

Exhibit SQA

Supplier Quality Assurance

1. SUPPLIER QUALITY ASSURANCE (SQA) MANAGEMENT SYSTEM

- 1.1 **General:** To assure safety, reliability, and affordability of procured material, Supplier shall comply with PG&E's material quality requirements. These requirements are fully defined in PG&E's policies and procedures, with a summary provided below. Non-compliance with PG&E requirements and/or problematic quality may lead to consequences including but not limited to the establishment of Supplier led cadence meetings with the responsible PG&E Supplier Quality Engineer, Supplier probation with additional Supplier cost related to oversight performed by PG&E Supplier Quality and/or contracted third parties, business diverted to another supplier, and/or cancellation or termination of the Contract.
- 1.2 **Definitions.**
 - 1.2.1 **eSCR:** Electronic Supplier Change Request.
 - 1.2.2 **Probation:** A successive number of corrective steps based on continuing poor quality performance. Reference PG&E procedure # SCM -2105P-04.
 - 1.2.3 **SCM:** PG&E's Supplier Qualification Manual.
 - 1.2.4 **SQ Engineer:** PG&E's Supplier Quality Engineer.
 - 1.2.5 **Supplier:** the obligations of the Supplier apply to the product Manufacturer or if POs issued to Distributor then these terms apply to Distributor and their tier 1 Manufacturer(s).
 - 1.2.6 **Surveillance:** on-site quality verification visits by the SQ Engineer.
- 1.3 **Applicability:** The following sections highlight material quality requirements for Suppliers to PG&E for products and custom tools used in any of the following:
 - 1.3.1 Power generation (excluding nuclear);
 - 1.3.2 Gas transmission and distribution; or
 - 1.3.3 Electric distribution, substations and transmission
 - 1.3.4 The Addendum to Exhibit SQA provides general applicability. Changes to the Addendum requirements can be made on a case by case basis with Supplier Quality concurrence, as described on the Addendum.
- 1.4 **Supplier Qualification Manual.** Supplier is responsible for complying with the current version of PG&E's Supplier Qualification Manual, SCM-2105M. In case of conflict with this Exhibit, the Supplier Qualification Manual shall take precedence. The Manual is available at PG&E's website, www.pge.com, at the following link: <http://www.pge.com/includes/docs/pdfs/b2b/purchasing/suppliers/SupplierQualificationManual.pdf>.
- 1.5 **Product Ranking:** For the purposes of Section 1.6 below, products ranked "high" or "critical" are generally those products that are high value, are critical to safety to the public or **personnel**, or critical to PG&E network performance. The ranking of products as "high" or "critical" is completed by PG&E Engineering. If a Supplier is unaware of their product's ranking, any of the following will help confirm the product status as "high" or "critical":
 - 1.5.1 Supplier receives a yearly letter from PG&E's Director of Supplier Quality outlining quality goals for the year;
 - 1.5.2 Supplier is subject to scorecard evaluation by PG&E; or
 - 1.5.3 Supplier has been notified of a "high" or "critical" ranking.If unsure of product status, the Supplier is responsible to ask the PG&E Supplier Quality team through email at: SQsupport@pge.com.
- 1.6 **Quality System Requirements:** As of January 1, 2020, any Supplier that provides "high" or "critical" products (see explanation above) must have a third-party certification to ISO 9001.
 - 1.6.1 If the Supplier does not meet this requirement, PG&E will document deficiencies of the quality system per ISO guidelines as part of the audit process. The Supplier shall submit for PG&E's approval a corrective action which addresses all documented deficiencies and it must include a commitment and timeline for the supplier to achieve ISO 9001 certification that is acceptable to PG&E.
 - 1.6.2 PG&E will audit and must conditionally approve new Suppliers to be in compliance with the current version of ISO-9001 before the Supplier will be allowed to begin product or process qualification

activities. If the supplier is not certified to ISO 9001, and is not willing to achieve certification in an acceptable timeframe to PG&E, the supplier will not be able to continue with the qualification process.

