Submission to the Gas Industry Company on its Issues Paper "Gas Governance Issues in Quality" 7 September 2010

From

Contact Energy Limited

18 October 2010

Introduction

Contact appreciates the opportunity to comment on the GIC's Issues Paper "Gas Governance Issues in Quality" dated 7 September 2010.

Contact is engaged in businesses that require it to source gas for a full range of end-use requirements that traverse generation of electricity at its power stations, use for industrial and commercial purposes including specialised industrial purposes and supply to residential customers. Across those businesses, and at this time, Contact is not aware of gas quality issues that justify further regulatory intervention to ensure delivered gas is of a satisfactory quality.

Contact has experienced gas quality issues at its power stations but is satisfied delivered gas has met the required specification. In the past meters have been affected by accumulation of oily residue but it has been concluded that these residues have accumulated over time rather than from injection of non-specification gas into the transmission system.

The focus of effort to ensure the quality of delivered gas is of acceptable quality should be where it can be controlled; at the point of injection of that gas into the transmission system. Both the MPOC and the VTC contain provisions requiring all parties injecting gas to monitor the quality of gas at the point of injection against the established and regulated quality standard, NZS 5442. The MPOC and the VTC require all parties injecting gas to be able to demonstrate that they have facilities, systems and procedures in place to ensure that injected gas meets the established standard. TSOs are required to notify pipeline users if non-specification gas is injected into the transmission system.

It is necessary that the quality monitoring standards are backed by requirements that injecting parties notify injection of non-specification gas. Once gas has been injected into the transmission system little can be done to address gas quality. Injected gas will inevitably be delivered to end-users whatever its quality. End-users wishing to avoid delivery of non-specification gas, once it has been injected into the gas transmission system, can only do that by shutting down their end use.

The established quality standard reflects a compromise between meeting the needs of some users, requiring tightly controlled gas quality, whilst avoiding unnecessary

costs for other users able to accept lower quality gas. NZS 5442 has a long established history and has been reviewed and renegotiated many times to reflect that compromise. Before any regulatory intervention occurs, the question should be answered of whether a change has occurred that would justify a shift in that balance of compromise.

Arrangements to address quality should be supported by provisions that allocate liability for delivery of non-specification gas to the party causing that delivery. But the extent of that liability will also be a compromise. Extending liability to a party beyond matters that party can reasonably control, and without liability cap, creates unknown and unmanageable risks. Sharing of uncontrollable gas quality risk is appropriate and a long established principle.

The principles governing responsibility for management and control of gas quality currently set out in the quality standard, legislation and contractual arrangements seem reasonable, and experience shows these principles work reasonably effectively. Nevertheless there is room for improvement.

A feature that could be added to existing contractual arrangements, that could further ensure the quality of gas is effectively managed and controlled at injection points, would be to require injecting parties to publish the results of quality monitoring on a daily basis. Such reporting should be an obligation under the MPOC and the VTC. Access to this information would help:

- identify critical characteristics and components that justify more frequent monitoring;
- quickly identify injection of non-specification gas including the materiality of any divergence from specification;
- end-users better assess the risks arising from injection of non-specification gas;
- end-users avoid damage arising from injection of non-specification gas;
- identify responsibility for injection of non-specification gas; and
- ensure effective monitoring of gas quality.

If there was a requirement to publish gas quality information Contact would prefer gas composition data directly sourced from gas chromatographs was published rather than specification characteristics and components calculated from gas

chromatograph composition data.

The separation of interconnection agreements related to Vector pipelines from the VTC and the lack of interconnection agreements at all delivery points on the Vector transmission system are unsatisfactory. The separation makes the responsibility of shippers, interconnected parties and injecting parties for gas quality less clear and risks inconsistency in the arrangements. Lack of interconnection agreements at some delivery points of the Vector transmission system means there is a discontinuity in Vector's and the interconnected party's rights and obligations at those delivery points, and again those arrangements lack clarity. This deficiency potentially impacts on gas quality and on wider matters such as responsibility for metering and balancing.

