

# **PG&E Supplier Quality Assurance**

## **Supplier Quality Manual**

**SCM-2100M**

Revision 4

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Conforms to ISO 9001:2015

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# Supplier Quality Manual

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## Supplier Quality Manual

### 1 Welcome to PG&E Supplier Quality Assurance Department

The primary purpose of the PG&E's Supplier Quality Assurance Department (SQA) is to protect the corporation's gas and electric delivery networks from risks caused by defective materials originating in the supply chain that are relevant to SQA's purpose and strategic direction and affect the corporation's ability to achieve the intended results of its operations and the Quality Management System (QMS).

### 2 About The SQA Quality Manual

This manual is prepared for the purpose of defining the department's interpretations of the ISO 9001:2015 international standard, as well as to demonstrate how the department complies with that standard.

The numbering of this document is aligned with ISO 9001:2015 for convenience.

This manual presents "Notes" which are used to define how SQA has tailored its management system to suit its purposes. These are intended to clarify implementation approaches and interpretations for concepts which are not otherwise clearly defined in ISO 9001:2015. *Notes appear in italics with gray background.*

Subordinate or supporting documentation referenced in this manual are indicated by ***bold italics***.

### 3 Terms and Definitions

SQA adopts the following terms and definitions within its Quality Management System. Where no definition is provided, the company typically adopts the definitions provided in ***ISO 9000: Quality Management – Fundamentals and Vocabulary***. In some cases, specific procedures or documentation may provide a different definition to be used in the context of that document. In such cases, the definition will supersede those provided for in this Quality Manual or ISO 9000.

#### General Terminology

**SQA** – PG&E Supplier Quality Assurance

**Document** – Written information used to describe how an activity is done.

**Record** – Captured evidence of an activity having been done.

**LOB** – Internal Line of Business of PG&E operations organizations.

**Interested Parties** - Those stakeholders who receive our Services or who may be impacted by them, or those parties who may otherwise have a significant interest in our company.

#### Risk-Based Thinking Terminology

**Risk** – Negative effect of uncertainty.

**Opportunity** – Positive effect of uncertainty.

**Uncertainty** - A deficiency of information related to understanding or knowledge of an event, its consequence, or likelihood. (Not to be confused with measurement uncertainty.)

**Issues** - An important topic(s) or problem(s) for debate or discussion.

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### Nonconforming Product Terminology

**Rework:** Efforts to bring nonconforming product into conformance through additional operations that *do not* alter the original design of the product.

**Repair:** Efforts to bring nonconforming product into conformance through additional operations that alter the original design of the product. This may be through the addition of material not specified in the original design, or through altering pre-existing design features.

**Scrap:** The discard of nonconforming product in lieu of rework or repair.

## 4 Context of the Organization

### 4.1 Understanding the Organization and Its Context

SQA personnel, with input from our stakeholders, review and analyze key aspects of the quality program at PG&E to ensure the department is aligned with the strategic direction of the company. This requires understanding internal and external issues that are of concern to SQA and its “interested parties”.

The gaps found during these evaluations are documented, discussed in “Context of the Organization” reviews and during management reviews, where they are monitored and appropriately addressed.

### 4.2 Understanding the Needs and Expectations of Interested Parties

The needs and expectations of interested parties are monitored using surveys, and general feedback from clients. This information is then used by SQA leadership to determine the department’s strategic direction and tactical plans. This is defined in records of management review, and periodically updated as conditions and situations change.

Analysis and documentation are maintained in the *QMS SharePoint “ISO9001:2015 Context of the Organization” directory*.

### 4.3 Scope of the Quality Management System

Based on an analysis of the above issues of concern, interests of stakeholders, and in consideration of its products and services, SQA has determined the scope of the management system as follows:

*Provision of professional supplier quality assurance services, including the assessment, management and development of suppliers, through the deployment of a robust supplier quality assurance program, that quantitatively measures supplier performance and actively drives improvement. Specific services include supplier audit, quality engineering, receiving / source inspection, data analysis and monitoring.*

The quality system applies to all SQA-related processes, activities, and employees of the following (5) locations within the company:

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General Office 300 Lakeside Dr Oakland, CA 94612	Stockton SQA Office 3631 Boeing Way Stockton CA 95206
Fremont Distribution Center 42105 Boyce Road Fremont, CA 94538	Fresno Distribution Center 2221 South Orange Avenue Fresno, CA 03725
Marysville Distribution Center 3736 Rancho Road Wheatland, CA 95692	Port of Stockton (Inspection Location) 810 Gilmore Ave. Stockton, CA 95204
Stockton Distribution Center 4101 S. Airport Way Stockton, CA 95206	

### 4.3.1 Exclusions

This quality manual was drafted to be applicable to the functions and responsibilities of the SQA organization at PG&E. For this reason, there are requirements of ISO 9001:2015 that do not apply and are excluded from the scope of this document. These exclusions are listed in Appendix 2.

## 4.4 Quality Management System and Its Processes

### 4.4.1 Process Identification

SQA has adopted a process approach for its management system. By identifying the top-level processes within the company, and then managing each of these discretely, this reduces the potential for nonconforming products discovered during final processes or after delivery. Instead, nonconformities and risks are identified in real time, by actions taken within each of the top-level processes.

