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Creating a safer state with electricity and gas

Gas Safety Case Preparation and Submission for Facilities and Pipelines

Gas and Pipeline Infrastructure Safety Guidelines

VICTORIA State Government

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This guideline has been endorsed by the Director of Energy Safety in Victoria.

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Who we are

We are Victoria's safety regulator for electricity, gas and pipelines.

Our role is to ensure that Victorian gas and electricity industries are safe and meet community expectations. We are also responsible for licensing and registering electricians, and educating the community about energy safety.

More information is available on the Energy Safe Victoria website: www.esv.vic.gov.au

Contents

1 Introduction

The purpose of these guidelines is to assist gas companies (transmission and distribution) as defined by the Gas Safety Act (GSA) with the preparation and submission of a Gas Safety Case (GSC) for natural gas transmission and distribution facilities, which gas companies are obliged to have in place to comply with the requirements of Part 3 Division 1 and 2 of the GSA and Division 4, 5, 6 and Parts 4 and 5 of the Gas Safety (Safety Case) Regulations 2018.

An accepted GSC can also include content that meets the requirements for a Safety Management Plan (as required under Part 9, Division 2 of the Pipelines Act 2005)[1].

ESV guidelines should always be read in conjunction with the corresponding ESV policy document.

Scope

This guideline only applies to licensed natural gas distribution and transmission facilities.

A guideline for completing a Safety Management Plan (SMP) in accordance with the Pipeline Regulations is currently being developed.

See the ESV document *Safety Management Plan Guideline for Licensed Pipeline Construction, Alterations, and Planned Repair Works GPIS-12-005* for more information about works that trigger pipeline license alterations.

The statutory duties of a gas company

Section 32 of the GSA establishes general duties to be met by gas companies that form the basis for the development of a GSC. These duties require a gas company to manage and operate each of its facilities to minimise risks to public safety and property arising from gas hazards and gas supply interruptions *as far as practicable* (AFAP)[2]. An accepted GSC forms an important part of meeting this duty.

A GSC for a facility must be in writing and (in accordance with the regulations) specify the safety management system (SMSy) the gas company will adopt to:

- comply with its duties, and
- safely convey, supply, sell, measure or control gas.

The role of standards

When considering a gas facility's GSC, which includes a Formal Safety Assessment (FSA), gas companies should always ensure risks are identified and analysed and then proceed to establish the effective control of risks to meet statutory obligations.

Australian and equivalent international standards can be used to demonstrate effective risk controls to meet statutory obligations.

[1] This means SMPs can be embedded within GSCs.

[2] For the purposes of a GSC, ESV considers that *as low as reasonably practicable* (ALARP) should be interpreted to achieve the same objectives as intended by *as far as practicable* (AFAP); see Section 5 for more information about the application of AFAP that ESV accepts. Further explanation of the definition and application of risk qualifications can be found in ESV's *Gas and Pipeline Infrastructure Safety Case Policy*.

Structuring a Gas Safety Case

Figure 1 is an example of how to organise GSC documentation (at a minimum). If the GSC is also acting as a SMP under the Pipelines Act, other documents that may be required (and can be added as appendices) include a Pipeline Integrity Management Plan (PIMP), Pipeline Repair Plan (PRP), Fracture Control Plan (FCP), Isolation Plan (IP), Remaining Life Review Report (RLRR), Safety Management Study Report (SMSR), and an approvals matrix.

Figure 1: how to organise GSC documentation

Gas Safety Case – ABC Limited/ABC Limited Facility

Section 1

1.1. Australian Business Number or Australian Company Number

1.2. Person responsible for facility

1.3. Person responsible for Gas Safety Case

Section 2

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Section 4

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- 4.1.9 Competence and training

