

Proposed Gas Safety (Safety Case) Regulations 2018

Discussion paper and draft regulations

Discussion paper

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(Safety Case) Regulations 2018

Summary

Legislation and current regulations

The *Gas Safety Act 1997* ('the Act') provides for the safe conveyance, sale, supply, measurement, control and use of gas in Victoria. The Act establishes an outcomes-based safety regime to ensure that gas companies operate assets and conduct activities to minimise risks and hazards to the community.

A key element of the Act is to require gas companies to prepare *safety cases*—documents that set out how they will ensure they meet their general duties under the Act. The specific requirements to be included in a safety case are set out in *the Gas Safety (Safety Case) Regulations 2008*.

New Gas Safety (Safety Case) Regulations are proposed to replace the existing regulations that expire on 16 December 2018.

Objectives of current regulations

Gas is an important resource for industry and the community, and its safety is controlled through application of the Act and its regulations.

The Act establishes the general form that safe compliance must take, with regulations providing the necessary detail on how safety standards are to be applied.

Regulations are intended to provide certainty to industry on what action is required to achieve safety outcomes. As a result, this provides confidence to the community that safety standards and protections are clearly defined.

The current Regulations specify how safety cases are prepared for facilities, complex gas installations and Type B appliances, and the reporting of gas incidents.

Nature of proposed Regulations

The proposed Regulations are intended to continue to strike an appropriate balance between prescription and flexibility in the way that gas companies manage safety risks.

The proposed changes address minor issues with the current Regulations and further streamline and simplify the arrangements. These were identified following stakeholder consultation during 2017, policy review of the current Regulations, review of the recommendations in the Interim Report of the *Review of Victoria's Electricity and Gas Network Safety Framework*, and review of legislative arrangements in other jurisdictions.

Separately, ESV also proposes to change its administration of the proposed Regulations to provide a clear risk-based approach to ensuring safety controls are properly implemented by industry.

The proposed Regulations also incorporate the existing *Gas Safety (Gas Quality) Regulations 2017* that prescribe the standards for gas quality, among other matters, as a requirement for inclusion in the safety case of a gas company.

These changes, along with the rationale for change, are included in Appendix 1.

The Act is structured to be supported by regulations. In the absence of regulations, safety requirements would be reliant on the development of voluntary codes or guidance. While implementation of these could achieve the required safety outcomes, it would be less efficient and potentially less transparent which would reduce confidence in the gas safety framework.

Materiality of regulatory burden

Analysis of data provided by stakeholders showed that the burden of the proposed Regulations is of the same relatively low order that currently arises, and that proposed changes, while strengthening safety case requirements, do so with marginal increases in costs. It is estimated that:

- the annualised cost to industry of preparing safety cases every 5 years is approximately \$0.26 million (\$264k);
- annual fees for the voluntary safety cases total \$0.04 million (\$42k) per annum; and
- the costs of reporting gas incidents would be approximately \$0.04 million (\$36k) per annum.

The total impact of the proposed Regulations is approximately \$0.34 million per annum.

Most of these costs are imposed by the Act – the requirement for safety cases, for example - or already incurred under the existing regulations. The only proposed ‘new’ costs are the annual fees for voluntary safety cases.

Introduction of fees for certain safety cases

As noted above, the proposed Regulations introduce fees for the submission to ESV for acceptance of certain safety cases for industrial gas installations that are termed ‘voluntary safety cases’.

Currently there are no fees for the submission of voluntary safety cases. However, such safety cases require ESV to undertake the same assessment, acceptance and regulatory surveillance activities that apply to gas companies, who pay general levies that provide for cost recovery.

Currently there are three voluntary safety cases with a fourth under consideration. ESV has estimated its annual cost for managing voluntary safety cases is approximately \$14,300 (each) per annum. While this will apply to only three companies (at the time of preparing this paper), the policy rationale in establishing the fee structure is to establish parity with the electricity sector where there is strong justification to introduce fees for the more common, larger and risk-diverse voluntary Electricity Safety Management Schemes (ESMS), which are equivalent to voluntary gas safety cases. Businesses with an approved voluntary safety case may be exempted from specific regulations for gas appliances and installations where compliance with these regulations does not provide a higher level of safety.

Impact on existing safety cases

Previously accepted safety cases will continue to have effect when the proposed regulations are made, until the safety case requires revision or resubmission.

How to make a submission

Energy Safe Victoria (ESV) invites written submissions on the proposed regulations and the Discussion Paper by no later than **Tuesday, 27 March 2018**.

Submissions should be addressed to:

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Collins St West, VIC 8007

Or send by email to: inforegulations@energysafe.vic.gov.au

For more information, contact Neil Jenkins on (03) 9674 6300

Please note that in the interests of transparency ESV will make submissions to this Discussion Paper publicly available. Should you wish for any parts of your submission to remain confidential please clearly indicate the sections of the submission and reasoning for the request. ESV will determine whether or not to withhold or publish the submission following consultation with you.

Definition of key terms

The Act	Gas Safety Act 1997
The current Regulations	Gas Safety (Safety Case) Regulations 2008
The proposed Regulations	Gas Safety (Safety Case) Regulations 2018
ABN	Australian Business Number
ACN	Australian Company Number
ESC	Essential Services Commission
ESMS	Electricity Safety Management Schemes
ESV	Energy Safe Victoria
LPG	Liquefied petroleum gas
RIS	Regulatory Impact Statement
Safety Case	A safety case is a documented and evidenced argument, made by a regulated entity to the regulator, which proposes how a specified safety baseline will be achieved through a combination of technical and management system measures and risk controls.
SMS	Safety Management System

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1. Background

1.1 Regulatory review process

Energy Safe Victoria (ESV) is the independent technical regulator responsible for electricity, gas and pipeline safety in Victoria. ESV administers the *Gas Safety Act 1997* ('the Act'), which provides for the safe conveyance, sale, supply, measurement, control and use of gas in Victoria.

Key elements of the Act require gas companies to prepare safety cases—documents that set out their policies and processes to ensure they will meet their duties under the Act to minimise the risks arising from supply and use of gas, and provide convenience to the owners/operators of industrial gas installations by allowing voluntary gas safety cases – documents that propose an alternative form of compliance with respect to licensed gasfitting work and gas installation technical standards.

Specific requirements to be included in a safety case are set out in the *Gas Safety (Safety Case) Regulations 2008*. Regulations—statutory rules made under the authority of the Act—automatically expire after ten years. The current Regulations are due to sunset on 16 December 2018, and new regulations are needed to replace them.

The remaking process provides an opportunity to determine whether regulations are still needed, and if so, whether there are ways to improve them. Before new regulations are made, the *Subordinate Legislation Act 1994* and associated guidance material requires that most regulations follow this process:



ESV consulted with parties likely to be directly affected by the proposed Regulations several times during 2017. During this time ESV established and tested the costs and benefits of the proposed Regulations.

ESV's analysis estimates that the impact of the proposed Regulations would be \$0.34 million per annum (attributing all costs to the proposed Regulations only). Feedback from stakeholders also suggests that the proposed Regulations reflect current practices that lead them to incur these costs under the current form of the proposed Regulations. Therefore, the release of a formal Regulatory Impact Statement (RIS) is not required on the basis that the proposed Regulations will not impose a significant economic or social burden on a sector of the public.

Instead, ESV is releasing the proposed Regulations and a discussion paper (this document) for consultation to industry and the wider community to ensure that the proposed Regulations are robust, and balance regulatory burden against safety benefit. This Discussion Paper outlines a high level cost benefit analysis, and invites stakeholders to make submissions on the issues no later than 27 March 2018.

Following consideration of all submissions received in response to the proposed Regulations, a statement of reasons will be made available. Once the proposed Regulations are made, copies of all submissions and other supporting documentation will be given to the Parliament's Scrutiny of Acts and Regulations Committee.

1.2 Gas safety in Victoria

Natural gas is supplied to over 1.9 million Victorian homes and businesses. A similar number use liquefied petroleum gas (LPG). In addition, portable gas heaters and gas cooking appliances may be used by businesses and consumers for outdoor activities, such as barbecues and camping.

Gas is an important resource for industry and the community. It is a safe resource when the risks that arise from the provision and use of gas are anticipated and appropriately controlled. The Act and Regulations define the regulatory framework that is considered necessary to ensure the appropriately safe provision and use of gas.

