

# *Supplier Quality Requirements Manual (SQRM)*

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## Purpose and Scope

MOXTEK is committed to building strong Supplier partnerships. Clear communication of requirements helps build strong Customer-Supplier relationships. The purpose of this manual is to communicate MOXTEK supplier quality requirements.

The Supplier Quality Requirements Manual (SQRM) is intended for suppliers who directly supply parts, materials, or services to MOXTEK. It serves to work in conjunction with relevant industry standards and to provide clarification of MOXTEK's requirements and expectations for its suppliers. These requirements are in addition to the standard MOXTEK Purchase Order Terms and Conditions.

Moxtek encourages any feedback and input on all areas covered in this manual or any other documents shared with suppliers. Site visits to MOXTEK are also encouraged. In order to have a successful partnership, this document should be read upon being received to ensure a clear understanding by all involved of supplier commitments and requirements.

Moxtek references several other documents within this manual. The forms referenced in this manual may be used and modified by the Supplier to suit their needs. Any document referenced can be made available electronically to MOXTEK suppliers by emailing a request to MOXTEK Purchasing or Quality Assurance. Documents that are not controlled by MOXTEK (i.e. Industry Standards), must be purchased separately from the appropriate organization.

This manual is best viewed electronically to make use of internal links; individuals using a hard copy are responsible for ensuring that they are using the latest revision. Any future revisions become effective upon notification in the Purchase Order Terms. Each tier in the supply chain is responsible for communicating the requirements in this manual to their suppliers to ensure consistent data standards as information moves from tier to tier to MOXTEK. This guidance document may be provided to lower tiers as needed to ensure consistent quality standards.

## Supplier Management System (SMS)

MOXTEK's Supplier Management System (SMS) is documented in the *Supplier Management System (QUAL-MOXSYS-1005)*.

Key principles in MOXTEK's SMS include:

1. Moxtek categorizes suppliers into three different levels: Tier 1, Tier 2, and Tier 3.

Tier	Description	Risk
Tier 1	Critical to the function of MOXTEK products.	High
Tier 2	Critical to Moxtek	Medium
Tier 3	Commodities	Low

2. Tier 1 and 2 suppliers must be approved by MOXTEK Purchasing and Quality Assurance to be used in production. Critical parts must be approved by MOXTEK to be used in production.

*Note. A Tier 1 and 2 supplier produces critical part(s) for MOXTEK and may even be a single or sole source supplier as determined by MOXTEK Purchasing. A risk assessment is performed by MOXTEK Quality, Purchasing, and Engineering to determine if a part is critical.*

3. To be on the MOXTEK Approved Supplier List (ASL), the Supplier must be approved by MOXTEK Purchasing and Quality with appropriate records on file (Checklists, Assessment, etc.).
4. To be on the MOXTEK Approved Parts List (APL), an approved First Article Inspection Report (FAIR) must be on file for each Supplier providing the MOXTEK P/N.
5. Although MOXTEK may perform receiving inspection or Incoming Quality Assurance (IQA) on first orders and may re-initiate IQA when issues arise. MOXTEK's goal is to eliminate reliance on incoming inspection based on the Supplier's demonstrated capability and performance ("Move Quality Upstream").
6. Tier 1 supplier status will be documented and communicated to the supplier using the Supplier Scorecard. While MOXTEK evaluates the performance and status of all suppliers at a regular frequency, MOXTEK may not send supplier scorecards to Tier 2 and 3 suppliers, but will communicate and work with all suppliers to resolve issues as they arise.

## Supplier Approval Process

An approved MOXTEK Supplier must have successfully satisfied Supplier approval criteria including demonstrating capability to meet MOXTEK requirements. To achieve MOXTEK "Approved Supplier" status requires completion of these two MOXTEK forms and approval from MOXTEK Purchasing and Quality Assurance:

Reference Documents	Document No.
New Supplier Checklist - Purchasing	PURCH-FORM-1001
Supplier Quality Assessment	QUAL-FORM-1020

MOXTEK Purchasing and Quality may ask for your assistance in completing these checklists (i.e. "self-assessment") or may request to come on-site to the Supplier to complete these checklists. If a "self-assessment" is performed, MOXTEK may also request to come on-site to review the responses with the Supplier. MOXTEK Purchasing and Quality will review the completed forms and notify the Supplier regarding their approval status. It is typical for a Supplier's status to be "Under Evaluation" until minimum criteria have been satisfied. Corrective Actions may be requested by MOXTEK during this process if significant deficiencies are identified. ISO 9001 Certification evidence may be used in place of the Supplier Quality Assessment; however, MOXTEK may still determine an on-site review of the Supplier's QMS is necessary.

## Part Approval Process

An approved MOXTEK Part must have successfully satisfied Part approval criteria including demonstrating capability to meet MOXTEK requirements. To achieve MOXTEK "Approved Part" status requires completion of the First Article Inspection Report (FAIR) process including approval from MOXTEK Quality, Purchasing, and Engineering:

Reference Documents	Document No.
Supplier First Article Inspection Report (FAIR)	QUAL-FORM-1022



Typical minimum part submission requirements are checked below:

**Submission Requirements:**

- First Article, Quantity: \_\_\_\_\_
- First Article Inspection Report (FAIR)
- MOXTEK Drawing (with numbered references)
- Certificate of Conformance (CofC)
- For RoHS/REACH Substances – Declaration of Conformity (DofC)
- For other regulated substances – Letter confirming status, including list of identified regulated substances (See *Regulatory Compliance Required* section above)
- Raw Material Certifications
- Process Flowchart
- SPC Data / Capability Study
- Gage R&R Study
- Control Plan
- FMEA
- Other \_\_\_\_\_

After MOXTEK Quality, Purchasing, and Engineering review the First Article Submission, the Supplier will be notified regarding the Part's approval status. It is typical for a Part's status to be "Under Evaluation" until minimum criteria have been satisfied. Corrective Actions may be requested by MOXTEK during this process if significant deficiencies are identified.