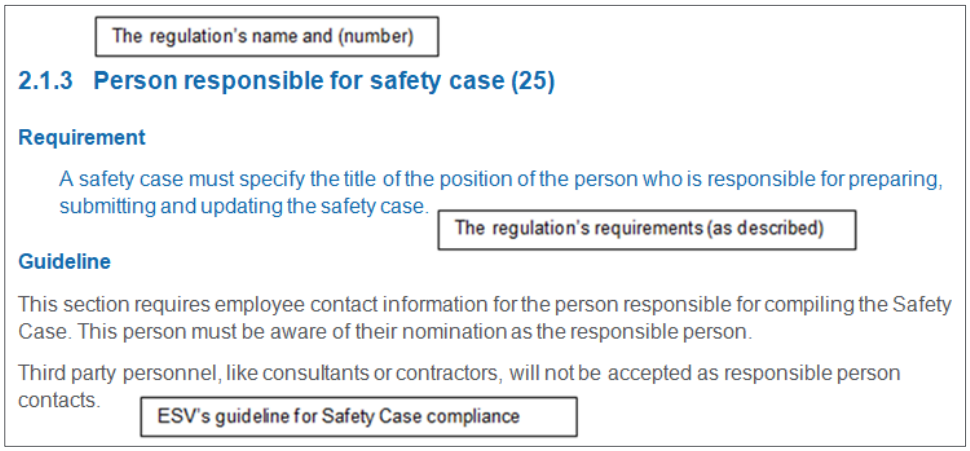
Section 5

5.1. Records

5.2. Requirements for reporting gas incidents

How to use these guidelines

Each ESV guideline for complying with the GSA's GSC requirements is structured as follows:



2 Gas facilities

2.1 Safety case contents for gas facilities

2.1.1 Australian Business Number or Australian Company Number (23)

Requirement

A safety case must specify the ABN or ACN of the gas company.

Guideline

This section can include either an Australian Business Number (ABN) or an Australian Company Number (ACN), but an ABN is ESV's preferred option.

This section should also include:

- all relevant license details attaching to the facility
- corporate details for the licensed legal entities and, where applicable, any linkages between joint ventures.

Where an entity name (due to one or more name changes, for example) does not match the licence details or some other ambiguity exists, consider also including an Australian Securities and Investments Commission (ASIC) search that demonstrates the change history.

2.1.2 Person responsible for facility (24)

Requirement

A safety case must specify the name, title and business address of the person who:

- is responsible for the management, control and safe operation of the gas company; and
- has authorised the company's safety case.

Guideline

This section requires senior employee contact information for the person with ultimate responsibility for (and control of) the gas company and the company's GSC sign-off. The person responsible for the facility must:

- reside within the Australian jurisdiction
- be the managing director, chief executive officer, or a similarly senior officer of the company
- be aware of their nomination as the person responsible for the facility.

Third party personnel, like consultants or contractors, will not be accepted as responsible person contacts.

2.1.3 Person responsible for safety case (25)

Requirement

A safety case must specify the title of the position of the person who is responsible for preparing, submitting and updating the safety case.

Guideline

This section requires employee contact information for the person responsible for compiling the GSC. This person must be aware of their nomination as the responsible person.

Third party personnel, like consultants or contractors, will not be accepted as responsible person contacts.

2.1.4 Facility description (26)

Requirement

A safety case must contain a facility description.

The facility description must provide a detailed description of the structure, assets, function and operation of the facility to which the safety case relates.

The facility description must provide sufficient information to enable the extent and scope of the assets and operations of the gas company in relation to the facility and the risks associated with those assets and operations to be assessed.

Guideline

The purpose of the facility description is to provide all information and data relevant to the identification and assessment of risks. It also informs the FSA conducted by a gas company, and assists ESV to understand and assess the adequacy of the risk control approach to minimise risk AFAP.

The facility description, which also defines the scope of the FSA:

- needs to provide enough information to enable the assessment of the extent and scope of facility risks by ESV
- feeds into the FSA by providing enough detail to enable the identification of any risks associated with the facility's assets, function and operations
- should provide a high-level business description of the gas company's operation and function
- identifies safety-related business units and their functions (i.e., all contracted functions)
- identifies physical assets, their condition, and any local factors that may include:
  - transmission and/or distribution pipeline details (maximum allowable operating pressure, licence numbers, routes (pipeline GIS information), location classifications, and off-takes)
  - network details (size, length, material, age, pressure)
  - key plant (compressors, pressure regulation, SCADA) including their design limits
  - off-take locations and details including meters and regulators and details about the customer being serviced (which should include pipeline lateral design details that cover pressure, temperature, capacity, materials, and alignment plans)
  - safety critical devices (for example, pressure safety valves)
  - interfaces with other gas systems or companies (for example, mutual aid agreements)
  - the way that gas quality is managed.

2.1.5 Formal safety assessment (27)

Requirement

A safety case must contain a formal safety assessment.

The formal safety assessment for a facility must be consistent with the facility description for the facility and must provide:

- a description of the methodology used and investigations undertaken for the formal safety assessment; and

- an identification of risks having the potential to cause a gas incident; and
- a systematic assessment of risk, including the likelihood and consequences of a gas incident; and
- a description of technical and other measures undertaken, or to be undertaken, to minimise that risk as far as practicable.