*Note: not all activities are considered “processes” – the term “process” in this context indicates the activity has been elevated to a higher level of control and management oversight. The controls indicated herein are applicable only to the top-level processes identified.*

The QMS contains the controls necessary for qualified personnel to perform supplier related quality assurance activities within the functional responsibility of the PG&E SQA organization. Activities affecting quality are achieved under controlled conditions in an appropriate environment and takes into account the need for procedures, instructions, measurement and testing and skills necessary to achieve the required quality objectives.

The QMS is documented and has been implemented in accordance with the requirements of ISO 9001:2015. The QMS is maintained and continually improved through the application of the quality policy, quality objectives, audit results, analysis of data, corrective action and management review.

Quality System procedures, work instructions and checklists have been extensively developed to provide our employees and external service providers with detailed “**How To**” instructions and requirements. The documents support the achievement of quality compliance for each of the process steps. We retain records which provide documented information substantiating the activities that have been accomplished as planned.

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Each process may be supported by other activities, such as tasks or sub-processes. Monitoring and control of top level processes ensures effective implementation and control of all subordinate tasks or sub-processes.

Each top-level process has a **Standard or Procedure** document which defines (as applicable):

- applicable inputs and outputs
- process owner(s)
- applicable responsibilities and authorities
- critical and supporting resources
- criteria and methods employed to ensure the effectiveness of the process

The requirements of internal PG&E customers are expressed in engineering and purchasing documents and define customer input requirements for SQA actions. Systematic supplier and product evaluations, supplier performance tracking and communication to drive both SQA and supplier performance improvement are key to assuring customer satisfaction. Performance measurement systems create the input for SQA management action and planning. Figure 1 illustrates the interaction of SQA processes. Customer satisfaction is the goal of the SQA process cycle. The concept of continual improvement is fundamental to all SQA processes and activities.

### 4.4.2 Process Controls & Objectives

Where relevant, each process has at least one objective established for it; this is a statement of the intent of the process. Each objective is then supported by at least one “metric” or key performance indicator (KPI) which is then measured to determine the process’ ability to meet the quality objective.

*Note: some processes have multiple objectives and multiple metrics. This is determined by the nature of the process, its impact on Products or Services and associated risks.*

*Note: Whereas ISO 9001 discusses process measurements and “quality objectives” as separate concepts, SQA combines them, i.e., quality objectives are used to control the processes. Additional objectives for Products or Services may be assigned, but these will also be used to measure process effectiveness.*

Throughout the year, metrics data is measured and gathered by process owners or other assigned managers to present the data to SQA Management. The data is then analyzed by SQA Management to set goals and adjust for the purposes of long-term continual improvement.

Metrics, along with current standings and goals for each objective, are recorded in management review.

When a process does not meet a goal, or an unexpected problem is encountered with a process, corrective action is implemented to research and resolve the issue. In addition, opportunities for improvement are sought and implemented for the identified processes.

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### 5 Leadership

#### 5.1 Leadership & Commitment

##### 5.1.1 General

SQA management and Sourcing Executive Management as defined in organization charts are responsible for establishing, implementing, and improving the QMS. This is demonstrated through the Quality Policy and quality objectives including supplier performance requirements; communicating the importance of meeting customer requirements and quality objectives; conducting management reviews; ensuring availability of resources; promoting the use of the process approach and risk-based thinking; and driving continual improvement.

Evidence of its leadership and commitment to the development and implementation of the management system and continually improving its effectiveness is demonstrated by:

- a) taking accountability of the effectiveness of the management system;
- b) ensuring that the Quality Policy and quality objectives are established for the management system and are compatible with the strategic direction and the context of the organization;
- c) ensuring the integration of the management system requirements into the organization's other business processes, as deemed appropriate (see note);
- d) promoting awareness of the process approach;
- e) ensuring that the resources needed for the management system are available;
- f) communicating the importance of effective quality management and of conforming to the management system requirements;
- g) ensuring that the management system achieves its intended results;
- h) engaging, directing and supporting persons to contribute to the effectiveness of the management system;
- i) promoting continual improvement;
- j) supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

*Note: "business processes" such as accounting, employee benefits management and legal activities are out of scope of the QMS as they are governed by other methods.*

##### 5.1.2 Customer focus

SQA Customers are made up of functional organizations at PG&E. SQA management ensures that customer, applicable statutory and regulatory requirements, and expectations are determined and met with the aim of enhancing customer satisfaction and continual improvement. Customer satisfaction metrics are established based on communication and surveys.

SQA Management adopts a customer-first approach which ensures that customer needs and expectations are determined, converted into requirements and are met with the aim of enhancing customer satisfaction.



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This is accomplished by assuring:

- a) customer and applicable statutory and regulatory requirements are determined, understood and consistently met;
- b) the risks and opportunities that can affect conformity of products and services and the ability to enhance customer satisfaction are determined and addressed;
- c) the focus on enhancing customer satisfaction is maintained.

### 5.2 Policy

SQA Management has developed the following Quality Policy governing day-to-day operations to ensure quality. The Quality Policy is released as a standalone document as well, and is communicated and implemented throughout the organization.

The Quality Policy of SQA is as follows:

SQA ensures its supplier quality assurance program actively measures supplier performance and continually drives improvement in compliance with applicable requirements. Through these efforts we continually improve the effectiveness of PG&E suppliers and our Quality Management System to assure delivery of safe, reliable, and affordable products that meet or exceed our needs and expectations.

