



**Review of New Zealand Specification for
Reticulated Natural Gas**

Response to GIC Consultation Paper

***Submission to
Gas Industry Company Limited
by
Powerco Limited***

April 2006

Review of New Zealand Specification for Reticulated Natural Gas

Summary

This submission is in response to the Gas Industry Company's (GIC's) consultation paper dated March 2006, which presented a review of the New Zealand specification for reticulated natural gas.

The GIC sought comments on five specific questions. Powerco's response is set out in summary form immediately below. These are followed by additional comments.

Powerco considers the GIC should assume an active role in gas specification compliance as the issues concerning non-specification gas deliveries into gas networks are serious and place both safety and infrastructure at unnecessary risk.

The impact of supply outages resulting from non-specification gas deliveries - on business, Government, essential services, commercial and industrial consumers, as well as domestic households - are substantial. These impacts and accompanying safety concerns are discussed within this submission.

Response to GIC questions

Question	Response
<p>Q1: What is your view of Plant and Platform's recommendation that the specification limits listed in Table 2 of NZS 5442:1999 do not need to be changed?</p>	Agree.
<p>Q2: What is your view of Plant and Platform's recommendation that there is little value to be obtained by undertaking an in-depth, rigorous review of the specification because it would be a costly and time-consuming exercise for stakeholders?</p>	Agree.
<p>Q3: What is your view of the recommendation by Plant and Platform that the matters listed below are best left to the stakeholders concerned and that they have the appropriate commercial incentives to handle these matters efficiently?</p>	Disagree.
<p>> Detection and prevention of out of specification gas from entering the gas transmission system.</p>	Business processes have failed to secure a satisfactory solution to the associated safety and infrastructure integrity risks and regulatory invention is required; detailed comments below.
<p>> Prevention of step changes to the Wobbe Index for gas delivered to gas turbine and gas engine operators.</p>	<p>) If business processes fail to secure acceptable outcomes, a regulatory-based solution will need to be considered if safety and infrastructure integrity is at risk.</p>
<p>> Identification of swings in the Wobbe Index and the forewarning of gas turbine and gas engine operators.</p>	

Question	Response
Q4: If there are any matters you are aware of that have a bearing on the specification for reticulated natural gas and have not been considered by Plant and Platform?	No.
Q5: Are there any changes that you are aware of, either recently or in the near future, that have not been accounted for in either NZS 5442 or on the report from Plant and Platform?	No.

Further comments

Question Three – Matters suggested best left for the gas market to address

Introduction

Powerco has experienced problems with the current regime that is intended to ensure gas quality. Powerco has attempted to resolve these issues through normal business interactions but discussions with NGC Transmission (now Vector) have been unsuccessful. The following table illustrates existing responsibilities and complexities of the current arrangements:

Source	Transmission pipeline owner	Retailer	Distributor
Gas Act 1992	Gas must be supplied in accordance with any Regulations made under the Act.	Gas must be supplied in accordance with any Regulations made under the Act.	Gas must be supplied in accordance with any Regulations made under the Act.
Gas Regulations 1993	No obligation on NGCT to ensure gas in the transmission pipeline meets the gas specification. No obligation on NGCT to use all practicable steps to ensure safety.	Gas supplied must comply with NZS5442 The fine for non-compliance is up to \$10,000.	No obligation on Powerco to ensure gas in the distribution pipeline meets the gas specification. Obligation on Powerco to use “all practicable steps” to ensure safety of the distribution network.
Health and Safety in Employment Act 1992	Employers have a general duty to take all practicable steps to ensure the safety of employees.	Employers have a general duty to take all practicable steps to ensure the safety of employees.	Employers have a general duty to take all practicable steps to ensure the safety of employees.
Health and Safety in Employment (Pipelines) Regulations 1999	Under the Pipeline Regulations, employers must take all practicable steps to detect any hazardous accumulation of gases. The fine for non compliance is up to \$250,000.	Under the Pipeline Regulations, employers must take all practicable steps to detect any hazardous accumulation of gases. The fine for non compliance is up to \$250,000.	Under the Pipeline Regulations, employers must take all practicable steps to detect any hazardous accumulation of gases. The fine for non compliance is up to \$250,000.

