



**Pacific Gas & Electric Company**

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## **Gas Transmission & Distribution**

### **Gas Standards Document Review & Update Program**

#### **Business Requirements**

**Version 1.1**

**Date: 5/19/2009**

## Document Control

### Document Responsibility

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### Change History

This section details the changes this document has undergone once it has been base lined.

Version No.	Details of Change	Changed Sections	Prepared by	Date
1.1	Added Late Notice for Update	3.1, 4.6	[REDACTED]	5/19/2009

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# 1 Introduction

## 1.1 Target Audience

This document is intended for the following audience:

- ⊕ Project Stakeholders – as a basis for funding approval
- ⊕ Project Team Members – as a basis for the shared understanding of the project
- ⊕ Related Project Team Members – as a communication mechanism to coordinate with other projects
- ⊕ IT Sourcing Group – as a checklist of functions needed from vendors
- ⊕ IT – as a baseline for the design of system functions
- ⊕ PMO Group – as a basis for assessing risks
- ⊕ Quality Assurance – as the scope and requirements for testing activities
- ⊕ Business Support Staff – as a baseline for future system changes

## 1.2 Document Purpose

The reasons for creating this document include:

- ⊕ **Establishing the Basis for Agreement.** Requirements define a shared vision among the stakeholders (SHs), subject matter experts (SMEs) and other project participants about what the application must do to support the business processes.
- ⊕ **Evaluating Software Solutions and Vendors.** Requirements define the standard that will be used to evaluate software solutions and vendors.
- ⊕ **Reducing the Overall Development Effort.** Requirements preparation forces various concerned groups in the business area to rigorously consider all of the requirements before vendor selection begins, thus reducing later re-work and re-negotiation to correct misunderstandings. Careful review of the requirements can reveal omissions, misunderstandings, and inconsistencies early in the process when the problems are easier to correct.
- ⊕ **Providing a Basis for Estimating Costs and Schedules.** The description of the system to be developed as given in the requirements specification is a realistic basis for estimating project costs.
- ⊕ **Providing a Baseline for Validation and Verification.** Organizations can develop their validation and verification plans much more productively from a good requirements specification. As part of the development contract, the requirements specification provides a baseline against which compliance can be measured.
- ⊕ **Facilitating Transfer.** The requirements definition makes it easier to transfer the software system to new business areas or new machines.
- ⊕ **Serving as a Basis for Enhancement.** Because the requirements definition discusses the product, it serves as a basis for later enhancement of the



finished product. The requirements specification may need to be altered, but it does provide a foundation for continued production evaluation.

## 2 Project Overview

### 2.1 Background

In 1995, The Department of Transportation issued a final rule requiring gas utilities to develop and maintain gas maintenance and operations plans. In 2008, the CPUC indicated that it needed to have better documentation of how PG&E's gas maintenance & operations plans were being reviewed and updated to comply with the regulation.

Subsequently, the Company issued WP 4000-02 entitled Procedures for Reviewing and Updating Gas Manuals Subject to 49 CFR Part 192, Sections 603 and 605 in September 2008. This work procedure provides the steps that PG&E follows to review and update its applicable gas maintenance, operations, and emergency response manuals to ensure compliance with Code of Federal Regulations (CFR) Title 49, Part 192, "Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards, Sections 603, "General provisions," and 605, "Procedural manual for operations, maintenance, and emergencies." These federal regulations require that documents that cover gas maintenance, normal operations, emergency response, and abnormal operations (for transmission lines) must be reviewed and updated as necessary at intervals of at least once each calendar year, but not exceeding 15 months, to the date.

In the most recent audit, completed on March 5, 2009, the CPUC auditors indicated that the Company needs to track the review of each document in these plans, the result of the review, and the update of that document. Each document in the manual(s) need to be reviewed once each calendar year, not to exceed 15 months, to the date.

### 2.2 Objectives

The following objectives were defined to address the problems and opportunities identified in planning:

- ⊕ Minimize or eliminate the possibility of being sanctioned or fined for non-compliance.
- ⊕ Coordinated management of compliance activities across the Gas T&D organization
- ⊕ Produce a set of metrics and reports that will allow management to actively monitor the performance of compliance process and take corrective actions if necessary.

- ⊕ Improve the accuracy and quality of compliance reporting.

## **2.3 Scope**

### **Locations**

#### In Scope:

- ⊕ Entire PG&E service territory

### **Line of Business**

#### In Scope:

- ⊕ Gas Transmission and Distribution

### **Business Processes**

#### In Scope:

- ⊕ Gas Standards Document Review & Update
- ⊕ Escalation

### **Work Products**

#### In Scope:

- ⊕ Documents and manuals related to Gas regulatory requirements

### 3 Business Process Definition

This section contains a definition of the business processes that will be supported by the application system. The Business Process Models define the context within which the application will operate.

