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Major Hazard Facilities Advisory Committee  
c/- Planning Panels Victoria  
Level 5, 1 Spring Street  
MELBOURNE

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Dear Mr Wimbush

**ESV SUBMISSION OF INITIAL COMMENT TO THE MAJOR HAZARD FACILITIES ADVISORY COMMITTEE**

Thank you for giving ESV the opportunity to provide an initial comment to the Major Hazard Facilities Advisory Committee.

ESV's initial comment is made in the context of clause 5b of the committee's terms of reference: "The Advisory Committee is to make recommendations on ... principles for applying land use buffers more broadly to other uses with adverse amenity potential." And in anticipation that the outcome of the committee's work with respect to major hazard facilities may support a resolution to the issue of land development around pipelines licensed under the *Pipelines Act (2005)* (Licensed Pipelines).

The consequences of the failure of a Licensed Pipeline are potentially catastrophic, as is the case with major hazard facilities. When developments and land use changes occur around a Licensed Pipeline, the safety and risk profile of the pipeline and the surrounding land users may be impacted, for instance through the long term risk of third party interference and increasing the consequences of a failure in the pipeline.

It is therefore prudent to consider the presence of and constraints posed by Licensed Pipelines in the context of strategic planning and development decisions. Currently, planning schemes largely fail to recognise or address these constraints. The committee's advice on the better management of the interface between existing and new development and land use for MHFs could help provide greater clarity of responsibilities and facilitate the coming together of pipeline licensees, planning authorities, developers and the community. This would help ensure that the requirements of AS2885 (stipulated by the Pipelines Act) and State Policy Framework clause 19.03-6 are complied with, and that the safety of pipelines, the supply systems they constitute, people, property and the environment is maintained.

ESV chairs a working group comprising officers from ESV, the Metropolitan Planning Authority, Department of Environment, Land, Water and Planning, Department of Economic Development, Jobs, Transport, and Resources and Australian Pipeline and Gas Association. The working group would welcome the opportunity to submit to a paper to the Major Hazard Facilities Advisory Committee addressing methods to ensure that pipeline safety is maintained.

ESV asks the committee to consider this issue to be within its terms of reference.

Further background to the issue of land development around Licensed Pipelines is provided in the attached paper.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Steve Cronin', is centered on the page. The signature is fluid and cursive, with a large initial 'S' and a long horizontal stroke at the end.

Steve Cronin  
**HEAD OF BUSINESS STRATEGY**

# **Background paper on the issue of land development around Licensed Pipelines**

## **1 Introduction**

1.1 Victorian planning schemes largely fail to recognise or address the planning constraints posed by existing pipelines licensed under the *Pipelines Act (2005)* (Licensed Pipelines). This means that pipeline licensees are often not notified of development and land use changes within a pipeline's measurement length early in the planning process, if at all, and prospective purchasers of land located within the measurement length of the pipeline are not aware of the existence of the pipeline or the risks associated with it.

1.2 ESV is concerned to ensure that the presence and potential impacts of high pressure pipelines is taken into account when making strategic planning decisions.

1.3 This report addresses these issues and recommends that consideration be given to implementing a mechanism that identifies Licensed Pipelines in Victoria, and includes a referral process that notifies pipeline licensees of applications for the development of land adjacent to Licensed Pipelines.

## **2 Licensed Pipelines**

2.1 There are over 200 licenses for onshore high-pressure pipelines, with a total length of over 4500 km, in Victoria. These pipelines transport natural gas and other petroleum products including LPG, oil, unprocessed hydrocarbons and liquid fuels.

2.2 The Victorian gas transmission system alone comprises 2000 km of high pressure gas pipelines. Almost all of the natural gas consumed in Victoria is transported through this transmission system. The transmission system serves a total consumption base of approximately 1.5 million residential consumers and approximately 50,000 industrial and commercial users throughout Victoria.

2.3 Failure of high pressure gas pipelines is extremely rare in Australia. However, a full bore rupture failure of a high pressure pipeline has the potential to cause catastrophic damage in the case of explosion and may impact an area many hundreds of metres from a pipeline. The consequences of pipeline failure are potentially devastating and, in populated areas, may cause multiple fatalities and widespread destruction of property.

2.4 A common characteristic of all high-pressure petroleum pipelines is the highly volatile nature of the fluids being transported. In a worst-case scenario, the effects of a major pipeline incident extend many hundreds of metres beyond the physical pipeline location.

2.5 Due to the prevalence of natural gas pipelines, there is often a focus on this infrastructure when considering planning issues. However, the issue exists for all Licensed Pipelines.