- 1.6.3 PG&E's final approval will require the Supplier to take corrective action on all audit nonconformance's to PG&E's satisfaction, or to have an approved corrective action plan in place to correct deficiencies to PG&E's satisfaction.
- 1.7 **Inspection:** PG&E may require inspection and testing of material and workmanship at Supplier's plant (using PG&E source inspectors, virtual source inspection or third-party contractors) or at PG&E's location, or both. Regardless of the outcome of any on-site inspections conducted at the Supplier's location, final acceptance of the products shall occur at PG&E's premises.
- 1.8 **Record Retention:** Supplier shall retain records required by applicable industry product standards for not less than five years or the period of time specified by any applicable industry standards, whichever is longer. Records required to provide evidence of conformity to requirements and of the effective operation of the quality management system shall be retained for a minimum of five years. Supplier shall notify PG&E before disposal of these quality records.
- 1.9 **Right of Access:** PG&E reserves the right to visit Suppliers (and may extend to tier 2 suppliers for audits or business meetings during the normal course of business, or to perform source inspection and Surveillance. PG&E will use reasonable efforts to provide at least five (5) days advance notice and work with Supplier to ensure adequate preparation for audit and business visits. When necessary to visit a tier 2 Supplier, PG&E will expect a Supplier representative to coordinate the visit and participate in the visit.
- 1.10 **Product Requiring Source Inspection**
- 1.10.1 **Products:** Products may require source inspection as defined by the Purchase Order or Engineering drawings or specifications. It is the Supplier's responsibility to be aware of products requiring source inspection, as described in this Section, or per the terms of the Purchase Order.
- 1.10.2 **Inspection:** Supplier shall provide advance notice to PG&E for planned Surveillance or source inspection activities consistent with manufacturing schedules or as required for "key hold points" or "witness points" which requires the supplier to notify PG&E for quality inspection. These points are generally indicated in the drawing, specification or procedure. Products that require source inspection are typically:
- (a) **Electric:** Switch Gear, MPAC buildings, Power Transformers and Reactors (above 25 MVA), Circuit Breakers and GIS;
- (b) **Gas:** Steel pipes, valves, fittings and gas control panels.
- 1.10.3 **Timing:** Supplier shall notify PG&E at least 10 days in advance for international manufacturers and at least 5 days in advance of the required source inspection for US based manufacturers.
- 1.10.4 **Notification Methods:** Supplier shall notify PG&E of a pending source inspection requirement by one of the following methods:
- Telephone: (415) 973-6323; or
Email: SQCsupport@exchange.pge.com
- 1.10.5 **Information Included:** At a minimum, Supplier's notification shall include the following information:
- (a) Factory address and contact telephone number and name;
- (b) Factory job identification number;
- (c) PG&E purchase order number; and
- (d) Approximate need date for inspection.
- 1.11 **Change Management Process:** Each Supplier shall have an established change control system in place. Distributor shall have a system to collect and forward their manufacturer's changes involving any of the following (at minimum) shall be communicated using the eSCR system [link](#) to PG&E:
- 1.11.1 Change of factory location;
- 1.11.2 Change to a major subcomponent;
- 1.11.3 Major changes at a key sub-tier Supplier;
- 1.11.4 Change to major manufacturing equipment or "special manufacturing process";
- 1.11.5 Major work shutdown (work stoppage) or break in production of more than 2 years; and
- 1.11.6 Change of design of the product. See SCM-2105P-05, Attachment 1, for full list of changes that require an eSCR.
- 1.12 **Changes:** Any changes that may involve any of the above items shall be documented in the PG&E eSCR document at the earliest possible time and BEFORE adoption of the change (except in cases of emergency which at minimum shall be communicated beforehand via email and phone follow up to purchasing and supplier quality). The responsible PG&E SQ Engineer will review the eSCR submission and discuss the required level of qualification for the change. In many cases, no additional actions will be required of the

Supplier. In some cases, a Part Product Qualification Plan (“**PPQP**”) will be required (reference the PG&E Supplier Quality Manual). In those cases, the Supplier will be notified by the responsible SQ Engineer and referred to the appropriate procedure.