**Note:** For descriptions of the roles involved in the processes that follow, please refer to the Appendix.

#### 3.1 Gas Standards Document Review & Update

##### 3.1.1 Description

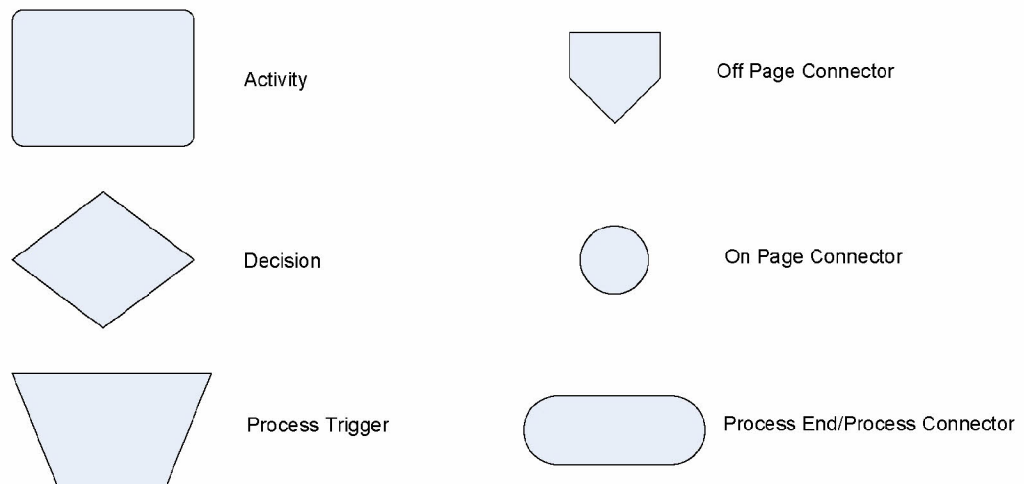
The steps to assign responsibility, report status, and track progress on reviewing/updating all Gas T&D standards documents. Documents go through several stages during the publishing cycle: 1) Assignment/confirmation of a steward, 2) Review by the steward, 3) Update when changes are identified, and 4) Publication within PG&E.

