



WESFARMERS LPG PTY LTD (INC IN WA)
ABN 32 009 214 831

Mr. Lyndon Rowe
Chairman
Economic Regulation Authority
Level 6, Governor Stirling Tower,
St, Georges Terrace,
Perth , WA 6000

26th May, 2005

Draft Decision on Proposed Revisions to the Access Arrangement for the DBNGP
- Wesfarmers LPG Submission -

Dear Mr. Rowe,

With reference to the Draft Decision on the Proposed Revisions to the Access Arrangement for the DBNGP of 11 May 2005, Wesfarmers LPG Pty Ltd ('W LPG') has concerns regarding the Operating Specification for gas quality as detailed in the Draft Decision Amendment 15.

This gas quality uses the CO₂ and inerts levels specified in the 'Broadest Specification of the Dampier to Bunbury Pipeline Regulations 1998' and the HHV and Wobbe Index values specified in the 'Gas Standards Regulations 2000'. Amendment 15 also has the same gas specification for both 'Receipt Point' and 'Delivery Point'.

W LPG believe that this proposed revision will have a negative impact on the production capability at the Kwinana LPG extraction plant and request that the ERA take this into consideration when reviewing our submission to the Draft Decision.

➤ **W LPG Concerns:-**

1 **Kwinana Plant Inlet and Outlet Gas Specification**

W LPG operate an LPG extraction plant which straddles the DBNGP. The LPG and heavier components (Propane, Butanes, Pentanes +) are extracted from the natural gas supplied to the W LPG plant from the DBNGP with the lean natural gas returned to the DBNGP downstream of the W LPG facility.

This results in the plant outlet levels of CO₂ and inerts level being higher than the plant inlet levels. A 7.0 mol% inerts level at the plant inlet changes to approximately 7.2 mol% at the plant outlet as a result of the LPG components being extracted.

Similarly, the HHV and Wobbe Index plant outlet levels will be lower than the plant inlet levels as a result of the LPG components being extracted. This will make it difficult to achieve the minimum HHV and Wobbe Index at the plant outlet when the HHV and Wobbe Index are close to their proposed minimum values at the plant inlet.

If the CO₂ and inert gases are at their proposed maximum levels at the WLPG plant inlet or/and the HHV and Wobbe Index are near their proposed minimum levels at the WLPG plant inlet, WLPG will be unable to meet the required gas specification at the WLPG plant outlet. As a result, WLPG would be required to bypass the plant which in effect means shutting the plant down and ceasing production.

2 Impact of High Inerts level

Inlet gas to the WLPG plant containing an inerts level of 7.0 mol% will result in WLPG needing to re-inject LPG into the pipeline downstream of the plant to meet the minimum Wobbe Index of 46.5 which equates to a 15% to 30% reduction in Propane production at the plant. At an inerts level of 6.0 mol%, the plant would be able to operate at maximum LPG recovery and meet the minimum Wobbe Index requirement.

3 Impact of High CO₂ level

An increase in CO₂ level from 3.6 mol% to 4.0 mol% reduces the current operating temperature safety margin at which CO₂ hydrates can form at the low operating temperature sections of the extraction plant. If the ethane content was to decrease in future DBNGP gas supply, this safety margin would be further reduced which would increase the risk of hydrate formation, resulting in plant shutdown with loss of production and possible damage to extraction equipment.

To operate with an operational safety margin, WLPG would need to operate at higher temperatures within the extraction section of the plant resulting in loss of production or install CO₂ removal equipment. It is likely that the capital cost of CO₂ removal equipment would make the LPG extraction plant uneconomic resulting in plant closure.

➤ **W LPG Request for Consideration to Change Amendment 15:-**

W LPG recommends the following changes to Amendment 15 to take into consideration the above factors:

1 **Allow different Plant Inlet and Plant Outlet Gas Specifications:**

- Allowance for a higher maximum inerts level of 0.5 mol% at plant outlet compared to plant outlet.
- Allowance for a lower minimum HHV of 0.5 MJ/m³ at plant outlet compared to plant inlet.
- Allowance for a lower minimum Wobbe Index of 0.5 at plant outlet compared to plant inlet.

2 **Reduction of Maximum Inerts:**

- Reduction in maximum inerts at plant inlet from 7.0 mol% to 6.0 mol% to prevent loss of LPG production at the W LPG plant:
 - A maximum inerts of 6.0 mol% at plant inlet and 6.5 mol% at plant outlet.

3 **Reduction of Plant Inlet CO₂ level:**

- Reduction of Plant inlet CO₂ level from 4.0 mol% to 3.6 mol% to prevent potential future hydrate formation at W LPG plant resulting in loss of production and/or the need for installation of high capital cost CO₂ removal equipment.

4 **Proposed Gas Quality Specification at Plant Inlet and Outlet:**

- See Appendix 1 – ‘W LPG Proposed Gas Quality Specification ’.

If you require additional information for clarification, please do not hesitate to contact me.

Yours Faithfully

Peter Wilson
Operations Manager
Wesfarmers LPG

cc
C.J. French,
General Manager W LPG

APPENDIX 1

W LPG Proposed Gas Quality Specification

<u>COMPONENT</u>		<u>RECEIPT POINT</u>	<u>DELIVERY POINT</u>
		(W LPG PLANT INLET)	(W LPG PLANT OUTLET)
Maximum carbon dioxide (mol%)		3.6	4.0
Maximum inert gases (mol%)		6.0	6.5
Minimum Higher Heating Value (MJ/m ³)		37.3	36.8
Maximum Higher Heating Value (MJ/m ³)		42.3	42.3
Minimum Wobbe Index		47.3	46.8
Maximum Wobbe Index		51.0	51.0
Maximum total sulphur (mg/m ³)			
Unodorised		10	10
Odorised		n/a	20
Maximum Hydrogen Sulphide (mg/m ³)		2	2
Maximum Oxygen (mol%)		0.2	0.2
Maximum water (mg/m ³)		48	48
Hydrocarbon dewpoint over the pressure range 2.5 to 8.72 MPa absolute		Below 0°C	Below 0°C
Maximum radioactive components (Bq/m ³)		600	600