## Supplier Review Process

MOXTEK reviews the status of Approved Suppliers at a regular frequency (e.g. Semi-Annual). For Tier 1 suppliers, Moxtek uses the Supplier Scorecard:

Reference Documents	Document No.
Supplier Scorecard	QUAL-FORM-1023

The Supplier Status Categories are:

- **Under Qualification** - the Supplier is being evaluated and monitored for approval consideration
- **Approved** - the Supplier has met approval requirements and has been added to the Approved Supplier List (ASL)
- **On Probation** - based on the supplier's poor performance, the supplier is being considered for removal from the ASL
- **Disapproved** - the supplier has been removed from the ASL
- **Conditionally Approved** – the supplier has met some approval requirements, but there may be additional information or actions needed to finalize approval.

To maintain “Approved Supplier” status, Suppliers must achieve acceptable levels of Quality, Delivery, and Supply Agreement Performance.

- Approved Suppliers must maintain a “Supplier Rating” (Total Weighted Score) of 50 or above.
- Approved Suppliers with ratings below 50 may be put “On Probation” and/or “De-Activated” (removed from the MOXTEK Approved Supplier List) if performance does not improve. Moxtek Quality and/or Purchasing may work with the Supplier to develop an “improvement plan” prior to “de-activating” an Approved Supplier.

Supplier Scorecards will be sent to MOXTEK Tier 1 Suppliers at a regular frequency (e.g. Semi-Annually).

Category		Criteria	
Quality Performance	50	Defects (DPPM)	DPPM rate of delivered parts = # defective parts / total receipts x 1,000,000 based on RMA and defects reported to suppliers
		SCAPAs	Number of Supplier Corrective Action / Preventive Actions (SCAPA's) initiated within the review period.
		Quality System Certification	Supplier has been certified to ISO 9001 or other recognized quality system standard.
Delivery Performance	25	On-time Delivery	OTD % during the review period on time.
Supply Agreement Performance	20	Cost Reduction	As defined in Supplier Agreement.
		Demand Pull / Consignment / Safety Stock	% of spend that is part of a pull system (Kanban), and/or % of spend that is part of a consignment system, and/or % of spend that is part of a safety stock system.
	5	Supplier Relationship	Based on quality and purchasing departments interactions with the supplier.

# Supplier Quality Requirements

## Section I: General Requirements for all Suppliers

These requirements shall apply to Suppliers and sub-tiers of purchased products or processing services furnished to MOXTEK, Inc. Supplied products or processes shall conform to the latest revision level of the applicable drawing/specification unless otherwise noted on the purchasing documents. Suppliers shall flow-down to their sub-tier(s) the applicable requirements in their purchasing documents, including, where required, key characteristics. Purchasing documents and drawing/specification information shall be maintained and considered proprietary in nature. The purchase order shall take precedence, should a conflict occur, over requirements stated herein. Questions regarding requirements stated herein or other quality issues may be directed to MOXTEK Purchasing. MOXTEK Suppliers may request a waiver of a quality requirement (see “Waiver Request” section).

MOXTEK shall reserve the right to make changes to the purchase order via a purchase order revision. The supplier shall notify MOXTEK promptly, in writing, if these changes will affect price and delivery.

The Supplier must notify the MOXTEK Purchasing in writing prior to implementing changes that could impact product quality, including changes that could impact “Form, Fit, or Function” (see “Change Management” section).

MOXTEK, its Customers, and/or regulatory authorities, reserve the right of entry, with prior notice, to all facilities and to all applicable records and materials involved in the execution of this order for the purpose of quality evaluation.

## Supplier Responsibilities

- Suppliers are expected to provide 100% conforming products, on time and in the specified quantities along with all required compliance data regarding product substance content.
- Suppliers shall immediately and openly communicate any quality or delivery related problems as well as any compliance issues and are expected to respond to issues immediately.
- Suppliers shall leverage their expertise and provide feedback on part or process devised by MOXTEK, to highlight concerns or improvements that could be made to reduce cost, time, yield, etc. Lack of feedback shall be deemed as acceptance of the design and process.
- Suppliers shall leverage their expertise and provide feedback regarding any compliance issues, current or anticipated.
- Suppliers are strongly encouraged to apply continuous improvement techniques that impact quality, service and cost.
- The Supplier shall maintain a contingency plan to satisfy MOXTEK’s requirements in the event of an emergency. These plans are to be made available upon request of MOXTEK. Emergencies may include but are not limited to utility interruptions, labor shortages, key equipment failures, warranty returns and changes in regulatory compliance requirements.



## Confidentiality

In addition to any Non-Disclosure Agreement between MOXTEK and Supplier, the following is required:

- The Supplier shall establish a system to manage confidentiality that begins at sourcing decision and continues through the life of the part.
- Any data, information, or knowledge (general and specific) obtained through activities with MOXTEK shall be securely controlled, treated with strict confidence, and properly destroyed when no longer necessary.
- Any breach of confidentiality or concerns, must be reported with specific details to MOXTEK management immediately.

## Regulatory Compliance Required

All parts and materials provided to MOXTEK shall meet, at a minimum, the regulatory requirements of the laws cited below. For all parts and materials supplied to MOXTEK Supplier shall maintain and be able to supply upon demand by MOXTEK all documentation necessary to support compliance status with the following laws:

- European Union
  - REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) (Regulation (EC) No 1907/2006)
  - RoHS (Directive 2011/65/EU Restriction of Hazardous Substances)
  - BPR (Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products)
- United States
  - Conflict Minerals (Dodd–Frank Wall Street Reform and Consumer Protection Act)
  - Prop 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986).
- Canada
  - CEPA (Canadian Environmental Protection Act, 1999)
  - CMP (Canadian Chemical Management Plan)
- Equivalent or similar laws regarding product substance content requirements in other jurisdictions.
- Others as designated by MOXTEK from time to time in updates to this guidance or in other communications with suppliers

All necessary documentation must be maintained and kept current. Upon request Suppliers must be able to produce all documentation within **five business days**. All documentation will be provided in English.