### 5.3 Organizational Roles Responsibilities and Authorities

The SQA organization is comprised of a Director, Supplier Quality Assurance and supporting staff, as defined in the organization charts. The Director, Supplier Quality Assurance, reports to the Vice President of Supply Chain. SQA is organized along four organizational lines; Electric Supplier Quality Engineering; Gas Supplier Quality Engineering; Receiving and Source Inspection; and Risk, Compliance, Audit and Analytics.

Supplier quality personnel with defined responsibilities in the quality management system have the authority to perform the following within their "Area of Responsibility:" In this capacity they:

1. Initiate corrective and preventive action.
2. Identify and record problems.
3. Initiate, recommend or provide solutions to quality issues.
4. Verify implementation of the solutions.
5. Control processing of nonconforming conditions until corrected.

It is the responsibility of management to ensure that SQA personnel are trained to understand and implement the requirements necessary to perform their assignments.

SQA Management has assigned responsibilities and authorities for all relevant roles in the company.

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Overall QMS responsibilities and authorities are assigned as follows:

<b>Responsibility</b>	<b>Assigned To</b>
Ensuring that the management system conforms to applicable standards	SQA Management
Ensuring that the processes are delivering their intended outputs	Applicable process owner as listed in the Master Document List.
Reporting on the performance of the management system and providing opportunities for improvement for the management system	Manager, Process, Audit and Analytics
Ensuring the promotion of customer focus throughout the organization	SQA Management
Ensuring that the integrity of the management system is maintained when changes are planned and implemented	SQA Management

The QMS Program Manager has been assigned as the single point of contact to represent the SQA quality system when required. Other duties of the may be defined herein or within other documented procedures.

## 6 Planning

### 6.1 Actions to Address Risks and Opportunities

*Note: SQA deviates slightly from the approach towards risk and opportunity presented in ISO 9001. Instead, SQA views “uncertainty” as neutral, but defines “risk” as a negative effect of uncertainty, and “opportunity” as a positive effect of uncertainty. SQA has elected to manage risks and opportunities separately, except where they may overlap. Formal risk management may not be utilized in all instances; instead, the level of risk assessment, analysis, treatment and recordkeeping will be performed to the level deemed appropriate for each circumstance or application.*

SQA considers risks and opportunities when taking actions within the management system, as well as when implementing or improving the management system; changes are considered relative to products and services. Risks and opportunities are identified as part of a periodic context of the organization analysis in preparation for management review as well as throughout all other activities of the QMS.

Risks and opportunities are managed so that risks are minimized in order to minimize their likelihood and impact, and opportunities are managed to improve their likelihood and benefit.

### 6.2 Quality Objectives and Planning to Achieve Them

As part of the adoption of the process approach, SQA utilizes its process objectives, as discussed in 4.4 above, as the main quality objectives for the QMS. These include overall product-related quality objectives; additional product-related quality objectives may be defined in work instructions or customer requirements.

1. The process objectives have been developed in consideration that they:
  - a) be consistent with the quality policy;
  - b) be measurable;

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- c) take into account applicable requirements;
  - d) be relevant to conformity of products and services and to enhancement of customer satisfaction;
  - e) be monitored;
  - f) be communicated;
  - g) be updated as appropriate.

Process quality objectives are defined in the minutes of management review per section 9.3 below.

- 2. The planning of process quality objectives is defined in section 4.4, above. When planning SQA determines:
  - a) what will be done;
  - b) what resources will be required;
  - c) who will be responsible;
  - d) when it will be completed;
  - e) how the results will be evaluated.

### 6.3 Planning of Changes

When changes to the quality management system and its processes are needed they are carried out in a planned manner that considers the purpose of changes and potential consequences; the effect on the QMS; impact on resources and organizational control.

## 7 Support

### 7.1 Resources

#### 7.1.1 General

SQA determines and provides the resources needed:

- f) to implement and maintain the management system and continually improve its effectiveness
- g) to enhance customer satisfaction by meeting customer requirements

Resource allocation is done with consideration of the capability and constraints on existing internal resources, as well as needs related to supplier expectations.

Resources and resource allocation are assessed during management reviews or at other times as appropriate.

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### 7.1.2 People

Senior management ensures that it provides sufficient staffing for the effective operation of the management system, as well its identified processes.

### 7.1.3 Infrastructure

SQA determines, provides and maintains the infrastructure needed to achieve conformity to product requirements. Infrastructure includes, as applicable:

- a) buildings, workspace and associated facilities;
- b) process equipment, hardware and software;
- c) supporting services such as transport;
- d) information and communication technology.

### 7.1.4 Environment for the Operation of Processes

SQA provides a sheltered, clean, safe and well-lit working environment. SQA manages the work environment needed to achieve conformity to product requirements. Specific environmental requirements for products are determined during quality planning and are documented in subordinate procedures, work instructions, or job documentation. Where special work environments have been implemented, these shall also be maintained per 6.3 above.

Human factors are considered to the extent that they directly impact on the quality of inspection and engineering activities.

*Note: Social, psychological and safety aspects of the work environment are managed through activities outside of the scope of the management system. Only work environment aspects which can directly affect process efficiency or product and service quality are managed through the management system.*

### 7.1.5 Monitoring and Measuring Resources

Where equipment is used for critical measurement activities, such as inspection and testing, these are subject to control and either calibration or verification; see **SCM-2102S, Calibration Standard**.

