EXTERNAL PROVIDER QUALITY REQUIREMENTS MANUAL

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ISO 9001:2015 CERTIFICATION™

Intertek

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WELCOME

If you are an existing External Provider to PAUMAC TUBING LLC, thank you for your continued dedication. If you are a new External Provider to PAUMAC TUBING LLC, welcome to our team.

This External Provider Requirements Manual is intended to be a communication to External Providers on how to do business with PAUMAC TUBING LLC. In all cases Purchase Orders, External Provider agreements, contracts and any other written business agreement may take precedence.

This manual will provide a guideline for cooperative efforts between PAUMAC TUBING LLC and our supply partners and providers to produce the highest quality parts possible.

Please review the manual, complete the attached Acknowledgement of Receipt and return to Paumac Tubing's Purchasing department at Purchasing@paumactubing.com. External providers are also required to complete an External Provider Self-Assessment found on Paumac Tubing LLC website (www.paumactubing.com). Return completed assessment to Paumac Tubing's Purchasing department along with a copy of your current certifications, such as ISO/TS/IATF.

Thank you,

Norman MacDonald

CEO

PAUMAC Management Team

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1.0 Introduction

PAUMAC TUBING purchasing, is the External Provider's first line of communication and approvals source whenever raw material, components or services are contracted or provided to PAUMAC TUBING. The Materials Department coordinates External Provider information and provides the PAUMAC TUBING support activity to the External Provider, while relying upon regards to manufacturing and quality of the product.

External Providers are responsible for meeting the External Provider Quality Requirements Manual requirements. Failure to meet these requirements may result in the loss of existing and / or future business, in addition to reimbursement of the External Provider's expertise with the cost to PAUMAC TUBING resulting from those failures.

External Providers are expected to meet the requirements stated herein. These requirements do not supersede any of the purchase order, engineering drawing or specification requirements, or relieve the External Provider of exercising independent expertise and skill in providing products or services to PAUMAC TUBING.

While PAUMAC TUBING may assist the External Provider in achieving quality requirements and improving quality, the responsibility for External Provider quality remains with the External Provider.

1.1 Purpose

The purpose of this External Provider Quality Requirements Manual (EPQRM) is to specify PAUMAC TUBING quality system requirements for our External Providers.

This manual is intended to communicate uniform quality requirements, which PAUMAC TUBING expects of all External Providers, it provides a general instruction and outlines procedures which are to be followed in order to become and maintain their Approved External Provider status.

1.2 Scope

This manual applies to all material External Providers other than those that provide Bulk or Commodity Materials that are made to specifications and standards that are not controlled by Paumac Tubing. Materials that may be specifically excluded are those made to commercial standards such as ASTM JIS, ANSI and others. However, if Paumac Tubing and the External Provider have agreed to Special Conditions such as tighter wall thickness tolerances, weld seam locations, minimum inside diameters or closely held cutting conditions this manual will be applied.

This manual is a quality standard and requires the formation and maintenance of a documented, effective quality system for all External Providers to PAUMAC TUBING LLC.

Acceptance of a PAUMAC TUBING LLC purchase order constitutes acceptance off all requirements contained within this document.

This EPQRM establishes specific minimum requirements. It shall be the External Provider's responsibility to implement and maintain any additional controls deemed necessary to continually ensure "fitness for use" reliability, and product conformance to stated specifications.

1.3 Responsibility

External Providers are responsible for meeting the requirements stated in this manual. Failure to meet these requirements may result in the loss of existing and/or future PAUMAC TUBING business, in addition to reimbursement of the cost to PAUMAC TUBING LLC resulting from failures.

External Providers shall ensure their direct material/service External Providers are consistent with the concepts in the ISO9001:2015 standard. External Providers shall adopt the standards of Zero Defects and 100% On Time Delivery to PAUMAC TUBING. External Providers shall understand that any established PPM target is not an Accepted Quality Level, but represents an intermediate continual improvement.