**Note:** Throughout this guidance, reference will be made to parts and materials. Whenever the text in this guidance is pertinent to both, the term “item” will be used.

## Declarable Substances

All substances mentioned in the regulations below shall be identified and tracked. Additionally, all compliance support documentation and material or compliance declarations will be provided to Moxtek.

- RoHS substances
- REACH substances
- Prop 65 substances
- Conflict minerals content
- BPR (Biocidal Products Regulation) substances [(EU) No 528/2012 Annex V]
- Canadian CEPA and CMP listed substances.

All suppliers of items must monitor the above referenced substance lists. Should any substance contained in any material itself or in any material contained in a part be added to any of these substance lists, supplier shall update its compliance data and notify MOXTEK of the existence of the newly regulated substance in any items supplied to MOXTEK. This obligation to reveal the presence of newly regulated substances shall be passed along to the supply chain from tier to tier in order to ensure that all regulated substances have been identified to MOXTEK.

### RoHS

MOXTEK products must be ROHS compliant. As a result, any RoHS substance present in any item supplied to MOXTEK must be declared to ensure proper compliance with RoHS. Additionally each supplier of any item shall maintain all documentation necessary to support MOXTEK in meeting the requirements of [Decision No 768/2008/EC of the European Parliament and of the Council](#), Annex II *Conformity Assessment Procedures, Module A Internal production control* which requires:

- Technical documentation - The documentation shall make it possible to assess the product's conformity to the relevant requirements, and shall include an adequate analysis and assessment of the risk(s). The technical documentation shall specify the applicable requirements and cover, as far as relevant for the assessment, the design, manufacture and operation of the product. The technical documentation shall, wherever applicable, contain at least the following elements:
  - A general description of the product,
  - Conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits, etc.
  - Descriptions and explanations necessary for the understanding of those drawings and schemes and the operation of the product,
  - A list of the harmonized standards and/or other relevant technical specifications the references of which have been published in the Official Journal of the European Union, applied in full or in part, and descriptions of the solutions adopted to meet the essential requirements of the legislative instrument where those harmonized standards have not been applied. In the event of partly applied harmonized standards, the technical documentation shall specify the parts which have been applied,
  - Results of design calculations made, examinations carried out, etc., and
  - Test reports.

- Manufacturing - The manufacturer shall take all measures necessary so that the manufacturing process and its monitoring ensure compliance of the manufactured products with the technical documentation and with the requirements of the legislative instruments that apply to them.
- Conformity marking and declaration of conformity
  - The manufacturer shall affix any required conformity marking set out in the legislative instrument to each individual product that satisfies the applicable requirements of the legislative instrument.
  - The manufacturer shall prepare a written declaration of conformity for a product model and keep it together with the technical documentation for 10 years after the product has ceased production. The Declaration of Conformity required above shall be equivalent to the requirements of Article 13 *EU declaration of conformity* and Annex VI of [Directive 2011/65/EU \(RoHS Directive\)](#).

Any and all documentation shall be made available to MOXTEK within five business days of MOXTEK requesting the same, or during the part approval process. All documentation shall be provided in English.

### REACH

All substances listed on any of the following REACH lists must be identified and tracked:

- [Candidate List of substances of very high concern for Authorisation](#) (SVHC list)
- [Authorization List](#) (Annex XIV)
- [Substances restricted under REACH](#) (Annex XVII).

As these lists change frequently it is critical that each supplier monitor these lists for newly regulated substances to ensure that items provided to MOXTEK remain compliant.

In 2015, the European Court of Justice rendered a decision regarding how REACH is applied to articles. This decision is popularly referred to as “Once an article, always an article” or O5A. This decision requires that each article be REACH compliant in and of itself. In other words, each component and certain semi-components and materials within an assembly down to the last capacitor or resistor on a PCB or individual nut, bolt or screw must be REACH compliant whereas prior to the decision only the final assembly had to be REACH compliant.

All parts supplied to MOXTEK should follow the O5A requirements for REACH article compliance.

Should any part supplied to MOXTEK become non-compliant due to changes in the SVHC list, Annex XIV or Annex XVII, Supplier shall notify MOXTEK of the non-compliant status within 60 days of the substance causing the non-compliance being listed.

### California Safe Drinking Water and Toxic Enforcement Act of 1986 (Prop 65)

All suppliers must monitor the list of chemicals maintained as part of [Prop 65](#). Any substance currently included on the list of chemicals must be tracked and MOXTEK must be notified of the presence of the substance. Should any substance contained in any item become a listed chemical, Supplier shall notify MOXTEK within 60 days of the substance being added to the Prop 65 list of chemicals. Supplier shall provide any documentation it has regarding the identified substances and any significant exposures to such substances that cause cancer, birth defects or other reproductive harm.

### Conflict Minerals

All companies in the supply chains of companies that are required to report to the SEC must provide data regarding the sources of any Conflict Minerals (CM) in the parts and materials they contribute to the supply chain. This is required to enable companies reporting to the SEC to accurately report on the sources of CM in their products. Many of MOXTEK's customers are required to report to the SEC, therefore MOXTEK requires its suppliers to provide CM data to it on an annual basis in order to support MOXTEK's customers reporting requirements.

Conflict Minerals are defined in U.S. law as

- Gold
- Tin including - Cassiterite
- Tantalum including - Columbite-tantalite
- Tungsten including - Wolframite.

Gold, tin, tantalum and tungsten, are commonly referred to either as 3TG or CM.

Chemical compounds which contain one or more of the 3TG substances in their formulation are included in the covered substances. For example, dibutyl tin oxide, contains tin in the chemical molecule and is therefore reportable as 3TG content.

There is no minimum amount for 3TG content. **ANY** intentionally added amount is required to be reported.

Specific requirements for reporting CM content are detailed in [Appendix 2](#).

### Biocides

Any substances added to a material for its biocidal properties shall be identified along with the applicable product type category as defined in Annex V of the [BPR](#). MOXTEK shall be notified of the presence of all such substances.