*Note: Calibration and measurement traceability is not employed for all measurement devices. Instead, SQA determines which devices will be subject to calibration based on its processes, products and services, or in order to comply with specifications or requirements. These decisions are also based on the importance of a measurement, and considerations of risk.*

### 7.1.6 Organizational Knowledge

SQA also determines the knowledge necessary for the operation of its processes and to achieve conformity of products and services. This may include knowledge and information obtained from:

- a) internal sources, such as lessons learned, feedback from subject matter experts, and/or intellectual property;
- b) external sources such as standards, academia, conferences, and/or information gathered from customers or suppliers.

This knowledge shall be maintained, and made available to the extent necessary.

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When addressing changing needs and trends, SQA shall consider its current knowledge and determine how to acquire or access the necessary additional knowledge.

### 7.2 Competence

Staff members performing work affecting product quality are competent on the basis of appropriate education, training, skills and experience. The documented Standard **SCM-2103S, Training for QMS** defines these activities in detail.

*Note: the management system does not include other aspects of Human Resources management, such as payroll, benefits, insurance, labor relations or disciplinary actions.*

### 7.3 Awareness

Training and subsequent communication ensures that staff is aware of:

- a) the quality policy;
- b) relevant quality objectives;
- c) their contribution to the effectiveness of the management system, including the benefits of improved performance;
- d) the implications of not conforming with the management system requirements.

### 7.4 Communication

SQA Management ensures internal communication takes place regarding the effectiveness of the management system. Internal communication methods include:

- a) use of corrective and preventive action processes to report nonconformities or suggestions for improvement
- b) use of the results of analysis of data
- c) meetings (periodic, scheduled and/or unscheduled) to discuss aspects of the QMS
- d) use of the results of the internal audit process
- e) regular company meetings with all employees
- f) internal emails
- g) SQA's "open door" policy which allows any employee access to SQA Management for discussions on improving the quality system

### 7.5 Documented Information

#### 7.5.1 General

The management system documentation includes both documents and records.

*Note: the ISO 9001:2015 standard uses the term "documented information"; SQA does not use this term, but instead relies on the terms "document" and "record" to avoid confusion. In this context the terms are defined by SQA as provided for in section 3.0 above. Documents and records undergo different controls as defined herein.*

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The QMS contains the controls necessary for qualified personnel to perform supplier related quality assurance activities within the functional responsibility of the PG&E SQA organization. Activities affecting quality are achieved under controlled conditions in an appropriate environment and takes into account the need for procedures, instructions, measurement and testing and skills necessary to achieve the required quality objectives.

The extent of the management system documentation has been developed based on the following:

- a) The size of SQA
- b) Complexity and interaction of the processes
- c) Risks and opportunities
- d) Competence of personnel

Documents required for the management system are controlled in accordance with **SCM-2110P-01, Document Control Procedure**.

The purpose of document control is to ensure that staff has access to the latest, approved information, and to restrict the use of obsolete information. All documented procedures are established, documented, implemented and maintained.

**GOV-7101S, Records Management Standard**, has been established to define the controls needed for the identification, storage, retrieval, protection, retention time, and disposition of quality records.

These controls are applicable to those records which provide evidence of conformance to requirements; this may be evidence of Product or Service requirements, contractual requirements, procedural requirements, or statutory/regulatory compliance. In addition, quality records include any records which provide evidence of the effective operation of the management system.

### 7.5.2 Creating and Updating

The different types of documents that establish the QMS are organized in the hierarchy illustrated in Figure 1.

#### 7.5.2.1 Document Types in PG&E's System:

Level 1, PG&E policies: High-level, strategic direction or expectation from senior leadership about a significant subject or function, usually to help ensure strategic alignment across the enterprise when the topic relates to more than one line of business.

In addition, this manual serves as a level 1 document for SQA specifically, though it is not a corporate policy document.

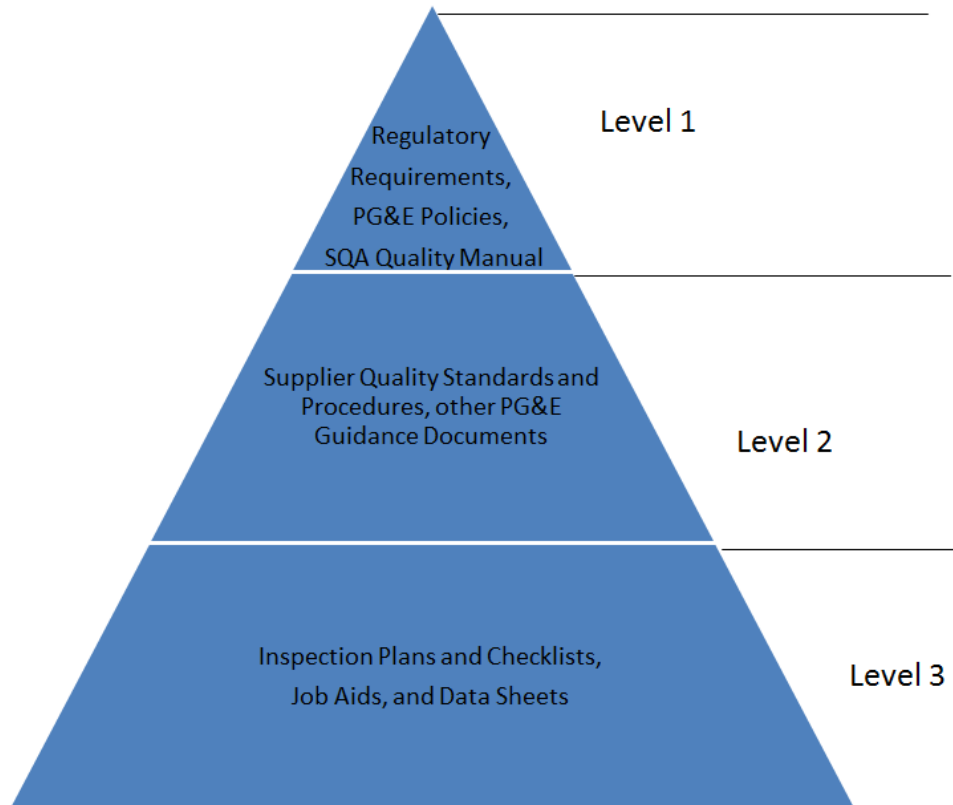
Level 2, Standards (PGE equivalent of procedure level documents),:  
Requirements, roles, and responsibilities for a work process or program ("what" must be done).

