

Gas Quality Wet Gas Administration Scheme

An SGS United Kingdom Ltd Response

29 October 2004

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Introduction

The following are comments on the document, Gas Quality Wet Gas Administration Scheme, issued by Ofgem on 24 September 2004.

These comments supplement a report entitled “Wet Gas Review” prepared for Ofgem by SGS United Kingdom Ltd on 30 June 2004.

The Review summarised the legal and historical background to the hygrometric monitoring carried out by Transco and Gas Examiners working for, or on behalf of, Ofgem and its predecessors. In addition it presented a cost benefit analysis of the current scheme and suggested an alternative scheme in which the costs to Transco and Shippers and Suppliers could be reduced. The alternative scheme included ways to improve the effectiveness of the monitoring regime by focusing tests in those areas where information was lacking or where it was known from past test history that there was a risk of water ingress. It was further suggested that savings could be made by implementing earlier Ofgem proposals in respect of those areas where the source of water was known to be a gasholder.

Comments on the consultation document are divided under three sub-headings:

- The consultation document- errors and misleading statements
- The Ofgem analysis and recommendation
- An alternative proposal

The Document

Para 1.1 Reference to Gas Act 1996 is in error. It should be Gas Act 1986.

Para 1.2 The statement that “the current regime used to adjust consumers’ bills does not provide any protection for the vast majority of consumers....” is an assumption not a known fact. Without comprehensive testing it is impossible to know what proportion of gas consumers are receiving gas containing reliably measurable quantities of water. Because the process is not in control statistically, the state of the complete system cannot be inferred from the results derived from a number of randomly located sample points.

Para 3.2 and 4.34 It is stated, “the shippers.... inform the suppliers that the area downstream of the test point is wet”. Suppliers are not in possession of the detailed information that would allow them to compensate only those consumers downstream of test points. They would need to have a detailed knowledge of the gas distribution system, the location of the test points and the direction of the gas flow downstream of a test point.

The following method is used to initiate compensation.

Ofgem informs Transco, via the Schedule to the Ofgem Determination (example in Appendix A), which postcode sector(s) are deemed to be affected by the ingress of water. This postcode information, along with the reduced “wet gas CV”, is passed to the Shippers via the Shippers Information Service (SIS). Test points are located throughout the designated area. Consumers in that area are then eligible for compensation via the reduced calorific value. Therefore postcode designation can affect consumers both upstream and downstream of the test point.

Para 3.4 The statement that consumers downstream of the test points are not adequately protected at all is not true. See above for the reason.

Para 3.5 and 3.6 It is not clear from the text that consumers affected by leaks into the network are also compensated via Determinations. In most cases consumers report a loss of supply and this is the first indication that water has entered the supply network. In these situations water can enter a consumer's gas meter and affect the metering of the supply. A consumer may not be aware of this and the accurate measurement of volume and CV can be affected. Both errors can lead to an erroneously high calculation of the energy conveyed.

Para 3.8 The statement that “.. overcompensation of £4.56 is charged to other consumers, some of which are receiving wet gas, others who are receiving dry gas” is misleading because calculation shows that this only amounts to £0.24 per consumer.

Para 3.12 How can consumers receiving dry gas and being billed on that basis be considered to be undercharged. This is especially confusing in the light of Ofgem's statement in paras. 3.8 and 3.9 that the consequences of overcompensation are borne by consumers receiving dry gas. No explanation is given of the derivation of the amounts quoted.

Para 3.14 Most of the work carried out by Ofgem and its service providers in “policing” the Acts and Regulations and auditing the information provided by Gas Transporters is charged to Transco and therefore increases costs for all consumers. This has been accepted for decades and the Wet Gas Administration scheme is not unique in this respect. The small increase in costs can be considered to be a premium which pays for consumer protection against the risk of significant measurement errors.

Para 3.15 In the only Alternative Scheme suggested by Ofgem it is stated that to provide statistically appropriate protection it would be necessary to carry out 2 million tests costing around £100 million. This scheme ignores the fact that any hygrometric test of gas in the low pressure mains would provide a very good estimate of the water content of gas conveyed to most consumers downstream of the test point up to a point of co-mingling of supplies. In addition it would give an indication of the possibility of ingress upstream of the test point. Therefore the number of test points required would be considerably lower than the 2 million suggested and from information provided by Transco would be of a similar order to the present scheme, i.e. 1500. A “10% scheme” of this size would assume 1400 consumers covered per test point. This doesn't seem unreasonable (see later for further detail).

Para 3.16 To state simply that only one hygrometric test in 2003 reported gas with 1.2% water vapour present fails to mention that the instrumentation can only measure a maximum dewpoint of 10°C, which is equivalent to 1.23% water vapour. There are

currently >10 test points with dewpoints $\geq 10^{\circ}\text{C}$ indicating that there are several thousand, at least, who are receiving very wet gas.

