DE DIAMOND ELECTRIC



Supplier Requirements Manual

North America

For use with current ISO/IATF 16949 and 14001

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GENERAL

Throughout this Supplier Requirements Manual, the term DEUS is understood to mean Diamond Electric Manufacturing, United States. This Supplier Requirements Manual applies to all external direct suppliers, including customer designated suppliers, to DEUS - North American business unit.

STANDARDS OF BUSINESS CONDUCT

As DEUS employees, we are expected to carry out the company's business with honesty, integrity and high ethical standards, and in compliance with the laws and regulations of the countries in which we conduct business. These standards must govern our conduct when making decisions which affect DEUS.

CONFLICTS OF INTEREST

DEUS respects the right of all employees to engage in personal activities outside of work. However, each of us has the responsibility to avoid activities which conflict or appear to conflict with our job responsibilities or the interests of DEUS. Any employee activity which may involve a conflict of interest or even the appearance of a conflict of interest must first be approved by the employee's direct supervisor with the assistance of the employee's ethics/compliance officer or DEUS legal counsel.

The following are examples of conflicts of interest:

- Engaging in employment or any other activity that interferes with our ability to devote the required time and attention to our job responsibilities at DEUS.
- Holding a significant financial interest in a current or prospective customer, supplier or competitor of DEUS, or serving as an employee, consultant or director of that business.
- Using confidential company information or improperly using company assets for personal benefit or the benefit of others.

GIFTS AND ENTERTAINMENT

Each area where DEUS operates has local customs for giving and receiving gifts and entertainment. We must avoid exchanging gifts that exceed customary amounts and frequency. Such actions can harm our reputation as a Company (referring to DEUS) that buys and sells solely on the basis of quality, reliability and price. As a general principle, we are committed to acting with integrity and transparency. Employees must follow the guideline that all gifts and entertainment, whether given or received, must be of a value of a nominal value.

ENVIRONMENTAL PROTECTION, HEALTH, & SAFETY

We are committed to being an environmentally responsible company and to providing a safe and healthful workplace for all employees, visiting suppliers and stakeholders.

We comply with all applicable environmental, health and safety (EHS) laws and regulations in every county in which DEUS does business. Where there are no environmental, health and safety laws, or where the legal requirements do not adequately protect the environment or workplace, DEUS takes appropriate action. Environmental, health and safety managers and Company legal counsel are available to provide information on applicable laws and regulations.

C-TPAT COMPLIANCE OR CERTIFICATION

C-TPAT is a joint initiative of U.S. Customs and Border Protection and the trade community that was established in 2002 (and revised in 2005) to reduce the threat of terrorism by means of protecting the integrity of cargo imported into, further processed or warehoused in, and/or exported from the United States. All suppliers to DEUS are required to adhere to C-TPAT requirements in accordance with the criteria identified on http://www.cbp.gov, for importers.

CONFLICT MINERALS

Supplier recognizes, consistent with the public policy underlying enactment of the Conflict Minerals provision (Section 1502) of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Act"), the significant legal and non-legal risks associated with sourcing tin, tantalum, tungsten, gold and other designated minerals (collectively, "Conflict Minerals") from the Democratic Republic of the Congo and adjoining countries ("Covered Countries"). Accordingly, Supplier commits to comply with Section 1502 of the Act and its implementing regulations. In particular, Supplier commits to implement a supply chain policy and processes to undertake (1) a reasonable inquiry into the country of origin of Conflict Minerals incorporated into products it provides to Buyer; (2) due diligence of its supply chain, as necessary, to determine if Conflict Minerals sourced from the Covered Countries directly or indirectly support unlawful conflict there, and (3) risk assessment and mitigation actions necessary to implement the country of origin inquiry and due diligence procedures. Supplier shall take all other measures as are necessary to comply with the Act and its implementing regulations, as they may be amended over time.

EQUAL OPPORTUNITY

EEO Clause for Veterans: This contractor and subcontractor shall abide by the requirements of 41 CFR 60-300.5(a). This rule prohibits discrimination against qualified protected veterans, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans.

EEO Clause for the Disabled: This contractor and subcontractor shall abide by the requirements of 41 CFR 60-741.5(a). This rule prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities.

STANDARDS

All suppliers shall conform to the latest issue of the appropriate standards as follows:

- Component Parts and Fasteners ISO/IATF-16949
- DEUS Customer-Specified Materials ISO/IATF-16949
- Chemical and Raw Materials ISO 9001 and/or ISO/IATF-16949
- Other Direct Suppliers ISO 9001
- Commercial ISO 9001
- Calibration and Laboratory Services ISO/IEC 17025
- Other Industry Specific Standards as applicable, and/or as contractually obligated

EXCEPTIONS

Conformance with these requirements may only be waived by DEUS purchase order, DEUS purchase contract, or in writing from an DEUS Purchasing representative, with concurrence of the DEUS North American Quality.

*Original equipment manufacturers may be utilized as calibration suppliers to calibrate equipment that they originally manufactured. In the case of a non-accredited OEM, DEUS encourages the OEM to achieve accreditation to ISO/IEC 17025. The OEM may be considered acceptable for traceability if they meet and provide a number of essential elements to DEUS to submit to ACLASS for review and consideration. (Refer to ACLASS ISO/IEC 17025 Accreditation Requirements – Document 3 – Section 7.6)

REQUIRED REFERENCES

For suppliers that meet the applicability requirements of ISO/IATF 16949, The Automotive Industry Action Group (AIAG) has published several manuals that standardize procedures, reporting formats, and technical nomenclature which are required by Fiat-Chrysler, Ford, General Motors and other subscribing customers. It is necessary to obtain current editions of each of these manuals to fully comply with the

requirements of ISO/IATF 16949 and DEUS's expectations of its suppliers. Copies of these publications can be ordered from AIAG at http://www.aiag.org/Index.cfm