### CEPA and CMP

All suppliers must monitor the list of chemicals maintained as part of Part 5 of [CEPA](#) and the [Canadian CMP](#). All substances listed on any of the CEPA substance lists or in the Canadian CMP list must be identified. MOXTEK must be notified of the presence of any such substances.

## Sources of Supply

MOXTEK requires that no sources of supply for materials or components be traceable to any entities currently subject to trade sanctions programs/lists managed by the U.S. Department of the Treasury, Office of Foreign Assets Control including but not limited to:

- Specially Designated Nationals (SDN) List <https://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/default.aspx>
- Other sanctions list <https://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/Other-OFAC-Sanctions-Lists.aspx>
- Sanctions Programs related to specific countries/activities <https://www.treasury.gov/resource-center/sanctions/Programs/Pages/Programs.aspx>

## First Article Inspection Report (FAIR)

A First Article submission **shall** be approved by MOXTEK prior to new supplier parts introduction into MOXTEK production using the MOXTEK First Article Inspection Report (FAIR) process. Representative First Article part/s shall be inspected by the Supplier and by MOXTEK. Re-submission may be required when changes are requested (see “Change Management” section). The First Article part/s shall be clearly identified and the FAIR shall list all characteristics including notes, tolerance limits, dimensions, and material requirements. This report and the ballooned print shall remain on file at MOXTEK. The Supplier’s First Article submission should typically include a Certificate of Conformance and applicable Raw Material Certifications.

## Supplier Affirmation

The MOXTEK First Article Inspection Report (FAIR) **shall** include the following supplier affirmation: “I affirm that the samples represented by this warrant are representative of our parts and have been made to applicable MOXTEK drawings and specifications and in the case of production samples, are made from specified materials on regular production tooling with no operations other than the regular production process. I have noted any deviations in the comments below.”

## Change Management

A Change Request (CR) Process **shall** be used to avoid any adverse impact on MOXTEK, our Customers, and/or Suppliers. Change Requests are to be submitted by MOXTEK Suppliers to the MOXTEK Purchasing prior to implementation. Changes that could impact form, fit, or function require submission of a Change Request (CR). The following are types of changes that are likely to impact form, fit, or function:

- Construction (or Design) change
- Supplier (or Sub-Supplier) change
- Tooling change (Transfer, Replacement, Refurbishment, or Additional)
- Additional production location
- Material change (or declared material formulation changes)
- Processing change

<b>Form*</b>	The shape, size, dimensions, mass, weight, and other visual parameters which uniquely characterize an item. (“Shape and structure”) <i>Note: Includes “Formulation” - material / mixture prepared to a particular formula</i>
<b>Fit*</b>	The ability of an item to physically interface or interconnect with or become an integral part of another item. (“Acceptability from [the customer’s] viewpoint”)
<b>Function*</b>	The action or actions which an item is designed to perform (“Expected Operation”)

\*Based on “MIL-STD-973, CONFIGURATION MANAGEMENT” and Webster’s Dictionary

MOXTEK **shall** assess the change risk and provide a timely response to the Supplier regarding any implementation requirements (e.g. notification, pre-approval, re-qualification, re-submission of a First Article, etc.). The following MOXTEK Change Request (CR) Forms are to be used as applicable:

Reference Documents	Document No.
Change Request (CR) Form	QUAL-FORM-2100
Notification Form	QUAL-FORM-2100-2
Approval Request	QUAL-FORM-2100-1
Waiver Request	QUAL-FORM-2100-4

## Supplier Quality System

Suppliers **shall** maintain a Quality System which assures compliance with supplied documentation, including the purchase order, drawings, and specifications, etc. MOXTEK's preference is to work with Suppliers that maintain, at a minimum, a level of compliance to ISO 9001 or equivalent. MOXTEK may validate the Supplier Quality System capabilities and improvements using evidence of sustained certification approval, quality surveys, and/or on-site surveillance audits.

## Supplier Performance

MOXTEK **shall** evaluate and monitor the Supplier's ability to meet contractual requirements, including product characteristics, specifications, on-time delivery, completion of documentation, and responsiveness to corrective actions. MOXTEK reserves the right, at our discretion, to disapprove a Supplier for lack of performance.

## Certificate of Conformance (CofC)

Suppliers **shall** submit a Certificate of Conformance (CofC) with each shipment. The CofC shall be a legible, typed or printed, reproducible certified statement that items listed thereon comply fully with all purchase order requirements. The CofC shall bear: the Supplier name, authorizing signature with title, date, purchase order number, line item number, part number, revision, and quantity.

**Functional Test Reports:** When applicable, the Supplier shall submit, with each shipment, a report listing actual test results, identifiable to the respective parts or products.

**Material Certification (Non-Metals, Commercial, Proprietary):** When applicable, material certifications shall be submitted with each shipment. The certification shall bear description of the material, trade name, manufacture's name; specification number (type, grade etc.) manufactures art number, batch and heat lot number if applicable.

**Chemical and Physical Test Reports (Raw Material):** When applicable, chemical and physical test reports shall be submitted for each shipment and include: a) Batch, heat or lot, number, b) The material specification and revision, c) Certification of the composition to within acceptable limits where MIL reports are not available. (Metals require specific values of composition.)

## Personnel and Training

Supplier **shall** ensure that the personnel involved in the manufacture and inspection of materials or components are qualified to perform their tasks. Training records shall be made available upon request.

## Age Controlled Materials

Age controlled materials **shall** conform to applicable specifications and each container shall identify: the manufacturer's name, the batch number, storage temperature, compound number, date of manufacture, and the shelf life requirement. Certifications to the applicable specification and revision, and/or amendments must accompany material. A minimum of 75 percent of the useful shelf life must remain upon receipt to MOXTEK or material shall be subject to rejection.

## Shipments

A complete Packing List **shall** be enclosed with all shipments. The Supplier shall mark containers or packages with applicable lifting, loading, shipping information, purchase order number, item number, dates of shipments, the names and address of the consignor and consignee. Bill of Lading shall include the purchase order number.