1.4 Reference Documents

ISO 9001:2015

Advanced Product Quality Planning & Control Plan (APQP) AIAG

Measurement System Analysis Manual (MSA) AIAG

Statistical Process Control (SPC) AIAG

Potential Failure Mode and Effects Analysis (FMEA) AIAG

2.0 External Provider Selection and Approval

External Providers are selected and approved on a location by location basis, approval of one manufacturing location does not constitute approval for any other location.

External Provider information packages, including External Provider Self-assessments request are sent to prospective External Providers. On-site audits are conducted as deemed necessary by PAUMAC TUBING.

External Providers must provide Certificate of quality system registration by an accredited third party certification body or evidence of progress toward registration. If the External Providers system is not certified, an assessment will be required to protect Paumac on Quality Assurance issues.

External Providers achieving an acceptable assessment score as well as meeting other PAUMAC criteria (including, but not limited to; cost, logistics and commitment) may then be added to the PAUMAC Approved External Provider's List.

Once approved by PAUMAC TUBING, on-going External Provider ratings (i.e., quality and delivery) cost and other commercial factors will determine long term business potential. (See section 18.0 for further information on External Provider ratings and maintaining approved External Provider status.)

3.0 External Provider Quality System Assessment

PAUMAC TUBING LLC may elect to conduct a process audit on site for External Providers that have an unacceptable Quality Rating.

External Providers may be required to submit corrective actions noted from self-assessment or on-site audit based on an identified risk assessment as determined by Paumac Management.

If at any time an External Provider's 3rd Party QMS registration expires or is rescinded by its registrar, PAUMAC TUBING's Purchasing or Quality department must be notified immediately.

Ongoing assessments maybe performed as determined by PAUMAC TUBING's Purchasing and Quality departments.

4.0 Advanced Product Quality Planning

Advanced Product Quality Planning is the recommended process for establishing quality objectives and for establishing the plans for meeting or exceeding these objectives.

Advanced Product Quality Planning is recommended for the following:

- ✓ During the development of new processes and / or products
- ✓ Prior to significant changes to processes and or products (as determined by PAUMAC TUBING)

It is highly recommended that External Providers form quality planning teams for every new or changed product. These teams should use the planning techniques identified in the AIAG APQP manual as well as PAUMAC TUBING'S specific requirements throughout the quality process development and pre-production phases.

External Provider APQP teams may include at PAUMAC TUBING request, Purchasing and / or Quality.

PAUMAC TUBING requires the use of the AIAG Advanced Product Quality Manual as the External Provider APQP requirements.

Refer to the AIAG APQP & FMEA manuals for specific details on creating Process Flow Diagrams and FMEA's. External Providers are required to adhere to PAUMAC TUBING specific requirements in addition to AIAG requirements.

4.1 Process Flow Diagram

Flow diagrams are required for PPAP approval and shall be tied numerically to the Control Plan and PFMEA.

4.2 Failure Mode and Effects Analysis (FMEA)

FMEA's shall be used in both product design and manufacturing process planning. FMEA's are required for all new or changed products or processes. FMEA's are "living documents" and are required to be updated for design or process changes due to corrective actions, continual improvement activities or lessons learned, throughout the product life.

PAUMAC TUBING may require preliminary PFMEA's to be submitted prior to PPAP as part of the APQP process. Process FMEA's are required for PPAP approval. DFMEA's are required only if the External Provider is design responsible for the supplied product.

4.3 Control Plans

Control plans are to be develop and should be in the AIAG latest edition format. Updates to control plans are required in the event of a process change due to a corrective action or continual improvement activity.

Changes of significance (fit, form, function, durability, appearance or level of control) are to be submitted for approval to PAUMAC TUBING's Quality department. Changes of no significance

(document format, spelling) do not require PAUMAC TUBING approval. Contact PAUMAC TUBING Quality or purchasing representative if there are questions concerning approval requirements.

The Control Plan must list:

Known Key Process Characteristics (KPC's) and critical characteristics (CC's) by the External Provider, based on product and process knowledge, as well as customer requirements.

All KPC / CC's identified on PAUMAC TUBING engineering drawings and specifications.

Product or process characteristics identified during the APQP process and FMEA development.

Product or process characteristics identified in PAUMAC TUBING External Provider quality planning meetings.

Once control characteristics have been identified, control methods must be established and documented on the control plan.