- Quality Management System Requirements (ISO/IATF 16949)
- Production Part Approval Process (PPAP) current edition.
- Fundamental Statistical Process Control Reference Manual (SPC) current edition.
- Measurement Systems Analysis Reference Manual (Gage R & R studies) current edition
- Advanced Product Quality Planning and Control Plan Reference Manual (APQP) current edition
- Potential Failure Mode and Effects Analysis Reference Manual (FMEA) current edition
- CQI-9 Special Process: Heat Treat Assessment (Heat Treat suppliers) current edition
- CQI-11 Special Process: Plating System Assessment (Plating suppliers) current edition
- CQI-12 Special Process: Coating System Assessment (Coating suppliers) current edition
- CQI-15 Special Process: Welding System Assessment
- CQI-17 Special Process: Soldering System Assessment
- CQI-19: Sub-tier Supplier Management Process Guideline
- CQI-23 Special Process: Molding System Assessment
- M7-4: Global MMOG/LE Version 4

CUSTOMER SPECIFIC REQUIREMENTS

In addition to the manuals listed above, Suppliers are required to obtain and comply with the following standards/specifications, as applicable:

• OEM / Prime customer specific manuals and specifications as they apply to the suppliers end item customer base

Exceptions to these requirements shall be documented in DEUS - North American Purchase Orders on a case by case basis.

APPROVED CERTIFICATION BODIES

DEUS requires third party accreditation by certifying bodies that maintain IATF, ANAB, and/or national bodies accreditation.

MANAGEMENT RESPONSIBILITY

In addition to the requirements of applicable industry standards, each supplier shall maintain an organization chart that shows personnel who are responsible for each element of the quality management system and their lines of authority and responsibility. This document and the Quality Policy shall be available for DEUS review.

DISTRIBUTION OF DEUS NORTH AMERICAN SUPPLIER QUALITY MANUAL

This manual is written under the direction of DEUS Purchasing and DEUS Quality. DEUS Supply Chain, DEUS Quality and/or purchasing personnel, issues controlled copies of the manual. DEUS Supply Chain issues one electronically controlled copy to each supplier location, also available on the DEUS Supplier Portal.

Manufacturing facilities and suppliers may make uncontrolled copies for internal use only. However, such uncontrolled copies will not be updated. It is recommended that each supplier contact the appropriate DEUS Supply Chain representative to obtain at least one controlled copy for each facility that supplies products or services to DEUS.

SUPPLIER/CUSTOMER PARTNERSHIP AGREEMENT

DEUS realizes that only by developing partnerships with our suppliers will we be able to achieve the goal of exceeding the expectations of our internal and external customers. In an effort to establish a basis for these partnerships, DEUS has established the following guidelines for conduct with our suppliers.

DIAMOND ELECTRIC MANUFACTURING COMMITMENT

DEUS is committed to:

- providing clear communication of our expectations including:
 - quality system requirements
 - material specifications
 - technical requirements
 - delivery expectations
 - cost reduction goals
 - minority sourcing goals
 - quality improvement goals
 - customer service expectations
 - evaluating and selection of new suppliers based on their ability to meet our expectations
 - establishing relationships with suppliers who meet and exceed expectations and acting in an open and ethical manner, treating each supplier with trust.

EXPECTATIONS OF SUPPLIERS

- Meet and/or exceed DEUS expectations
- React with concern when DEUS expectations are not met, by taking immediate steps to resolve deficiencies and by implementing corrective and preventive actions to prevent recurrence within 10 days of occurrence (unless otherwise agreed-upon by DEUS)
- Embrace the concept of never ending, continual improvement and zero (0) non-conformances in all aspects of DEUS expectations
- Show a willingness to establish relationships with DEUS
- Act in an open and ethical manner, treating DEUS with trust
- Strive for prevention in place of detection when developing products and processes
- Support cost reductions similar to those required by OEM's
- Support Lean Manufacturing
- Support APQP
- Support problem solving process to identify root cause and fix issues with permanent solutions
- Achieve and maintain applicable industry standards
- Be ASN capable (if required)
- Provide Master Pallet Labels, as required (Purchased PartsOnly)
- Strive for 0 PPM
- Maintain "Pay on consumption" inventory reduction program (JIT, consignment, etc.)
- Accept DEUS Supply Chain purchasing methods, releasing, and forecasting
- Support Product Development Team's (PDT's) and launches
- Target price consistent with our agreements
- Meet or exceed our customer agreements for Year-Over-Year improved economics at best-inclass pricing
- Maintain a documented program of continual improvement
- Provide SDS (formerly known as MSDS) upon request
- Consider our recommendation to set up an environmental system based on ISO 14001
- Notify DEUS immediately of any changes in top management that is involved with day to day quality and materials issues.

DEUS RIGHTS

DEUS reserves the right, in conjunction with or through its suppliers, to:

- review subcontractor's documentation required by this Supplier Quality Manual, other DEUS requirements or ISO/IATF 16949 (or other applicable industry standard)
- have access to the subcontractor's premises or working area so that the supplier and DEUS can verify that the subcontractor is conforming to specified requirements

DEUS reserves the right to de-source suppliers holding active certifications that do not meet minimal contractual requirements.

KEY SUPPLIER PERFORMANCE MEASURABLES

As part of our continual improvement efforts, DEUS will track the following supplier performance measurables and work with key suppliers to improve them.

KEY SUPPLIER PERFORMANCE EXPECTATIONS

Quality Performance

Customer Disruptions (including Field Returns)	Zero Rejections
Incidents of Premium Freight (Supplier Responsible)	Zero Incidents
Level I or Level II Containment Notifications	Zero Notifications
On-Time Delivery	100% On-Time
PPM	<250 ppm
Overall Quality Score	>75%

SCORING CRITERIA

All scoring information will be collected and compiled monthly. Diamond Electric Quality will issue a Supplier Rating Scorecard on a monthly basis.

The details for each of the criteria are as follows:

a) Parts per million (PPM): Supplier PPM is calculated by the number of parts rejected, divided by the total number of parts received year to date (YTD), multiplied by 1,000,000.