## Sampling Inspection

When a sample inspection is performed of incoming product covered by this order, MOXTEK **shall** reserve the right to reject any lot on the first nonconformity detected (C=0). If sampling inspection is used as a means of acceptance by the Supplier, the plan shall be statistically valid, and appropriate for use. The plan shall preclude the acceptance of known defectives in the lot.

## Right of Inspection

The supplier **shall** accommodate Moxtek on-site inspection and test needs made with reasonable pre-communication and discussion. MOXTEK reserves the right to perform any inspection and test deemed necessary to assure product conformance at the Supplier's facility.

## Nonconforming Material and Waiver Requests

MOXTEK **shall** immediately be notified at the discovery of a discrepancy with product shipped to MOXTEK, regardless of when the discrepancy was discovered. Nonconforming material shall initially be reported verbally to MOXTEK Purchasing and a written nonconformance report to follow in a timely manner. Further corrective action may be required.

Waiver requests **shall** be submitted in writing to the MOXTEK Purchasing. The Supplier is expressly **denied** MRB authority to ship nonconforming material to MOXTEK. Material found to be out-of-specification to MOXTEK requirements shall not be shipped to MOXTEK **unless approved by MOXTEK**.

*Note: The following MOXTEK Supplier Waiver Request is recommended:*

Reference Documents	Document No.
Waiver Request	QUAL-FORM-2100-4

## Calibration System

Suppliers **shall** maintain an approved calibration system which ensures valid measurements within the appropriate accuracy and is traceable to the NIST (where applicable). The Supplier's calibration system shall conform to the requirements of MIL-I-45662, ISO-10012-1, ANSI/NCSL Z540-1 or equivalent as approved by MOXTEK. Calibration systems shall be subject to inspection and approval by the MOXTEK Quality Department.

## Record Retention

Suppliers **shall** retain quality records of production and services provided to MOXTEK for a minimum of 5 years, for RoHS and REACH compliance 10 years, or life of the MOXTEK Supplier agreement, whichever is greater. Suppliers shall be able to provide reproducible copies of any requested record within 2 business days of a written request from MOXTEK.

## Handling, Packaging and Delivery

Supplier **shall** handle and package product to preclude damage during processing and shipping. If material is received in a damaged condition it shall be handled as nonconforming material. Supplier shall provide sufficient shipping to meet contracted delivery requirements. Supplier shall package product sufficiently to preclude damage from shipping.



## Section II: Specific Requirements “When Specified”

### Special Processes

**When specified** in the Moxtek Purchase Order, Moxtek Supply Agreement, or Moxtek Drawings/Specifications, processes such as, but not limited to, welding, heat treat, plating, painting, NDT testing, EDM, elastomeric, and cleaning shall be solely performed by Nadcap approved processors. Certifications for special process services must accompany each shipment. Certifications must identify the material delivered, and/or the processes performed. Reports shall include the following: a) Process performed, b) Specification/drawing and revision level, c) Purchase order number, d) Part number, e) Compliance to acceptance criteria, f) Ultrasonic scan plans (if applicable), g) Radiographic x rays (if applicable), and h) Revision and date. Processed materials must be certified in accordance with the applicable specification. Suppliers shall flow-down sufficient information to ensure sub-tier processors are able to correctly process all parts.

**Material/Process Samples:** A representative material test sample for heat treat, weld and recast processes shall be maintained and made available upon request.

**Unique Heat Lot Control:** Only one heat lot of material is to be used in the production of any individual detail or part. Materials shall be segregated by heat lot, packaged separately and not commingled.

**Brazing/Welding Approvals:** The procedure used and a representative sample of actual joint configuration shall be submitted for approval prior to production.

### Key Characteristics

**When specified** in the Moxtek Purchase Order, Moxtek Supply Agreement, or Moxtek Drawings/Specifications, MOXTEK may require data to be collected by the Supplier on “Key Characteristics” identified on MOXTEK Drawings or Specifications. Data on Key Characteristics shall be collected by the Supplier and supplied to MOXTEK with each shipment. When using a sub-tier Supplier, this clause shall be flowed down on the Suppliers purchase order.

### Nondestructive Testing (NDT)

**When specified** in the Moxtek Purchase Order, Moxtek Supply Agreement, or Moxtek Drawings/Specifications, nondestructive testing shall be performed in accordance with Nadcap approved procedures. The Supplier’s facility and test personnel shall have approval from Nadcap prior to performing the required tests. A copy of approved procedures shall be kept on file at all times. Suppliers are responsible to ensure revisions to these procedures are approved per the internal quality system requirements. Each shipment of materials must be accompanied by a certified test report for each test performed. The reports shall specify the test performed, the specification, specification revision, test method(s) used, approved test procedure with number and revision, and the acceptance criteria utilized. Operators performing NDT shall be properly qualified and certified. Their certification shall include: a) Their name typed or printed, b) Organizational title, c) Signature of the authorized representative, d) Part number, e) Heat and purchase order number, f) Identification of the material, g) Revision and date.

## Statistical Process Control (SPC)

**When specified** in the Moxtek Purchase Order, Moxtek Supply Agreement, or Moxtek Drawings/Specifications, MOXTEK may require usage of Statistical Process Control (SPC). A MOXTEK approved SPC program shall be used. Control charts on key characteristics are required with each shipment unless process capability can be demonstrated (e.g. Cpk > 1.33).

## Traceability of Furnished Materials

**When specified** in the Moxtek Purchase Order, Moxtek Supply Agreement, or Moxtek Drawings/Specifications, only the material furnished by Moxtek shall be used to satisfy the order. Material substitution is not allowed. Assigned lot numbers and/or serial number shall be maintained and referenced on all documentation as applicable. Dropshipped materials shall be verified by certification prior to use.

## Testing Acceptance

**When specified** in the Moxtek Purchase Order, Moxtek Supply Agreement, or Moxtek Drawings/Specifications, Suppliers using acceptance testing shall define and submit for approval the test procedure, test characteristics, and test set-up to comply with the test requirements.