1.3 Policy framework

The Act and current Regulations (and their predecessors) have been in effect for a number of decades. During that time gas incidents have been infrequent, and the regulatory gas safety regime has ensured that gas risks have been well managed. In administering the Act and Regulations ESV seeks to ensure that it makes decisions based on sound evidence, in proportion to the risk of gas incidents, and with appropriate technical knowledge of the industries that it regulates.

Regulations made under the Act give operational effect to the Act; the Act establishes the form that safe compliance must take, but the regulations describe the requirements, including key elements of the safety management system that every safety case is required to have.

The regulations are intended to provide certainty to industry on what is required to achieve safe outcomes, and confidence to the community that safety standards and protections are clearly described. They achieve this by addressing known matters of higher risk and technical detail and specificity, when required, to ensure safety.

The Act was designed with the intention that for efficiency, it would be supported by regulations. In the absence of regulations, safety requirements would be reliant on a range of voluntary codes or guidance. While implementation of these could achieve the required safety outcomes, it would be less efficient and potentially less transparent which would reduce confidence in the gas safety framework.

The proposed Regulations are intended to provide cost effective and efficient delivery of the intentions and obligations of the Act; however, obligations and duties placed on gas industry participants such as manufacturers, suppliers and gasfitters can result in increased costs passed through to end consumers. The proposed Regulations have been carefully designed with consideration of the need to maintain an appropriate balance between necessary safety standards and the cost of achieving them.

1.4 Legislative context

The Gas Safety Act 1997 establishes a safety regime for gas networks, retailers, and certain industrial gas installations, based on the development and implementation of a safety case, which includes a safety management system.

The Act applies to gas companies. To comply with its duties under the Act, a gas company must:

- minimise the hazards and risks to the safety of the public and customers arising from gas or supply interruptions, and the risk to property of the public and customers arising from gas;
- submit a safety case in writing to ESV for its facilities that specifies the safety management system being followed or to be followed;
- ensure the gas it conveys or supplies meets certain quality standards;
- not knowingly supply or sell gas for use in a gas installation which is unsafe;
- report gas incidents at its facilities or at an installation that it supplies.

Beyond these general requirements, the Act does not specify the information that must be included in a safety case. However, the Act intends for regulations to be made to set out such requirements. The Act states that the safety management system is to be specified in accordance with regulations, and further provides that the regulations may prescribe any other matters relating to the safe conveyance, supply, sale, measurement or control of gas to be included in a safety case.

The regulatory principle of using safety cases is that the Act determines the outcome to be achieved, but not the means to achieve it. Gas companies are best positioned to assess the risks and develop risk control measures appropriate to their activities, rather than have one-size-fits-all control measures mandated across all gas companies. The intention is that the gas companies will have the primary role of determining the measures necessary to minimise risks, with the regulations specifying the *type* and *extent* of information necessary to allow ESV to determine if the proposed safety management approach is appropriate.

There are currently 48 gas companies as defined under the Act¹. Each year, on average, approximately eight of these safety cases are revised and resubmitted, and there are on average one or two new safety cases.

1.5 What is a safety case?

A safety case is a documented and evidenced argument, made by a regulated entity to the regulator, which proposes how a specified safety baseline will be achieved through a combination of technical and management system measures and risk controls.

A gas safety case typically takes the form of a collection of documents that set out the identification of all sources of risk from gas, an assessment of those risks, details of all measures to be in place to control those risks, and identification of monitoring, record keeping and review arrangements.

Safety cases are compulsory for all gas companies, and may be voluntarily submitted by operators or manufacturers of industrial gas installations.

Safety case regulation broadly permits industry participants to design their own safety systems within a risk framework. The Victorian Government suggests that prescriptive regulation should be avoided if process-based regulation represents a practicable alternative².

Safety cases are part of a process-based regulatory regime, where agreement must be reached between a gas company and ESV as to the most appropriate management measures and means to address substantial and diverse risks. The gas company must also demonstrate sufficient capability to effectively assess risks and develop tailored solutions to mitigate risks under their control.

Under the current Regulations a safety case must also include a 'safety management system' (SMS) to be followed in relation to the facility. An SMS must include the information specified in Division 3 of the proposed Regulations, including specifying how it will ensure safety and quality of gas supply to customers, as well as specifying the reporting of gas incidents, emergency preparedness, and competence and training of staff.

1.6 Improvements to safety case regime

Consultation revealed industry stakeholders viewed the operation of the current Regulations as

¹ This comprises 12 natural gas transmission companies, 5 natural gas distribution companies, 16 gas retailers, 4 LPG retailers, 6 reticulated LPG businesses, 3 landfill biogas companies, 1 LNG company and AEMO.

² OCBR, 2016, Victorian Guide to Regulation: A handbook for policy makers in Victoria; DTF, 2014, Victorian Guide to Regulation, Toolkit

effective and appropriate, and that the proposed Regulations largely codify current, or intended, industry best-practice.

Some provisions in the current Regulations have been interpreted differently by industry and ESV. The proposed Regulations provide an opportunity to clarify the intention of some provisions by:

- requiring clearer organisational accountability for the proposed safety management approach described in a safety case;
- demonstrating the adequate performance of risk control measures, as part of making a clear case for safety to ESV, including to:
 - meet the general duties in the Act; maintain effective control of risks with potential high consequences, when using (operating) assets to achieve their intended purpose; and
 - manage assets through long-term (i.e. over the foreseeable lifecycle of the asset) actions to ensure safety levels are maintained for gas networks (with a focus on long term integrity and sustainability);
- providing ESV with the ability, when administering the proposed Regulations, to better match regulatory cost to risk potential, by allowing exemption of a gas company's safety case from specific regulations (where appropriate to the level of risk); and
- setting fees for voluntary safety case operators that may seek exemption of complex industrial gas installations from prescriptive compliance requirements.

The proposed Regulations also provided an opportunity to amalgamate the safety case and gas quality obligations into one set of regulations.

2. What is the problem being addressed?

This section of this Discussion Paper discusses the evidence supporting the need for action. It finds the regulations enable the process for making and assessing safety cases to provide certainty and clarity and is the most efficient mechanism for gas companies to provide the information needed to allow ESV to be satisfied the safety case is appropriate.

2.1 The nature of the problem

The Victorian community relies on the safe sale, supply, and control of gas, and so attention is required to manage the following risks to ensure continuing community safety:

- risks related to public safety from gas transmission and distribution in networks from the potential for gas to escape resulting in explosion, loss of supply, or accumulation of dangerous levels of undetected gas;
- risks to consumers and installation owner/operators when gas is supplied to an installation or Type B appliance;
- risks to consumers from loss of supply and subsequent 'relighting'³; and
- poor gas quality, including lack of odour or excessive odour, and other gas quality hazards to consumers when using gas appliances such as inadequate or variable supply pressure, and contamination.

Regulations provide clear guidance on the intentions of the Act in relation to the duties and obligations with respect to managing these risks, specific to gas companies and volunteer industrial gas installation owners/operators.

2.2 Safety Cases by gas companies

The *Gas Safety Act 1997* ('the Act') places a general duty on gas companies to manage and operate facilities to minimise, as far as practicable:

- the hazards and risks to public safety caused by interruptions to gas supply, including reinstatement of supply, and
- damage to property of the public caused by gas.

The Act also requires a gas company to ensure that the gas it carries or supplies meets the prescribed standards of quality and requires mandatory reporting of gas incidents.

The Act requires a gas company to submit a safety case to ESV for each of its facilities⁴. The safety case describes how the gas company achieves its general duty, meets its obligations for gas quality

³ Loss of gas supply is a public safety risk due to the requirement to purge equipment and household appliances before use (relighting) following a supply interruption.

⁴ The obligation to prepare a safety case is automatically triggered by being a gas company within the definition of the Act. The most common way of being a gas company is to be licensed as a gas retailer or distributor by the Essential Services Commission (ESC) under the *Gas Industry Act 2001* or as a gas transmission company under the *Pipelines Act 2005*. 'Facility' means: a pipeline; or a facility or service for the control of the conveyance of gas; or a facility for the measurement of gas where the facility is connected to a transmission pipeline; or a service for the sale by retail of gas; or a service which controls the quality of liquefied petroleum gas provided for supply or sale; or a tempered liquefied petroleum gas plant.

standards, mandatory reporting, emergency preparedness and other matters detailed in the current Regulations.