Guideline

The purpose of an FSA is to establish what practicable risk controls should be adopted by a gas company to achieve acceptable levels of safety.

The purpose of the FSA section in a GSC is to present a summary of the FSA (and other safety studies) process and explain the logic behind the gas company's decision to implement a defined level of risk control. The FSA section must clearly explain how the adopted risk control approach is appropriate to each gas facility, is practicable, and meets the gas company's statutory general duties. This section of the GSC provides the gas company's case that risk has been minimised AFAP.

An acceptable FSA will demonstrate a clear description of the FSA methodology and decisions and the adopted risk control approach, including the:

- personnel involved (position/title)
- data and information used to identify hazards and assess risks (including incidents)
- relevant standards used in the FSA process
- definitions of likelihood and consequence, including a risk matrix
- the gas company's definition of AFAP, including AFAP decision criteria
- a description of risk controls adopted to minimise risk AFAP
- how risks have been reduced AFAP, and why risk controls available - but not adopted - are not practicable

  (see the Terminology section for the definition of AFAP)

- identification of uncertainty arising from incomplete or indirect data, and how this has been considered in the FSA process.

Table 1 is an example of one approach to presenting a risk description and assessment case that risk has been minimised AFAP. Gas companies may use any appropriate method to present an AFAP case.

At a high level, the example demonstrates the reasoning flowing from each identified risk/risk description and its causes and controls through to its risk ranking and demonstration of risk minimisation AFAP.

Table 1: Example FSA AFAP presentation

Risk description	Control and function	Effectiveness of control at minimising risk	Likelihood	Consequence	Risk ranking	Demonstration of risk minimisation AFAP
Third party civil works damages pipeline causing a leak and ignition of flammable gas and jet fire with fatalities. **Hazard** – high-pressure flammable gas **Event** – gas leak and ignition **Cause** – third party works	**DBYD:** identification of underground asset	Partially effective because DBYD is not mandatory, may not be used, and not all asset location information may be current	Hypothetical	Catastrophic	Intermediate	*Provide a statement of how risk has been reduced AFAP* *Available risk controls: what else could be done* *Pipeline relocation*
	Marker posts: identification of pipeline location	Partially effective because visibility can be obstructed				

Risk description	Control and function	Effectiveness of control at minimising risk	Likelihood	Consequence	Risk ranking	Demonstration of risk minimisation AFAP
Consequence – jet fire leading to fatalities	**Pipeline patrols:** identification of unauthorised third party works	Partially effective because patrollers are not on site continuously				*Practicability: justification as to why the feasible risk controls are not adopted:* Cost of relocation is estimated to be $X and is grossly disproportionate to the safety benefits gained
	Depth of cover: this pipeline is buried at a depth of 1.5 metres	Partially effective because a depth of 1.5 metres should minimise contact as many civil works do not excavate to that depth. But it does not remove all possibility of contact				
	Wall thickness: provides resistance to penetration	Partially effective because third parties can still penetrate with certain types of machinery				
	Etc. Further controls may be relevant and needed to achieve risk minimisation AFAP.	Etc.				
Additional risks, etc.						

The components of the FSA AFAP presentation include the:

- Risk description
- Control and function
- Effectiveness of control at minimising risk
- Likelihood
- Consequence
- Risk ranking
- Demonstration of risk minimisation AFAP.

Risk description

This column shows the risk description, which is a statement summarising the key elements of a risk, and forms the basis for its analysis and assessment. A risk description summarises a scenario and should contain elements that describe the:

- hazard
- event
- causes of the event
- foreseeable consequences of the event.

Control and function

This column identifies all relevant controls that can reduce the risk identified by the risk description. The two control types are:

- preventative controls that aim to prevent a cause or initiating event from occurring
- mitigating controls that reduce the severity of the consequence of a risk event after it has occurred.

Risk controls are aligned with (and assessed for their individual effectiveness) the risk description's context. A description of how the risk control functions act to minimise a risk should be clearly defined, and where multiple functions exist for a control, only the functions relevant to the specific risk description should be detailed.

Effectiveness of control at minimising risk

This is the estimate of a control's effectiveness at minimising the risk and the evidence that estimate is based on. Evidence (proof of the control's effectiveness) can include monitoring activities, incidents, and near misses.