## UHV Component Fabrication Specification

Any component identified as a “vacuum component” or for UHV by drawing call-out, **shall** comply with the information in Moxtek’s UHV Component Fabrication Specification (TECH-SPEC-1001). MOXTEK provides a standard for Ultra-High Vacuum (UHV) Component Fabrication to insure that all components used in UHV applications meet engineering requirements.

# Appendix 1: Reference Documents

The following documents are controlled as separate documents and are included in this MOXTEK Supplier Quality Requirements Manual (SQRM) for reference:

Ref#	Reference Documents	Document No.
01	Supplier Management Process	QUAL-MOXSYS-1005
02	New Supplier Checklist - Purchasing	PURCH-FORM-1001
03	Supplier Quality Assessment	QUAL-FORM-1020
04	Supplier First Article Inspection (FAI) Data Sheet	QUAL-FORM-1022
05	Supplier Scorecard	QUAL-FORM-1023
06	Change Request (CR) Form	QUAL-FORM-2100
07	Notification Form	QUAL-FORM-2100-2
08	Approval Request	QUAL-FORM-2100-1
09	Waiver Request	QUAL-FORM-2100-4
10	UHV Component Fabrication Specification	TECH-SPEC-1001

## Appendix 2: Conflict Minerals

Conflict Minerals reporting is an annual process. It applies to all parts entering the supply chain in the calendar year for which data is being provided. Parts in inventory during the current year that were purchased in a previous year are outside the scope of the current year data collection process. For example, if you purchased 10,000 pieces in 2015 and had 3,000 remaining in inventory in 2016, those 3,000 pieces are not part of the 2016 CM data collection process. They entered the supply chain in 2015 and so should have been included in the 2015 report.

MOXTEK expects suppliers at every tier in the supply chain to conduct the necessary investigations of CM sources to determine all smelters are conflict-free by one of the following methods:

- CFSI-certified (preferred)
- Independent third party audit equivalent to CFSI audit
- Documentation tracing all CM back to the original mine.

**Note:** CM from 100% scrap or recycled sources is considered conflict-free.

If necessary, each supplier will obtain data from their suppliers to be consolidated as appropriate and submitted to MOXTEK.

Each supplier to MOXTEK will be responsible for reviewing incoming data from its suppliers to ensure that such data meets all MOXTEK data requirements and is in conformance with all the applicable rules. Failure to properly review data before incorporating it into submissions to MOXTEK may result in rejection of your submission to MOXTEK for issues related to data accepted from your suppliers that does not meet MOXTEK's data quality requirements.

Any supplier who is a distributor rather than a manufacturer of a material, semi-component, or component will obtain CM data from the actual manufacturer. The supplier will then forward said data along the supply chain to MOXTEK. In lieu of obtaining and forwarding CM data from the actual manufacturer, a distributor may, with permission and agreement from MOXTEK, provide MOXTEK with the necessary information including the manufacturer's name and product code or part number so that MOXTEK may request CM data directly from the manufacturer.

All CM content in all materials must be traceable to the smelter producing the initial 3TG or to scrap or recycled sources.

### Reporting Format

CM data will be reported to MOXTEK by submitting the most current version of the Conflict Free Smelter Initiative (CFSI) Conflict Minerals Reporting Template (CMRT). The current version can be downloaded here: <http://www.conflictreesourcing.org/conflict-minerals-reporting-template/>.

### Response on CMRT Required

It is insufficient to provide a letter regarding CM content or a copy of a conflict minerals policy as your report regarding CM content in your products. You must respond by supplying a current year CMRT.

## Language: English Required

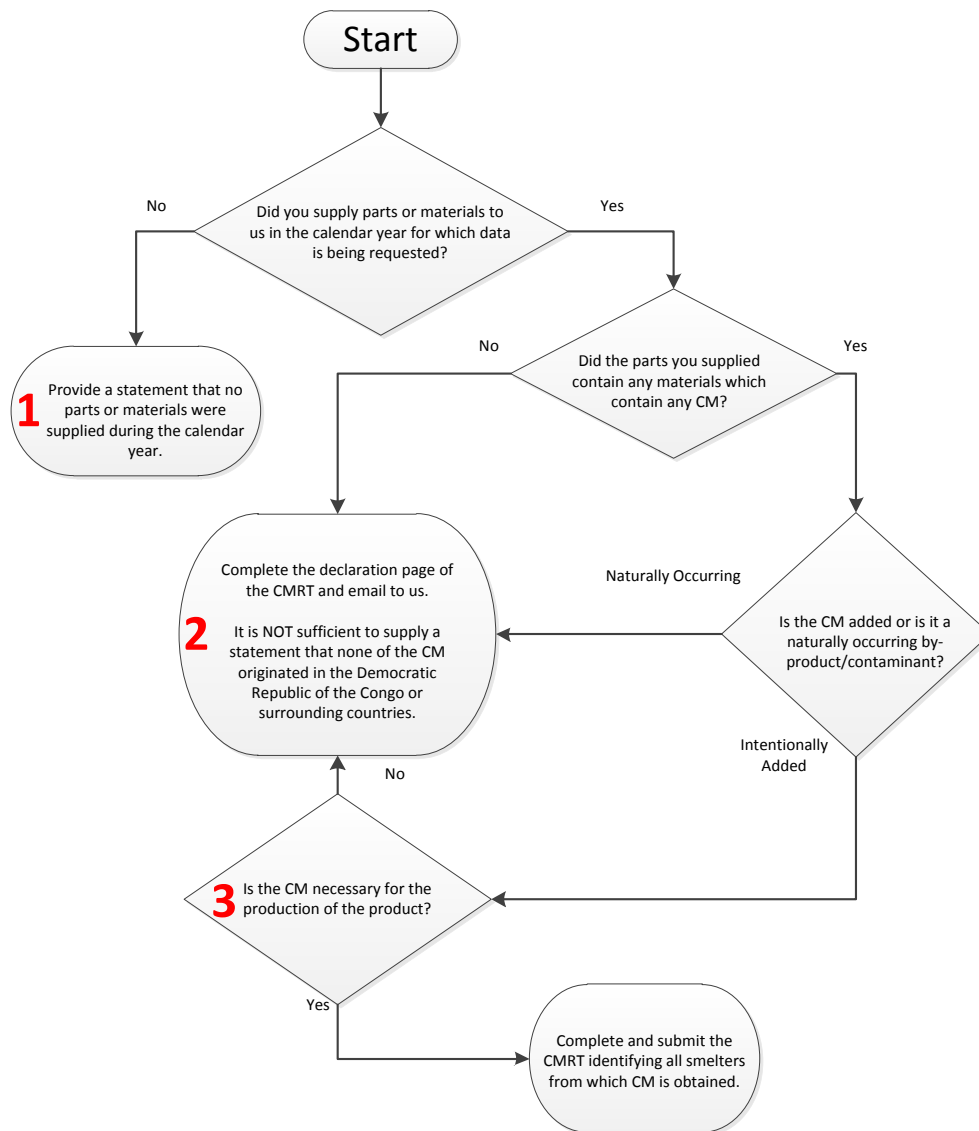
All data submitted must be provided in English.