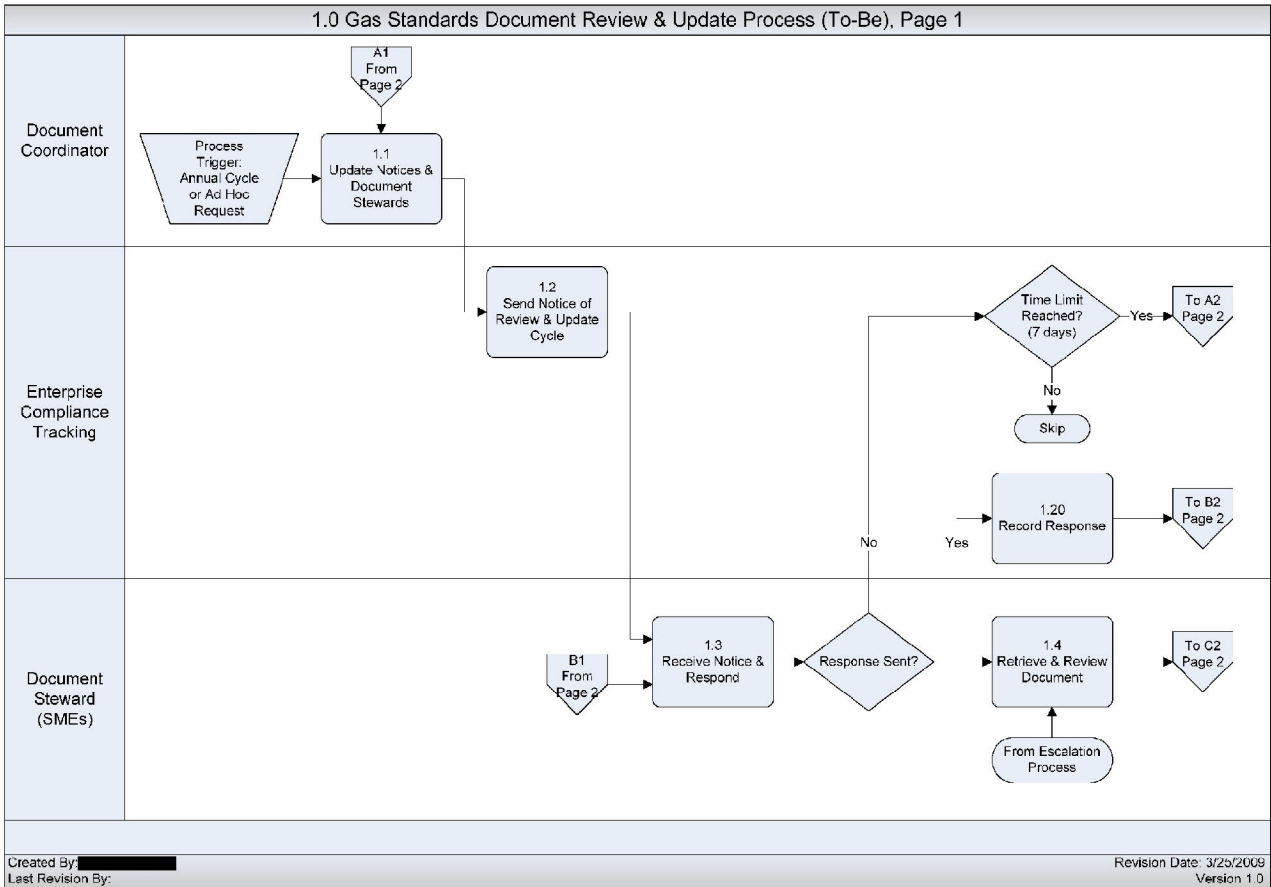
##### 3.1.2 Process Model

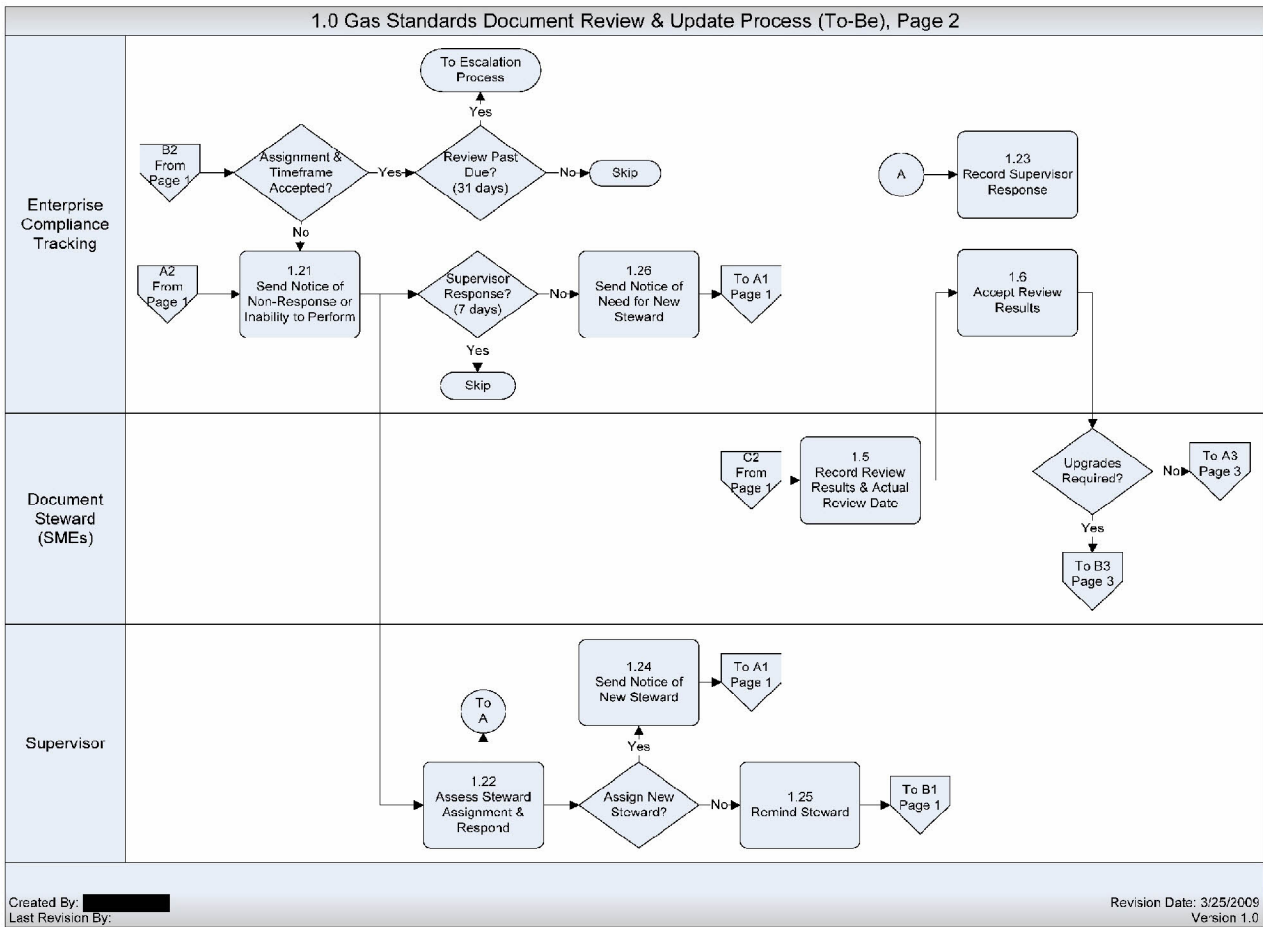
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