Control Plans should detail all controls from receipt of raw materials through finished product shipment. All Control Plans must include reference to a minimum of a dimensional layout, performance test (where applicable) chemical test (where applicable) and / or material analysis by the External Provider.

Control plans submitted without this reference will not be approved. PAUMAC TUBING designated KPC's/CC's must have SPC control referenced in the control plan. KPC's must have error-proofing / mistake proofing to ensure 100% quality is received at PAUMAC TUBING at all times. Mistake proofing control shall be referenced in the control plan, including the External Provider's method of daily verification of the continued function of established controls.

PAUMAC TUBING may require preliminary submission of control plans prior to PPAP as part of the APQP process. Final control plans must be submitted for PPAP approval.

NOTE: Approval of the External Provider control plans is required to ensure conformance to the AIAG and PAUMAC TUBING quality requirements. PAUMAC TUBING approval of an External Provider's control plan is in no way to be interpreted as unconditional approval of the process, or quality of the materials / components supplied under the control plan. The responsibility of the External Provider remains with the External Provider at all times.

4.4 Gauging Requirements

When specified on the purchase order, it is the responsibility of the External Provider to supply gauging for the components. This may include gauges for External Provider and PAUMAC TUBING to use. All gauges must be certified before use, records of certification / calibration must be maintained by the External Provider and made available upon request of PAUMAC TUBING.

4.5 Measurement System Analysis (MSA)

Product and process conformance must be determined by measurements made with appropriate test equipment and gages.

The External Provider must establish the error of measurement to specification ratio since the test equipment or gauge is a significant part of the process. Any error in these measurements, whether

known or unknown, has a direct effect on the ability to judge process / product conformance and capability.

PAUMAC TUBING requires that all test equipment and gauges used to evaluate any control plan characteristic have gauge R & R studies conducted which meet the requirements of the AIAG MSA manual or be removed from service and be replaced with a conforming gage. Variable gauging shall be used wherever possible. GR&R studies shall be submitted for all KPC gauging for PPAP approval.

4.6 Statistical Process control

Statistical process control (SPC) shall be used as an integral part of the External Provider's process to provide the necessary information for the process parameters and product characteristics, referred to as KPC or key characteristics that affect the fit, form, function, durability or appearance of the product. Variable control charts are the preferred method of SPC.

External Providers are expected to utilize the data from the control charts to identify opportunities for improvement to continually reduce the variation in process output.

When unique process condition, historical data or other factors suggest an exception to the use of statistical controls, supporting rationale must be provided with a proposed control plan and PSW to PAUMAC TUBING quality or purchasing representative for approval.

PAUMAC TUBING requires initial Cpk of 1.67 minimum and to maintain in production a 1.33 Cpk minimum. External Providers are responsible for maintaining Statistical data and providing to Paumac upon request. When such indices are below these minimum requirements, reaction conditions are specified by AIAG in the PPAP manual, and External Providers must adhere to these requirements. Failure to do so may result in PPAP and / or shipment rejection.

4.7 Lot Size (If Applicable)

External Provider lots must be the quantity of product produced under similar conditions such as that the product within the lot is expected to be consistent in all significant attributes. Maximum lot size shall be limited as follows:

- One shift of production
- One batch of product produced in a batch process

Each lot must contain homogeneous components or raw materials. If a specific product and/or manufacturing process does not lend itself to these requirements, alternate methods may be used but must be approved by PAUMAC TUBING’s quality or purchasing representative.

4.8 Lot Traceability

For all PAUMAC TUBING products, the External Provider shall establish and maintain procedures for identifying the product during all stages of production including receipt, work in process, storage, and delivery. In addition, lot traceability of all subcomponents, raw material and process inspection data shall be maintained.

Each production lot shall be identified by an External Provider lot number.

