month and over a rolling 12 months
  - Count and percentage of escapes to Ogin (non-conformances identified by Ogin at or after the time of delivery/acceptance) within the preceding month and over a rolling 12 months
  - Count of 8D corrective actions (total over a rolling 12 months, quantity currently open, quantity closed), average time to closure, and average time open
- Delivery performance
  - Percent of deliveries on time as compared to scheduled delivery dates agreed upon in the purchase order for all deliveries within the preceding month and over a rolling 12 months
  - Count of parts currently late and the average days late
  - Percent of orders conforming to the promised cycle time within the preceding month and over a rolling 12 months
- Cost performance
  - Quantity and dollar value of change orders over a rolling 12 months
  - Ratio of performance to quoted cost (actual invoiced price/quoted price)
- Partnership performance
  - Responsiveness to Ogin communications, requests, change orders, warranty claims, etc.

The supplier scorecard will be generated on a monthly basis and provided to the supplier for review and comment. If necessary, an 8D may be requested to address low ratings in specific areas.