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Level 3 Procedures Job Aids or Work Instructions: Step-by-step instruction to perform tasks (“how” to do the work).

*Note: Level 1 documents typically set fundamental requirements that must be met by the Level 2 and 3 procedures, standards and Job Aids employed by SQA.*

Figure 1, PG&E Document Hierarchy



### 7.5.2.2 Quality Manual

SQA Activities are documented in accordance with written procedures and instructions to ensure that they are satisfactorily accomplished. Responsibilities and authorities are assigned within the organization for planning and implementing work activities. Any changes to the Quality Manual are prepared by the Program Manager, ISO9001 and reviewed and approved by the Director of SQA or their designees.

The QMS is defined by the following documents:

SCM-2100M, Supplier Quality Manual (this document).

PG&E governance policies, procedures, guidelines, and work instructions where applicable, augment the documents employed by SQA to comply with the requirements of this Manual.

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Categories of documents in the PG&E system employed by SQA include the Supply Chain Management (SCM-2100 series) standards and procedures, which describe supplier quality assurance and product acceptance activities. These documents describe the processes managed by SQA, roles and responsibilities of those performing the work, and control requirements.

### 7.5.3 Control of Documented Information

#### 7.5.3.1 Documents

SQA documents are kept in the Corporate Guidance Document Library (GDL) while related Engineering documents are kept in the Technical Information Library (TIL); both libraries are accessible on the PG&E intranet. Document control requirements for SQA are defined by GOV-2001S, PG&E Guidance Document Standard and are supplemented by SQA's SCM-2110P-01, Document Control Procedure. These procedures define controls to:

- a) Prepare, review, approve for adequacy prior to use;
- b) Review, revise documents;
- c) Release and distribute applicable documents so they are available at the point of use;
- d) Ensure that changes are identified;
- e) Ensure that revision status is clearly identified;
- f) Ensure that documents remain legible, readily identifiable and retrievable;
- g) Ensure protection of proprietary information;
- h) Ensure that documents of external origin determined as necessary for planning and operation of the quality management system are identified and distribution controlled;
- i) Prevent the unintended use of obsolete documents to perform quality activities and to apply suitable identification to them if they are retained for any purpose;

Note that all printed QMS documents that are printed are considered uncontrolled, for reference use only. In some circumstances printed documents, verified as current by comparison with the document control system employed (GDL for example) may be used where allowed by local standard or procedure.

#### 7.5.3.2 Quality Records



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Quality records are completed documents or electronic systems records that furnish evidence of the quality of items, services, or activities affecting quality and compliance with this Quality Manual as defined by GOV-7101S, Records Management Standard. Specific measures are established and described in SQA standards and procedures to control records. Quality records may also include articles such as materials or test specimens when required.

A Record Retention Schedule is maintained in the QMS SharePoint site as a controlled document; it defines:

- a) Record Categories for organization e.g. Electronic vs Paper
- b) Record Description
- c) Storage locations
- d) Destruction Method
- e) Retention Period
- f) Record Owner

Documents are considered valid records when they are validated by stamp, initialed or signed, and dated by authorized personnel. A handwritten signature may not be needed however if a document is authenticated by the originating organization using an approved method such as an electronic signature, attached email specifically indicating approval or within an electronic system.

Retention requirements for quality records at suppliers and supplier related quality records at PG&E are established by SQA based on applicable industry standards. Record requirements for suppliers of items and services are specified in procurement documents.

Legible, identifiable, and retrievable records are retained to provide evidence that requirements have been fulfilled. These records include (but are not limited to):

- a) Supplier qualification records
- b) Supplier manufacturing and inspection records (i.e. Material Test Reports, Certificates of Conformance, etc.)
- c) Surveillance, receipt and source inspection/test records
- d) Quality audit and assessment records
- e) Equipment calibration records
- f) Personnel training and awareness records
- g) Product and process qualification records

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- h) Non-conformance and corrective action records
- i) Software used to establish product acceptability

## 8 Operation

### 8.1 Operational Planning and Control

SQA plans and develops the processes needed for realization of its Services. Planning of Service realization is consistent with the requirements of the other processes of the management system. Such planning considers the information related to the context of the organization (see section 4.0 above), current resources and capabilities, as well as Service requirements.

