



AUSTRALIAN PETROLEUM PRODUCTION & EXPLORATION
ASSOCIATION LIMITED

ABN 44 000 292 713

HEAD OFFICE

GPO BOX 2201
CANBERRA ACT 2601

LEVEL 3

24 MARCUS CLARKE STREET
CANBERRA ACT 2600
PHONE 61 2 6247 0960
FAX 61 2 6247 0548

PERTH OFFICE

PO BOX 7039
CLOISTERS SQUARE
PERTH WA 6850

LEVEL 1

190 ST GEORGE'S TERRACE
PERTH WA 6000
PHONE 61 8 9321 9775
FAX 61 8 9321 9778

INTERNET

<http://www.appea.com.au>

EMAIL

appea@appea.com.au

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Mr John Hawkins
The Secretary
Senate Standing Committee on Economics
PO Box 6100
Parliament House
CANBERRA ACT 2600

Dear Mr Hawkins,

INQUIRY INTO MATTERS RELATING TO THE GAS EXPLOSION AT VARANUS ISLAND, WESTERN AUSTRALIA

I am writing in response to the invitation to APPEA to provide a submission to the Senate Standing Committee on the matters relating to the accident at Varanus Island in Western Australia. APPEA's submission will focus on two matters:

- (b) The government response to the Western Australian gas crisis, including but not limited to:
 - (ii) the adequacy of reliance on any single source of supply of gas for domestic markets; and
 - (iii) the provision of reliable and affordable supplies of energy.

The accident at Varanus Island in June 2008, and a prior incident at the North West Shelf Joint Venture (NWSJV) domestic gas plant in January 2008, has brought into focus Western Australia's reliance on a small number of gas suppliers and the need to encourage greater diversity in all aspects of the domestic energy market.

Varanus Island is an oil and gas processing hub operated by Apache Energy and supplies approximately 30 per cent of the State's gas, predominantly to industrial customers. The NWSJV domestic gas plant is operated by Woodside and supplies approximately 70 per cent of the State's gas. This gas is supplied to large and small industrial customers, mining, power generation and residential users.

Immediately after the Varanus Island accident, the State Government established a Gas Supply Coordination Group to manage the gas shortage and develop a system for priority allocation of energy resources to industry and households. There is now a need to move beyond this focus and give consideration to a range of longer term policies that is aimed at increasing the competition within the energy sector so that the State is less reliant on any single source of supply. APPEA believes there are a number of policy initiatives that could be considered to increase the diversity and flexibility of current gas production, including more supply and processing points.

Adoption of the Australian standard for gas quality in the Dampier to Bunbury Natural Gas Pipeline (DBNGP) to enable gas to be produced and transported from a wider range of discoveries, at a lower development and processing cost without compromising the utility or safety of natural gas in the market.

The Australian domestic gas specification details the mixture of gases acceptable for transport in gas transmission systems (pipelines) and use for commercial and residential purposes in Australia. The gas specification is determined by a National Standard. It is designed to set the acceptable range of gases that might enter the domestic system from different gas fields throughout the country (each of which

would have a different composition, with different calorific values and may contain different levels of gases such as CO₂, which are corrosive and affect pipeline maintenance costs and useable life).

The Western Australian domestic gas specification allows fewer variations in its acceptable range, reducing opportunities for gas supply into the market. Though the specification has been widened, it is still not as broad as the Australian Standard. Adoption of the Australian Standard would encourage the development of a number of onshore and offshore gas fields that are marginally outside the current DBNGP specifications. It would also increase competition in the market by increasing the number of gas suppliers and the potential for gas pipelines to be interconnected.

Incentives for the application of innovative technology for the development of 'tight' gas and smaller onshore gas fields.

Western Australia already has large reserves of 'tight' gas, however, the geology makes it harder to extract and requires costly and specialised drilling techniques. There is an opportunity to develop a resource that is already known, with many of these gas fields being closer to the market and potentially faster to commercialise.

In 2004 the South Australian Government introduced a policy to encourage exploration expenditure by the resources sector through best-practice industry standard geoscientific information and improved land access. Under the policy, grants are available for jointly funded petroleum or geothermal exploration drilling programs on a dollar for dollar basis. Although a modest program (initially \$22.5m over five years) the policy is viewed as a highly successful initiative and a similar program could be applied in Western Australia to encourage development of 'tight' gas, other smaller, less commercial onshore gas fields and geothermal projects.