The External Provider lot traceability system must provide for the following situations:

- Isolation of suspect product on a precise basis based on lot number on each container and / or part.
- Identification of External Provider lot number on each container. This lot number must be the key to the lot number traceability in the External Provider's system.
- Localize causes of failure and take corrective action at minimal cost to External Provider and PAUMAC TUBING.
- Determine traceability to component lot numbers and production / quality data specific to the lot number the container. (reverse traceability)
- Determine External Provider finished product lot number (s) produced on a given lot of components or on a given shift of production. (forward traceability)
- Each lot of die colorant for plastics / textiles

4.9 Product Handling, storage and Delivery

The External Provider is required to have documented procedures for handling, storage and delivery of the product. The External Provider must also conform to any specific requirements stated on the PAUMAC TUBING purchase order or drawing / engineering specifications.

Handling:

The External Provider shall utilize methods and means of handling product to prevent damage and deterioration before, during and after the manufacturing process.

Storage:

The External Provider shall use secure storage areas to prevent damage or deterioration of product pending use or delivery.

Appropriate methods for authorizing receipt and dispatch to and from such areas shall be stipulated in order to maintain control and assure FIFO. In order to detect deterioration, the condition of the product in stock shall be assessed. Shelf life is to be monitored, as applicable, to ensure products shipped have greater than 50% of shelf life remaining, unless approved in advanced by PAUMAC TUBING's quality or purchasing representative.

Shelf life expiration date or manufacture date must be identified on each container.

Special storage condition requirements (i.e., temperature, humidity levels) must be determined, and implemented to prevent deterioration during storage at External Provider location.

Delivery:

The External Provider shall arrange for the protection of product quality subsequent to manufacture, this is to include delivery to destination. External Providers responsible for design of packaging, must be cost effective and ensure that when product reaches PAUMAC TUBING, or PAUMAC TUBING's customer, that it is conforming and "fit for use", regardless of F.O.B. terms, (with the exception of blatant carrier damage and / or neglect).

4.10 Material Certifications or Performance Test Results

The External Provider shall provide PAUMAC TUBING with material Certifications. External Providers must also conform to the IMDS system as required by PAUMAC TUBING.

5.0 Production Part Approval Process (PPAP)

External Providers shall ensure that the PPAP document and sample submissions are in accordance with the requirements of the Automotive Industry Action Group (AIAG) PPAP Manual, and any Customer specific requirements. They shall also insure that all requirements are met before submission to PAUMAC TUBING up to and including obtaining PAUMAC TUBING approvals for any change requests.

External Provider submission of a non-conforming PPAP package will be recorded as an External Provider performance failure and could affect the External Provider's performance rating.

When applicable, External Providers shall include in the PPAP submission the Engineering Specification (ES) test plan and the ES test results. An approved/accredited laboratory must conduct the ES tests.

Approvals must be granted by the PAUMAC TUBING quality or purchasing representative prior to any production shipments by the External Provider.

Unless otherwise specified by PAUMAC TUBING, the required PPAP submission level is 4 which contains the following elements unless otherwise directed by PAUMAC TUBING's quality or purchasing representative:

- ✓ Ballooned Print
- ✓ Dimensional Layout
- ✓ Samples - 3 pieces for single cavity/die, 1 piece per cavity/die for multi cavity/die tool
- ✓ Material Certs
- ✓ Test Performance as applicable
- ✓ Part Submission Warrant (PSW)
- ✓ Current ISO9001:2015 or TS/IATF 16949 certification (if certified)

Note: a full level 3 PPAP, per AIAG, including all supporting documentation, must be maintained at the External Provider's location and make available to PAUMAC TUBING upon request.

External Provider PPAP submissions must include actual dimensional, material and test data (as applicable) documenting conformance.

Proprietary documents may be excluded from PPAP submissions upon approval of PAUMAC TUBING Quality Department. When such conditions exist, the External Provider shall include a letter in the PPAP submission stating the reason the document is proprietary and stating that the document is available for review by PAUMAC TUBING at External Provider location.

5.1 Launch Requirements System - Prototype & Pre-Production PPAP Requirements

The PAUMAC TUBING Quality Planning System (QPS) is used for all prototype and pre-production components and sub-assemblies considered to be a high-quality risk at initial product launch. QPS duration is until the External Provider has achieved full PPAP approval from PAUMAC TUBING. QPS criteria will be established, documented and agreed on during the initial launch meetings with PAUMAC TUBING Program Manager and / or Quality Representative.