Source	Transmission pipeline owner	Retailer	Distributor
Energy Safety Service	<p>Role is to enforce compliance with the Gas Act and associated regulations.</p> <p>Cannot place any higher standard on NGCT than under the legislation.</p>	<p>Role is to enforce compliance with the Gas Act and associated regulations.</p> <p>Cannot place any higher standard on any retailer than under the legislation.</p>	<p>Role is to enforce compliance with the Gas Act and associated regulations.</p> <p>Cannot place any higher standard on Powerco than under the legislation.</p>
Contractual	<p>No contractual relationship with Powerco.</p>	<p>Under the gas distribution agreements (Network Services Agreements, Gas Use of System Agreements and Gas Distribution Agreements), there is generally an obligation on retailers to deliver gas that meets the gas specification (i.e. NZS5442).</p> <p>There is an obligation on the retailers to indemnify for all loss arising from failure to deliver specification gas.</p>	<p>No contractual relationship with NGCT.</p> <p>Agreements with retailers are enforceable, however, issues with proof of which retailer has let non-specification gas into the distribution network.</p>

Non-specification gas risks

Current practices and arrangements fail to prevent non-specification gas from entering Powerco's distribution networks, nor are the parties responsible for the delivery of non-specification gas able to be easily or reliably identified. Powerco has been unable to assign responsibility for the non-specification gas deliveries without the appropriate gas quality screening and control equipment in place.

The presence of gas supply threatening contaminants - solids, in particular oil and water - in gas delivered to networks has changed from a remote, low risk to one having a significantly higher risk of occurrence. Supply failures occurred in 2004 and similar supply threatening events occurred again last month.

In 2004 delivery of oil contaminated non-specification gas at NGC's Wellington delivery points resulted in a total supply stoppage with less than three hours usage of gas remaining in the local distribution network. Gas supply was nearly closed down to parts of Wellington, including the three major hospitals. A similar mid-winter event would have given NGC a very short timeframe to rectify equipment failures before a total outage eventuated.

Further north, total outages of small networks occurred and in one instance rather than failing closed, delivery point equipment failed fully open, resulting in over pressurisation and representing a serious safety issue.

Delivery of oil bearing non-specification gas occurred again last month; again over pressurisation difficulties occurred.

A total Wellington network failure due to contaminants would take 2-3 months to reinstate service to all customers, along with the associated economic losses and potential loss of supply to essential services including local hospitals.

Attempts to resolve non-specification issues

Quality measuring equipment needs to be installed at each receipt point that is able to both identify the gas quality entering the transmission system and prevent injection if contaminants are present. NGC Transmission has to date rejected any responsibility for non-specification gas entering its transmission pipeline and into distribution networks. Powerco has no interconnection agreement with NGC Transmission.

There are contracts in place between Powerco and retailers (largely assigned to Powerco following network acquisitions) that place obligations on retailers to ensure gas meets specification and for retailers to indemnify Powerco in the event of a failure to comply with this obligation. However this regime is not effective due to the difficulty in ascertaining, let alone prove, which retailer's non-specification gas has entered distribution networks. Therefore the effective management of non-specification gas is beyond the operational ability of retailers. Network companies have no ability to control the quality of gas entering their infrastructure.

Market Failure - Unable to resolve contractually – Regulation Requirement

Powerco contends there has been a market failure in the contractual regime in relation to gas quality, and this should be addressed through urgent regulatory intervention.

In Powerco's view the GIC should initiate an amendment to the Gas Regulations 1993 to require transmission pipeline owners to establish a reliable means of identifying the injection of non-specification gas into the transmission pipelines as it occurs. Operators of the transmission pipelines would be required to install facilities to measure and publish gas quality information disclosing details of any non-specification gas. The cost of establishing the necessary equipment (including gas chromatographs) could be passed through to the relevant parties through appropriate network charges being instigated by NGC Transmission (now Vector).

The GIC has signaled a preference for parties to enter contractual arrangements to negotiate a commercial outcome, rather than regulatory intervention in this regard. Powerco's proposed solution, relating to measurement and information provision only, is consistent with the GIC's recommendation to allow the market to prevail – as it is simply designed to ensure that the market is informed so that commercial arrangements can be effective.

Costs and Benefits

A cost/benefit analysis needs to be performed for regulation of gas specification. While not explicitly in its mandate, Powerco considers that the GIC has a role in such work as the Government has already extended the GIC's work scope on recent occasions, for example on low gas user fixed charges and related matters. A precedent exists for GIC initiating the required work, particularly as significant pan-industry safety considerations are present. Powerco would be pleased to participate in the cost/benefit analysis.

Pending a more detailed analysis, Powerco is of the view that the benefits of regulating gas specification far outweigh the costs, which could be several million dollars expenditure involved.