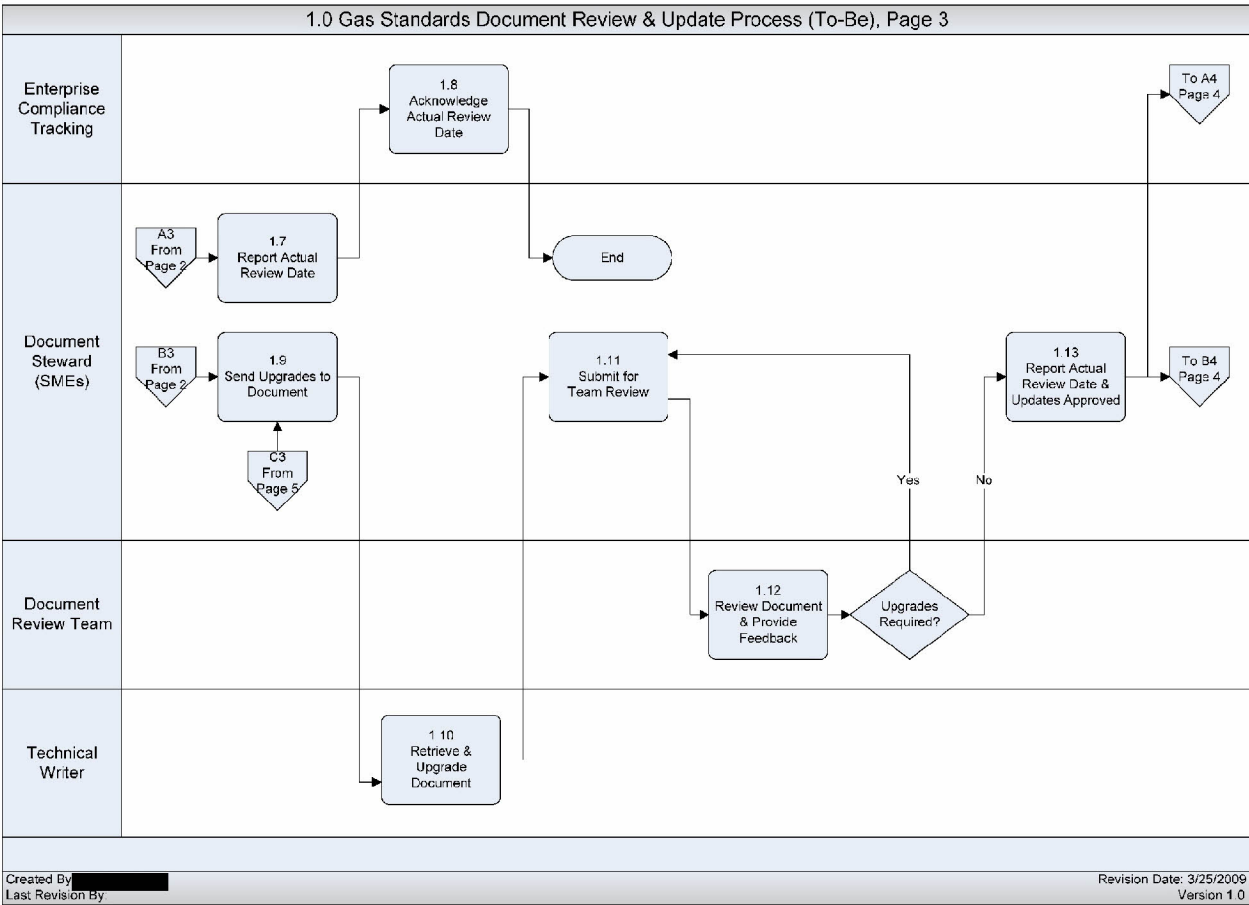
The symbols below are used in the process models that are included in the following pages.