A gas company cannot commission or begin operating a facility unless a safety case for that facility has been accepted. ESV must accept a safety case if it is satisfied that it is appropriate for the facility and complies with the Act and any associated regulations.

A gas company must comply with the accepted safety case for a facility in relation to the management and operation, removal, dismantling or decommissioning of the facility. Gas companies that convey or sell gas by retail must comply with the accepted safety case for their supply and retail operations. Safety cases must be updated and resubmitted if requested by ESV, under conditions described in the Act, or otherwise no later than five years since the last accepted safety case.

Victoria's approach has resulted in a very low number of deaths, serious injuries or damage to property. The likelihood of a serious gas incident in Victoria is low—previous analysis shows about 0.1 per cent of gas escapes (for example, from external damage) lead to an explosion. Should such an unlikely incident occur the consequences could be significant.

The Act has benefited from learning from the consequences of extreme or catastrophic incidents, such as the gas explosion at the Longford gas plant in 1998 and the pipeline explosion in San Bruno, California, in 2010. As a result, the Act places explicit safety responsibilities on gas companies, irrespective of the low frequency of events. Furthermore, the Act and current Regulations impose specific duties on gas companies in relation to gas safety, and include several mechanisms that allow ESV to be reasonably assured that they will meet those duties.

2.3 Safety cases by other parties

The Act establishes a regulatory framework for the installation and use of gas installations and appliances, as well as gasfitting work. This framework includes setting safety standards and other prescriptive requirements.

The Act allows manufacturers of complex gas installations, operators of complex gas installations in manufacturing or industrial premises, or manufacturers of Type B appliances⁵ intended for use in manufacturing or industrial premises, to also submit a safety case to apply to the respective manufacture or operation of a gas installation. In essence, they voluntarily take on the obligations of a gas company in return for convenience in situations where it may be more cost-efficient to deal with multiple exemptions across a large industrial installation, or similar exemptions for multiple Type B gas appliances at a single site.

In this situation, a manufacturer or operator can propose to follow risk control measures tailored to their business instead of following the more prescriptive standards and requirements that apply. ESV can only accept a safety case if it is satisfied it is appropriate—the safety case must achieve a safety level to the same level or a better level than if the usual standards and requirements applied.

When a safety case is accepted in these situations, ESV may exempt the manufacturer, operator or a person authorised by the safety case to carry out gasfitting work, and/or from nominated safety standards and other requirements that would otherwise apply. In this case, superfluous regulatory requirements may be exempted, provided the safety case specifies an acceptable alternative means to achieve the safety outcomes intended by safety standards.

⁵ The Gas Safety Act defines a Type B appliance as an appliance (including a second-hand appliance) with gas consumption more than 10MJ/h, including any components and fittings downstream of and including the appliance manual shut-off valve, but does not include a Type A appliance (i.e. does not include domestic and light commercial type appliances, such as cookers, space heaters, central heaters, water heaters, catering equipment and leisure appliances).

As with safety cases for gas companies, in the absence of setting out the specific type and extent of information required to be included in a safety case, the process of preparing and submitting safety cases would be inefficient. An absence of regulations would mean that there would be more work required by the gas companies and manufacturers or operators and ESV to formulate safety cases at an acceptable level.

Given the costs and work required to develop a safety case, use of these voluntary safety cases is not common.

2.4 Reporting of incidents to ESV

Under the Act, a gas company must report, to ESV, any gas incident which occurs in relation to a facility of that gas company. A gas company must also report to ESV any gas incident in relation to a gas installation to which it supplies or sells gas.

Reporting of incidents is one means by which ESV considers whether the safety case is being followed, or whether the measures in the safety case remain appropriate. ESV may also use this information to identify trends at the industry or sector levels. The information is therefore necessary to enable ESV to perform its functions as regulator.

The Act does not specify how reporting of incidents should occur, when it should occur, and what information needs to be reported. However, the Act states that incident reporting must occur in accordance with the current Regulations.

The obligations in the Act apply to any gas incident, which means any incident or event relating to the conveyance, supply or use of gas which causes, or has the potential to cause, the death of or injury to a person, significant damage to property, or an explosion. This is a very wide definition—it includes any injury, however minor, as well as incidents that could potentially cause serious injury or damage. Requiring all incidents to be reported as they occurred would place a heavy reporting burden on gas companies.

On the other hand, serious incidents should be reported as soon as possible to allow ESV to ensure that remedial action to treat any outstanding risk has occurred, and to determine whether or not further incidents are likely. In practice, ESV will require assurance that the gas company takes appropriate remedial action in a timely way, and puts in place measures to prevent recurrence. The proposed Regulations include a new explicit requirement to also report on corrective actions to prevent a future similar incident. This is intended to confirm the current practice, and is consistent with the requirements in the *Pipelines Regulations 2017*.

Because of these considerations, the current Regulations adopt a risk-based approach to reporting of incidents, whereby serious incidents or higher-risk incidents (such as those involving a transmission pipeline) are required to be reported as soon as practicable, setting out sufficient information to allow ESV to be satisfied that risks are being adequately managed. Lower risk incidents are permitted to be reported every three months.

2.5 Review of the current Regulations

ESV has reviewed the operation and effectiveness of the current Regulations. It conducted an internal review of each element of the proposed Regulations and sought feedback from stakeholders. It also reviewed ESV's administration of the proposed Regulations against the intentions stated in the regulatory impact statements that were published when the proposed Regulations were first made in 1998, and similarly when they were remade in 2008.

As part of the review ESV compared the legislative obligations of Victoria's gas safety case regime with other safety case regimes administered by Comcare, NOPSEMA, WorkSafe

Victoria (major hazards facilities), UK HSE and WorkSafe New Zealand. The comparison found strong consistency with those regimes.

Overall, the current Regulations are operating well, with the need for safety cases being generally accepted by the gas industry and the value of the proposed Regulations for providing certainty and consistency acknowledged by stakeholders. The implementation of the current Regulations and development of safety cases for natural gas transmission and distribution companies is relatively straightforward because these companies are asset owners and operators. However, ESV's past experience has been that most safety cases were not of acceptable quality on their first submission, which imposed a significant burden on ESV to provide individual feedback to gas companies on common amendments required before a safety case could be accepted.

ESV has identified that setting out a required form of safety case or specific guidance would assist parties preparing safety cases to better understand what is required, and would streamline ESV's assessment of safety cases. ESV intends to publish safety case guidance to support the proposed Regulations.

While the overall safety case framework is outcomes-based, the current Regulations have a prescriptive element by setting out the types of information to be included in a safety case. There may be instances when the cost of compliance to the legislative obligations is not proportionate to the risks being addressed. The proposed Regulations will allow a gas company or manufacturer or operator to seek exemption from the requirements of the proposed Regulations. This must be provided in writing including stating the reasons for the request. Likewise, if ESV provides an exemption it must be in writing and specify the conditions that apply.

Through consultation, ESV has identified some improvements that strengthen the benefits of the safety case framework with minimal burden impact. These include requiring greater clarity around the position and title of those responsible for the facility, the preparation of the safety case and implementation of the safety case. The gas company must nominate an ABN or ACN. ESV requires safety case risk control measures to be framed in the context of preventing foreseeable gas incidents, and a longer-term asset management safety outlook within the gas company.

2.6 What if there were no regulations in place?

If there were no regulations, many of the intended controls of the Act (discussed in the previous chapter) would not operate efficiently. The consequences of having no regulations would mean:

Table 1: Effect of no regulations

Effect	Consequence
Processes under the Act would be inefficient	<ul style="list-style-type: none"> • There would be no explicitly required content or information for the safety case and safety management system. While safety case acceptance could still occur, it would be an inefficient process where more work by ESV and the gas companies would be required to establish that a safety management approach was performing to an acceptable level. • There may be increased need for ESV to request additional information to be able to determine if the safety case is appropriate – for example, if the safety case does not demonstrate the level of risk being addressed, ESV cannot be satisfied that the control measures are adequate. • ESV's ability to enforce compliance with the general duties could be more time consuming and compromised due to the absence of clear regulatory expectations and prescribed requirements.
Loss of confidence in safety case and safety system and/or increased costs	<ul style="list-style-type: none"> • There could be delays to commissioning or modifying facilities caused by inefficient and time consuming safety case acceptance. • There may be greater reliance on testing and independent validation of the safety cases. • The reduced certainty and clarity for industry participants, and loss of transparency regarding the requirements for the safety case could lead to loss of community confidence that gas safety is maintained to high standards.