At this stage there is no reason to believe these improvements could not be achieved without regulatory intervention.

Before further work is undertaken on gas quality by the GIC, the GIC should better define the gas quality issue it is seeking to address and construct at least a preliminary cost benefit analysis for any proposed work.

Contact's responses to the questions that the GIC has set out in the Issues Paper are listed below. Contact is happy to clarify these responses, if required.

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Questions from Issues Paper

QUESTION	COMMENT
Question 1: Are there any significant effects of non-specification gas, other than those identified in section 2.3, that Gas Industry Co should consider?	Section 2.3 provides a reasonable high level summary of the possible significant effects of non-specification gas. However, it would have been useful for the GIC to attempt to show the level of risk associated with each of these effects, or in other words, the problem definition requires further development. In section 1.3 the GIC says *"More recently, the number of gas quality-related incidents has increased, …"*, *"Gas Industry Co understands gas quality issues have for some time been a point of contention between industry participants."* and *"Gas Industry Co has received numerous requests from a distributor suggesting gas quality issues need further consideration."* All of these statements deserve further explanation. For example: • what was the number of gas-quality incidents and what is the level now? • what is the nature of the gas-quality incidents? • what are the contentious gas quality issues that have been troubling gas industry participants? • how long have these issues been a point of contention? • what is the value associated with the gas-quality issues? • what is the nature of the requests received from the distributor? • when were the requests received from the distributor? • why have requests only been received from one distributor? • what action has the GIC taken to address the requests received from the distributor? and • what action has the distributor taken to resolve the issues? The GIC could have sought data to show which gas properties are typically close to the relevant specification limits and those typically well within specification limits. Such information would have identified characteristics and components likely to cause problems and whether the resulting risk could be addressed by increased monitoring of gas quality or instead require changes to the quality standard. This would seem essential before an appropriate solution (if required) can be developed.

QUESTION	COMMENT
Question 2: Do you agree with the assessment of the types of non-specification gas and potential causer, as set out in Table 3?	Table 3 provides a reasonable summary of the types of non-specification gas and identifies the potential causers of those types. We note, however, that operators of gas treatment stations may not necessarily be producers, but for the purposes of Table 3 would have to be classified as producers. Separately identifying operators of gas treatment plant in the table would better identify the causers. Table 3 doesn't indicate the likely impact of the types of non-specification gas. Impact is overwhelmingly likely to arise from non-specification gas entering the transmission system following production and gas treatment. Efforts to reduce that risk should be the focus of attention.
Question 3: Do you agree with the proposed regulatory objective? If you disagree please explain why and/or provide an alternative.	The proposed purpose lacks precision, partly as a result of inadequate problem definition. A more prescriptive statement would ensure stakeholders better understand the GIC's intention. The purpose should establish: • that the arrangements should be efficient; • the outcome sought; • how the quality specification is established; and • identify the parties responsible for achieving the outcome. In addition, the purpose must be linked to the broader objectives of the GIC and Government Policy objectives and outcomes. The following purpose statement better captures these principles: To establish industry arrangements to manage gas quality that : • ensure the quality of delivered gas reliably meets a standard consistent with the standard of similar international markets, and that is relevant for the NZ market; • are efficient; • appropriately recognise the trade-off between price (and/or cost) and quality; • assign responsibility for meeting the standard to those parties best able to control gas quality; and. • balance the assignment of liability across those failing to meet their responsibilities.
Question 4: Do you agree we have interpreted the provisions contained within the transmission codes and contracts correctly? Are there additional contracts or provisions that should be considered?	The GIC's summary of transmission codes and contracts requires clarification in a number of areas. **MPOC Provisions** The frequency of testing required by the MPOC is misstated in the GIC's Issues Paper.