If a supplier has a quality concern that results in the supplier issuing an RMA for the suspect material to be returned for sorting, that supplier will be assessed 2% of the suspect material towards their PPM rating.

b) Delivery to Schedule: On-time delivery is calculated each month for every item delivered and will be maintained on a rolling average basis. The delivery rating may be reduced for early, late, or short shipments as follows:

2 point deduction (per occurrence): for all deliveries arriving 5 – 12 days early or late, or any short shipment

5 point deduction (per occurrence): for all deliveries arriving more than 12 days early or late

A supplier will be awarded a 5 point credit to their delivery rating if, after correcting the delivery issues, no delivery issues occur for 2 consecutive months.

Note: The Delivery score may not exceed 100 points

- c) Price/Service: The Price/Service category is based on responses to corrective actions and supplier service.
 - a. Supplier responses to Corrective Actions: Suppliers will be awarded 100% when responses to CAs are received within the allotted time noted on the corrective action form. The supplier will lose points for each CA not responded to within a timely manner.
 - b. Supplier Service: Scoring for service, Appendix A, premium freight and PPAP delivery will be covered in this section. Points will be deducted for every shipment received with no or out of specification Appendix A data and for late or incomplete PPAPs received. Any time that premium freight is used to avoid a late shipment, points will be deducted. Suppliers may be awarded (positive) points through VA/VE activity or superior service.

Note: The supplier service score may not exceed 100 points

Suppliers with a rating of 70% or higher will be considered to be in "good standing". Any supplier with a rating falling below the minimum supplier rating of 70% for three consecutive months will be required to submit a recovery plan in person to Diamond. This recovery plan will provide a schedule and details regarding the suppliers plans to improve their rating. DEUS Purchasing, and Diamond Quality personnel will evaluate information compiled through the Supplier Rating System prior to allocating new business. Suppliers in "good standing" will be eligible for new business. Suppliers with a rating less than 70% will be placed in an "improvement required" status. If rating results do not improve, these suppliers will be excluded from receiving new business, and desourcing may occur. If a supplier is in "improvement required" status, the following objectives must be achieved and maintained by the supplier in order to be removed from the "improvement required" status and again become eligible for new business:

- 1) Achieve and maintain a 70% or above Supplier Performance Rating
- Submit a valid Certificate of Registration to current ISO Standard or current Automotive Standard by an accredited third-party registrar; and achieve a minimum score of 80% on the supplier on-site Diamond assessment/audit with no open non-compliance issues.

Provide quarterly SPC charts on all identified critical characteristics per Diamond's part number specification, if applicable. The SPC charts must demonstrate process stability and capability.

KEY SUPPLIER RATIONALIZATION (AS APPLICABLE):

PERFORMANCE

The <u>Final Response Time to Requests for Corrective Actions</u> done by the assigned due date or agreed upon date with DEUS operations, 10 calendar days is default.

The Percentage of first-time and on-time PPAP Accepted is expected to be 100%

ASSESSMENT

Suppliers shall have action plans and measurables to reduce costs and pipeline of projects to continuously improve to maintain best-in-class pricing.

SUPPLIER PERFORMANCE

Suppliers that fall below DEUS expectations will be notified by Supplier Quality and corrective action issued. Such notification shall require that corrective action is sent to DEUS SQE with copies to the DEUS buyer. Failure to comply with a request for corrective action will result in a second notification requiring documentation being presented at DEUS location. Failure to comply with second notification will result in supplier being placed on quote hold and/or probation. Failure to comply with the second notification may result in the supplier being resourced.

QUALITY SYSTEM

The supplier's Quality Manual, policies, and procedures shall be available for DEUS review.

Quality Management System

1. Quality System Registration

This manual defines the procedures and requirements that involve our suppliers and sub-suppliers. All Suppliers are required to be 3rd party registered to current edition of ISO/IATF 16949 or at a minimum ISO 9001 with the ability to demonstrate compliance to ISO/IATF 16949 (refer to the ISO 9001, ISO/IATF 16949 current versions available through AIAG) and certification to the current edition of ISO 14001.

In addition, suppliers and sub-suppliers shall work to comply with CQI-19 (available through DEUS or AIAG) for the purposes of controls and systems driven performance. This requirement is specific to our process (manufacturing value stream) suppliers.

This manual applies to all suppliers (direct) and sub-suppliers that do business with DEUS. This manual does not alter or reduce any other contractual requirements covered by purchasing documents or requirements of engineering drawings or specifications. This manual describes the minimum requirements expected and is applicable to all (production, non-production) material, and service suppliers whether the products and/or services are provided directly or indirectly through sub-suppliers.

Potential Suppliers who currently are not registered to a Quality standard; such as, small job shops or outsourced 3rd party providers, may be scheduled for a 2nd party audit to assess compliance to the required standards (see Supplier Quality Assessments*). Suppliers who do not meet this criteria of IATF 16949 are expected to begin the registration process to ISO/IATF 16949 current version immediately or at a minimum that supplier shall demonstrate technical compliance to ISO 9001 and MAQMSR. This will be monitored through our onsite supplier qualification audit.

Exempt: Any supplier deemed to be exempt shall meet the requirements set forth in the Exempt Sub-Supplier Requirements.

Waiver: If a waiver is granted for a partial exemption, a letter of waiver will be required with validating reasons and this letter must be signed off by Purchasing, Design, and Quality and maintained as a controlled record.

2. Request for Quotation

Prior to award of any business, the supplier will be expected to complete an DEUS RFQ with complete detailed cost breakdown. Should a discrepancy between the supplier's layout and our layout occur, then our layout is to be followed. Directed buys or single-sourced product does not have to follow this requirement.

3. Supplier Quality Questionnaire

A Supplier Quality Self Audit shall be completed with new Suppliers which are under consideration for award of business. All potential new suppliers may be subject to pre- award audit that will be conducted by DEUS's Supplier Quality team. During this audit, DEUS will assess the risk level of each supplier for each part being supplied.

All suppliers shall complete the Supplier Change Request when a "major change" takes place. The supplier shall send the completed request to the DEUS Supply Chain and Supplier Quality.