2.7 Incorporating Gas Safety (Gas Quality) Regulations 2017

Natural gas is made up of a mixture of hydrocarbons, and this mixture can vary between sources or become contaminated. The safe and secure operation of distribution and supply systems, as well as the safe operation of gas installations and gas appliances, relies on controlling gas pressures and ensuring consistent gas quality. In Australia, gas appliances are designed to operate within a certain range of gas quality specifications, including for contaminants, pressures, and odourisation.

The Act requires gas companies to ensure that gas they convey or supply meets prescribed standards of quality, and other requirements. The *Gas Safety (Gas Quality) Regulations 2017* prescribe the standards of quality by reference to relevant Australian/New Zealand Standards, testing requirements by the natural gas transmission companies, and that natural gas contains odourant⁶.

⁶ Natural gas has no odour and odourant has been added for some decades to enable users of gas to be able to identify if any gas is leaking or escaping.

For ease of operation and regulatory compliance, ESV proposes to include the substantive provisions of the Gas Safety (Gas Quality) Regulations into the proposed Regulations, with one amendment, related to the testing frequency that has previously been requested by some stakeholders⁷.

The proposed Regulations will require natural gas conveyed through a transmission pipeline to be tested for Wobbe Index and hydrogen sulphide at least once every six minutes, rather than five minutes, due to some commonly used gas chromatographs that measure gas constituents being unable to readily meet the current requirements.

2.8 Consultation to date

ESV consulted and engaged with gas companies in stages to inform development of the proposed Regulations and the preparation of this Discussion Paper:

- In June 2017, ESV invited industry stakeholders to provide any comments on the operation of the current Regulations and to nominate any areas for improvement. ESV received five responses from gas companies and interested industry bodies.

In relation to safety cases, a stakeholder raised the issue of the burden of preparing safety cases where safety requirements of other regulators had been satisfied, how the regime is administered, while other comments were made in relation to the regulations themselves.

- In September 2017, ESV released a brief paper to key stakeholders outlining a range of potential changes to the regulations and invited comment. The 18 responses received were mostly supportive of proposals to increase flexibility in managing safety cases to better match regulatory burden to risk, without affecting gas safety outcomes.
- A number of gas companies were contacted directly to obtain information about the costs of preparing individual elements of safety cases, and the costs of incident reporting and record keeping.
- Stakeholder consultation forums to provide detailed information on regulatory proposals were held on:
 - 10 and 14 November, and 14 December 2017 relevant to gas safety cases
 - 17 November 2017 for gas installations
 - 14 December for voluntary safety case holders.

ESV has also consulted the Department of Environment, Land, Water and Planning (DELWP) and considered the recommendations of the Interim Report of the Review of Victoria's Electricity and Gas Network Safety Framework.

⁷ A broader requirement in the gas quality regulations relating to the odourisation of gas supplied by a person (other than a gas company) has been replicated in the proposed Gas Safety (Gas Installation) Regulations 2018, which are also open for public comment.

3. Costs of proposed Regulations

This section of the Discussion Paper assesses the costs of the proposed Regulations.

Following review and analysis of the current Regulations, including stakeholder consultation, there is a need to remake the proposed Regulations to enable safety case requirements, record keeping requirements and reporting of incidents.

The sectors affected by the proposed Regulations include all gas companies (for which safety cases are mandatory), and the manufacturers or operators of complex gas installations and Type B appliances that elect to prepare voluntary safety cases.

There is merit in incorporating the *Gas Safety (Gas Quality) Regulations* because these apply to gas companies.

Analysis of data provided by stakeholders showed that the proposed Regulations would strengthen safety case requirements with minimal cost increase to the current requirements. For example, the proposed Regulations will require a gas company to include the ACN or ABN as part of the submission, as this helps to identify the proper legal entity. The analysis estimated that industry costs for preparing safety cases would be approximately \$1.32 million (every 5 years) plus annual fees totalling \$0.042 million per annum. The anticipated costs of reporting gas incidents would be approximately \$0.036 million per annum. Given safety cases are prepared once every five years, the total annual costs have been estimated to be \$0.34 million⁸.

Most of these costs are imposed by the Act and already incurred under the existing regulations. The only 'new' costs are the annual fees for voluntary safety cases listed below.

⁸ The proposed Regulations arguably reduce burden by providing certainty of the intent of the safety case requirement under the Act. This means some or most of the costs are imposed by the Act rather than the proposed Regulations, however are attributed to the proposed Regulations for the purposes of this discussion.

4. Safety case fees

This section of the Discussion Paper identifies and assesses options for introducing fees for the submission of voluntary safety cases.

4.1 Base case

The annual levies on gas companies raise around \$10 million per annum and are based on a formula that includes a small fixed component and variable components that reflect pipeline length and number of customers. These levies fund ESV's regulatory activities, including the assessment, acceptance and surveillance of safety cases.

Currently there are no fees paid by manufacturers or operators of gas installations when they submit a voluntary gas safety case to ESV for assessment under section 52, 53 or 54 of the Act, if they are not a gas company. In achieving safety case acceptance these entities benefit from a less prescriptive regulatory regime through voluntarily assuming the obligations of a gas company. However, this requires ESV to undertake – on a risk basis - assessment, acceptance and regulatory surveillance activities that apply to a gas company.

ESV therefore considers that the introduction of fees in relation to the increased level of regulatory interaction is appropriate. It will establish parity with the electricity sector where there is strong justification to introduce fees for the more common, larger and risk-diverse voluntary Electricity Safety Management Schemes (ESMS), which are equivalent to voluntary gas safety cases.

ESV considered the different fee options for voluntary safety cases, which are provided for under the Act; an application fee for submission of a safety case, or validation of a safety case or annual fees for a safety case.

Following review of these options ESV proposes to introduce annual fees that take into account cash flow considerations, consistency with the payment of levies by gas companies, and the expectation of ongoing surveillance of safety cases by ESV. The fees recover ESV's costs, and will be consistent with those that will be proposed for the electricity sector where the lack of parity between the different industry participants is more severe.

These costs to ESV of regulating the voluntary safety cases submitted have been estimated at approximately \$14,319 for this year per safety case, as shown in the table below. The proposed Regulations include an annual administration fee that represents partial cost recovery in line with the likely level of fee to be proposed for voluntary ESMS operators.

Table 2: calculation of ESV cost for administration of voluntary safety cases

Gas Safety (Safety Case) Regulations – fee calculations	
Average Annual salary	\$123,533
Multiplied by average FTE	0.9938*
Total salary cost	\$122,771
On-costs (75%)	\$92,078
Total cost (for 3 safety cases)	\$214,849
Cost per safety case (total divided by 3)	\$71,616.49
Proposed fee per annum per safety case	1,007 fee units**

*Note: Annual FTE has been calculated for three voluntary safety cases as being 0.655 FTE for the initial acceptance and 0.0845 FTE for the following four annual audits. This makes an annual average of 0.331 FTE per voluntary safety case.

**Note: currently \$14,319 in the 2017/18 financial year.

The proposed Regulations also include a power for ESV to reduce or waive fees in specific circumstances. ESV will administer this regulation on a risk basis that reflects the manufacturer or installation operator's risks, the compliance performance of the manufacturer or operator and the costs incurred by ESV. ESV's objective will be to ensure that the regulatory cost is in proportion with the safety benefit obtained through the safety case.

5. Small business and competition effects

ESV examined whether the proposal will affect competition or place a disproportionate burden on small businesses.

5.1 Competition effects

Any regulatory proposal needs to be scrutinised carefully to assess whether it is having an adverse impact on the ability of small business and individuals to enter and participate in the market. As a matter of good public policy, it is a fundamental principle in Victoria that any new legislation (both primary and subordinate) will not restrict competition unless it can be demonstrated that:

- the benefits of the restriction, as a whole, outweigh the costs, and
- the objectives of the legislation can only be achieved by restricting competition.

A measure is likely to have an impact on competition if any of the questions in the table below can be answered with a 'Yes'.