Likelihood

This is the result from the assessment of the chance of the event occurring after applying controls. A GSC FSA should clearly describe the criteria used for this assessment.

Consequence

This is the result from the assessment of the consequences after applying controls. A GSC FSA should clearly describe the criteria used for this assessment.

Risk ranking

This is the result from the assessment of the risk after applying controls. A GSC FSA should clearly describe the criteria used for this assessment.

Demonstration of risk minimisation AFAP

This needs to show how AFAP has been achieved. It also needs to establish what is not practicable in terms of further minimising risk.

2.1.6 Safety management system (28)

Requirement

> A safety case must specify the safety management system followed or to be followed in relation to the facility.
>
> The safety management system must contain the information specified in Division 5 and must demonstrate the adequacy of the technical and other measures adopted or to be adopted under regulation 27.

Guideline

The purpose of the SMSy is to provide appropriate organisational control structures and processes to ensure that the:

- risk control approach proposed in an accepted GSC is implemented, managed and reported
- gas company has mechanisms in place to continuously improve the safety management approach the GSC describes.

The SMSy is a holistic approach to managing gas facility safety. The SMSy should describe existing structures, processes and procedures, and be capable of identifying areas where improvements or changes are required.

2.2 Safety management system contents for gas facilities

2.2.1 Organisational structure and responsibilities (30)

Requirement

> The safety management system for a facility must specify the titles of the positions and the duties of the persons responsible for its implementation and management.

Guideline

The organisational structure needs to explain the linkages between the parent organisation and the operational structure in relation to the licensed entity.

Ideally, this section will include an organisational chart that shows:

- position titles
- specific GSC responsibilities (including contract relationships)
- how management control and assurance is extended to contract activities.

It will also show the key responsible personnel relating to SMSy activities (regardless of organisation) and how the SMSy is integrated with contractors (in other words, how the gas company will ensure that contractors will meet their general duties as per the GSA).

2.2.2 Published technical standards (31)

Requirement

> The safety management system for a facility must specify the published technical standards applied to or used or to be used in the design, construction, commissioning, installation, operation, maintenance and decommissioning of the facility or any part of the facility.

Guideline

This section lists all the technical standards used (or to be used), which may include (but are not limited to)[3]:

- Australian Standards (ASXXXX)
- International Organisation for Standardisation (ISOXXXX)
- American Standard for Mechanical Engineers (ASMEXXXX).

Table 2 shows an example of how to record the standards used and in what context (as per the requirements).

Table 2: Published technical standards

Design	Construction	Commissioning	Installation	Operation	Maintenance	Decommissioning

[3] Some standards require the adoption of the standard in full.

2.2.3 Design, construction, installation, operation, maintenance and modification (32)

Requirement

The safety management system for a facility must specify the means by which a gas company will ensure that the design, construction, commissioning, installation, operation, maintenance and decommissioning of the facility and any modification of the facility is adequate for:

- is adequate for the safety and safe operation of the facility; and
- is adequate to ensure the safety of the public; and
- is adequate to minimise the risk of damage to another person's property; and
- is adequate for the safe and reliable conveyance and supply of gas; and
- is adequate for ensuring the quality of gas conveyed or supplied; and

(note: regulations 45 and 46 prescribe standards of gas quality for the purposes of section 33 of the Act)

- takes into account the results of the formal safety assessment for the facility; and
- meets the published technical standards listed in the safety management system in accordance with regulation 3; and
- is adequate for monitoring and maintaining the integrity of the facility taking into account the expected operational life of the facility.

Guideline

This section should describe the processes and procedures used to ensure that the design, construction, commissioning, installation, operation, maintenance and decommissioning of the facility are all adequate.

The section can be broken down into four areas covering:

- Design
- Construction and commissioning
- Operations and maintenance
- Decommissioning.

Design

This section should specify the design principles applied to ensure that all identified risk descriptions (and risks) are eliminated or reduced to an acceptable level during the life cycle of the facility.

The design requirements should include the facility's physical assets and the systems for its operation.

Construction and commissioning

This section should specify the effective processes for the control of construction and commissioning activities to ensure they are implemented in accordance with the specifications.

Operations and maintenance

This section records the facility's operating parameters in sufficient detail to enable assessment of the risks from a loss of supply and over-pressure of supply. It should list information about the facility's:

- maintenance schedules and responsibilities and the tasks for each maintenance activity
- contractor management, including the way contractor performance is monitored and reviewed, and the person responsible for this process
- processes for contractor corrective action where risk is not being effectively managed, and the person responsible for this process.