- 1.13 **Waiver:** Product(s) to be delivered to PG&E must be provided in a state that fully complies with the requirements of the applicable specifications, drawings, standards or other engineering documents. If the product(s) do not fully comply, the supplier shall prepare, transmit and wait for the receipt of an approved waiver from PG&E through the eSCR system prior to shipment.
- 1.14 **Material Traceability:**
 - 1.14.1 **Materials for Electric Operations:** Unless granted a written waiver by Engineering or Supplier Quality, the Supplier shall maintain traceability of all the products described above in Section 1.10.2 (Inspection), along with distribution transformers, reclosers, and solid state or oil filled switches. The traceability data includes material code, description, manufacturer, ship date to PG&E, type of oil (mineral, FR3, silicon), and serial number. This data shall be maintained in an on-line spread sheet that can easily be emailed to PG&E upon request. This data shall be maintained for the duration of the Contract and shall be available for verification and download by PG&E. Records shall be maintained by Supplier for the useful life of the equipment and/or transferred to PG&E at the end of the Contract term if requested.
 - 1.14.2 **Materials for Gas Operations:** Suppliers of steel pressure-bearing components for use in the PG&E gas transmission system must provide PG&E the original material manufacturing record that documents tests, inspections, and attributes required by the manufacturing specification in effect at the time the material component was manufactured. The record must be provided at the time of purchase or delivery, to the Materials Traceability Portal or an agreed upon electronic system. Each component must be marked with an identification number, which correlates the product or delivery unit with the related inspection document. Material component types impacted are all sizes of steel pipes and valves and all other pressure-bearing steel parts greater than 2” nominal outside diameter. More details in PG&E TD-4030B-001 “Records for Materials Traceability.” References: Code of Federal Regulation (CFR) Title 49 Part 192 Sections 192.67 and 192.205. PG&E Supplier Portal: www.pge.com/en/about/doing-business-with-pge/purchase-programs/suppliers.html
Contact SQCSupport@pge.com with questions.
- 1.15 **Control of Sub-tier Suppliers:** If a Supplier chooses to outsource a process or product, the Supplier is responsible for qualification and Surveillance of the sub-Supplier. PG&E reserves the right to review the Supplier’s process for selection, qualification and Surveillance of its sub-Suppliers; to approve or disapprove the sub-Supplier’s qualification; and audit and monitor the sub-Supplier’s processes and facilities when deemed necessary. The Supplier shall perform routine quality audits and inspection of its key sub-Suppliers to ensure oversight, knowledge and control of critical or special processes as well as changes enacted by the sub-Supplier. The Supplier shall conduct requalification to validate any major changes to processes or product provided by the sub-Suppliers, including First Article inspections. Key sub-Suppliers, sub-Supplier processes, or sub-Supplier manufacturing locations or critical components that affect form, fit, or function that are approved as part of the PG&E qualification are considered “frozen” and cannot be changed without resubmittal and approval of the required eSCR documents by PG&E.
- 1.16 **Quality Representation:** Supplier shall maintain at least one quality professional on staff to support duties and tasks as noted in the terms and conditions of this Exhibit. Supplier shall maintain a staff of trained quality inspectors (as required) to ensure consistent and accurate quality inspection of products.
- 1.17 **Supplier Inspection of Parts:** Supplier shall establish a formal inspection process to ensure all required items are appropriately inspected to meet PG&E’s quality requirements. If the product is not a “one-off” or custom product, the Supplier may request a copy of PG&E’s inspection plan for that product (in many cases a plan will exist and will be available to the Supplier). This plan may be used as a starting point to develop an internal inspection plan for the Supplier. PG&E may add or subtract material codes from inspection based on quality concerns and will expect the Supplier to similarly add or subtract products from inspection upon notification. Supplier shall maintain records of inspection and provide the data in a usable format with a minimum of the material code, part description, Supplier name, pass / fail status, quantity and reason for failure if applicable and related rejection report number upon prior agreement with PG&E Supplier Quality.
- 1.18 **Supplier Re-inspection of Rejected Lots at PG&E:** Supplier shall be available to re-inspect 100% of parts or lots rejected by PG&E during the course of inspection at PG&E facilities. This effort shall normally affect large or critical lots and would be conducted when lots are rejected by PG&E based upon a sampling plan rejection. The support would normally be expected to be on site at PG&E at the inspection location. The re-inspection

shall generally be accomplished in not more than 4 business days from notification of the need for 100% inspection. Supplier shall report the inspection results to PG&E Supplier Quality immediately upon completion.