Para 4.2 Ofgem appears to have a concept of “a sensible price”. Until that has been identified it is impossible to design a scheme that will fit the budget. From what has gone before in the document it is difficult to conceive that Ofgem would accept any scheme other than one which has zero net cost to the consumer but is at the same time totally effective in providing consumer protection. These two requirements are mutually incompatible.

Para 4.15 The benefit to network integrity is underplayed. Network monitoring will be significantly reduced if no wet gas testing is carried out as recommended by Ofgem.

Para 4.37 The £4.56 overcompensation quoted is wrong. Using Ofgem’s figures and logic it should be £3.24.

Para 4.30 There is no evidence that a progressive move to plastic pipes has led to lower dewpoints (less water contamination). On the contrary an analysis of the test results for the year 2000 compared with the data for 2003 has shown that the opposite has occurred. See Appendix B. This can be seen as evidence of an ageing network of low integrity metal pipes which are more prone to leakage. Over the three year period it is estimated that the proportion of PE pipe would have increased by approximately 10% whereas the average water content has increased by 27%. It may be several years before the PE replacement policy begins to show a measurable reduction in water content.

The Ofgem analysis and Recommendation

The major criticisms of the existing scheme are that:

- 1) It doesn’t protect the majority of consumers because,
 - in Ofgem’s opinion most water ingress occurs downstream of the test points, and
 - there are not sufficient test points to monitor the supply to the majority of consumers.
- 2) It overcompensates consumers who are known to be receiving wet gas and this leads to increased billing errors for all consumers.

On these assumptions it is proposed that the present scheme is discontinued and that measurement policy is decided by Transco.

Under the above proposal Ofgem will no longer be informed of the water content of the low pressure gas supply and this implies that the Authority is prepared to “determine” that the gas contains no water at all (Gas Act 1986, Section 12(2)). Consequently Ofgem could be accused of knowingly and consistently accepting that consumers could be receiving bills which are in error without attempting to determine the extent of the error. This does not appear to be in line with its duty to protect consumers.

The Ofgem analysis of the existing scheme fails to address fully the consequences of the recommendation (i.e. discontinuing the scheme). The present regime of testing and

auditing provides an early warning to the Gas Transporters of water ingress which, when left unattended, often leads to loss of supply when pipes became blocked at low points. In the absence of a programme of regular and managed hygrometric measurements a situation could develop in which most, if not all, consumers were receiving wet gas. This would mean that the level of billing error would be considerably greater than at present.

If all Determinations are revoked without any explanation or warning to consumers then some larger consumers could find that their budgeting is challenged. For most domestic consumers an increase of approximately 1.7% in their annual energy cost would go unnoticed, but it is questioned whether it is right for Ofgem to impose an increase of this size across the board without any notice whatsoever. Is this in line with the policy of protecting the fuel poor who will be more disadvantaged?

The SGS United Kingdom Ltd Proposal.

Any scheme, involving the provision and management of evidence/data, will involve a cost to all consumers, some of whom may be compensated via another route i.e. Determinations. The existing wet gas administration scheme is acknowledged to be inadequate but SGS United Kingdom Ltd submit that to discontinue the route whereby consumers receiving wet gas are compensated will mean that consumers will be knowingly and consistently charged for energy they have not received. This does not appear to be in line with Ofgem's stated views on consumer protection. This situation will affect an increasing number of consumers, including those connected to PE low pressure mains, as water accumulates in the distribution system. It is submitted that Transco will only repair leaking mains when there is a publicly reported escape of gas or when a loss of supply is reported.

It is acknowledged that any alternative scheme will have to provide adequate levels of protection at a "sensible" price. In arriving at this price Ofgem should take account of the fact that the smaller the number of consumers that are compensated the lower the level of overcharging to all other consumers.

The basic principles of the SGS United Kingdom Ltd alternative scheme have been given in the Wet Gas Review Report submitted to Ofgem on 30 June 2004. They are:-

1. Reduced testing in areas where past results have shown a consistent and long term history of dry gas conveyance. This would reduce the cost to Transco and consumers.
2. Redistribution of official Hygrometric test points in line with Ofgem's earlier proposals to the industry liaison group, especially taking into account the proportion of PE pipe and consumer density. Further consideration would also be given to Ofgem's assertion that most water ingress occurs downstream of existing test points. Test point location at the end of the zone of influence of supply governors could increase the potential for detection of water ingress.

The SGS United Kingdom Ltd Review (see above) has identified the potential for testing at existing test points associated with pressure monitoring thereby removing the need to install new test points. This would considerably reduce the costs to Transco and the consumer.