Other details about the operational and maintenance plans, processes and/or procedures may include information about:

- requirements for third party liaison
- work practices
- condition monitoring
- capacity management
- right of way (ROW) management
- leakage management.

Decommissioning

This section should specify the processes for controlling decommissioning activities to ensure they are implemented as specified. Different types of assets may have different decommissioning process requirements.

2.2.4 Permit to work system (33)

Requirement

> The safety management system for a facility must specify all work relating to the facility for which a permit to work system needs to be established.
>
> If work is specified under subregulation (1), the safety management system must specify the permit to work system that is to apply in respect of that work.
>
> A permit to work system must:
>
> - prohibit any person from performing work for which a permit is required without a written permit to work issued by a person authorised by the gas company to issue that permit; and
> - specify the positions of the persons who are authorised to issue permits to work and to supervise that work; and
> - ensure that persons authorised to issue permits to work and persons carrying out operations under those permits are competent and are provided with appropriate training, procedures, tools, equipment and emergency support.

Guideline

The Permit to Work system ensures sufficient levels of safety are maintained when conducting high risk activities. The section should provide descriptions of:

- any work activities that require implementation of a Permit to Work system
- the various types of Permit to Work that are issued and the process involved
- the positions of those responsible for issuing Permits to Work
- any competency requirements and preliminary training required for persons responsible for issuing a Permit to Work
- authorised contractors who can issue Permits to Work and how the licensee/gas company monitors that process
- the training, procedures, tools, equipment and emergency support provided to people carrying out work under the Permit to Work system.

2.2.5 Emergency preparedness (34)

Requirement

The safety management system for a facility must specify a response plan designed to address all reasonably foreseeable emergencies and gas incidents which have been identified through the formal safety assessment.

The response plan must:

- ensure the safety of the public; and
- specify the means to ensure the continued safe operation of the facility; and
- specify the means by which the gas company ensures that it meets its duties under sections 32 and 33 of the Act.

Note: Regulations 45 and 46 prescribe standards of gas quality for the purposes of section 33 of the Act.

Guideline

The Emergency Response Plan (ERP) should contain clear steps of action to mitigate and recover from the consequences of all reasonably foreseeable emergencies and gas incidents, and should address the following topics:

- The ERP's purpose.
- Detailed response and recovery strategies for all reasonably foreseeable emergencies including:
  - loss of containment
  - full-bore pipeline rupture
  - fires
  - natural events
  - terrorism
  - gas quality.
- Emergency roles and responsibilities.
- The incident escalation process, which may provide the:
  - categorisation of emergencies (for example, emergency definitions involving level 1-5 emergencies)
  - description of what triggers emergency management team activation
  - description of what triggers an emergency escalation.
- Emergency and key emergency responder contacts (internal and external) with 24/7 availability.
- Arrangements for utilising third party support (which may also cover arrangements for the storage of equipment).
- A general emergency response overview, which may include details about the:
  - isolation of supply
  - emergency control centre
  - curtailment process
  - remediation process following an incident.
- Management of change and handover responsibilities.
- Stakeholder communication protocols.
- Emergency response personnel training and competency.
- Specification of the emergency response exercises and training to be undertaken each year.
- The person responsible for reporting emergency response effectiveness (actual and simulated).
- The triggers for an ERP review.

The section should also outline (as applicable) the:

- procedures and systems in place to respond to the Victorian Energy Emergency Communications Protocol (VEECP) process and phases
- proposed response to media management requirements via the Victorian Single Industry Spokesperson (SIS) process.

2.2.6 Reporting of gas incidents (35)

Requirement

The safety management system for a facility must specify the means by which the gas company ensures that it meets its duties under section 36(1) and (2) of the Act in relation to the reporting of gas incidents.

Guideline

This section should detail how the gas company reports gas incidents (and what the report will contain) by describing the method for reporting, including the:

- minimum initial reporting timeframes (verbal and written)
- person responsible for reporting a gas incident
- details of the ESV contact an incident report will be sent to (see Section 4 for more information about contacting ESV).

2.2.7 Internal monitoring, auditing and reviewing (36)

Requirement

The safety management system for a facility must specify the processes and the performance indicators to be used by the gas company for monitoring, auditing and reviewing the adequacy and implementation the safety management system.