A "major change" is defined as, but not limited to:

- acquiring additional companies
- addition/deletion of capabilities
- change in process of product certification or licensing
- change of ownership
- expansion of new facilities
- change in product mix
- address change
- legal name change
- change in equipment used to process DEUS component

4. Supplier Quality Management System

DEUS is committed to continually improving our supply base and is requiring that all suppliers of component parts and secondary processors be <u>registered</u> to ISO/IATF-16949 or ISO 9001 or the applicable industry standard(s).

All suppliers of laboratory and/or calibration services are required to be accredited to ISO/IEC 17025 (except original equipment manufacturers).

Suppliers are required to provide a copy of their current registration to DEUS Supplier Quality. If a supplier is not currently certified, the supplier is required to provide a date when their facility will be registered.

Exceptions to this rule can only be negotiated with an DEUS Purchasing and Quality representative.

DEUS may publish new goals for these objectives at our discretion. Suppliers demonstrating their ability to meet and exceed these goals on an ongoing basis will be recommended for preferred supplier status. Suppliers with preferred status will be given the opportunity to participate for long term agreements.

All key direct suppliers, including customer designated suppliers, are required to meet these requirements. DEUS reserves the right to contact a supplier's registrar if the supplier does not resolve quality problems in a timely manner.

Supplier Quality Assessments

DEUS will require the suppliers to assist in conducting self-assessments (Supplier Quality Assessment) and/or audits to ensure the quality of the product or process being provided DEUS. This assessment is not considered as a 2nd party assessment as required by ISO/IATF 16949 and customer-requirements. Findings during these audits should be used to develop action plans to insure compliance and solid scoring in the 2nd party audits. In addition, this practice is integral to continuous improvement.

Supplier Survey/Audits, Performance and Approved Supplier List

DEUS evaluates and selects new suppliers, and evaluates current suppliers, on their ability to meet its requirements. This selection / evaluation process takes place in a cross-functional team environment led by the DEUS Supply Chain function. DEUS Supply Chain maintains the Approved Supplier List. Criteria used to determine eligibility for this list is as follows:

Suppliers who are registered to IATF 16949, ISO 9001, or who have been audited by an DEUS customer may, at the discretion of DEUS, have the initial on-site audit waived.

On-site audits of suppliers may be conducted at a frequency determined by DEUS Purchasing, SQE and/or DEUS Quality. In some cases, suppliers who have successfully completed a third party audit (including DEUS customers) will not be audited by DEUS. Audits shall be performed using the requirements of the applicable industry standard and this manual.

Audit Results

At the end of an audit the supplier shall receive a written report summarizing the findings and explaining any corrective action that may be required. The lead auditor will distribute an audit report within DEUS. The supplier shall receive a copy of this report. A corrective action plan is to be submitted within 30 days of the audit.

5. PPAP

As part of the PPAP process sub-suppliers for Diamond Electric Manufacturing must adhere to the AIAG guidelines for Level 3 PPAP submission as default and have a form of APQP system in place.

DEUS requires a full PPAP submission unless otherwise detailed in the Purchase Order. Level 3 is the default level for all PPAPs; however, the receiving DEUS plant may require at its discretion a level 4 or 5 based upon priority, risks, or new supplier. Any deviation to the Level 3 default will be provided to the supplier in writing. PPAPs must conform to the latest final customer specific requirements. If the supplier is unaware of the final customer or the customer specific requirements, it is the responsibility of the supplier to contact the receiving DEUS plant for specifics.

AIAG provides manuals including PPAP, FMEA, Control Plans, MSA, etc. that to reference for PPAP submissions. Customer Specific Requirements take precedent over AIAG requirements. It will be the responsibility of the Supplier to ensure that the PPAP reflects the latest revision level of the controlled drawing used by DEUS.

It is the responsibility of the Supplier to adhere to and incorporate into their systems any appearance items or special characteristics as directed by either OEM print driven items for DEUS requirements and overall customer satisfaction. Pass-through characteristics must be documented on the PFMEA and Control Plan and validated at the supplier with adequate controls and under the oversight of the DEUS Plant QM and the DEUS Supplier QE.

DEUS requires proper advanced notification <u>and consent</u> prior to any process or material changes. For supplier-initiated changes, it is the supplier's responsibility to notify DEUS and submit for part approval prior to the first production shipment. This applies to all situations identified in Table 3.1 and Table 3.2 of the AIAG PPAP Manual, 4th Edition. This includes location changes and signification changes to equipment parts are processed with/in/by.

Suppliers are expected to submit PPAP packages, in their entirety, to the appropriate plant Quality Manager or designate before the agreed-upon date. DEUS will review the submission and give one of three responses:

1. Full approval indicates that the part or material meets all specifications and requirements. The supplier is authorized to ship product. Unless otherwise agreedon, supplier can only invoice for tooling when they achieve full PPAP approval.

2. Interim approval permits shipment of production for production requirements on a limited time basis. The supplier must submit, at the time of PPAP, an action plan to address the issues preventing the PPAP from obtaining full approval.

3. Rejected means that the submission does not meet the specifications and requirements. DEUS will state the reasons the submission was rejected on the PPAP warrant and return the warrant to the supplier. A corrected PPAP must be submitted and approved before the supplier can ship product. Tier-2 suppliers are responsible for the PPAP submission and approval of subsequent tier used in the processing or manufacture.

5A. Annual Validation

As DEUS is required by certain customers to provide annual validation for process controls and adherence, the sub-tier suppliers to DEUS will also be required to provide annual validation data in advance of DEUS's required submission date(s). It is the responsibility of the sub-tier to track due dates and provide SPC information and any applicable FMEA or Control Plan modifications and/or upgrades during this time.

As previously noted any significant changes to process [location, material usage, appearance or structural changes, packaging, dunnage, etc.] must be approved in advance by DEUS's quality and supply chain departments prior to any changes being initiated. If these changes are noted at the time of an annual validation, then all material provided in the time frame between the previous validation period and the current will be considered suspect. Sub tiers will be subject to significant financial penalties and possibly de-sourced.