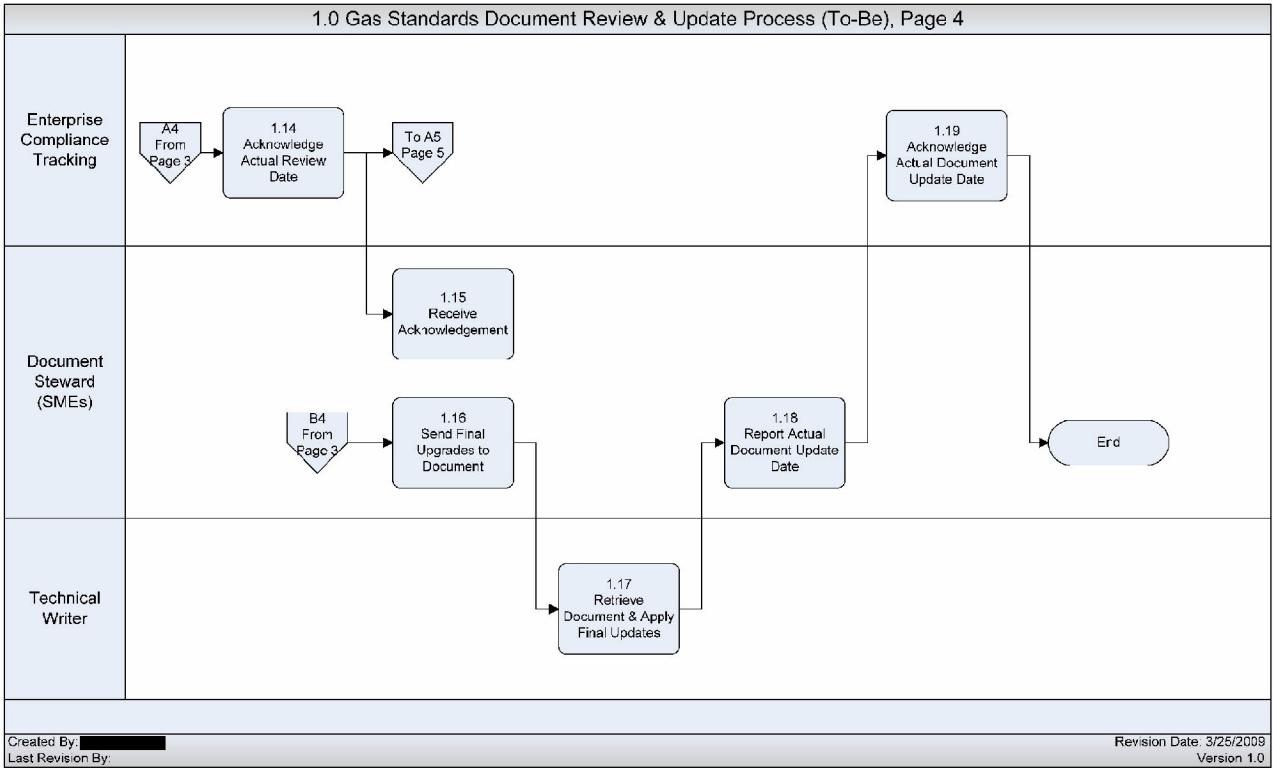
#### Process Symbols

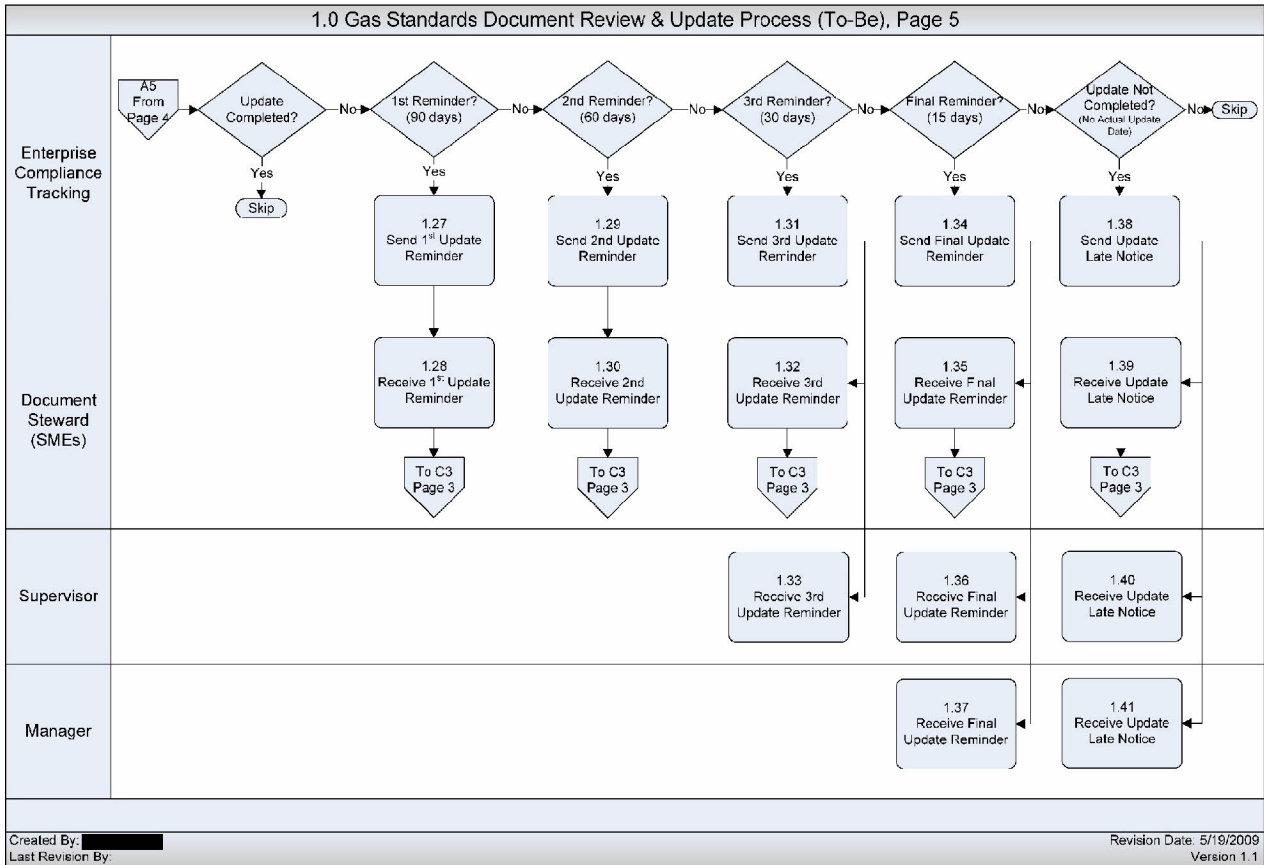














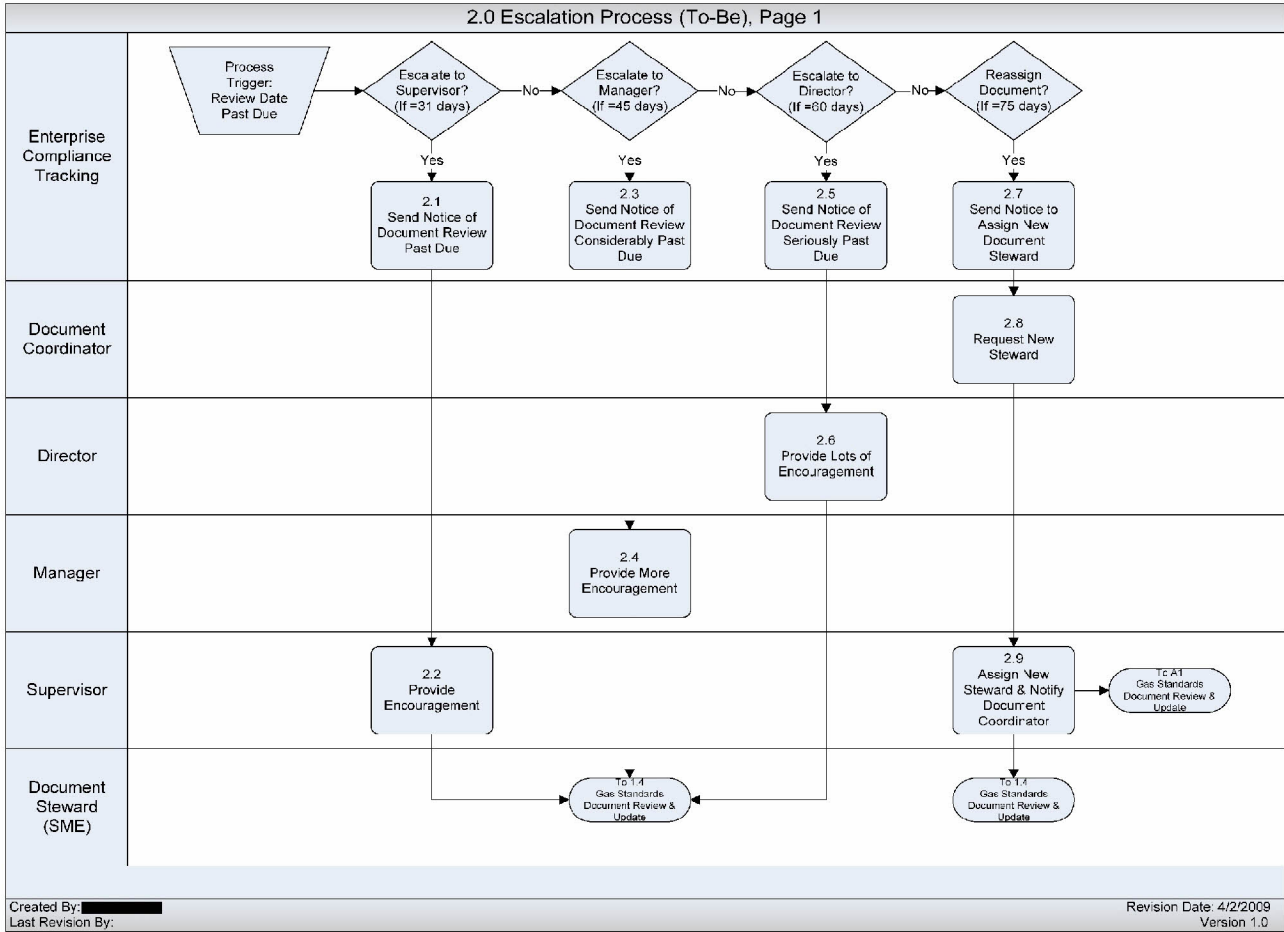
## 3.2 Escalation

### 3.2.1 Description

The activities required to ensure standards documents are reviewed within the regulatory timeframe.

### 3.2.2 Process Model

(See next page)



## 4 Business Requirements

This section contains the functional capabilities that the systems or manual processes will satisfy. Priorities have been assigned on the following basis:

**High (H):** full support for the stated requirement is needed; must have

**Medium (M):** reduced functionality without full support for the stated requirement is acceptable; should have

**Low (L):** lack of functionality would not materially affect support for processes; nice to have

### 4.1 General Requirements

These requirements are common to more than one of the in scope business processes.

Id	Name	Description	Priority
4.1.1	Timetables in Document Update Compliance Program	Workflow must be configured with the rules for document review and update.	High
4.1.2	Role-based User Views	Capability to define and display dashboards (role-based user views) of documents and compliance data based on the needs for a role.	High
4.1.3	Document Version Control	Provide the ability to retain and retrieve prior versions of all documents.	High
4.1.4	Document Storage	Must be able to store working versions of documents.	High
4.1.5	Regulations Update	Provide the ability to update Regulations with new or changed information.	High
4.1.6	Search Capabilities	Supply complete search capabilities on entire set of data.	High
4.1.7	Historical Views of Submitted Data	Provide the capability to re-produce a reporting view submitted to regulators.	Medium
4.1.8	Audit Trails	Provide audit trails of all user update activity that can be filtered by User Id, date, and document Id.	Medium

Id	Name	Description	Priority
4.1.9	Prior Version of Records	Provide the capability to retain and view the prior version of all data records.	High
4.1.10	Escalations	Provide the capability to generate and send escalations notices for overdue items.	High

## 4.2 Process Requirements

The capabilities defined for each process that follows were derived primarily from the process models.