## Reporting Deadlines

Interim data for the calendar year should be submitted by close of business on September 30 of the calendar year. Final data for the calendar year must be submitted by close of business on January 15 of the following year. For example, interim data for calendar year 2016 is due on September 30, 2016 and final data is due on January 15, 2017.

## Determining If You Must Report CM Data

The flowchart below maps out the questions that must be answered and the actions that must be taken to successfully complete CM reporting.



**Note 1:** The statement must be on your company letterhead and signed by someone of sufficient authority to act as agent for the company when making legal representations.

**Note 2:** Complete the Declaration page of the most current CMRT version. On the Declaration page complete the Company Information section and answer questions 1 and 2 for each of the substances.

**Note 3:** In determining whether any 3TG is "necessary to the production," consider whether the CM is

- Intentionally included in the product's production process (This does not include any CM found in tools, machines, or equipment used in the manufacturing process.);
- Included in the product, or
- Necessary to produce the product.

## Completing the CMRT

### Declaration Page

Complete the Company Information section of the Declaration page. Be sure to fill in all required fields as indicated by (\*). CMRTs with blank required fields in the Company Information section of the Declaration page will not be accepted. Be sure that the scope selected matches the requested scope for the report. Reports for which the scope does match the requested scope will not be accepted.

If the items you supply do not contain any intentionally added/necessary to production CM, you must still answer both questions 1 and 2. If both questions are not answered, the CMRT will not be accepted.

If the items you supply contain CM, you must answer questions 1 through 7 for each substance for which you indicated a "Yes" answer in either question 1 or 2. You must also answer questions A – J if you answered "Yes" for any substance in questions 1 or 2. The answers for questions A - J must be at the company level regardless of the CMRT scope level. Incomplete responses will not be accepted.

## Appendix 3: Supplier Code of Conduct

Moxtek's goal is to be a great company. Great companies are ones that achieve financial success but do so while following core values, ethical standards, and responsible business practices. Moxtek wants to conduct our business with integrity. To become a great company, Moxtek is committed to working with our Suppliers to achieve our goals together. It is important to Moxtek that we influence our Suppliers in a positive way with regards to ethical business practices and regulatory compliance. Moxtek expects its Suppliers to share our commitment to integrity by complying with the following "Moxtek Supplier Code of Conduct" standards.

*Note: The term "Supplier" used in this document applies to Moxtek Contractors, Sub-Contractors, Service Providers, Vendors, and Equipment, Tooling, Material, Component, and Consumable Goods Providers.*

### 1) LEGAL AND REGULATORY COMPLIANCE PRACTICES

All Moxtek Suppliers must conduct their business activities in full compliance with the applicable laws and regulations while conducting business with and/or on behalf of Moxtek, and must, without limitation:

- **Trade:** Comply with all applicable trade controls, as well as all applicable export, re-export, and import laws and regulations.
- **Antitrust:** Conduct business in full compliance with antitrust and fair competition laws that govern the jurisdictions in which they conduct business.
- **Boycotts:** Not participate in international boycotts that are not sanctioned by the United States (U.S.) government or applicable laws.
- **Anti-Corruption:** Not participate in bribes or kickbacks of any kind, whether in dealings with public officials or individuals in the private sector. Moxtek is committed to observing the standards of conduct set forth in the U.S. Foreign Corrupt Practices Act ("FCPA") and the anti-corruption and anti-money laundering laws of the countries in which Moxtek operates. Suppliers must comply with all applicable anti-corruption and anti-money laundering laws, including the FCPA, as well as laws governing lobbying, gifts, and payments to public officials, political campaign contribution laws, and other related regulations. Suppliers must not, directly or indirectly, offer or pay anything of value (including travel, gifts, hospitality expenses, and charitable donations) to any official or employee of any government, government agency, political party, public international organization, or any candidate for political office to (i) improperly influence any act or decision of the official, employee, or candidate for the purpose of promoting the business interests of Moxtek in any respect, or (ii) otherwise improperly promote the business interests of Moxtek in any respect.

### 2) BUSINESS PRACTICES AND ETHICS

Moxtek Suppliers must conduct their business interactions and activities with integrity and must, without limitation:

- **Business Records:** Honestly and accurately record and report all business information and comply with all applicable laws regarding their completion and accuracy. Create, retain, and dispose of business records in full compliance with all applicable legal and regulatory requirements.
- **Press:** Speak to the press on behalf of Moxtek only if the Supplier is expressly authorized in writing to do so by Moxtek.
- **Gifts:** If offering a gift, meal, or entertainment to Moxtek employees, always use good judgment, discretion, and moderation. Any gift from a Supplier must be permissible under the Moxtek's applicable policies. Any gifts, meals, or entertainment must comply with applicable law, must not violate the giver's and/or recipient's policies on the matter, and must be consistent with local custom and practice.
- **Conflicts of Interest:** Avoid the appearance of or actual improprieties or conflicts of interests. Suppliers must not deal directly with any Moxtek employee whose spouse, domestic partner, or other family member or relative holds a significant financial interest in the Supplier. In the course of negotiating the Supplier agreement or performing the Supplier's obligations, dealing directly with a Supplier personnel's spouse, domestic partner, or other family member or relative employed by Moxtek is also prohibited.
- **Insider Trading:** Avoid insider trading by not partaking in the trading of securities such as corporate stocks using undisclosed information.