Table 3: Competition questions

Test question	Assessment
Is the proposed measure likely to affect the market structure of the affected sector(s) – i.e. will it reduce the number of participants in the market, or increase the size of incumbent firms?	No
Will it be more difficult for new businesses or individuals to enter the industry after the imposition of the proposed measure?	No
Will the cost and benefits associated with the proposed measure affect some businesses or individuals substantially more than others (e.g. small firms, part-time participants in occupations etc)?	No
Will the proposed measure restrict the ability of businesses to choose the price, quality, range or location of their products?	No
Will the proposed measure lead to higher ongoing costs for new entrants that existing firms do not have to meet?	No
Is the ability or incentive to innovate or develop new products or services likely to be affected by the proposed measure?	No

Consultation revealed that the proposed Regulations largely codify industry best-practice. To the extent that they increase prices or modify behaviour, these are not considered material enough to affect the competitive structure of the market. Such costs are small compared with other costs in the gas industry, and similar regulations exist in other jurisdictions. Overall, it is assessed that the proposed Regulations will not impose restrictions on competition.

5.2 Impacts on small business

Regulations can fall disproportionately on small business. For this reason, the regulation making process is required to consider small business impacts. The requirements are largely determined by the Act and the proposed Regulations cover the gas industry and complex gas installations, which is characterised by large and medium sized businesses. Therefore, the proposed regulations do not impact upon small business.

6. Implementation and evaluation

6.1 Implementation

Implementation of the proposed Regulations is considered straightforward, as gas companies are familiar with the current arrangements and similar regulations have been in place for 20 years. ESV will promote the new Regulations through direct stakeholder engagement and online via its website.

Previously accepted safety cases will continue to have effect when the regulations are re-made, until the safety case requires revision or resubmission.

Stakeholder feedback to ESV identified that ESV could improve its administration of acceptance of safety cases, and compliance monitoring, to more clearly demonstrate that the cost of compliance with safety standards is proportionate to the safety outcomes required. ESV acknowledges this and will administer the regulations with a stronger emphasis on evidence driven and risk-based regulatory administration.

ESV will also make greater use of the provision of assurance outputs (data) to enable it to better determine the level of compliance and opportunities for improvement by industry participants. This will be done within ESV's internal processes and does not affect the drafting of the proposed Regulations.

Introduction of fees for voluntary safety cases will require the fee to be paid on acceptance of the safety case and annually thereafter.

6.2 Evaluation

Ensuring gas safety is a key role of ESV and it will take the following approach to ensuring the proposed Regulations operate to achieve the intended safety outcomes without excessive regulatory burden or compliance cost.

Table 4: Evaluation strategy

Evaluation component	Proposed strategy
Objectives of the proposal	<p>The objective of the proposed Regulations is to improve the efficiency and effectiveness of safety cases, thereby contributing to gas safety in Victoria. Specifically, the proposed Regulations provide for:</p> <ul style="list-style-type: none"> the making of safety cases in relation to facilities, gas installations and appliances the reporting of gas incidents setting safety standards for the quality of gas and the testing of natural gas conveyed through a transmission pipeline. <p>Implementation of the proposed Regulations will be reviewed against the objectives, both operationally and by an evaluation.</p>
Data and data collection	<p>ESV routinely collects data concerning gas safety and gas incidents through audits, gas incident investigations, inspections, and incident reports and assurance data provided by industry. This data is used to inform ESV's monthly, quarterly and annual reporting requirements, and also provides a basis for determining regulatory surveillance plans and monitoring of safety outcomes on a risk basis. This data will also be used to monitor the applicability and effectiveness of regulations, including response to the dynamics and changes occurring within the regulated industries.</p>
Key Performance Indicators (KPIs)	<p>The core KPI for the Act and regulations is gas safety, as reflected by minimising (or eliminating) gas incidents. ESV collects, investigates and analyses data on gas incidents, including data on natural gas incidents, and gas quality excursions for gas transmission and distribution pipelines.</p> <p>Separately ESV is investigating the use of lead indicators with industry.</p>
Methods of evaluation	<p>Evaluation will rely on analysing data collected from the sources identified above against the above KPIs, consistent with the Act, regulations, and ESV's Corporate Plan.</p>
Stakeholder feedback	<p>ESV will continue to seek the views of stakeholders on the scope, content and administration of the regulations via its industry engagement forums.</p>
Responsibility	<p>ESV will be responsible for conducting an evaluation of the proposed Regulations.</p>
Timing	<p>While the performance of the regulations will be monitored on an ongoing basis, ESV will conduct an evaluation of the regulations within five years of the commencement of the proposed Regulations.</p>

Appendix 1: Statement explaining the proposed Regulations

Part 1 (Regulations 1 to 5) – Preliminary

Part 1 of the proposed Regulations contains provisions that provide for the operation of the statutory rule. It sets out the objectives of the proposed Regulations (**Regulation 1**), which are to: make provision for safety cases in relation to facilities, gas installations and appliances; provide for the reporting of gas incidents; and set safety standards for the quality of gas and the testing of natural gas conveyed through a transmission pipeline. This objective contains a new clause to reflect the incorporation of the Gas Quality Regulations into the Safety Case Regulations.

Regulation 2 provides the statutory authority under which the proposed Regulations are made. The Regulations are made under s. 118 of the *Gas Safety Act 1997*. **Regulation 3** provides that the proposed Regulations come into operation on 13 August 2018, while **Regulation 4** revokes the current Gas Safety (Safety Case) Regulations 2008 and Gas Safety (Gas Quality) Regulations 2017.

Regulation 5 provides definitions to assist in the interpretation of the proposed Regulations. There are definitions for, *AS 4564*, *AS 4670*, *commercial butane*, *commercial propane*, facility description, formal safety assessment, *LP Gas*, *LPG*, manufacturer, *NATA*, operator, published technical standard, the Act, and *Wobbe Index*. (New definitions are in italics to reflect the adoption of contemporary terminology.)

Part 2 (Regulations 6 to 39) – Safety Case for Facility

Gas retail facilities (Regulations 7 to 21)

Regulation 6 applies this Part to a safety case under Division 2 of Part 3 of the Act (safety case for facility).

Regulation 7 applies to a safety case relating to a facility for the sale of gas by retail. **Regulation 8** specifies that a safety case must specify the gas company's ACN or ABN. This is a new requirement which enables ESV to efficiently identify the entity that is submitting the safety case and which is information the gas company will already have (this is replicated in Regulations 23 and 43).

Regulation 9 specifies that a safety case must include the name, title and business address of the person who is responsible for the management, control and safe operation of the gas company and, as a new requirement, has authorised the company's safety case. The change to this regulation will improve accountability by requiring the person with ultimate management control of the gas company to authorise the safety case before its submission to ESV (this change is replicated in Regulation 24 (b)).

Regulation 10 requires that a safety case must specify the title and, as a new requirement, the contact information of the person who is responsible for preparation, submission and updating of the safety case. This is information the gas company already has.

Regulation 11 provides that a safety case must contain a facility description. The facility description must provide a detailed description of the functions and operation of the facility to which the safety case relates. It must also provide sufficient information to enable the extent and scope of the operations of the gas company in relation to the facility, and the risks associated with those operations, to be assessed.

Regulation 12 provides that 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 Regulations 13 to 21 (**Regulation 13**) in relation to a facility for the sale by retail of gas.

The safety management system must specify the gas company's organisational structure and responsibilities (**Regulation 14**). This removes the requirement to specify safety policies, the definition of which was unclear and being confused with policies, which go beyond gas safety, such as occupational health, and safety over which ESV has no jurisdiction. The safety management system must also specify the means by which the gas company ensures the safety of gas supply to customers under s. 32 of the Act (**Regulation 15**); the quality of gas supplied to customers to ensure it meets its duties under s. 33 of the Act and the standards prescribed in rr. 45 and 46 (**Regulation 16**); the supply of gas for use in gas installations so that it meets its duties under ss 34 and 35 of the Act (**Regulation 17**); how it will report gas incidents to meet its duties under s. 36(1) and (2) of the Act (**Regulation 18**); its emergency preparedness and response plan (**Regulation 19**); internal monitoring, auditing and review systems (**Regulation 20**); and the competence and staff training levels for those assigned to carry out work in the facility (**Regulation 21**).

Other Gas Facilities (Regulations 22 to 38)

Regulations 23 to 38 apply to a safety case for a gas facility other than a facility for the sale by retail of gas (**Regulation 22**).

Regulation 23 specifies that a safety case must specify the gas company's ACN or ABN. This information enables ESV to efficiently identify the entity that is submitting the safety case.

Regulation 24 specifies that a safety case must include 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. This regulation will improve accountability by requiring the person who has ultimate management control of the gas company to authorise the safety case prior to its submission to ESV.

