Gas
Transmission

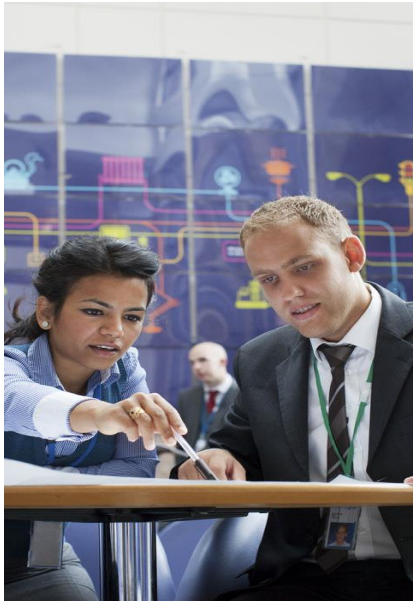
NTS Specification for Mercury

Survey results summary

nationalgrid

Background

- Since the LNG storage sites closed, mercury content has not been a concern for NTS assets and we do not currently measure or monitor mercury content at NTS entry points.
- We have recently received enquiries from upstream operators about what level we would regard as acceptable
- Our understanding previously was that a limit of 10 µg/m^3 is typically specified for heat exchangers in industrial and power plant which are often constructed of aluminium alloys
- We therefore included a guidance limit in the latest Gas Ten Year Statement of 10 µg/m^3 although we do not at present specify a limit for mercury content in our connection agreements with NTS terminal operators
- GS(M)R does not contain a specific limit for mercury content in natural gas, rather it is included within the following statement on impurities



"[the gas conveyed] shall not contain solid or liquid material which may interfere with the integrity or operation of pipes or any gas appliance (within the meaning of regulation 2(1) of the 1994 Regulations) which a consumer could reasonably be expected to operate".

Survey

We were interested to know whether mercury content in natural gas presents any risks to customers' operations downstream of the NTS and, if so, at what concentration.

We issued a short on-line questionnaire to the industry between 26th January and 21st February to get feedback on this topic.

- We received a good response with 22 responders (from 79) spanning power generation, trade associations, DNs, industrial users, gas storage and TSOs. Thank you for the participation.
- The response to the 2 key questions was mixed with the majority being unsure to both.
- Various concerns and questions were raised.
- Calls for more information due to lack of studies

		Y	N	Unsure	incomplete	Total
Q3	Is 10 µg/m³ appropriate?	6	3	11	2	22
Q4	Is 20 µg/m³ a concern?	8	1	11	2	22

Concerns raised – common themes

Power sector assessment and reporting is based on a mercury content of 0.1µg/m^3

Concerns for domestic and commercial properties when as is burnt through gas appliances

What is the current level in the NTS?

I'm unsure/need more information/ what other evidence is there?

Specific industry concerns e.g. Ammonia plants

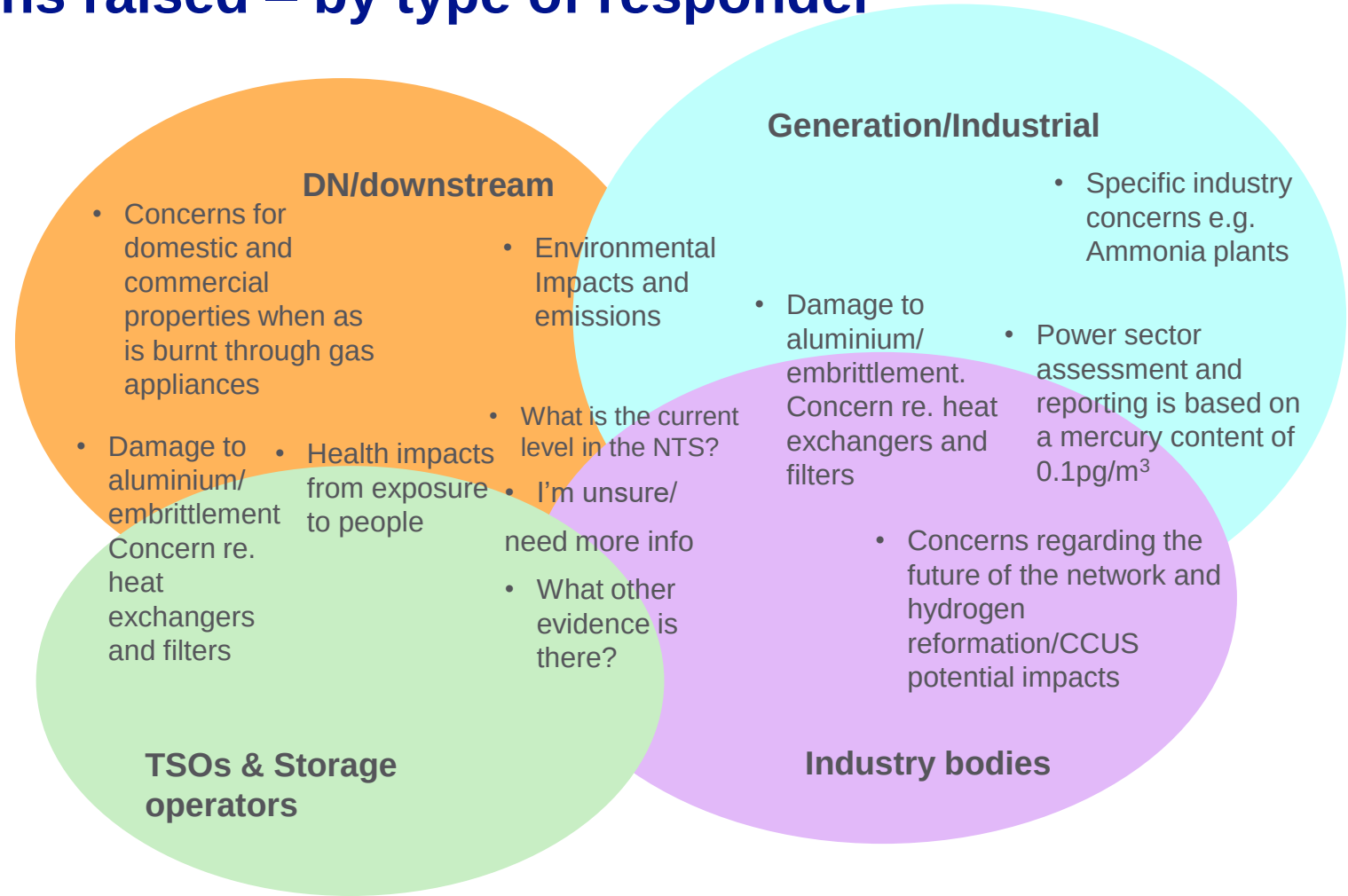
Concerns regarding the future of the network and hydrogen reformation/CCUS potential impacts

Health impacts from exposure to people

Environmental Impacts and emissions

Damage to aluminium/ embrittlement. Concern re. heat exchangers and filters

Concerns raised – by type of responder



Proposed Next Steps

- Responses were not sufficiently conclusive to warrant any change to the GTYS limit guidance of 10 µg/m^3 currently
- We propose to carry out one off sampling of mercury content at each NTS entry point to gather more information on current levels in the NTS and report back. This will take approx. 6 months to complete.
- If any operators have any sampling of their own that they could share that would be welcome
- We will follow up with responders where requested.

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