Such planning is accomplished through:

- a) determining the requirements for the Products or Services;
- b) establishing criteria for the processes and the acceptance of Products or Services;
- c) determining the resources needed to achieve conformity to the Products requirements;
- d) implementing control of the processes in accordance with the criteria;
- e) determining, maintaining and retaining documented information to the extent necessary to have confidence that the processes have been carried out as planned and to demonstrate the conformity of Products or Services to their requirements.

### 8.2 Requirements for Products and Services

*Note: 8.2 has been excluded with the exception of 8.2.1 below (see Appendix 2)*

#### 8.2.1 Customer Communication

SQA has implemented effective communication with customers in relation to:

- a) N/A (providing information relating to products and services);
- b) handling enquiries, contracts or orders, including changes);
- c) obtaining customer feedback relating to products and services, including customer complaints;
- d) N/A (handling or controlling customer property, is not performed)
- e) establishing specific requirements for contingency actions, when relevant.

### 8.3 Design and Development of Products and Services

*Note: 8.3 has been excluded with the exception of 8.3.4 d, e & f below (see Appendix 2)*

#### 8.3.1 Design and development controls

The organization shall apply controls to the design and development process to ensure that:

- d) validation activities are conducted to ensure that the resulting products and services

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meet the requirements for the specified application or intended use;

- e) any necessary actions are taken on problems determined during the reviews, or verification and validation activities;
- f) documented information of these activities is retained.

### 8.4 Control of Externally Provided Processes, Products and Services

Any process performed by a third party is considered an “outsourced process” and must be controlled. The company’s outsourced processes suppliers are managed as suppliers to PG&E, as are other suppliers covered by the SQA system, with the exception of most services suppliers.

The type and extent of control to be applied to the outsourced process take into consideration:

- a) the potential impact of the outsourced process on the company’s capability to provide product that conforms to requirements,
- b) the degree to which the control for the process is shared,
- c) the capability of achieving the necessary control through the purchasing contract requirements.

SQA ensures that purchased Product conforms to specified purchase requirements. The type and extent of control applied to the supplier and the purchased products or services are dependent on the effect on subsequent Product realization or the final product.

SQA evaluates and selects suppliers based on their ability to supply products and services in accordance with the organization's requirements. Criteria for selection, evaluation and re-evaluation are established. These suppliers are identified by manufacturing site and managed in the departments Qualified Supplier List system in SAP as the system of record.

Purchases are made via the release of formal purchase orders and/or contracts which clearly describe what is being purchased. Received products or services are then verified against requirements to ensure satisfaction of requirements. Suppliers who do not provide conforming products may be requested to conduct formal corrective action.

These activities are further defined in the documents: **SCM-2105S, Supplier Risk Management and Qualification Standard** and **SCM-2101S, Material Inspection Standard**.

#### 8.4.1 Supplier Changes

SQA maintains an electronic Supplier Change Request (eSCR) system for coded materials (standard materials with a PG&E part number). The process starts with a supplier initiating an eSCR in PG&E’s Supplier Portal for review and approval by Subject Matter Experts in responsible organizations. Results are communicated back to suppliers.

**These activities are further defined in: SCM-2105P-05P, Supplier Change Request Procedure.**

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### 8.5 Production and Service Provision

#### 8.5.1 Control of Production and Service Provision

To control its provision of Products and Services, SQA considers the following, as applicable:

- a) the availability of documents or records that define the characteristics of the Products as well as the results to be achieved;
- b) the availability and use of suitable monitoring and measuring resources;
- c) the implementation of monitoring and measurement activities;
- d) the use of suitable infrastructure and environment;
- e) the appointment of competent persons, including any required qualifications;
- f) N/A, See exclusions below;
- g) the implementation of actions to prevent human error;
- h) the implementation of release, delivery and post-delivery activities.

At this time, SQA does not utilize any in-house “special processes” where the result of the process cannot be verified by subsequent monitoring or measurement. Any such special processes are sent to outside suppliers, and controlled as an outsourced process per 4.4.3 above.

#### 8.5.2 Identification and Traceability

Where appropriate, SQA identifies its Product or other critical process outputs by suitable means. Such identification includes the status of the Product with respect to monitoring and measurement requirements. Unless otherwise indicated as nonconforming, pending inspection or disposition, or some other similar identifier, all Product or Service shall be considered conforming and suitable for use.

SQA supports the traceability of steel gas components to material certifications outside the scope of this QMS.

*Note: 8.5.3. has been excluded (see Appendix 2)*

#### 8.5.3 Preservation

SQA preserves conformity of product or other process outputs during internal processing and delivery. This preservation includes identification, handling, packaging, storage, and protection. Preservation also applies to the constituent parts of a product.

*Note: 8.5.5 has been excluded (see Appendix 2)*

#### 8.5.4 Control of Changes

SQA reviews and controls both planned and unplanned changes to processes to the extent necessary to ensure continuing conformity with all requirements.

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Document change management is defined in **SCM-2110P-01, Document Control Procedure**.

Supplier changes, requests for concessions and other communications are handled through **SCM-2105P-05, Supplier Change Request Procedure**.