Regulation 25 requires that a safety case must specify the role title of the position of the person who is responsible for preparation, submission and updating of the safety case.

Regulation 26 provides that a safety case must contain a facility description. The facility description must provide a detailed description of the functions and operation of the facility to which the safety case relates. It must also provide sufficient information to enable the extent and scope of the operations of the gas company in relation to the facility and the risks associated with those operations to be assessed.

Regulation 27 requires that a safety case must contain a formal safety assessment, which must provide a description of the methodology used and investigations undertaken for the formal safety assessment, and identification of hazards with the potential to cause a gas incident. It must also include a systematic assessment of risk, including the likelihood and consequences of a gas incident, as well as a description of technical and other measures undertaken, or to be undertaken, to minimise that risk as far as practicable.

A safety case must specify the safety management system followed, or to be followed, in relation to the facility (**Regulation 28**). This contains a new requirement to require the demonstration of the adequacy of the technical and other measures adopted or to be adopted under Regulation 27. Regulations 30 to 38 prescribe certain contents that must be included in a safety management plan for a gas facility other than a retail facility (**Regulation 29**). This includes: the organisational structure and responsibilities (**Regulation 30**); the published technical standards applied to be used, or to be used, in the design, construction, commissioning, installation, operation, maintenance and decommissioning of the facility or any part of the facility (**Regulation 31**) 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 are safe and have long term integrity (**Regulation 32**).

Regulation 32 also includes new provisions requiring compliance with the gas quality standards referred to in Regulations 45 and 46, and the requirement to ensure the safety management system is adequate for monitoring and maintaining the integrity of the facility taking into account its operational life. This should have no impact on gas companies, which are expected to have an understanding of the long term integrity of their assets.

Regulation 33 requires the safety management system to specify a permit to work system, which prohibits 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 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 (**Regulation 33**); and its emergency preparedness and response plan (**Regulation 34**). This regulation is expanded to require the plan to address 'gas incidents' which may not be emergencies and is not likely to have an impact on gas companies.

The regulations then address the reporting of gas incidents (**Regulation 35**); internal monitoring, auditing and review systems (**Regulation 36**); the means by which gas incidents will be recorded, investigated and reviewed including a new requirement to articulate how the gas company's management systems will prevent future incidents occurring (**Regulation 37**); and competence and staff training levels for persons assigned to carry out work in the facility (**Regulation 38**).

Records (Regulation 39)

Regulation 39 deals with record keeping. It specifies that a gas company must establish and maintain a system for keeping records relating to the safety case for each of its facilities. A penalty of 20 penalty units may be incurred for failure to comply with this regulation. The records required to be kept are the accepted safety case, any revisions of the accepted safety case, any written audit reports of the accepted safety case, any reports of investigations by the gas company of gas incidents, and a copy of each report given by the gas company to ESV. 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. In addition, records must be stored in a secure manner for the period of seven years from the creation of the record.

Part 3 (Regulations 40 to 43) – Safety cases for gas installations and appliances

Regulation 40 applies Divisions 4, 5 and 6 of Part 2 of the Regulations as if references to a ‘facility’ and ‘gas company’ were references to a ‘complex gas installation’ and ‘operator of the complex gas installation’ respectively for the purposes of s. 52 of the Act.

Regulation 41 applies Divisions 4, 5 and 6 of Part 2 as if references to a ‘facility’ and ‘gas company’ were references, respectively, to the supply and installation of the Type B appliances concerned and the manufacturer of the Type B appliances for the purposes of s. 53 of the Act.

Regulation 42 applies Divisions 4, 5 and 6 of Part 2 as if references to a ‘facility’ and ‘gas company’ were references, respectively, to the manufacture of the complex gas installations concerned and the manufacturer of the complex gas installations for the purposes of s. 54 of the Act.

Regulation 43 requires a safety case submitted under Part 3 to specify the ABN or ACN of the operator or manufacturer.

Part 4 (Regulation 44) – Reporting of gas incidents

Regulation 44 deals with reporting of gas incidents. For the purposes of s. 36(1) of the Act, a gas company must report gas incidents in the form of a statistical summary on a quarterly basis. However, a gas company must report a gas incident as soon as practicable after it occurs if the gas incident involves a transmission pipeline; causes the death of or injury to a person; causes significant property damage; or causes significant disruption to the community.

For the purposes of s. 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 s. 36 (other than gas incidents included in quarterly summary reports) must specify, to the extent that the information is available to the gas company the nature of the gas incident; where and when the gas incident occurred; the cause of the gas incident; whether any emergency service attended the gas incident; what remedial actions (if any) were taken by the gas company; and (as a new requirement) the corrective actions that were taken or are proposed to be taken to prevent a similar incident.

Part 5 (Regulations 45 to 47) – Gas Quality

With the exception of **Regulations 47 (3)(a)** and **(4)(a)**, the following regulations are new to reflect the incorporation of the Gas Safety (Gas Quality) Regulations. These should not by themselves impact on gas companies who are already obliged to comply with gas quality requirements. This does, however, provide minor streamlining of regulations. **Regulations 47 (3)(a)** and **(4)(a)** relate to proposed changes to the required gas testing interval, from at least once every 5 minutes to at least once every 6 minutes, as described below, which will provide minor relief of burden for some industry participants with no discernible impact on gas safety.

Regulation 45 prescribes the quality of gas. For the purposes of s. 33(1) and (2) of the Act the prescribed standard of quality for natural gas conveyed through a transmission pipeline or a distribution pipeline is set out in AS 4564; the prescribed standard of quality for the supply or sale of natural gas supplied to a customer is set out in AS 4564; and the prescribed standard of quality for LP Gas supplied or sold to a customer for use in an appliance (other than LP Gas used or intended to be used for automotive purposes) is set out in AS 4670.

Regulation 46 prescribes odour in gas. For the purposes of sections 33(1) and (2) of the Act, it is a prescribed standard of quality that all gas must have an odour which is distinctive and unpleasant, and have an odour level that is discernible at one-fifth of the lower explosive limit of the gas.

Regulation 47 prescribes testing requirements of natural gas conveyed through transmission pipelines. The gas company must test or cause to be tested the natural gas it conveys in accordance with this Regulation to ensure that the gas meets the prescribed standard of quality referred to in

Regulation 45. Further, the gas company must test or cause to be tested the Wobbe Index of the natural gas it conveys by using an instrument that determines the Wobbe Index at least once every 6 minutes, or an instrument that determines the Wobbe Index that is of a class approved by ESV.

The gas company must also test or cause to be tested the hydrogen sulphide content of the natural gas it conveys by using an instrument that determines the hydrogen sulphide content at least once every six minutes, or an instrument that determines the hydrogen sulphide content that is of a class approved by ESV.

The gas company must ensure that a test of the Wobbe Index or hydrogen sulphide content of the natural gas it conveys is carried out in accordance with methods accredited by NATA or approved by ESV.

Part 6 (Regulations 48 to 49) – Fees

Currently no fees are prescribed under the Gas Safety (Safety Case) Regulations. **Regulation 48** is a new regulation that prescribes fees for complex gas installation and Type B appliance safety cases. As noted in this paper, these changes will apply to voluntary safety cases, which require ESV to undertake assessment, acceptance and regulatory surveillance activities. ESV considers that the introduction of fees in relation to the increased level of regulatory interaction is appropriate and will establish parity with the electricity sector where there is strong justification to introduce fees for the more common, larger and risk-diverse voluntary Electricity Safety Management Schemes, which are equivalent to gas safety cases.

An operator or manufacturer under a safety case submitted under s. 52, s. 53 or s. 54 of the Act (voluntary safety case) must pay an annual administration fee of 1007 fee units to Energy Safe Victoria.

The administration fee is payable on acceptance of the voluntary safety case and on each anniversary of acceptance.

Regulation 49 is a new regulation, which permits ESV to waive or rebate all or part of the fees payable under Regulation 48 in specific circumstances.

Part 7 (Regulation 50) - Exemptions

Regulation 50 is a new regulation which provides that ESV may, on the application of a gas company, manufacturer or operator referred to in Part 3 of the Act, exempt a safety case from any of the requirements of the proposed Regulations. This adds flexibility in administration and reduces regulatory burden for some participants. Such an application must be in writing and state the reasons for applying for the exemption. Any exemption provided by ESV must be in writing and include conditions (if any) to which the exemption is subject.