In addition to the above, annual validations must be accompanied by the following documents to show continuous improvement and outside certification maintenance:

- a) IATF 16949 and/or ISO 14001
- b) CQI Special Assessments including Tier Suppliers supporting DEUS Programs
- c) Self-Assessment (Supplier Quality Assessment form)

5B. Material Certifications

A copy of the actual physical or testing measurements detailed in the OEM specification must be maintained on file at the production location and available upon request. Reference examples:

1. Plating/Coating

- -- Customer Specification to which material was tested
- -- Min/Max Specifications and Values
- -- Lot/ Batch Number for Traceability
- -- Estimated Quantity Shipped

2. Metals

The material supplier shall furnish with each shipment a signed test report certifying the following minimum information. Furthermore, the test(s) requested will be based on agreement between the purchaser and supplier.

- a) Date that the certificate was issued
- b) Steel supplier and address
- c) Mill source and address (if different)
- d) ID of purchasing DEUS operation
- e) Purchase order number
- f) Material grade* and conditions (e.g. HRA, SAFS, AKFG, SKCG, etc.)
- g) Wire or rod size
- h) Coil weight
- i) Heat number
- j) Chemistry
 - Original heat analysis for chemistry (including residuals as reported)
 - Product analysis for chemistry (if performed or requested)

- k) Technical requirements
 - Heat treat response (if requested)
 - End-quench harden ability requirements (when appropriate)
 - Mechanical properties (i.e. tensile strength, yield strength, etc.)
 - Surface condition
 - Cleanliness
 - Grain size
- I) Type of Coating
 - Coating weights (if applicable)

5C. Coatings, Plating's

All coating and plating specifications should be fully understood and at time of APQP and PPAP have defined Lower and Upper control parameters established to comprise the sub-tiers' basis for SPC. The sub-tier can only use materials as called out on the print provided by DEUS and said materials must be provided by an approved supplier if called out by the OEM.

DEUS reserves the right to perform spot inspections of coating and plating processes in order to review conformance. In addition, the sub-tier must have the capability of in-house or 3rd party torque and tension testing during APQP and annual validations to insure performance requirements are within specifications.

6. Tooling

The supplier is expected to maintain DEUS owned and customer-owned assets located at their (subtier's) facility. It is the supplier's responsibility to track and identify DEUS or OEM tooling in their facility, and the supplier must tag the tooling "Property of Diamond Electric Manufacturing". These assets are to be used solely for the production of DEUS products. When there is no future need for these assets, the supplier must request direction from the plant of origin for disposition.

Control of DEUS owned / supplied equipment and Tooling – DEUS owned / supplied equipment and tooling includes gages, test equipment and tooling supplied by DEUS for use in production or maintenance or made by the supplier and paid for by DEUS supplier **shall**:

- Use DEUS Supplied Gages, Special Test Equipment, and Special Tooling on DEUS purchase orders only and for only those purchase orders for which the items were supplied.
- Identifyall tools and test equipment, unless size or use prohibits, with identification tag(s) ensuring legibility and permanency.
- Obtain written approval from DEUS prior to making modifications or changes to gages, test equipment or tooling.
- Maintain, protect and preserve tooling, test equipment, and gages. Tooling and gauging
- Shall be maintained for two years after the DEUS purchase order is complete unless DEUS directs otherwise.
- Contact the DEUS Supply Chain representative for your account before the transfer of gages, test equipment or tooling among supplier facilities (address location) or to other suppliers.
- Supplied gages, test equipment or tooling that become excess to the needs of the purchase order shall be reported to DEUS.
- Obtain written approval from DEUS before the disposal or destruction of DEUS supplied gages, test equipment or tooling.
- Report all cases of loss, damage or destruction of DEUS's property in possession or control or property located at Supplier's second-tier suppliers to the DEUS Supply Chain and quality contacts within 24 hours of when these conditions are discovered.
- Maintain a record of all supplied gages, test equipment or tooling. The list shall be traceable back to the original tooling purchase order and job number.

7. Containment of Non-Conforming Material

The supplier must have a system implemented to ensure that "non-conforming" items are identified and quarantined to prevent introduction into production shipments. This includes the ability to quickly deploy 3rd party sorting companies in DEUS and downstream customer facilities.

Should the supplier detect that products do not meet what is defined in the Purchase Order, Drawings, DEUS and customer supplied requirements and/or applicable standards and specifications, the supplier should immediately inform the Purchasing and Quality Departments of all impacted DEUS plants.

Where non-conforming material has been shipped to an DEUS facility, the supplier must submit a corrective action indicating their Containment Plan within **24 hours** of receiving notification. The Containment Plan must include material in transit.

7A. Root Cause Analysis

DEUS Quality Department requires that all suppliers use a root cause analysis tool to work on issues that have passed through to DEUS's customers or been discovered during DEUS's quality observation work:

- These tools include but are not limited to:
 - Fishbone (Ishikawa) diagrams
 - Fault Tree Analysis
 - 5 Why Analysis
 - Cause and Effect
 - Scatter Analysis

If the supplier does not have at least one of these tools in use, DEUS will train the supplier's quality and operations team on the use of its system to provide synergy when problem solving.

7B. Corrective Action Requests

Suppliers receiving a nonconformance will be responsible for submitting Corrective Action as follows: If non-conforming material received by DEUS from the supplier causes a major disruption (downtime) to production lines, and/or issue at DEUS's Customer, the supplier shall respond *within 24 hours* with a containment plan and submit an approved corrective action plan (i.e., 8D, 7-step, etc) *within 10 days*.

Any deviation from this requirement must be agreed to by the DEUS Quality Department. All corrective actions must be implemented and verified within 30 days. An extension of up to 30 additional days may be granted with written approval from the issuing plant.

- a) Upon receiving a Corrective Action Request from DEUS, Suppliers are required to immediately sort 100% of their product; including product at DEUS plant(s), in transit, in warehouses, at the Supplier's production facility, etc., and to ensure that DEUS's plants are supplied with enough certified stock to assure no disruptions to our customers' production. Material must be labeled as certified for the specific defect or defects for the next three shipments unless otherwise directed by DEUS.
- b) Disposition shall be provided for non-conforming material in the following manner:

--Use as is (with documented approval): material used, quantities not counted against defect total.