All QPS Inspection samples must be identified as per Paumac Quality Representative.

- Identification must be attached to each component / sub-assembly. For bulk items, the Identification can be attached to each container.

- Each component/bulk material container must have a sticker label attached with the PAUMAC Item # clearly on all packaging.
- Each shipment of prototype / pre-production components or sub-assemblies must be 100% dimensionally inspected to the latest engineering print release, data report is to be sent with the shipment.
- Dimensional requirements; quantity, measurement points and tolerance concessions will be discussed during the initial launch meetings held between External Provider and PAUMAC TUBING. Dimensions are to be taken in a "free state" unless otherwise agreed in writing by PAUMAC TUBING Launch Team.
- The shipper, for each delivery, must include the following information; Purchase Order #, Part description, PAUMAC TUBING item #, Drawing # (if applicable), Color code (if applicable), Design /and / or Revision level, as stated on the Purchase Order, date of delivery quantity and overall weight.

Dimensional Layout Requirements:

PAUMAC TUBING requires that a minimum 3-piece dimensional layout be performed. For multiple cavity / die tooling a minimum of 1-part layout per cavity / die is required. Capability studies must be performed on a minimum of 30 pieces and or required by Paumac's Quality Department.

Performance Requirements:

PAUMAC TUBING requires a minimum of 3 parts be tested, or as indicated in the performance specification.

Master Samples:

The External Provider is to submit 1 PPAP master sample with the PPAP submission and retain the balance of the master samples. PAUMAC TUBING, and / or the External Provider may use these External Provider-retained samples for future reference. As such they must be easily retrievable and clearly identified.

Note: The lack of PPAP approval is not an acceptable excuse for not meeting shipment releases. It is the External Provider's responsibility to submit a complete, conforming PPAP package, on time to the PAUMAC TUBING QE. If the External Provider does not have PPAP approval and it will affect their ability to ship product on time per PAUMAC TUBING releases, the issue must immediately be brought to the attention of PAUMAC TUBING Purchasing and Production Control.

Service Component PPAP Requirements:

When service parts are ordered from PAUMAC TUBING, it is required that External Providers implement the same controls as documented on most recent control plan approved for production. Any changes made to the control plan for service must be approved in advance by PAUMAC TUBING quality or purchasing representative.

Perishable / Expendable / Refurbished Tooling:

Perishable / Expendable Tooling is defined as tooling that has limited useful life and is expected to be replaced during normal production activity (i.e. die cast tooling).

Controls for Perishable / Expendable tooling shall be referenced in the External Provider's control plan and shall include the following requirements at a minimum:

- Tooling changes and maintenance activities shall be identified and tracked through the External Provider's lot traceability system.

These requirements apply to normal tool / die / mold/ refurbishment.

Packaging:

PAUMAC TUBING and External Providers shall agree upon the packaging plan during APQP, including the following requirements:

- Component - There shall be only one part number in a box or packaging unit.
- All packaging units shall be labeled, and the label shall include:
  - PAUMAC TUBING item number with part/material name.
  - Quantity
  - External Provider name
  - Lot traceability number and date.

7.0 Shipment Certification Requirements

PAUMAC TUBING may elect to charge an administration fee, for any rejected materials received. PAUMAC TUBING quality or purchasing representative will notify the External Provider in the event that it is necessary to supply shipments with quality data / certifications.

Examples of situations that would require data to be sent with shipments: Raw Material (Certifications to required specification), Prototype Parts, Pre-Production parts and items with repeat quality concerns.

7.1 On-Going Shipment Certification

The External Provider must provide dimensional inspection, test and / or SPC data at the request of the PAUMAC TUBING within 24 hours for any characteristic in the approved control plan.

8.0 Notification of Quality Concerns

PAUMAC TUBING requires that External Providers notify the affected manufacturing plant of any quality concerns within 24 hours of discovery, without exception. This applies to all quality concerns identified by External Providers for which product shipped is suspect.

Notification must go to the PAUMAC TUBING Quality Representative and the Materials Manager, or in their absence, the Plant Manager. External Providers should be prepared to present the concern in detail, the lot numbers / shipments affected, along with the containment and preliminary corrective action plan.