The safety management system for a facility must specify the means to be used to ensure regular and systematic:

- identification of deficiencies in the safety management system and its implementation; and
- improvement of the safety management system and its implementation to improve the safety of the facility and its operation.

Guideline

This section should detail the gas company's formal, systematic, and disciplined approach to:

- monitoring the performance and adequacy of its SMSy
- its audit framework to gain assurance of the performance and adequacy of its SMSy
- continuous improvement.

This can be achieved by:

- specifying the relevant performance indicators that capture the SMSy's adequacy
- detailing the formal communication protocols for reporting to the facility's senior management.

The section should provide information about the auditing program and its frequency, management review, data analysis of performance indicators, reporting frequency, and audit selection process.

The section can be completed in three parts:

- Monitoring
- Auditing
- Review.

Monitoring

This section needs to specify:

- aspects of the SMSy that need to be monitored and measured
- the methods for monitoring, measurement, analysis, and evaluation
- monitoring and measuring intervals
- the key performance indicators (KPI) being used.

At a minimum, the section should cover the controls identified in the FSA.

Table 3 shows an example of how to record performance standard auditing and monitoring information for risk controls.

Table 3: performance standard auditing and monitoring for risk controls[4]

Control	Performance standards	Monitoring mechanism	Audit frequency
Pipeline patrol	Number of pipeline patrols conducted against planned	Weekly pipeline report review by Operations Manager	Annually
	Pipeline patrol adherence to specified route		

Auditing

To meet this requirement, the SMSy should specify how the gas company implements and maintains an audit program, including the frequency, methods, responsibilities, and reporting by including:

- a description of the auditing procedure/process
- the audit topic selection process
- the persons/division responsible for SMSy auditing
- the process for recording audit outcomes and the communication of audit results to relevant personnel and management
- how audit actions are tracked and closed out.

Review

To meet this requirement, the SMSy should specify how the review process will be conducted by including the:

- management review process brief
- personnel/division responsible
- frequency of review
- agenda for review (which, at a minimum, should include elements of Division 5 of the Gas Safety Regulations).

2.2.8 Gas incident recording, investigation and reviewing (37)

Requirement

The safety management system for a facility must specify:

- the means to be used for recording and investigating gas incidents; and
- the management systems to be used for reviewing and taking action on the information so recorded or arising from those investigations to improve the safety of the facility and its operation and to prevent gas incidents.

[4] This table is an example only and is not exhaustive.

Guideline

This section should detail the processes and procedures to be followed when investigating and reporting gas incidents[5] and should provide information that addresses the following topics:

- The reporting, recording, investigation and review of gas incidents, including the close-out and review of corrective and preventative actions.
- Standards and procedures for incident investigation.
- The requirement for investigating incidents and how the contributing factors relating to the incident and its root causes are identified.
- Responsibilities for identifying, reviewing and implementing actions identified in an investigation report.
- Management (and their positions) involved in the review and implementation of recommendations made by incident investigation teams.
- Training in investigative methods and procedures for the personnel responsible for conducting incident investigations.
- The method incident investigations will use to identify hazards and assess risk.
- The way incident outcomes will be fed back to the FSA.

2.2.9 Competence and training (38)

Requirement

The safety management system for a facility must specify the work and staffing systems in relation to the facility to ensure that:

- the minimum level of qualifications, skill and competence that is required for the carrying out of work in relation to the facility is identified; and
- only persons with the qualifications, skills and competence appropriate to that work are assigned to carry out the work; and
- any training necessary for persons assigned to carry out that work is provided.

Guideline

This section should specify and identify training system needs in relation to the facility. To achieve this, the section should identify the training system and how:

- training will be provided
- training records will be kept
- personnel are qualified
- skills and competencies are reviewed for currency and relevance to the facility's needs.

It should also provide information about:

- the training systems to be used in relation to the facility
- how contractor competencies are identified and evaluated
- minimum qualifications, skills and competencies required for works in relation to the facility
- the mechanisms in place to:
  - ensure that only persons with the qualifications, skills and competencies appropriate to a given type of work are assigned to carry it out
  - provide the necessary training for persons assigned to carry out work
- the frequency of retraining and requalification.

[5] A gas incident is an event with the potential to cause injury or death, significant damage to the environment, and significant impact on the facility's operation or integrity.

3 Records (39)

Requirement

A gas company must, in accordance with this regulation, establish and maintain a system for keeping records relating to the safety case for each of its facilities.

