

Shrinkage Forum 17 September 2014 – AGI Venting IFI

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AGI Venting Controller – Background

- GDNs use pneumatic control systems to control pressures at a number of large pressure reduction sites
- These systems use the onsite natural gas, which is routinely vented during normal system operation
- There are two elements to the control system
 - Positioners – these adjust the regulator to meet the required pressure following signals from Controllers
 - Controllers – these effectively monitor pressures and send signals to the Positioners
 - These can be separate pieces of equipment or a single piece of equipment that operate as both

AGI Venting Controller – Background

- Currently, GDNs use an estimate of AGI Venting that was provided in a Watt Committee Report from 1994
 - It is not known how this figure was determined and, therefore, it is not possible to identify any changes to it
 - Currently, this gives 84GWh of AGI Venting for National Grid
- National Grid commissioned an study with GL Noble Denton (now DNVGL) to investigate venting from National Grid sites
- The aim was to build a bottom up estimate of AGI venting that directly relates to the specific equipment on the pressure reduction sites
- This would result in a more robust estimate of venting and provide the opportunity for any emissions reduction associated with replacing these systems to be captured in the leakage estimate

AGI Venting Controller – Key Deliverables & Outcome

- Establish relationships between venting rate and control system operating pressure for steady-state venting
 - The study identified venting rates for five common types of Controller and four types of Positioner
- Identify levels of venting in operation at AGIs
 - The estimate of AGI Venting for National Grid was 17GWh +/- 5GWh
 - Compared to current estimate of 84GWh
- Investigate the potential to relate operational venting to telemetered flow and pressure data
 - It was established that there is no discernable relationship between the level of venting and the onsite flow and operating pressures

AGI Venting Controller – Next Steps

- National Grid has commissioned a two-stage survey of approximately 630 sites to establish the exact details of onsite equipment and control system operating pressure
- Stage 1
 - North West and West Midlands
 - Results expected February 2015
 - Comparison to initial findings
- Stage 2
 - Eastern, East Midlands and North Thames
 - Results expected September 2015