### 8.6 Release of Products and Services

Acceptance criteria for Products are defined in appropriate subordinate documentation. Reviews, inspections and tests are conducted at appropriate stages to verify that the requirements have been met. Where designated, this is done before products are released for shipment or accepted at receiving inspection locations.

Acceptance activities are defined by **SCM-2101S, Material Inspection Standard** and are supported by specific checklist and work instructions.

### 8.7 Control of Nonconforming Outputs

SQA ensures that Products or other process outputs that do not conform to their requirements are identified and controlled to prevent their unintended use or delivery.

The controls for such nonconformance are defined in **SCM-2106S Material Problem Reporting Standard** and **SCM-2101S, Material Inspection Standard**.

## 9 Performance Evaluation

### 9.1 Monitoring, Measurement, Analysis and Evaluation

#### 9.1.1 General

SQA has determined aspects of its quality management system must be monitored and measured, as part of its "Context of the Organization", objectives and goal definition process. Methods have been established maintain these processes that are defined, within this **Supplier Quality Manual** and subordinate documentation.

Monitoring and measurement of the processes, as defined in 4.4 above, ensure that the SQA Management evaluates the performance and effectiveness of the quality management system itself.

#### 9.1.2 Customer Satisfaction

As one of the measurements of the performance of the management system, SQA monitors information relating to customer perception as to whether the organization has met customer requirements through annual client satisfaction surveys.

The corrective action system and independent methods are used to develop and implement plans for customer satisfaction improvement that address deficiencies identified and assess the effectiveness of the results.

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### 9.1.3 Analysis and Evaluation

SQA analyzes and evaluates the data and information arising from monitoring and measurement in order to evaluate:

- a) conformity of Products;
- b) the degree of customer satisfaction;
- c) the performance and effectiveness of the quality management system;
- d) if planning has been implemented effectively;
- e) the effectiveness of actions taken to address risks and opportunities;
- f) the performance of external providers;
- g) the need for improvements to the quality management system.

Statistical techniques used may be defined in appropriate documented procedures; in all cases, the methods are based on established standards or are otherwise determined to be statistically valid.

### 9.2 Internal Audit

SQA conducts internal audits at planned intervals to determine whether the management system conforms to contractual and regulatory requirements, to the requirements of ISO 9001, and to management system requirements. Audits also seek to ensure that the management system has been effectively implemented and is maintained.

These activities are defined in the document **SCM-2104S, Internal Audit Standard For SQA**

### 9.3 Management Review

The SQA Management reviews the management system, at least twice annually, to ensure its continuing suitability, adequacy and effectiveness. The review includes assessing opportunities for improvement, and the need for changes to the management system, including the Context of the organization analysis (once annually), *Quality Policy* and quality objectives.

An agenda is developed considering each of the required inputs. Meeting minutes document outputs, attendees, actions taken and other output requirements.

Attendees are made up of The SQA Director, SQA Managers and QMS Staff. There must be a quorum of the SQA Director, Supplier Audit and QMS Manager and two of the three other managers to be present for a management review meeting.

Records from management reviews are maintained.

## 10 Improvement

### 10.1 General

SQA uses the management system to improve its processes, products and services. Such improvements aim to address the needs and expectations of customers as well as other interested parties, to the extent possible.

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Improvement shall be driven by an analysis of data related to:

The results of analysis shall be used to evaluate:

- a) conformity of products and services;
- b) the degree of customer satisfaction;
- c) the performance and effectiveness of the management system;
- d) the effectiveness of planning;
- e) the effectiveness of actions taken to address risks and opportunities;
- f) the performance of external providers;
- g) other improvements to the management system.

### 10.2 Nonconformity and Corrective Action

SQA takes corrective action to eliminate the cause of nonconformity in order to prevent recurrence both internally and with suppliers. Likewise, the company takes action to eliminate the causes of potential nonconformities in order to prevent their occurrence.

These activities are done through the use of the formal Corrective Action system, as defined by **GOV-6101S, Enterprise Corrective Action Program Standard** and **SCM-2106P-02, Supplier Corrective Action Request and Failure Analysis Procedure**.

### 10.3 Continual Improvement

Through the reviews done as part of Management Review, SQA works to continually improve the suitability, adequacy and effectiveness of the quality management system. This includes seeking opportunities for improvement.

## 11 Revision Notes

Where?	What Changed?
N/A	Rev 0 (04/28/2014) – New Document
ISO 9001 References	Rev 1 (11/04/2015) – Document originally written to respond to ISO9001 requirements, rewritten to comply with ISO9001:2008 in preparation for registration of the quality management system. Subsequently updated prerelease in response to LRQA Pre-assessment comments.
Section 5 (Quality Policy)	Rev 2 (01/14/2016) – Edited the quality policy to reflect compliance with requirements, not just with ISO9001 requirements, per ISO 9001:2008 5.3.b.
Entire Documents	Rev 3 (11/03/2017) – Renumbered and upgraded to comply with ISO9001:2015: Added sections relating to context of the organization, and new aspects introduced by ISO9001:2015, revised Appendix A, Process Sequences and Interaction. Document also retitled.