-- Sort / Rework: supplier will be charged a standard sort / rework fee of \$60 per hour <u>to</u> <u>the extent such fee is authorized in advance by supplier in writing</u>; defective pieces found will be counted against defect total.

-- Scrap: Removal of non-conforming material will be the responsibility of the supplier. Non-conforming material remaining over 48 hours will be scrapped and any related scrap fees will be charged back to the supplier, <u>subject to supplier's prior written approval.</u>

If the supplier has a quality concern that results in the supplier issuing an RMA for the suspect material to be returned for sorting, that supplier will be assessed 2% of the suspect material towards their PPM rating.

Supplier is responsible for reporting accurate sorting results and to request adjusted effective quantities when appropriate. This can have an impact on the Supplier's defect calculation.

c) Suppliers are responsible for managing the use of outside sources for sorting and must make all arrangements to ship parts between DEUS and any outside source. DEUS will contact the Supplier for authorization to return the material at Supplier's expense (for example RMA and any associated expedite costs).

d) Defective parts returned to the Supplier, reworked and returned may still be counted toward the supplier's score. Reworked parts must meet specifications as defined by DEUS quality personnel. The repairing of parts is not permissible without prior written authorization from DEUS.

e) Evidence of the defect; such as, digital photos will be provided when possible. A sample of the defect may be sent to the requesting plant and DEUS's customer(s) if needed.

f) Verification of the implemented corrective action on-site at the Supplier may be accomplished during subsequent visits. If Corrective Actions take more than two weeks to implement, a progress report may be required. When the corrective action is completed

Upon receiving a Corrective Action Request from DEUS, suppliers are required to provide the following:

- Clear identification of the root cause.
 - NOTE: cannot be a restatement of the issue
- Interim Action and containment implemented within 2 days
- Actions taken to correct issue
- Actions taken to prevent reoccurrence (i.e., error-proofing)
- Evidence of verification that actions taken were effective
- Lessons Learned or Read Across implemented

7C. Escalation Process

DEUS requires suppliers to assure that all material, services, and processes are in conformance to all specifications and requirements and are delivered within the defined delivery schedule. Repeat product and/or process issues, launch or delivery issues may initiate the use of Controlled Shipping at the expense of the supplier. DEUS's escalation process for repeated incidence is initiated through the Escalation Process as follows:

- C1: 100% containment with documentation of work done and lot control
- C2: 200% containment with documentation of work done and lot control

A supplier failing to protect DEUS facility and/or our customers from repeated incidences will be subject to the escalation process, up to and including resourcing.

8. Controlled Shipping

For DEUS two levels of Controlled Shipping exist:

- Level 1: This includes a problem-solving process as well as a redundant inspection process. The supplier's employees at the supplier's location enact the inspection process in order to isolate the customer from receipt of non-conforming parts/material.
- Level 2: This includes the same processes as Controlled Shipping Level 1, with an added inspection process by a third party representing DEUS or DEUS's customer's interests specific to the containment activity. The third party is selected by DEUS and paid for by the Supplier. Continued failure to meet expectations could result in removal from the Approved SupplierList.

Note: Suppliers at CS level 2 are not permitted to receive new, existing or transfer business until otherwise notified by Supply Chain (DEUS). Application for an Exit Letter to Level 1 or 2 will be reviewed and approved by the DEUS Plant and DEUS corporate quality provided all of the criteria and action plans have been met.

9. Supplier Charge Back

All charges to be applied against suppliers to DEUS will be supported by root cause analysis performed by the charging DEUS plant. Generally, charges over \$1,000.00 will be levied by DEUS's Supply Chain department. Charges under \$1,000.00 may be administered by the plant Controller and Quality Manager but must still be supported by root cause analysis.

Suppliers will be assessed an administrative charge of \$250.00 for all charges or instances of defects passing to DEUS's customers when appropriate root cause analysis has confirmed the charged supplier is in fact at fault or largely at fault for the stated issue. An administrative charge of \$250.00 will be levied against suppliers that cause disruption to the value stream within DEUS due to defects or disruptions to flow caused by quality issues.

Suppliers can request a review of any charges with the Quality Manager and the Director of Quality of DEUS. The decision during this review will be considered final and binding. DEUS values its supply base and will seek to be fair and equitable during matters of financial cost recoveries and in the process of performing root cause analysis.

PURCHASING

Purchase Order / Contract Compliance

The supplier must comply with all requirements as stated in the purchase order contract documents, including DEUS's standard Purchasing Terms and Conditions found at <u>http://www.diamond-us.com/terms</u>, which govern every DEUS purchase order contract.

Regulatory Conformity - Safety and Housekeeping

The following are in addition to the "Government Safety and Environmental Regulations" requirements of applicable industry standards (Automotive – ISO/IATF 16949, clause 8.4)

The supplier shall:

- Include in the safety program an emergency plan covering accidents, spills, fire and explosion
- Identify a representative who has authority to coordinate safety activities and to investigate and resolve safety problems
- Conduct routine safety inspections of the facility on a predetermined basis

Subcontractor Development

In addition to the requirements of IATF 16949 or ISO 9001, suppliers shall comply with the following:

- Establish and maintain a subcontractor surveillance and performance rating system.
- Establish and maintain an "Approved Supplier" list; including criteria for inclusion or exclusion.
- Review subcontractor pre-production approval (PPAP or FAI as applicable) documents to insure specified requirements will be met.
- Evaluate all subcontracted products or services to determine the amount of inspection, surveillance, and audits of subcontractor's facilities required.
- Conduct such inspection, surveillance, and audits at a defined frequency.
- Evaluate the disposition of all reported non-conformances.
- Ensure corrective actions for all reported nonconformance are completed and verified.
- Not change sub-contractors unless approved in writing by applicable DEUS division.