The records required to be kept under sub regulation (1) are:

- the accepted safety case; and
- any revisions of the accepted safety case; and
- any written audit reports of the accepted safety case; and
- any reports of investigations by the gas company of gas incidents; and
- a copy of each report given by the gas company to Energy Safe Victoria.

The records must be kept:

- at the address or location nominated in the safety case by the gas company; and
- in a manner that makes their retrieval reasonably practicable; and
- in a secure manner; and
- for the period of 7 years from the creation of the record.

Guideline

This section should describe the record keeping system the gas company uses to ensure it manages the records described under subregulation (1). The system needs to specify:

- what records must be kept
- the format (soft copy/electronic or hard copy or both)
- where records must be kept (the location of the information storage, electronic system, document library or archive facility)
- how the records are retrieved (this includes the security of storage)
- how long the records are stored (noting the retention time in years, or any other arrangements, such as for the lifetime of the asset)[6].

[6] In relation to records management, other legislative requirements may also need to be considered.

4 Requirements for reporting gas incidents (44)

Requirement

For the purposes of section 36(1) of the Act, a gas company must report gas incidents in the form of a statistical summary on a quarterly basis.

Despite subregulation (1), for the purposes of section 36(1) of the Act, a gas company must report a gas incident as soon as practicable after it occurs if the gas incident:

- involves a transmission pipeline; or
- causes the death of or injury to a person; or
- causes significant property damage; or
- causes significant disruption to the community.

For the purposes of section 36(2) of the Act, a gas company must report a gas incident as soon as practicable after it becomes aware of the incident.

The report of a gas incident under section 36 (other than a gas incident to which subregulation (1) applies) must specify, to the extent that the information is available to the gas company:

- the nature of the gas incident; and
- where and when the gas incident occurred; and
- the cause of the gas incident; and
- whether any emergency service attended the gas incident; and
- the remedial actions (if any) that were taken by the gas company; and
- the corrective actions that were taken or are proposed to be taken by the gas company to prevent a similar incident.

Guideline

This section should provide information about the process for the initial notification of gas incidents (as soon as practicable), the time frame to report, the personnel responsible for reporting to ESV, and a record of ESV's contact details (as follows):

- esvreportsgpis@energysafe.vic.gov.au
- 1800 671 337.

Information about an incident must be presented to ESV in writing within 7 days of its occurrence and as a minimum should include information about the:

- nature of the incident
- time it occurred
- location of the incident
- cause
- emergency services attending
- remedial actions taken
- corrective actions taken to prevent a similar incident.

5 Terminology

Term	Definition
As far as practicable (AFAP)	The test to be applied in a GSC to demonstrate that the risk control efforts made by the gas company are adequate for meeting its general duties and applicable regulatory requirements. The term '*as far as practicable'* can be taken as intended to mean 'reasonably practicable', so long as all reasonable steps are taken to reduce or remove risk, without making it an absolute duty, and so that cost factors are not given excessive emphasis.
Formal Safety Assessment (FSA)	A term that refers to Formal Safety Assessments required under regulation 27 of the Gas (Safety Case) Regulations 2018, and the Safety Assessment as described in regulation 33 of the Pipeline Regulations 2017. A Safety Management Study performed in accordance with AS 2885 may form part of the FSA for a GSC. The term refers to a risk assessment that must be performed by gas companies as part of their GSC development and submission.
Risk	Refers to potential events that may have undesirable safety consequences, or that may limit or negatively impact on the achievement of acceptable levels of safety. The GSA requires that assessment of the severity of risk weight both the potential consequences that could eventuate, and the likelihood of occurrence.
Gas Safety Case (GSC)	A (sufficiently) detailed document in which a gas company describes how it will meet the general duties of the GSA, and comply with regulations and prescribed standards, to achieve acceptable levels of safety. GSCs are risk-based and explain how the gas company's risk management is adequate to achieve acceptable levels of safety, propose a formal approach for achieving these outcomes, and make commitments that this approach will be implemented, maintained, and managed to ensure that it remains effective.
Safety Management System (SMSy)	The safety-specific management control system/s required under the GSA, it includes elements specified in subordinate regulations that must be included in a GSC. The primary role of the SMSy is to ensure that there are adequate organisational control structures and processes in place to ensure that the: • risk control approach proposed in an accepted GSC is implemented, managed and reported • gas company has mechanisms in place to continuously improve the safety management approach the GSC describes.