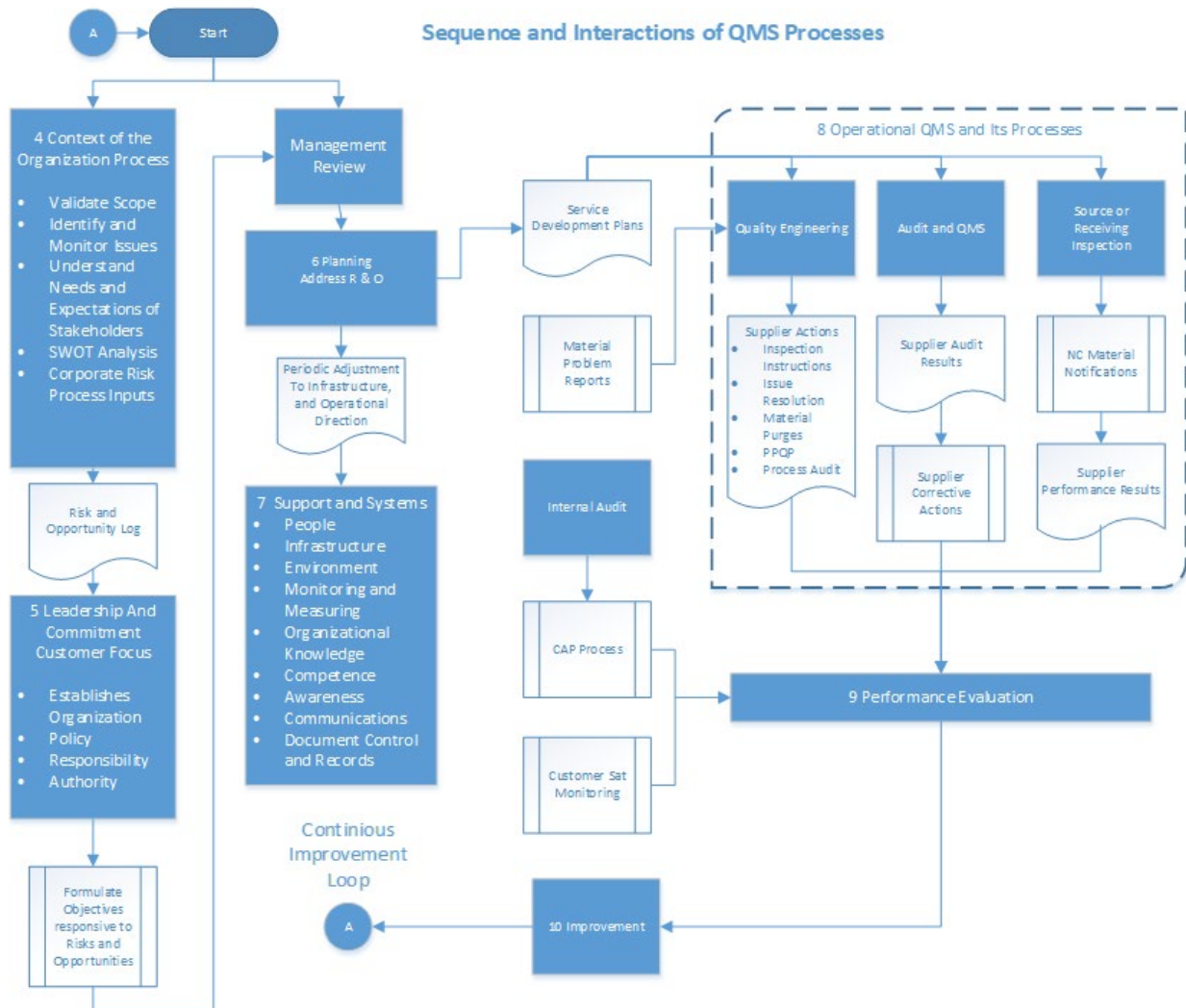
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Where?	What Changed?
Entire Document	Rev 4 (11/20/2023) - 5 year update of details in the manual. Updated the locations of Oakland General Office, San Ramon and offices and inspection sites in Stockton. Added section 8.4.1 Supplier Changes referring to the eSCR process Updated the quality policy. Removed reference to SCM-2108S Corrective Action Standard for SQA



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**Appendix 1: Overall Process Sequence & Interaction**



*Note: Appendix A represents the typical sequence of processes and may be altered depending on customer or regulatory requirements at the job or contract level, as needed.*

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### Appendix 2: Exclusions to ISO 9001:2015 (Out of Scope of SQA)

1. ISO9001:2015 Section 8.2 Requirements for products and services except for 8.2.1 b, c & e which are performed by SQA. The balance of section 8.2 requirements are performed by PG&E Engineering who are out of scope of this registration.
2. ISO9001:2015 Section 8.3 Design and Development Supplier Quality Assurance is not engaged in design related activities. Product design and specification requirements are determined by internal PG&E customers and PG&E Engineering who are out of scope of this registration.
3. ISO9001:2015 Section 8.5.1 f does not apply, regarding validation of products with associated special processes. Suppliers who provide such material are required to validate and verify these processes. If such capability is needed the organization relies upon qualified outside resources to provide support.
4. ISO9001:2015 Section 8.5.3, Property Belonging to Customers or External Providers. Subject material is property of PG&E, or supplier property under the control of PG&E non-conforming material control processes.
5. ISO9001:2015 Section 8.5.5, Post-Delivery Activities, PG&E is an end user and not subject to post-delivery requirements or other activities that a manufacturer or service provided would typically provide.