Work Instruction

In addition to the requirements applicable industry standards (ISO 9001, ISO/IATF 16949, etc) suppliers shall include or reference the following in the appropriate documentation (instruction sheets, route sheets, SPC procedures etc):

- sequence of operations
- special working environments
- work methods
- characteristics and tolerances to be met
- location of manufacturing process

At a minimum, process procedures shall include detailed instructions of process functions that can be clearly understood by the operator. Any document revision level shall be identified on the procedure. Each process procedure/instruction shall be dated and signed by the authorized approver.

Procedures shall be updated to reflect changes in processes, equipment, and customer requirements. These updates shall indicate a revision level, revision date, and authorized approval.

Suppliers shall develop, implement and maintain policies and procedures for all rework, repair and the use of reprocessed material.

Preventive Maintenance

The following requirements are in addition to those in applicable industry standards (ISO 9000, IATF 16949, etc). The supplier shall maintain a record for each tool, fixture or piece of equipment indicating the:

- Maintenance schedule
- Description of the equipment
- Identification number of the equipment
- Maintenance procedures
- Acceptance criteria
- Action taken when results are unsatisfactory
- Re-qualification of repaired equipment to manufacturer's recommended frequencies
- Critical spare parts

The supplier shall maintain objective evidence that regularly scheduled maintenance has been performed and shall maintain this evidence for a minimum of three (3) years after completion of the program or transfer of tooling.

Product Identification and Traceability

In addition to the requirements of applicable industry standards suppliers shall comply with the following:

- This identification shall provide traceability through retained documentation to the specific lot or batch of each raw material used in its manufacture; individual parts or products shall have a unique identification. Suppliers of assembled products must have a system to identify the lot or batch of each component in the assembly, as well as a lot or batch number for the finished assembly. The individual lot or batch numbers of components used must be traceable via the finished assembly lot or batch number.
- If stamps, electronic signatures, or passwords are used to identify acceptable quality products, suppliers shall establish and document the controls for these media.
- Whenever inspection is performed, a raw material lot is changed or production of a new lot or batch of product/parts is started, the raw materials used and their lot numbers shall be recorded on appropriate in-process documents.

Control of Customer Supplied Product

The supplier shall ensure that all DEUS-owned or DEUS customer-owned property used or stored in the supplier's facilities are safeguarded. Suppliers are required to maintain an accurate inventory of DEUS supplied material.

The supplier shall maintain confidentiality on these items. The supplier shall permanently mark all such property so that the ownership is clearly visible. Customer property can include intellectual property such as data used for design, production, or inspection.

Preservation of Product – Packaging Requirements

In addition to the requirements of IATF-16949 Section 8.5.4, suppliers shall comply with the following:

Packaging Design Intent

DEUS requires that packaging design protects components adequately against surface and or structural damage. DEUS plants must receive material and components in the same production quality condition as it left the Suppliers' facility, regardless of the method of transportation. The design intent is to maximize density while allowing ease of use at DEUS plants. Each pack design is to consider the material handling and storage environments it will encounter during transportation and use.

Returnable packaging is the preferred method when cost-justified and acceptable. Use expendable packaging as a backup for returnables, or as a primary packaging when returnables are not cost-justified.

DEUS may require that Suppliers complete a "Packaging Specifications" sheet for each product supplied, for review by DEUS's packaging support. An internal plant sign-off sheet must have all necessary approval signatures. Supplier may consider receipt of approved copy as an authorization to proceed. Suppliers may be required to provide special handling for sensitive products and/or hazardous materials. Suppliers should confirm these requirements prior to quote. Suppliers are to review and evaluate packaging on an ongoing basis. DEUS's objective is to keep packaging costs in line with all strategic goals and to meet those obligations. Suppliers should strive to improve packaging on an ongoing basis.

Expendable Containers

All containers and multi-wall tubes must have a box maker's certificate with bursting or puncture test visible on the assembled container.

Load Securement

Banding is one method of unitizing a pallet load, (2 bands lengthwise/2 bands crosswise). Some acceptable stretch films are:

- LLDPE (linear low-density polyethylene)
- LDPE (low-density polyethylene)
- EVA (Ethyl vinyl acetate 12% min)

Stretch film should have a 50% film overlap up to the top of the load with a 3"/ 76 mm excess at the top. Properly secure the pallet load by extending the film 3"/ 76 mm below the top of the pallet.

Direct material providers for steel (other are stainless steel, aluminum, brass, copper, etc) suppliers shall reference DEUS-2282 for packaging requirements.

Sealant and Closures

Adequately seal closures to prevent failure during handling. Closures may be stamped, glued, or taped to ensure positioning remains satisfactory during transit. Cover products that must be clean or protected from plant and or transportation environments.

CONTINUAL IMPROVEMENT

CONTINUAL IMPROVEMENT PLAN

Suppliers shall develop an annual continual improvement plan, approved by upper management, which establishes improvement goals, implementation dates and responsible personnel.

COST REDUCTIONS

These costs shall be reported using a suitable base, such as cost-per-unit produced or cost as a percentage of total sales, etc. Suppliers are expected to reduce costs annually to offset all economics and OEM reduction programs. DEUS will work pro-actively with its supply base to support cost reduction implementation, but expects suppliers to take the initiative in establishing projects that will

generate savings. Suppliers will be expected to participate in formal cost reduction reviews as required by DEUS.

METAL AND PLASTICS PARTS - ADDITIONAL REQUIREMENTS

All suppliers of metal and plastic parts to DEUS shall comply with the following items.

RAW MATERIAL CERTIFICATIONS

The supplier shall receive and evaluate raw material certifications showing actual test results for materials used prior to use of each material. Where there is a customer approved subcontractor list, the supplier must provide documentation for compliance.

MATERIAL CERTIFICATION VERIFICATION TESTING

Such testing shall be performed by a qualified test laboratory at a frequency specified in the DEUS approved Control Plan. In the absence of a written agreement this testing shall be performed every six months. Test results shall be maintained on file for DEUS review.

CHEMICALS - ADDITIONAL REQUIREMENTS

All chemical material suppliers to DEUS must address the following items. Certain requirements may conflict with those of other sections. If conflict occurs for chemical material suppliers, this section of the manual shall take precedence over all other sections.