- 1.19 **Reporting Product Failures:** If the Supplier is informed of or finds any internal product quality or usability problem(s) (including but not limited to recurrent product failures, sub-tier Supplier bulletins, and warranty return issues) that may affect products that have been and/or are being sold to PG&E, the Supplier shall inform PG&E through the use of eSCR of the product quality or usability problem(s) within five (5) business days of the discovery. The Supplier shall additionally exercise reasonable efforts, in a timely manner, to work with PG&E to ensure all suspect Goods are removed from PG&E's system at no cost to PG&E.
- 1.20 **Customer Service and Technical Support:** Supplier will provide key contacts representing quality at Supplier's plant(s) and, if applicable, Supplier's corporate headquarters. Technical support from the Supplier plants shall be available to PG&E if needed up to 7 days per week 24 hours a day. During problematic quality or product qualifications, the Supplier's quality organization will lead routine meetings, issue minutes, and maintain plans for qualification and corrective actions.
- 1.21 **Preventive Maintenance:** The Supplier shall identify key process equipment and tooling, develop and document a Preventive Maintenance program. PG&E may verify that such programs are documented and effectively implemented during Supplier audits.
- 1.22 **Metrics:** Supplier will provide to PG&E a "4-Panel" dashboard report format or an equivalent alternative upon request to demonstrate the Supplier's continuous improvement trend over time to reduce material defects. This report will contain trending of total inspection rejects over time, Pareto trending observed condition leading to the rejects, details of number of parts rejected as a function of time and part type, to include Corrective Action Plans and Status. In the case of problematic quality, updates are required semi-monthly. Timely achievement of scorecard requirements will prevent reductions in product allocations.
- 1.23 **Sub-Tier Supplier Metrics:** Supplier shall maintain metrics results from their inspections of each unique Supplier for each lot inspected and shall take corrective action as Supplier's metrics vary from acceptable levels as agreed upon with PG&E Supplier Quality.
- 1.24 **Supplier Response to SCARs (Supplier Corrective Action Response):** Unless otherwise agreed, Supplier shall (i) achieve "containment" of any noted defects within three business days of finding those defects or of being notified of those defects by PG&E; and (ii) provide a corrective action plan to PG&E or plan of corrective action within 10 business days of finding or of being notified of those defects by PG&E.

Addendum to Exhibit SQA

Section No.	Requirement	Required for Manufacturer	Required for Distributor	Required for Distributor's Suppliers ¹
1.4	Supplier Qualification Manual	Yes	Yes	
1.5	Product Ranking	Yes	Yes	
1.6	Quality System Requirements	Yes		Yes
1.7	Inspection	Yes		Yes
1.8	Record Retention	Yes		Yes
1.9	Right of Access	Yes	Yes	
1.10	Product Requiring Source Inspection	Yes		Yes
1.11	Change Management Process	Yes	Yes	
1.12	Changes	Yes		Yes
1.13	Waiver	Yes	Yes	
1.14	Traceability	Yes		Yes
1.15	Control of Sub-tier Suppliers	Yes		Yes
1.16	Quality Representation	Yes		Yes
1.17	Supplier Inspection of Parts	Yes		Yes
1.18	Supplier Re-inspection of Parts	Yes	Yes	
1.19	Reporting Product Failures	Yes	Yes	
1.20	Customer Service and Technical Support	Yes		Yes
1.21	Preventive Maintenance	Yes		Yes
1.22	Metrics	Yes		Yes
1.23	Sub-Tier Supplier Metrics	Yes		Yes
1.24	Supplier Response to SCARs	Yes	Yes	

¹ **“Distributor’s Suppliers”** are defined as Distributor’s tier 1 Manufacturers as well as Material Integrators and their tier 1 Manufacturers.

Any change to the above requirements is not effective unless approved by PG&E’s Director, Supplier Quality Assurance, or his/her authorized representative:

Signature: _____

Date: _____

Name: _____

Title: _____