### 4.2.1 Gas Standards Document Review and Update Process

Id	Name	Description	Priority
4.2.1.1	Notices	Capability to send notices of the beginning of the document review and update cycle.	High
4.2.1.2	Responses to Notices	Capability to accept updates from addressee on notices.	High
4.2.1.3	Documents and Data	Add, change, and delete documents and document data.	High
4.2.1.4	Document Review and Update Results	Capability to record review and update results for a document within each annual cycle.	High
4.2.1.5	Work Plans	Add, change, and delete work plan data for a review cycle.	High
4.2.1.6	Document Update Reminders	Capability to send reminders of document update coming due.	High

### 4.2.2 Escalation Process

Id	Name	Description	Priority
4.2.2.1	Review Escalation Notices	Capability to send escalation notices for document reviews past due.	High

### 4.3 Forms/Screens

The outputs identified to support performing and managing the business process activities are as follows:

Id	Form/Screen Name	Description
4.3.1	Regulation/Document Summary	A display of all regulations and the documents that relate to them.
4.3.2	Document Summary	A display of all documents with their description. User can choose to see the document details and filter the view by the documents with which they are involved.
4.3.3	Document Details	Displays the document details, status, and the link to the document.

### 4.4 Reports/Queries

The reports identified to support controlling and managing the business process activities are as follows:

Id	Report/Query Name	Description
4.4.1	Regulatory Citation Cross Matrix	Lists all documents related to a Regulatory Code Citation (one, many, or all citations).
4.4.2	Gas M&O Plan	Summary and detail reports that will show the Company's performance on the requirement to review all documents in the Company's gas M&O plan once each calendar year not to exceed 15 months. (Aging report)
4.4.3	Gas Emergency Plan	Summary and detail reports that will show the Company's performance on the requirement to review all documents in the Company's gas emergency plans once each calendar year not to exceed 15 months. (Aging report)
4.4.4	Document Update Tracking Report	Summary and Detail reports showing the status of all documents that can be sorted by Team, Manual, Document Type, Document Steward, Supervisor, Manager, etc.

Id	Report/Query Name	Description
4.4.5	Documents in Progress Tracking Report	Summary and Detail reports showing the status of all documents currently being updated that can be sorted by Team, Manual, Document Type, Document Steward, Supervisor, Manager, etc. (Possible companion report to 4.4.4)
4.4.6	Document Workload Planning Report	Summary and Detail reports showing the review and update workload by month, that can be sorted by Team, Manual, Document Type, Document Steward, Technical Writer, Supervisor, Manager, etc. (Possible companion report to 4.4.4)
4.4.7	Gas Documents Dashboard	Displays a summary status of various types of documents, manuals, and Work Type teams.
4.4.8	Document Review Report	Displays the results of the document review by a Steward for one annual cycle.
4.4.9	Document Update Report	Displays the results of the document update by a Steward for one annual cycle.

## 4.5 Interfaces

The required system interfaces identified are as follows:

Id	Interface Name	Description
4.5.1	Document Management	Links to the document repositories that hold Gas Standards documents (currently Technical Information Library (TIL), but there is a planned migration to Documentum).

## 4.6 Notices and Reminders

The required system notifications and reminders to process roles are as follows:

Id	Notice/Reminder Name	Activity Id	Description
4.6.1	New Review & Update Cycle Notice	1.2	Notice of the beginning of an annual cycle or ad hoc request for the review & update of a Gas Standards document.



Id	Notice/ Reminder Name	Activity Id	Description
4.6.2	Non-Response or Inability to Perform Notice	1.21	Notice that a Steward has not responded to a notice to start a review/update cycle or reported he/she is not able to perform their role due to job change, medical leave, etc.
4.6.3	Need for New Steward Notice	1.26	Notice that a Steward and their Supervisor have not responded to requests to start the review/ update cycle for a document.
4.6.4	1 <sup>st</sup> Reminder of Update Required	1.27	An initial reminder to initiate the update of a Gas Standards document.
4.6.5	2 <sup>nd</sup> Reminder of Update Required	1.29	The second reminder to initiate the update of a Gas Standards document.
4.6.6	3 <sup>rd</sup> Reminder of Update Required	1.31	The third reminder to initiate the update of a Gas Standards document.
4.6.7	Final Reminder of Update Required	1.34	The final reminder to update a Gas Standards document.
4.6.8	Update Late Notice	1.38	Notice of a late update that is sent daily until the Actual Update Date is populated.
4.6.9	Document Review Past Due Notice	2.1	Notice to the responsible Supervisor to intervene in the review of a Gas Standards document.
4.6.10	Document Review Considerably Past Due Notice	2.3	Notice to the responsible Manager to intervene in the review of a Gas Standards document.
4.6.11	Document Review Seriously Past Due Notice	2.5	Notice to the responsible Director to intervene in the review of a Gas Standards document.
4.6.12	Assign New Document Steward Notice	2.7	The last recourse for ensuring a Gas Standards document is reviewed according to the timetable required by regulations.