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	The monitoring requirements set out in section 17.15 of the MPOC are minimum requirements and do not limit the requirement that each: • direct injecting party shall ensure that all gas that it injects into the Maui pipeline complies with NZS 5442; and • injecting welded party shall procure each indirect injection party ensures that all gas injected into the indirect injecting party's pipeline complies with NZS 5442. NZS 5442 does not prescribe a frequency of testing but instead requires a frequency likely to detect potential deviations beyond specification limits. That is a pragmatic approach and avoids unnecessarily frequent testing for characteristics and components that have low probability of falling outside specification limits. **VTC Provisions** Despite the GIC's suggestion, Vector does not seem to have any obligation under the VTC to avoid step changes to gas composition. In any event and if such gas was specification gas, such an obligation would seem inconsistent with Vector's other obligations under the VTC such as to not give preference or priority to any shipper over other shippers, and the express provision that Vector has no obligation to monitor gas quality entering its pipelines. **Vector Interconnection Agreements** The MPOC contains both the terms and conditions of Maui pipeline transmission services agreements and interconnection agreements. In contrast, the VTC only provides the terms of transmission services agreements. Interconnection agreements are independent of the VTC. The MPOC approach provides a better basis for establishing consistent transmission and interconnection arrangements, makes the responsibility for open access arrangements clearer, recognises the interdependency of interconnected parties and users of transmission services and allows the Maui TSO and Maui pipeline users better opportunity to identify and manage risks. Statements in VTC interconnection agreements that interconnection agreements do not provide for the transportation of gas and give no right to an interconnected party to make gas available at a receipt point, do not relate well with the interconnected party's obligations related to gas flow, such as the obligation to notify gas flows and to ensure gas that it injects complies with the gas specification. **Delivery Point Interconnection Agreements under VTC** Implementation of interconnection agreements at all delivery points seems necessary to properly address issues such as balancing, metering and gas quality. Regulatory intervention may be required if that cannot be achieved voluntarily under the VTC.

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Question 5: Are there any aspects of the discussion in section 6.1 that you believe to be inaccurate or misleading? If so, please explain what these are.	In principle it would seem reasonable that the causer of supply of non-specification gas should be responsible for providing compensation to address damage arising from that supply of non-specification gas. However, open access supply, ability to control gas quality, encouragement of competing supply, the complexity of supply arrangements and appropriately balancing gas quality risk and the cost of managing that risk, complicate this principle. Multiple suppliers supplying into a long supply chain with end-users receiving various mixes of injected gas, make it difficult to identify the source of non-specification gas. But against that risk the competition from multiple suppliers should help maintain downward pressure on prices. It would be possible to implement physical measures to ensure control of delivery of gas to meet a tight specification with very high reliability. But that would require significant additional investment, may reduce supply security and would substantially increase the cost of gas. For example, taking gas into storage and batch testing the quality of that gas before injection into the transmission system would substantially reduce the risk of delivery of non-specification gas. There is a point at which the costs of tighter control of gas quality exceed the benefits of that. The trade-off between quality and price (and/or cost) should be appropriately balanced. Events within and outside the control of gas suppliers can impact on gas quality. Extending the liability of gas suppliers to cover damage caused by delivery of non-specification gas to events outside the reasonable control of gas suppliers and lifting the liability cap will increase the risk burden of gas suppliers. Gas suppliers will need to cover those increased risks. Inevitably that will increase costs or cause suppliers to withdraw from supplying gas. A trade–off is required to establish how these risks are shared by stakeholders. Exposure to unmanageable and uncapped liability could significantly inhibit competition. The GIC does not provide evidence to show that the trade-offs between quality, price and risk that have been developed by the market are inappropriate.

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Question 6: Do you consider that liability for quality issues is best addressed through contractual arrangements or regulation? Please explain why.	Establishment of liability for quality issues through contractual arrangements is preferred. Contractual arrangements are usually more adaptable and better reflect appropriate sharing of risks. Contractual arrangements are usually more innovative and lower cost. Nevertheless, where it is not possible to appropriately address and share liability because of market failure, arising from factors such as market dominance, it may be necessary to resort to regulation. In respect of gas quality is there evidence of market failure? Inability to recover all damage in all circumstances is not necessarily evidence of market failure. Moreover, we are not aware that gas quality is a significant concern. As indicated above, the GIC should better demonstrate that gas quality is an issue that requires expenditure of its, and the industry's, particularly end-users, resources. A more developed definition of the problem is required before the GIC embarks on addressing the problem.