3. Reduction in the degree of compensation via Determinations to a level more consistent with known water content. It is submitted that the responsibility for setting this response level lies with the Authority. SGS United Kingdom Ltd. has an extensive database containing hygrometric measurements taken from 1996 to the present day from which it is able to assess the impact of water ingress into the low pressure distribution mains. The Review document itemized several ways by which the costs to Shippers and Suppliers could be reduced through focused lower compensation levels. For example assuming that the level of compensation is set at 0.4% (equivalent to a dewpoint of -5°C) instead of the current 1.68%, the compensation of consumers in Determined areas would be £0.66 and the overcharging passed through all other consumers would be £0.06. These calculations assume that the number of “determined” consumers is one million. A reduction of this number as described above to, say, five hundred thousand would lead to a corresponding reduction of £0.03 in the overcharging to all others.

From this example it can be seen that the level of overcharging of the large majority of consumers is very small and yet the compensation of the worst affected consumers is adequate. This small degree of overcharging of the large majority of consumers can be considered as a premium paid by gas consumers to ensure that the quality of supply is maintained within acceptable levels. This is consistent with costs in other areas which are incurred to ensure the compliance with Regulations and Licence conditions relevant to gas quality and value for money.

4. Implementation of an earlier proposal, accepted by Ofgem, not to issue a Determination where the source of water is known to be a gasholder. This would reduce the numbers of supplementary tests and also the number of Determinations.

In addition consideration should be given to including some, if not all, routine hygrometric testing taking place within the official duties of the Gas Examiners (GEs). Consideration could be given to increasing the number of GEs to a point that removes the need for Transco (and subcontractors) to carry out any official hygrometric testing. This GE testing could include measurements made on a random audit basis, specifically in high risk areas, i.e. low PE/high population density, where testing has not been carried out in the past. It is submitted that, even with an additional GE resource, the costs to Transco could be reduced.

SGS United Kingdom Ltd has the resources and experience to manage the programme fully thereby providing a more efficient and cost effective means of providing the evidence required by the Authority.

Taken together the above proposals would reduce the administration and compensation costs towards a level consistent with an acceptable premium required to protect those worst affected by water ingress.

Conclusions

1. The Ofgem consultation document contains errors of fact and questionable assumptions. It fails to address the recommendations made to the industry working

committee by its own staff over a number of years which would have reduced the cost of the existing administration scheme.

2. The Ofgem recommendation to discontinue the existing wet gas administration scheme and not to implement an alternative will lead to an increasing number of consumers who are disadvantaged by the contamination of their gas supplies by water. Consumers will therefore be consistently and knowingly be disadvantaged to an increasing extent.
3. A further consequence of this recommendation will be a lack of any incentive to Gas Transporters to monitor and carry out remedial action except where loss of supply has occurred.
4. Gas consumers will be disadvantaged to an increasing extent and eventually by a loss of supply as water accumulates at low points in the distribution system.
5. There is no evidence that an increase in the proportion of plastic pipe has led to an improvement in the quality of the conveyed gas.
6. Alternative test programs and compensation mechanisms have been suggested which lead to reduced costs and a reduction in the error of consumer's bills. These would provide adequate compensation for the worst affected consumers.

SGS United Kingdom Ltd.

1st November 2004

Appendix A

DETERMINATION OF AMOUNT OF WATER VAPOUR FOR DEFINITION OF CALORIFIC VALUE IN SECTION 12(2)(A) OF THE GAS ACT 1986

The Gas and Electricity Markets Authority, in exercise of its powers conferred by section 12(2)(a) of the Gas Act 1986, hereby determines that, in relation to gas conveyed by Transco plc, a gas transporter, to premises, or to pipeline systems operated by other gas transporters, **in the areas specified in the Schedule hereto**, the amount of water vapour to be contained in one cubic metre of the gas measured at a temperature of 15 °C and a pressure of 1013.25 millibars which, if combusted, would produce the number of megajoules within the meaning of the calorific value of the gas, is 16.8 cubic decimetres. This Determination comes into force on 10 March 2004 and shall have effect, subject to any amendments that may be made from time to time, until revoked.

SCHEDULE

SOUTH EAST LDZ

Parts of the SOUTH EAST LDZ as described by the following postcode(s): -
TN34 2

Appendix B

Local Distribution Zone	2000	2003	Difference
EA	-39.6	-37.9	1.7
EM	-41.4	-37.8	3.6
YO	-35.7	-34.0	1.7
SC	-37.7	-37.0	0.7
NO	-35.5	-32.2	3.3
NW	-32.9	-31.9	1.0
WM	-38.2	-37.2	1.0
WA	-40.4	-37.1	3.3
SW	-41.0	-38.9	2.1
SE	-39.5	-37.4	2.1
SO	-37.4	-34.0	3.4
NL	-34.8	-31.3	3.5
Average	-37.8	-35.6	2.2