In the event that PAUMAC TUBING discovers a non-conformance the External Provider will be notified by the PAUMAC TUBING quality or purchasing representative.

The External Provider will be notified, and a Defective Material Report will be entered. The External Provider is required to provide containment protection within 24 hours of notification and disposition of non-conforming product within 5 business days.

9.0 Rework / Repair

Rework consist of any actions to the product that are not part of the documented approved production process.

Since any actions to salvage a product which does not originally meet customer requirements is both a source of variation and inherently costly, PAUMAC TUBING'S goal is to eliminate such actions.

Rework is considered a process change, the External Provider must obtain approval from PAUMAC TUBING. The External Provider must develop written procedures. These procedures must provide for additional inspection and (if applicable) testing after rework to ensure conformance to PAUMAC TUBING specifications, prior to shipment or further processing.

10.0 Returned Product Analysis

The External Provider is required to analyze any non- conforming product that is returned from PAUMAC TUBING. Records of the results of these analyses must be submitted to PAUMAC TUBING upon completion. External Providers shall submit corrective actions for any defects discovered during the analysis process to PAUMAC TUBING's Quality Department.

10.1 Cost Recovery for Non-Conforming Product

The External Provider shall absorb any and all cost associated with non-conforming product as received or processed through a PAUMAC TUBING manufacturing facility. These costs shall include, but not limited to: premium freight (inbound and outbound), scrap, returned material, labor (sorting, rework, teardown, overtime, downtime), testing beyond normal requirements, liaison visits, customs fees and customer related chargeback's.

Written notification to the External Provider as well as written agreement from the External Provider shall be obtained by PAUMAC TUBING prior to any debit memos being issued.

11.0 External Provider Control of Sub-External Providers

External Providers of PAUMAC TUBING shall have capabilities to manage their respective External Providers including APQP disciplines and periodic auditing. External Providers to PAUMAC TUBING shall select sub-External Providers on the basis of their ability to meet subcontractor requirements, including PAUMAC TUBING quality requirements defined herein.

The External Provider shall ensure that the sub-External Provider quality and system controls are effective and meet PAUMAC TUBING External Provider Quality Requirements. The External Provider shall be prepared to show documented evidence of sub-External Provider quality levels at the request of PAUMAC TUBING, and also provide PAUMAC, and customers to PAUMAC, access to the sub-External Provider facilities and records, if requested, at any time. External Providers shall target sub-External Provider business with ISO-9008:2015 conformance.

External Providers are fully responsible for the quality and "fitness for use" of goods and/or services sub-contracted.

PAUMAC TUBING'S recommendation or stipulation of a sub-External Provider shall in no way relieves the External Provider of full responsibility for ensuring the sub-External Provider, and the products they supply, meet all PAUMAC TUBING requirements.

13.0 Process Changes

PAUMAC TUBING encourages process improvements to enhance quality and reduce cost. However, any changes in process require PAUMAC TUBING approval. External Providers shall submit a written request to their PAUMAC TUBING buyer for product or process change. Change approval may take an extended period when PAUMAC TUBING customer approval is required. Changes will not be implemented prior to the receipt of written approval from PAUMAC TUBING. VERBAL REQUESTS WILL NOT BE ACCEPTED.

Important Note: External Provider's must submit a (PCN) process change notification. Note: PCN may require a PPAP prior to shipping product produced from incorporating a change as defined above. If there is any doubt regarding approval requirements of a change, contact the PAUMAC TUBING Quality department for assistance. Failure to obtain approval in advance of shipment will result in product rejection and financial liability for all affected PAUMAC TUBING raw, W.I.P. and finished goods inventory.

14.0 External Provider Request for Deviation

PAUMAC TUBING requires that External Provider's ship product that is 100% conforming to the engineering print requirements and referenced specifications. Additionally, PAUMAC TUBING requires that the manufacturing process remains consistent with those utilized to produce to PPAP approved product. These requirements are to be followed without exception.