Improving regulatory and approvals processes by reducing duplication and improving the efficiency and predictability of approval timelines.

The lengthy and complex approvals process in Western Australia impacts on investment decisions and feeds a perception of the State as a difficult place to invest. This is particularly so in the petroleum industry where one project can cross two or three jurisdictions and be subject to a myriad of regulatory requirements.

While APPEA supports a strong regulatory system that provides the certainty industry needs to invest and gives the public confidence that industry is meeting responsible operating practices, there is a need for the environmental approvals process in particular to be simplified, streamlined and made more transparent. APPEA has strongly supported the recent State Government decision to review the Environmental Impact Assessment process. In addition, APPEA believes consideration should be given to establishing a body with clear authority to coordinate and fast-track approvals for 'Projects of State Significance'.

Working with the Australian Government to ensure appropriate scrutiny of the commerciality of undeveloped fields through the existing retention lease process.

A retention lease is awarded if a non-commercial discovery has been made that has a reasonable chance of becoming commercially viable within the next 15 years. Retention leases are issued for five years, with renewal periods of five years. At the time of application for a grant and at each renewal of a retention lease, the lessee must demonstrate the discovery is not currently commercially viable, but is likely to become commercially viable within the next 15 years. Security over title is essential as it is not always possible to find markets and develop large, remote

offshore gas fields quickly. Through the existing assessment processes and criteria for awarding and renewing retention leases, the State Government is able assure customers that those fields that can be economically developed, will be developed.

Investigating the development of a second major gas transmission pipeline to provide greater supply security, capacity and competition. The DBNGP is rapidly approaching the point where further expansion is technically difficult and costly.

A lack of capacity on the Dampier to Bunbury Natural Gas Pipeline (DBNGP) has been identified as one of the reasons for the current constrained gas market. The DBNGP is only expanded to meet firm commitments for new gas. This discourages gas suppliers from developing spare gas production capacity. As gas differs from field to field and restrictions on the quality of gas that can enter the pipeline are tougher than those applying to pipelines in other States, this also makes it harder for some gas fields to be economically developed.

Incremental expansions of the DBNGP are becoming increasingly costly so at some point the construction of a second pipeline could become more cost effective as well as provide greater competition and energy security. A second pipeline could be developed in stages, extending initially from Compressor Station 1 north east of Onslow to Geraldton, to cater for increased gas demand in the developing mid west iron ore industry. The existing easement would easily cater for a second gas transportation pipeline and the Government could play an important role in facilitating private sector investment in this area.

Increasing State Government investment in pre-competitive geoscience to encourage further onshore exploration and discovery of new gas resources.

The level of petroleum exploration in Western Australia has been in long-term decline. Despite this, a number of sedimentary basins covering large parts of the State are under-explored and classed as exploration frontiers. While exploration in these areas carries higher costs and risks, it could yield significant new gas fields that could be tied into existing onshore infrastructure.

With demand for natural gas increasing, there is an urgent need to encourage exploration for new gas fields that may be better suited to the domestic market as well as adding to the overall gas resource. Onshore or near-shore gas discoveries can generally be developed more quickly and at lower cost than remote offshore fields. A recent study undertaken by one of the nation's leading geoscientists Dr Trevor Powell found that:

"A major barrier to the exploration of these frontier basins is the absence of sufficient geological information to allow exploration investors to make well informed decisions. Understanding prospectivity is a primary consideration for explorationists, but such assessments are fundamentally dependent upon an infrastructure of geoscience data, concepts and knowledge which provide the framework for successful exploration. The absence of information means high risk and reduces the possibility of investment in exploration in frontier basins. For exploration frontiers the basic geological information collected by State and national geological surveys is fundamental to informed decision-making by exploration companies." ¹

¹ Discovering Australia's Future Petroleum Resources: The strategic geoscience information role of Government, Dr Trevor Powell, January 2008

Provision of basic infrastructure to assist exploration, especially in remote areas, and adequate social and economic infrastructure to support the development of new gas projects.

Many frontier areas for exploration, such as the Canning Basin covering a large area between the Pilbara and the Kimberley, have very little in the way of access tracks, water supply, communications and other basic infrastructure. Infrastructure investment will be needed if oil and/or gas is discovered in sufficient quantities to justify development.