QUESTION	COMMENT
Question 7: Do you think the proposed regulatory objective would be better achieved with more prescriptive arrangements for the monitoring of gas composition and contaminants?	NZS 5442 appropriately addresses monitoring frequency and test method. Section 5.2 of NZS 5442 (demonstration of compliance) states: *"Compliance with the characteristics and component specification limits listed in table 2 shall be demonstrated by showing that the value of a characteristic or concentration of a component does no lie beyond the limit listed in table 2."* Section 5.3 of NZS 5442 (frequency of testing) states: *"The frequency and location of testing the value of the characteristics and components listed in table 2 shall be set, and periodically reviewed, to ensure that they remain representative, and that potential deviations beyond the limits are likely to be detected when they occur."* That means that if a characteristic or component can vary outside the specification limit at any time then that characteristic or component should be monitored continuously. If plant configurations and the quality of unprocessed gas mean that there is no likelihood that a characteristic or component will vary outside specification limits, then it is not necessary to monitor that component. NZS 5442 clearly makes the person wishing to demonstrate compliance responsible for showing the characteristic or component is within the specification limit. That approach is pragmatic and appropriate. The MPOC requires welded parties to ensure all gas injected into the Maui pipeline meets the gas specification and to monitor such gas to demonstrate compliance with the gas specification. The MPOC sets out the minimum frequency that some characteristics and components should be monitored but the MPOC makes it clear that this does not limit the need to demonstrate compliance in accordance with the gas specification. That may require more frequent, and even continuous monitoring, of the relevant characteristic or component. The GIC's conclusion that there is not a requirement to monitor several important parameters, including water, seems incorrect. If it cannot be demonstrated that a characteristic or component will not lie outside specification limits for a given period of time then there is a requirement to monitor that characteristic or component continuously.
Question 8: Do you think further work to identify the options for more active gas quality monitoring, and to quantify the costs and benefits of those options, is justified?	The lack of complaints concerning gas quality (or the awareness of the wider market of those complaints) suggests that there is no proven need for more active monitoring. However, it may be beneficial for an authority to periodically assess compliance with the gas specification and to identify characteristics or components that have significant risk of exceeding specification limits. That would be more easily achieved if parties injecting gas were required to publish the results of monitoring the quality of injected gas on a daily basis.

QUESTION	COMMENT
Question 9: Do you think TSOs should monitor gas quality more actively (for example, by continuously monitoring the water content in the transmission system to manage the risk of hydrate formation)?	Most of the risk related to the quality of delivered gas arises at the point of injection of gas into the gas transmission system. To ensure that risk is properly monitored the results of monitoring at those points should be published. This should be a requirement of the MPOC and the VTC. It doesn't seem necessary for TSOs to carry out the monitoring themselves providing TSOs have access to the results of monitoring undertaken by injecting parties and the right and obligation to investigate that monitoring if that is necessary or requested by a transmission system user. If any characteristic or component is close to the relevant specification limit then the TSO should be able to require the injecting party to monitor that characteristic at a frequency commensurate with that risk. The MPOC and VTC already contain provisions that allow MDL or Vector to request an injecting party to demonstrate that gas injected into the transmission system meets NZS5422.
Question 10: Currently, the TSOs audit producers' monitoring of gas composition. Do you think this arrangement provides sufficient assurance against the delivery of non-specification gas?	The measures contained in the MPOC and VTC are largely satisfactory. To ensure that the TSOs and injecting parties appropriately exercise these rights and obligations the results of the monitoring of gas quality undertaken by injecting parties should be published. That shouldn't place any significant burden on gas injectors as they already have the obligation to monitor gas quality to ensure the gas specification is met. Publishing the results of quality monitoring would provide useful information to all gas users and help ensure the monitoring is carried out to an appropriate standard. If it is agreed that gas quality data should be published, Contact would prefer that gas composition data directly sourced from gas chromatographs was published rather than gas specification characteristics and components calculated from that data.