2.6 It is therefore prudent to consider the presence of and constraints posed by Licensed Pipelines in the context of strategic planning decisions.

## **3 Australian Standard AS2885**

3.1 The Pipelines Act requires all high pressure pipelines to be designed, constructed, operated and maintained in accordance with Australian Standard AS2885 (AS2885).

3.2 AS2885 states that the management of pipeline safety is a fundamental principle underlying its provisions, and that pipeline safety management is an ongoing process that takes place over the life of a pipeline.

3.3 AS2885 mandates that when surrounding or adjacent land uses change the operating environment of a Licensed Pipeline, a safety management study (SMS) must be undertaken to assess the risks and threats posed by the pipeline on the proposed use of the land. The SMS is an important step in an assessment of the risks posed by the high pressure pipeline on the proposed use of the land, and the extent to which those uses are compatible and can co-exist.

#### **4 Victoria planning provisions**

4.1 Clause 19.03-6 of the State Planning Policy Frameworks acknowledges the need to “plan for the development of pipeline infrastructure subject to the Pipelines Act 2005 to ensure that gas, oil and other substances are safely delivered to users ... at minimal risk to people, other critical infrastructure and the environment”, and to recognise “existing transmission-pressure gas pipelines in planning schemes and protect from further encroachment by residential development or other sensitive land uses”.

4.2 However, for the most part, local policies, zoning and overlays within Victorian planning schemes fail to recognise existing Licensed Pipelines. Furthermore, the provisions of AS2885 are not well supported through the *Planning and Environment Act (1987)*.

4.3 Due to the absence of suitable planning controls recognising the potential planning constraints associated with existing high pressure pipelines, pipeline licensees are often not notified of developments and land use changes around pipelines until late in the planning process or not at all. Safety assessments required by AS2885 are not carried out in a timely fashion or at all. This means that the risks associated with the pipeline in relation to the change in land use may not be assessed until late into the planning process, if at all, and the risk to people, property and the environment may not be within acceptable levels.

4.4 There is a real risk that this “gap” in planning controls has and will continue to lead to new development occurring in unacceptably hazardous circumstances.

4.5 Recent experience has shown that by the time the proposed changes in land uses are identified by the pipeline licensee, the plans to change land use have developed to such a point that it is difficult to influence the land use plans to limit risk.

4.6 It is also apparent that purchasers of land located within a pipeline’s measurement length are often unaware of the presence of the pipeline or the risks associated with it.

#### **5 Encroachment of urban uses on high pressure natural gas pipelines**

5.1 When developments and land use changes occur around a Licensed Pipeline, the safety and risk profile of the pipeline may be impacted in a number of ways, including when development alters the land use classification of an area around a pipeline, increasing the long term risk of third party interference and increasing the consequence of a failure in the pipeline. This is particularly true on the urban fringe of Melbourne, where population growth and housing pressures have led to increasing expansion of urban boundaries and the transformation of rural and semi-rural land into suburban and urban environments containing residential, commercial and industrial activities.

5.2 In these instances, it is critical that the planning process and the development of land adjacent to high pressure pipelines takes into account the existence of high pressure pipelines

and the risks associated with them. If these considerations are not identified through the planning and development process, urban encroachment and development may not be managed appropriately, creating long term safety issues.

5.3 Land use changes around high pressure pipelines can occur when amendments to local planning schemes are made.

5.4 In its report, the three person panel appointed by the Minister for Planning to hear and consider submissions in respect of Amendment C246 to the Greater Geelong Planning Scheme, noted that the lack of recognition of existing high pressure gas transmission pipelines reflected a shortcoming in the Victorian planning system and that it would be appropriate to recognise existing high pressure pipelines in planning schemes in a formal way.

5.5 The Panel also stated that it would be reasonable to implement some form of notice for newcomers buying into the area about the existence of the pipeline.

## **6 Response to Panel's findings**

6.1 After the Panel's report was released, the Minister for Planning recognised both the need to address this issue, and the existence of a working group chaired by ESV and comprising officers from ESV, the Metropolitan Planning Authority, Department of Environment, Land, Water and Planning, Department of Economic Development, Jobs, Transport, and Resources and Australian Pipeline and Gas Association.

6.2 Despite preliminary issues regarding the availability of officers, the working group is making progress and is currently preparing a paper for submission to the Major Hazard Facilities Advisory Committee, which will include sections addressing methods to be implemented to ensure that pipeline safety is maintained.