**Note:** an example of the Review and Update Cycle is included in the Appendix.

## 5 Assumptions, Dependencies, & Constraints

### 5.1 Assumptions

The following assumptions have been identified for the project. Assumptions are statements upon which the project team is operating as if they are true, but that cannot be proven or demonstrated at this time.

- ⊕ The number of documents to be reviewed and updated is relatively stable at this time.

### 5.2 Dependencies

The known dependencies for the project are described below. Dependencies are independent factors that condition or determine the outcome of the development effort or the deployment of the product/infrastructure component. Dependencies can affect budget, resources or schedule.

- ⊕ The migration of documents from TIL to Documentum and the population of the links to documents in AssurX will need to be planned so as to not cause duplication of effort.

### 5.3 Constraints

The following constraints for the project have been recognized. Constraints are facts that limit or direct how the objectives can be achieved.

- ⊕ The application to support Gas Standards documents must be in production mode by 9/30/2009.



## 6 Appendix

### 6.1 Glossary

This section defines the abbreviations and terms used in the document.

Abbreviation / Term	Expansion / Description
CFR	Code of Federal Regulations
CPUC	California Public Utilities Commission
Documentum	A software product that provides management of document content and attributes such as check-in, check-out, workflow, and version management.
DOT	Department of Transportation
Gas Document	A formal document that provides instructions to company personnel on how to design, build, maintain, or operate gas facilities or tools.
M&O	Maintenance & Operations
LOB	Line of Business
Requirement	A quality or performance demanded of an entity in accordance with certain fixed regulations or standards.
SME	Subject Matter Expert
TIL	Technical Information Library

### 6.2 References

- ⊕ Utility Work Procedure WP4000-02 (September 2008)
- ⊕ Utility Standard S4000: Gas Standards Documentation Requirements (February 2009)

### 6.3 Process Role Descriptions

Name	Description
Director	The final point of escalation for ensuring reviews to Gas Standards documents are completed within the regulatory timeframe prescribed.
Document Review Team	The cross-functional team that assesses updated documents for completeness and correctness.
Document Steward (SMEs)	The person responsible for one or more Gas Standards documents.
Enterprise Compliance Tracking	The application that supports the management and tracking of regulatory compliance activities. The AssurX platform provides the basic capabilities and it is extended with unique workflows, reports, and forms.
Manager	The manager of Supervisors and the mid-point for escalation.
Supervisor	The manager of a Document Steward and the first level of escalation.
Technical Writer	A technical writer is a professional writer who designs, writes, creates, maintains, and updates technical documentation which includes user guides, design specifications, system manuals, and other documents. They are often tasked with writing documentation that explains technical issues in ways that non-technical people can understand.

## 6.4 Review & Update Cycle Example

### Document Review

A	B	C	D	E	F	G	H
<b>Last Review Date</b>	<b>Review Month</b>	<b>Notice of New Review &amp; Update Cycle</b>	<b>Target Review Completion Date</b>	<b>Escalate to Supervisor</b>	<b>Escalate to Manager</b>	<b>Escalate to Director</b>	<b>Notify Document Coordinator</b>
4/15/2008	4	4/1/2009	4/30/2009	5/1/2009	5/15/2009	5/30/2009	6/14/2009
<b>Rule:</b>		1 <sup>st</sup> day of Review Month	30 days after C	31 <sup>st</sup> day after C	45 <sup>th</sup> day after C	60 <sup>th</sup> day after C	75 <sup>th</sup> day after C

### Document Update

A	B	C	D	E
<b>Next Notice of Review &amp; Update Cycle</b>	<b>1<sup>st</sup> Reminder</b>	<b>2<sup>nd</sup> Reminder</b>	<b>3<sup>rd</sup> Reminder</b>	<b>Final Reminder</b>
4/1/2010	1/1/2010	2/1/2010	3/1/2010	3/15/2009
<b>Rule:</b>	90 days prior to A	60 days prior to A	30 days prior to A	15 days prior to A

### 6.5 Document Topic to PDM Deliverable Mapping

This document has been formatted to include the content of the deliverables called out in the Pacific Gas & Electric Delivery Methods (PDM) for defining business requirements.

Business Requirements Topic	PDM
Project Background	Project Scope Definition (PM191)
Project Objectives	Project Scope Definition (PM191)
Project Scope	Project Scope Definition (PM191)
Business Process Definition	Business Process Design (BP310)
Business Requirements (High Level Functional Capabilities and Details)	Requirements (PL201)
Forms/Screens, Reports, and Interfaces	RICEF Inventories (AP250)
Assumptions	Requirements (PL201)
Dependencies	No specific deliverable
Constraints	No specific deliverable
Glossary	Project Glossary (AP203)