PARTS

The term "parts", as used throughout these requirements, shall be understood to include any product, whether a physical part or chemical.

DEUS SPECIFICATIONS

Specifications written by DEUS and distributed to supplier shall have a documented system for receipt, handling, and dissemination of these specifications within the supplier's organization.

CERTIFICATES OF ANALYSIS

From time to time chemical suppliers shall be expected to participate in certification verification testing coordinated by DEUS Purchasing. On a random annual basis retained samples taken from shipping containers received at DEUS may be returned to the supplier for complete testing of all properties on the Certificate of Analysis. The results are then reported to DEUS for comparison to the original Certificate of Analysis. Any discrepancies are communicated to the supplier for resolution.

SAMPLE RETENTION

Laboratory samples used to determine the test results shown on the Certificates shall be retained and stored in an environment that shall minimize damage, loss and or environmental deterioration. These samples shall be retained for not less than one year after shipment of the product to DEUS, unless otherwise agreed to by DEUS.

CHANGES IN PROCESSES AND/OR MATERIALS

Any changes in processes, materials and or source of materials require resubmission and re-approval of the product in accordance with this manual.

DESIGN AND BUILD

Suppliers shall provide appropriate resources and facilities for the design and fabrication of models, tools, gauges or turnkey equipment. Tool design personnel must comprehend the key characteristics of the parts and processes involved. If any design or fabrication work is subcontracted, there shall be a method of tracking and follow-up to ensure timely completion of work.

Specifications

DEUS suppliers shall obtain all applicable standards and specifications prior to quotation. Upon acceptance of purchase agreement, suppliers shall be responsible for meeting all applicable industry standard and specification requirements.

Changes and Authorization

Any and all changes proposed to quality plans by a supplier shall be documented in writing and resubmitted to DEUS Supply Chain and Quality prior to implementation. Suppliers shall not proceed with any part of the proposed changes prior to receiving written authorization from DEUS.

Dimensional Layouts

Suppliers shall have appropriate resources and facilities to perform full dimensional layout of models, tools, gauges and turnkey equipment, both in body coordinates and by utilizing the part design dimensioning system. An DEUS approved subcontractor may be used to support these activities. An appropriate system for tracking shall be established and approved by DEUS prior to start of fabrication.

Tooling Management

Suppliers shall establish a system to ensure effective management and utilization of tooling systems. Suppliers shall submit for approval a design and build plan detailing, at a minimum, the following:

- 1) Name and telephone numbers of supplier contacts including identification of responsibilities
- 2) Appropriate repair facilities and resources
- 3) Effective storage methods for all models, tooling aids, etc
- 4) Inspection points and data to be analyzed throughout the build phase including:
 - critical areas identified by DEUS and/or the supplier
 - areas which may affect any control characteristics as defined by DEUS and customers
 - the basis for finished product acceptance

For tools, gauges, fixtures, and turnkey equipment:

Supplier shall provide a review date by DEUS to ensure all DEUS, customer, applicable national and state or provincial safety and ergonomic requirements are met and provide:

- 1) provisions for supplying DEUS with a recommended preventive/predictive maintenance plan
- 2) provisions for training DEUS or other personnel including details of training duration and location
- 3) proposed packaging and shipping methods of the finished product to DEUS including shipping instructions and customs clearance when applicable
- 4) statement of responsibility for installation in an DEUS, or DEUS customer, facility, including a detailed installation plan and statistical prove-out
- 5) methods for statistical capability and conformance prove-out prior to shipment including:
 - sample size and statistical data work-up
 - basis of qualification for all areas which mayaffect any end item control characteristic

Formats such as sketches, prints and diagrams showing the location of valves, electrical lines, plumbing

lines and connections as well as other peripheral equipment. Traceability to the source of key components of the equipment by part number, model number, and supplier must also be provided to DEUS. All sketches, prints, wiring diagrams, schematics, etc., require DEUS approval prior to build.

GLOSSARY

The following definitions apply:

DEUS – Diamond Electric United States

Batch - (volume or lot) an identifiable collection of products, or quantity of material, of a single type, grade, class, size or composition produced in the same facility under continuous controlled conditions for a period not to exceed 8 continuous hours.

Calibration - comparing two instruments, measuring devices or standards, one of which is of known accuracy. To detect, correlate, report or eliminate by adjustment any variation in accuracy of the instrument or measuring device of unknown accuracy. All calibration instruments used by DEUS suppliers must be traceable to NIST.

Characteristic - any distinct property or attribute of a product, process or service that can be described or measured to determine conformance and nonconformance to specified requirements.

Disposition - an action to determine how a nonconformance is to be resolved.

Evaluation - an appraisal to determine if production processes and quality assurance programs are capable of producing a quality product or providing a quality service and generating evidence that supports decisions of acceptability.

Inspection - the examination, measurement, and testing of characteristics of processes, products or services to determine acceptability and the recording of resulting data.

Machine/Tool Potential Study - a preliminary assessment of the ability of a machine and its tooling (only) to produce parts to specifications consistently.

Nonconformance - a deficiency in characteristic, documentation or procedure which renders the quality of a product or service unacceptable or indeterminate. Examples of non-conformances are: physical defects, test failures, inadequate documentation, and deviations from prescribed processing or from any other part of the program.

PPAP - Production Part Approval Process

Procedure - a document that specifies, as applicable, the purpose and scope of an activity; what shall be done and by whom, when, where and how it shall be done, what materials, equipment and documentation shall be used and how it shall be controlled.

Product Development Team - an DEUS cross-functional team charged with bringing a new program from award of business through volume production.

Surveillance - the continuing evaluation, analysis and verification of a supplier's records, methods, procedures, products and services to assure that requirements are met.

Verification - independently reviewing, inspecting, examining, measuring, testing, checking, witnessing, monitoring or otherwise establishing and documenting that products, processes, services and documents conform to specified requirements.

All required DEUS forms may be obtained by contacting your DEUS Supplier Quality representative.