A number of infrastructure services to, or within, the North West of the State are also in need of upgrading as a result of increasing levels of activity in the petroleum and mining industries. Current pressures are already causing project delays, increased costs and risks, and discouraging project operators from locating staff in regional centres. Project operators and service providers have raised a number of concerns relating to transport infrastructure, especially roads, ports, wharf facilities and airports; the availability of land for housing and industrial development; critical medical amenities and services; and water provision, especially for industrial purposes.

Establish a gas market bulletin board to enable parties to bid for available gas supply and transportation capacity. This would encourage further development of a 'spot' market in Western Australia and lead to more players in the market and greater competition.

Although competition in the supply of gas to the domestic market has increased in the past decade, it is still dominated by two major producers, while five large gas customers account for around 90 percent of gas consumption. As a consequence the WA gas market is relatively immature and investment in supply capacity tends to be 'lumpy'. Encouraging development of a 'spot' market in Western Australia by establishing a gas market bulletin board will increase opportunities for gas trading and result in market growth and more competition.

APPEA welcomed the State Government announcement of an online bulletin board for gas sales as an important step forward in facilitating trade in natural gas in Western Australia. This system closely resembles the National Gas Market Bulletin Board that came into effect in all States except Western Australia on 1 July this year. One important feature of the national scheme that has not been adopted in WA is the provision of information on pipeline capacity and flows. Transparency in gas transportation is as essential to a fair and effectively functioning gas market as transparency in gas production and gas use.

Industry Support for Safety Case Regime

Finally, I would like to take this opportunity to restate APPEA's strong support for the safety case regime and for a single national offshore safety regulator. On the 6th July this year, it was exactly twenty years since the world witnessed the worst disaster ever to occur in the oil and gas industry when the Piper Alpha platform in the North Sea was completely destroyed and 167 people lost their lives.

Much of what we take for granted today in terms of improved technology and safety management is a direct result of the Piper Alpha disaster. The Cullen Inquiry into the disaster made 106 recommendations, all of which were accepted by Industry, with the key recommendation being the introduction of new safety regulations requiring the operator/owner of every fixed and mobile installation to submit to the new independent regulator for their acceptance, a 'safety case'.

The safety case regime sets the safety goals to be attained, and the operator of the facility develops the most appropriate methods of achieving those goals. Under this regime the operator must demonstrate that all the risks have been identified, assessed and reduced to as low as reasonably practicable (ALARP).

In 1996, Australia introduced an objective based safety regime for the oil and gas industry based on the Cullen Inquiry findings. Since that time, operating under the objective based safety case regime, the industry has reduced its injury rates in all measures by half, with serious lost time injuries reducing from 3.3 serious injuries for every million hours to less than 1.6.

Prior to the introduction of the safety case regime, Australia's offshore petroleum industry was regulated by highly prescriptive legislation. Too often the regulator was assumed to have responsibility for identifying what was safe or not for the industry. Rapid changes in technology and operations meant that legislation and regulation were always out of date or inadequate. Prescriptive legislation achieves a minimum compliance culture, rather than paying attention to the risks actually present in dynamic and ever changing workplaces.

It is also important to understand that there is no diminution of standards under a safety case regime. In the case of pipeline management, the operator should demonstrate the standard being applied and how the risk is being reduced to ALARP. In practice, the industry would refer to for example, an appropriate Australian or International Standard [in this case AS2885 (Part 1 issue 1997)] but go beyond this minimum standard and reduce the risk to ALARP.

APPEA and its members also support the National Offshore Petroleum Safety Authority (NOPSA), and is of the view NOPSA has demonstrated a professional and independent approach to offshore safety since its introduction on 1 January 2005. A recent independent review of NOPSA concluded that:

"NOPSA has made good progress in building a safety regulatory regime and authority of world class calibre, and, as expected there are still some aspects of the regime that can be improved on to achieve best practice regulation."

The Review Team then stated that the regulation of health and safety in the offshore petroleum industry has successfully been made less complicated by the establishment of a single regulator. Industry has welcomed the Review Recommendations as we are strongly committed to continuous improvement of our health and safety performance.

Yours sincerely



Belinda Robinson
CHIEF EXECUTIVE