Furthermore, in the case of an application for exemption from compliance with a prescribed standard of quality specified in Regulation 45 or 46, ESV may grant the exemption if the gas company concerned satisfies ESV that the conveyance, supply, sale or use of the gas to which the standard of quality relates will be safe in the circumstances.

A gas company, or other person, to whom an exemption is given under this regulation must comply with any conditions of the exemption. Failure to do so may incur a penalty of 20 penalty units.

Draft regulations

Proposed Gas Safety
(Safety Case) Regulations 2018

Gas Safety (Safety Case) Regulations 2018

The Governor in Council makes the following Regulations:

Dated:

Responsible Minister:

LILY D'AMBROSIO

Minister for Energy, Environment and Climate Change

PART 1—PRELIMINARY

1 Objectives

The objectives of these Regulations are—

- (a) to make provision for safety cases in relation to facilities, gas installations and appliances;
- (b) to provide for the reporting of gas incidents; and
- (c) to set safety standards for the quality of gas and the testing of natural gas conveyed through a transmission pipeline.

2 Authorising provision

These Regulations are made under section 118 of the **Gas Safety Act 1997**.

3 Commencement

These Regulations come into operation on 13 August 2018.

4 Revocations

The following regulations are **revoked** –

- (a) the Gas Safety (Safety Case) Regulations 2008¹;

(b) the Gas Safety (Gas Quality) Regulations 2017².

5 Definitions

In these Regulations—

AS 4564 means Australian Standard, "Specification for general purpose natural gas", as published or amended from time to time;

AS 4670 means Australian Standard, "Commercial propane and commercial butane for heating purposes", as published or amended from time to time;

commercial butane means a liquefied petroleum gas that consists of more than 90% butanes and butylenes;

commercial propane means a liquefied petroleum gas that consists of more than 90% propane and propylene;

facility description means a facility description referred to in regulation 11 or 26;

formal safety assessment means a formal safety assessment referred to in regulation 27;

LP Gas means commercial butane or commercial propane that is intended for use in an appliance;

LPG means liquefied petroleum gas and includes LP Gas;

manufacturer has the same meaning as it has in section 51 of the Act;

NATA means National Association of Testing Authorities, Australia ACN 004 379 748;

operator has the same meaning as it has in section 51 of the Act;

published technical standard in relation to any matter means a document which gives technical information, guidance or advice on that matter and that is published by—

- (a) Standards Australia; or
- (b) the British Standards Institute; or
- (c) the International Organization for Standardization (ISO); or
- (d) the Institution of Gas Engineers and Managers (United Kingdom); or
- (e) any similar standards organisation, whether within Australia or outside Australia;

the Act means the **Gas Safety Act 1997**;

Wobbe Index has the same meaning it has in AS 4564.

PART 2—SAFETY CASE FOR FACILITY

Division 1—Application

6 Application of this Part

This Part applies to a safety case under Division 2 of Part 3 of the Act.

Division 2—Content of safety case for gas retail facilities

7 Application of this Division

This Division applies to a safety case relating to a facility for the sale by retail of gas.

8 Specification of Australian Business Number or Australian Company Number

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

9 Person responsible for facility

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

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

10 Person responsible for safety case

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

11 Facility description

- (1) A safety case must contain a facility description.
- (2) The facility description must provide a detailed description of the function and operation of the facility to which the safety case relates.

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

12 Safety management system

- (1) A safety case must specify the safety management system followed or to be followed in relation to the facility.
- (2) The safety management system must contain the information specified in Division 3.

Division 3—Content of safety management system— gas retail facilities

13 Application of this Division

This Division applies to the safety management system of a safety case relating to a facility for the sale by retail of gas.

14 Organisational structure and responsibilities

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

15 Safety of gas supply to customers

The safety management system must specify the means by which the gas company ensures that it meets its duties under section 32 of the Act.

16 Quality of gas supplied to customers

The safety management system must specify the means by which the gas company ensures that it meets its duties under section 33 of the Act.

Note

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

17 Supply of gas for use in gas installations

The safety management system must specify the means by which the gas company ensures that it meets its duties under sections 34 and 35 of the Act.

18 Reporting of gas incidents

The safety management system 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.

19 Emergency preparedness

- (1) The safety management system must specify a response plan designed to address all reasonably foreseeable emergencies.
- (2) The response plan must—
 - (a) ensure the safety of the public and customers; and
 - (b) specify the means by which the gas company ensures that it meets its duties under sections 32 and 33 of the Act.

20 Internal monitoring, auditing and reviewing

- (1) The safety management system must specify the processes and the performance indicators to be used by the gas company for monitoring, auditing and reviewing the adequacy and implementation of the safety management system.
- (2) The safety management system must specify the means to be used to ensure—

- (a) regular and systematic identification of deficiencies in those policies and procedures and in their implementation; and
- (b) regular and systematic improvement in those policies and procedures and in their implementation to improve the safety of the facility and its operation.

21 Competence and training

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

- (a) 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
- (b) only persons with the qualifications, skills and competence appropriate to that work are assigned to carry out the work; and
- (c) any training necessary for persons assigned to carry out that work is provided.

Division 4—Content of safety case for other gas facilities

22 Application of this Division

This Division applies to a safety case for a facility other than a facility for the sale by retail of gas.

23 Specification of Australian Business Number or Australian Company Number

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

24 Person responsible for facility

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

(a) is responsible for the management, control and safe operation of the gas company; and

(b) has authorised the company's safety case.

25 Person responsible for safety case

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

26 Facility description

(1) A safety case must contain a facility description.

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

(3) 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.

27 Formal safety assessment

(1) A safety case must contain a formal safety assessment.

(2) The formal safety assessment for a facility must be consistent with the facility description for the facility and must provide—

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

(b) an identification of hazards having the potential to cause a gas incident; and

(c) a systematic assessment of risk, including the likelihood and consequences of a gas incident; and

- (d) a description of technical and other measures undertaken, or to be undertaken, to minimise that risk as far as practicable.

28 Safety management system

- (1) A safety case must specify the safety management system followed or to be followed in relation to the facility.
- (2) 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.

Division 5—Content of safety management system—other gas facilities

29 Application of this Division

This Division applies to the safety management system of a safety case relating to a facility other than a facility for the sale by retail of gas.

30 Organisational structure and responsibilities

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.

31 Published technical standards

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.

32 Design, construction, installation, operation, maintenance and modification

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—

- (a) is adequate for the safety and safe operation of the facility; and
- (b) is adequate to ensure the safety of the public; and
- (c) is adequate to minimise the risk of damage to another person's property; and
- (d) is adequate for the safe and reliable conveyance and supply of gas; and
- (e) 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.

- (f) takes into account the results of the formal safety assessment for the facility; and
- (g) meets the published technical standards listed in the safety management system in accordance with regulation 31; and
- (h) is adequate for monitoring and maintaining the integrity of the facility taking into account the expected operational life of the facility.

33 Permit to work system

- (1) 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.
- (2) 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.
- (3) A permit to work system must—
 - (a) 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
 - (b) specify the positions of the persons who are authorised to issue permits to work and to supervise that work; and
 - (c) 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.

34 Emergency preparedness

- (1) 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.
- (2) The response plan must—
 - (a) ensure the safety of the public; and

- (b) specify the means to ensure the continued safe operation of the facility; and
- (c) 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.

35 Reporting of gas incidents

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.

36 Internal monitoring, auditing and reviewing

- (1) 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.
- (2) The safety management system for a facility must specify the means to be used to ensure—
 - (a) regular and systematic identification of deficiencies in the safety management system and its implementation; and
 - (b) regular and systematic improvement of the safety management system and its implementation to improve the safety of the facility and its operation.

37 Gas incident recording, investigation and reviewing

The safety management system for a facility must specify—

- (a) the means to be used for recording and investigating gas incidents; and
- (b) 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.

38 Competence and training

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

- (a) 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
- (b) only persons with the qualifications, skills and competence appropriate to that work are assigned to carry out the work; and
- (c) any training necessary for persons assigned to carry out that work is provided.

Division 6—Records

39 Records

- (1) 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.

Penalty: 20 penalty units.