### 3) LABOR PRACTICES AND HUMAN RIGHTS

Moxtek expects its Suppliers to share its commitment to human rights and equal opportunity in the workplace. All Moxtek Suppliers must conduct their employment practices in full compliance with all applicable laws and regulations, and must, without limitation:

- Cooperate with Moxtek's commitment to a workforce and workplace free of harassment and unlawful discrimination.
- Use only voluntary labor. The use of forced labor whether in the form of indentured labor, bonded labor, or prison labor by Moxtek Suppliers is prohibited. Also prohibited is support for any form of human trafficking of involuntary labor through threat, force, fraudulent claims, or other coercion.
- Comply with all local and national minimum working age laws or regulations and not use child labor. Suppliers cannot employ anyone under the age of 15, under the age for completing compulsory education, or under the legal minimum working age for employment—whichever is higher. Moxtek only supports the development of legitimate workplace apprenticeship programs for the educational benefit of young people and will not do business with those who abuse such systems. Pay applicable legal wages under humane conditions.
- Not engage in physical discipline or abuse.
- Pay applicable legal wages under humane conditions and not require workers to work more than the maximum hours of daily labor set by local and national laws or regulations. Suppliers must ensure overtime is voluntary and paid in accordance with local and national laws or regulations.

### 4) HEALTH AND SAFETY

Moxtek Suppliers are expected to integrate sound health and safety management practices into all aspects of business, and must, without limitation:



- Provide a safe and healthy work environment and fully comply with all safety and health laws, regulations, and practices.
- Prohibit the use, possession, distribution, or sale of illegal drugs in the working environment.

## 5) ENVIRONMENTAL REGULATIONS AND PROTECTION

Moxtek recognizes its social responsibility to protect the environment and expects its Suppliers to share its commitment by responding to challenges posed by climate changes and working toward protecting the environment. As a part of this commitment, all Moxtek Suppliers must, without limitation:

- Comply with all applicable environmental laws and regulations regarding hazardous materials, air emissions, waste, and wastewater discharges, including the manufacture, transportation, storage, disposal, and release to the environment of such materials.
- Endeavor to reduce or eliminate waste of all types, including water and energy, by implementing appropriate conservation measures in their facilities, through their maintenance and production processes, and by recycling, re-using, or substituting materials.
- Obtain, maintain, and keep current all required environmental permits and registrations and follow the operational and reporting requirements of such permits.
- If applicable, identify the chemicals or other materials being released that pose a threat to the environment and manage them appropriately to ensure their safe handling, movement, storage, use, recycling, or reuse and disposal.
- Adhere to all applicable laws, regulations, and customer requirements regarding prohibition or restriction of specific substances, including labeling for recycling and disposal.

## 6) PROTECTION OF ASSETS AND INTELLECTUAL PROPERTY

Protection of intellectual property rights is vital for any company. Moxtek depends on intellectual property such as information, processes and technology. All Moxtek Suppliers must, without limitation:

- Protect and responsibly use the physical and intellectual assets of Moxtek, including intellectual property, tangible property, supplies, consumables, and equipment, when authorized by Moxtek to use such assets.
- Use Moxtek-provided information technology and systems (including email) only for authorized Moxtek business-related purposes. Moxtek strictly prohibits Suppliers from using Moxtek-provided technology and systems to (i) create, access, store, print, solicit, or send any material that is intimidating, harassing, threatening, abusive, sexually explicit or otherwise offensive or inappropriate, or (ii) send any false, derogatory, or malicious communications.
- Comply with all Moxtek requirements and procedures for maintaining passwords, confidentiality, security and privacy as a condition of providing Moxtek with goods or services or receiving access to the Moxtek internal corporate network, systems, and buildings. All data stored or transmitted on Moxtek-owned or -leased equipment is to be considered private and is the property of Moxtek. Moxtek may monitor all use of the corporate network and all systems (including email), and may access all data stored or transmitted using the Moxtek network.

- Comply with the intellectual property ownership rights of Moxtek and others including but not limited to copyrights, patents, trademarks, and trade secrets; and manage the transfer of technology and know-how in a manner that protects intellectual property rights.

## **7) REPORTING QUESTIONABLE BEHAVIOR**

If you wish to report questionable behavior or a possible violation of the Moxtek “Supplier Code of Conduct”, you are encouraged to work with your primary Moxtek contact in resolving your concern. If that is not possible or appropriate, please contact Moxtek upper management directly.

Moxtek will maintain confidentiality to the extent possible and will not tolerate any retribution or retaliation taken against any individual who has, in good faith, sought out advice or reported questionable behavior or a possible violation of this Supplier Code of Conduct.

## Revision History

Rev	DCN #	Author	Description of Change
A	2010-1315	Roger Crist	Initial release to communicate Supplier Management System requirements (QUAL-PROC-1400) to MOXTEK Suppliers
B	2011-1379	Roger Crist	Clarified "Change Management Section" and modified MOXTEK Phase Review Requirements (Removed Phase Review "Timeline Example" already located in the Supplier Mgt System (SMS) document)
C	2012-2529	Roger Crist	Simplified First Article Process (removed Part Submission Warrant) by combining into FAIR. Moved requirements that are for all suppliers ("shalls") to first part of document and moved requirements that are "when specified" to the end of the document. Added requirement for UHV Component Fabrication Specification (TECH-SPEC-1001). UHV Component Fabrication Specification UHV Component Fabrication Specification
D	2017-0140	Katherine Layton, Stan Stolle, Roger Crist, Robert Stillwell	Updated to include RoHS, REACH, and CM requirements. Revised Critical vs. Key supplier terminology to accommodate the "Tier" structure implemented by Supply Chain. Added Moxtek Supplier Code of Conduct as an appendix.