If, at any time, an External Provider wishes to ship product which does not conform to PAUMAC TUBING prints & referenced specifications or is produced from a changed process, PAUMAC TUBING approval is required in advance of shipment via approved request for deviation. Sufficient data, corrective actions, etc. shall be included to facilitate the approval process. The External Provider may be requested to submit additional information prior to approval.

Submission of a Request for Engineering Deviation is not an approval to ship. Receipt of a fully signed Request for Engineering Deviation by a PAUMAC TUBING Representative is approval to ship.

The lack of approval is not an acceptable reason for failing to meet PAUMAC TUBING shipping requirements.

If approval may affect the External Provider's ability to ship product on time per PAUMAC TUBING releases, the issue must immediately be brought to the attention of the PAUMAC TUBING Quality, Purchasing and Production Control.

15.0 Government Regulatory Compliance

External Providers shall comply with all applicable governmental regulations. These regulations relate to the health and safety of the workers, environment protection, toxic and hazardous materials, and free trade. External Providers should recognize that the applicable government regulations may include those in the country of manufacture as well the country of sale.

15.1 International Material Data System (IMDS) Requirements

The material data concerning the ingredients of the parts to be delivered to PAUMAC TUBING, may be required to be entered into the International Material Data System (IMDS). The respective ID-number must be stated on the cover sheet of the testing report.

It is the External Provider's responsibility to supply evidence, to Paumac Tubing, that the IMDS has been entered.

16.0 Corrective Action

It is required that External Provider's implement and maintain a system for corrective action of quality concerns.

PAUMAC TUBING may generate an External Provider Corrective Action Request (CAR). This system must include a multi-disciplinary approach to problem-solving (i.e. 5 whys, 8D, 7 step, etc.) and implementation and effectiveness of implemented actions. Any External Provider quality concerns detected at PAUMAC TUBING or its customers will be formally directed to the appropriate External Provider contact. The required External Provider response is as follows:

- **Within 1 Business Day of Notification**
  - Containment actions at External Provider location and at PAUMAC TUBING LLC. Defect containment by the External Provider at PAUMAC TUBING is expected within 24 hours (i.e. on-site sorting). This is to be coordinated with PAUMAC TUBING's Quality department. External Provider quality ratings are computed on returned / scraped parts per million shipped ratio. External Providers who do not support on-site containment will be subjected to full shipment returned, as opposed to actual number of defects, in computing of their PPM rating. Any issues that make an on-site sort impractical may be discussed with the PAUMAC TUBING's Quality department and alternate actions may be taken. Replacement material requirements are to be coordinated with the PAUMAC TUBING Materials department.

- All certified material must be identified by a green dot sticker on the bar code label on each shipping container. This is to continue until permanent corrective actions are implemented, verified and approved by PAUMAC TUBING Quality department.
- Suspect inventory - lot numbers, manufacture date, qty, etc. will need to be contained
- Return Authorization number must be issued to Paumac Tubing for any product in house they is to be returned to the External Provider.

- **Within 10 Business Day of Notification**

Completed Corrective Action is due to the PAUMAC TUBING Quality department detailing the following information:

- Initial response information
- Root cause
- Permanent corrective action(s) taken with completion dates
- Verification of permanent corrective actions, method of verification with evidence
- Recurrence prevention plan

- If it is not possible to implement and verify corrective actions in the ten (10) business day timeframe, PAUMAC TUBING Quality representative must receive the External Provider's plan to permanently resolve the issue, within ten (10) days, with associated task and responsible persons documented. Completed corrective action plans, with actual task completion dates and verification records, must be submitted to PAUMAC TUBING's Quality department as agreed between the External Provider and the Quality representative.
- Late initial (24hr) and / or final (10 day) corrective action responses may result in notification to PAUMAC TUBING purchasing of customer dis-satisfaction and by result in a poor rating.
- PAUMAC TUBING requires implementation of error-proofing device for permanent corrective actions wherever possible.
- PAUMAC TUBING does not accept additional Inspection / training as a permanent corrective action closure.

Note: PAUMAC TUBING's Quality representative will review and approve closure of all corrective actions. PAUMAC TUBING Quality representative reserves the right to require additional controls to be implemented and / or additional documentation to be provided to effectively resolve External Provider quality concerns.