- (2) The records required to be kept under subregulation (1) are—
 - (a) the accepted safety case; and
 - (b) any revisions of the accepted safety case; and
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- (c) any written audit reports of the accepted safety case; and
 - (d) any reports of investigations by the gas company of gas incidents; and
 - (e) a copy of each report given by the gas company to Energy Safe Victoria.
- (3) The records must be kept—
- (a) at the address or location nominated in the safety case by the gas company; and
 - (b) in a manner that makes their retrieval reasonably practicable; and
 - (c) in a secure manner; and
 - (d) for the period of 7 years from the creation of the record.
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PART 3—SAFETY CASES FOR GAS INSTALLATIONS AND APPLIANCES

40 Safety case under section 52 of the Act

Divisions 4, 5 and 6 of Part 2 apply to a safety case under section 52 of the Act as if—

- (a) any reference to a facility were a reference to a complex gas installation; and
- (b) any reference to a gas company were a reference to the operator of the complex gas installation.

41 Safety case under section 53 of the Act

Divisions 4, 5 and 6 of Part 2 apply to a safety case under section 53 of the Act as if—

- (a) any reference to a facility were a reference to the supply and installation of the Type B appliances concerned; and
- (b) any reference to a gas company were a reference to the manufacturer of the Type B appliances.

42 Safety case under section 54 of the Act

Divisions 4, 5 and 6 of Part 2 apply to a safety case under section 54 of the Act as if—

- (a) any reference to a facility were a reference to the manufacture of the complex gas installations concerned; and
- (b) any reference to a gas company were a reference to the manufacturer of the complex gas installations.

**43 Specification of Australian Business Number or
Australian Company Number**

A safety case submitted under this Part must specify the ABN or ACN of the operator or manufacturer.

PART 4—REPORTING OF GAS INCIDENTS

44 Requirements for reporting of gas incidents

- (1) 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.
- (2) 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—
 - (a) involves a transmission pipeline; or
 - (b) causes the death of or injury to a person; or
 - (c) causes significant property damage; or
 - (d) causes significant disruption to the community.
- (3) 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.
- (4) 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—
 - (a) the nature of the gas incident; and
 - (b) where and when the gas incident occurred; and
 - (c) the cause of the gas incident; and
 - (d) whether any emergency service attended the gas incident; and
 - (e) the remedial actions (if any) that were taken by the gas company; and

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(f) the corrective actions that were taken or are proposed to be taken by the gas company to prevent a similar incident.

PART 5 – GAS QUALITY

45 Standards of quality – quality of gas

For the purposes of section 33(1) and (2) of the Act –

- (a) the prescribed standard of quality for natural gas conveyed through a transmission pipeline or a distribution pipeline is set out in AS 4564; and
- (b) the prescribed standard of quality for the supply or sale of natural gas supplied to a customer is set out in AS 4564; and
- (c) the prescribed standard of quality for LP Gas supplied or sold to a customer for use in an appliance (other than LP Gas used or intended to be used for automotive purposes) is set out in AS 4670.

46 Standards of quality - odour

- (1) For the purposes of sections 33(1) and (2) of the Act, it is a prescribed standard of quality that all gas must—
 - (a) have an odour which is distinctive and unpleasant; and
 - (b) have an odour level that is discernible at one-fifth of the lower explosive limit of the gas.
- (2) This regulation does not apply to any of the following—
 - (a) LPG used or intended to be used for automotive purposes;
 - (b) liquefied natural gas used or intended to be used for automotive purposes.

47 Testing of gas quality conveyed through transmission pipelines

- (1) This regulation applies to a gas company that conveys natural gas through a transmission pipeline.
- (2) The gas company must test or cause to be tested the natural gas it conveys in accordance with this regulation to ensure that the gas meets the prescribed standard of quality referred to in regulation 45(a).
- (3) The gas company must test or cause to be tested the Wobbe Index of the natural gas it conveys by using—
 - (a) an instrument that determines the Wobbe Index at least once every 6 minutes; or
 - (b) an instrument that determines the Wobbe Index that is of a class approved by Energy Safe Victoria.
- (4) The gas company must test or cause to be tested the hydrogen sulphide content of the natural gas it conveys by using—
 - (a) an instrument that determines the hydrogen sulphide content at least once every 6 minutes; or
 - (b) an instrument that determines the hydrogen sulphide content that is of a class approved by Energy Safe Victoria.
- (5) The gas company must ensure that a test of the Wobbe Index or hydrogen sulphide content of the natural gas it conveys is carried out in accordance with methods—
 - (a) accredited by NATA; or

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(b) approved by Energy Safe Victoria.

PART 6 – FEES

48 Fees for complex gas installation and Type B appliance safety cases

- (1) An operator or manufacturer under a safety case submitted under section 52, 53 or 54 of the Act (*voluntary safety case*) must pay an annual administration fee of 1,007 fee units to Energy Safe Victoria.
- (2) The administration fee is payable on acceptance of the voluntary safety case and on each anniversary of acceptance.

49 Waiver or rebate of fees

- (1) Energy Safe Victoria may waive or rebate all or part of the administration fee if, in the opinion of Energy Safe Victoria -
 - (a) the consideration of the safety case would impose or has imposed a lesser burden on Energy Safe Victoria than usual; or
 - (b) administration of the safety case has imposed no appreciable burden or a lesser burden on Energy Safe Victoria than usual.
- (2) In deciding whether to waive or rebate all or part of the administration fee, Energy Safe Victoria may have regard to –
 - (a) the voluntary safety case operator’s safety performance and compliance with the accepted safety case; or
 - (b) in the case of a safety case submitted under section 52 of the Act, the number and

characteristics of the Type B appliances forming part of the complex gas installation.

PART 7 - EXEMPTIONS

50 Exemptions

- (1) Energy Safe Victoria, on the application of a gas company or a manufacturer or operator referred to in Part 3 of the Act, may –
 - (a) exempt a safety case from any of the requirements of these Regulations; or
 - (b) in the case of an application from a gas company for an exemption from compliance with a prescribed standard of quality specified in regulation 45 or 46, grant the exemption if the gas company satisfies Energy Safe Victoria that the conveyance, supply, sale or use of the gas to which the standard of quality relates will be safe in the circumstances.
- (2) An application for exemption must be in writing and state the reasons for applying for the exemption.
- (3) An exemption given under subregulation (1) –
 - (a) must be in writing;
 - (b) specify the conditions (if any) to which the exemption is subject.
- (4) A gas company or other person to whom an exemption is given under this regulation must comply with the conditions (if any) of the exemption.
Penalty: 20 penalty units.

ENDNOTES

¹ Reg. 4(a): S.R. No. 164/2008.

² Reg 4(b): S.R. No. 89/2017.

Fee Units

These Regulations provide for fees by reference to fee units within the meaning of the **Monetary Units Act 2004**.

The amount of the fee is to be calculated, in accordance with section 7 of that Act, by multiplying the number of fee units applicable by the value of a fee unit.

The value of a fee unit for the financial year commencing 1 July 2017 is \$14.22. The amount of the calculated fee may be rounded to the nearest 10 cents.

The value of a fee unit for future financial years is to be fixed by the Treasurer under section 5 of the **Monetary Units Act 2004**. The value of a fee unit for a financial year must be published in the Government Gazette and a Victorian newspaper before 1 June in the preceding financial year.

Penalty Units

These Regulations provide for penalties by reference to penalty units within the meaning of section 110 of the **Sentencing Act 1991**. The amount of the penalty is to be calculated, in accordance with section 7 of the Monetary Units Act 2004, by multiplying the number of penalty units applicable by the value of a penalty unit.

The value of a penalty unit for the financial year commencing 1 July 2017 is \$158.57.

The amount of the calculated penalty may be rounded to the nearest dollar.

The value of a penalty unit for future financial years is to be fixed by the Treasurer under section 5 of the **Monetary Units Act 2004**. The value of a penalty unit for a financial year must be published in the Government Gazette and a Victorian newspaper before 1 June in the preceding financial year.

ENDNOTES

Table of Applied, Adopted or Incorporated Matter

The following table of applied, adopted or incorporated matter is included in accordance with the requirements of regulation 5 of the Subordinate Legislation Regulations 2014.

Statutory rule provision	Title of applied, adopted or incorporated document	Matter in applied, adopted or incorporated document
Regulation 5, definitions of <i>AS 4564, Wobbe Index</i> Regulation 45(a) and (b).	AS 4564, "Specification for general purpose natural gas" published on 9 June 2011 by Standards Australia	The whole.
Regulation 5, definition of <i>AS 4670</i> Regulation 45(c)	AS 4670, "Commercial propane and commercial butane for heating purposes" published on 1 September 2006 by Standards Australia	The whole.