Containment Categories 1 & 2

External Providers who have failed to contain or correct quality issues effectively and immediately will be placed on Category 1 containment.

- Category 1 - The External Provider will be required to perform a 100% certification of all product before it is shipped, through an off-line inspection process. This will be in addition to any existing controls and containment measures currently in place.

External Providers who fail to contain or correct quality issues through the Category 1 containment program, are placed on Category 2 containment.

- Category 2 - External Providers are required to subcontract a third-party source to independently 100% certify all products prior to shipping. All cost associated to Category 2 containment are the responsibility of the External Provider.

External Providers required to implement Category 1 or 2 Containment will be notified by PAUMAC's Quality and Purchasing. The additional containment measures are meant to be interim steps to ensure conforming product is being shipped to PAUMAC TUBING. Permanent actions to prevent recurrence are expected to be implemented in conjunction with these containment levels. Once permanent actions have been implemented and verified effective for 30 days, the External Provider will be released from Category 1 or 2 containment status.

Each container of certified product must be clearly identified with Green Dot sticker on the bar code label on each shipping container. A list of all conditions that are being certified must also be submitted with each container.

17.0 External Provider Improvement Program

External Providers whose performance fails to meet one or more of the critical aspects outlined in the Continuous Improvement Process may be subject to an improvement program. Repetition of poor performance or a single catastrophic breakdown from an External Provider can start this process. The process often starts with the External Provider being invited to present at a PAUMAC External Provider Quality meeting. The External Provider will be required to present corrective action plans to PAUMAC TUBING Plant Management, External Provider Quality and Purchasing.

External Provider's may be selected for improvement based on the following criteria:

- Repetitive quality issues
- High PPM
- Chronic quarterly PPM activity
- Negative PPM Trend
- Quality concerns causing significant impact to the production operations at PAUMAC TUBING or its customers

Failure of the External Provider to successfully complete this process could result in partial or complete loss of business and removal from the active quote list.

18.0 External Provider Performance Ratings

Zero defects and 100% On-Time Delivery are the PAUMAC TUBING's expectations for purchased parts/raw material and external services. PAUMAC TUBING will monitor External Provider's performance. The External Provider performance will include Quality Rejections, On Time Delivery data and Corrective Action timeliness. An External Provider with an excellent rating may be placed on a Dock-to-Stock Program or Skip Lot inspection system based on performance. A poor performance may result in additional inspection and containment activities of which the External Provider will be held responsible. Continued poor performance may result in an External Provider being omitted from future sourcing decisions.

19.0 Container Shipping Label Requirements

It is the responsibility of the External Provider to provide labeling that meets the PAUMAC TUBING requirements.

The minimum requirements are PAUMAC item number, revision level, quantity, External Provider number, P.O. number and lot number / manufacture date.

20.0 Access to Facilities and Records

External Providers shall allow PAUMAC TUBING, and customers to PAUMAC TUBING, access to any facility and quality records associated with the product and supply of products directly to, or on behalf of PAUMAC TUBING. This requirement is to include sub-External Providers as well.

Acknowledgement of Receipt of External Provider Quality Requirements Manual

I _____ from _____, acknowledge
(Name) (External Provider)

that on _____I received a copy of PAUMAC TUBING LLC External
(Date)

Provider Quality Requirements Manual.

I understand that I cannot copy or reproduce this manual without written permission from PAUMAC TUBING LLC.

Signature _____

Date _____

Title _____

EMAIL COMPLETED FORM BACK TO: Purchasing@paumactubing.com

Document Name External Provider Quality Requirements Manual				
Date	Rev.	Sec.	Description	Revised By
08/01/2017	ORIG	ALL	Original Issue	Douglas Smyth
11/01/2017	1	All	Final Approval	Douglas Smyth
12/01/2017	2	All	Replace Suppliers to External Providers	Douglas Smyth
02/13/2018	3	All	Revised Intertek Mark and ISO Cert. to 9001-2015-updated 5.0 to clarify PPAP requirements, removed Appendix A Supplier assessment-this is completed online, also completed minor updates to verbiage throughout the manual.	Mary Sanctorum