

Verification technical aspects



Based on the Dutch Gas Transportation and Delivery Act (Gaswet), a regional gas network operator (regionale gasnetbeheerder or RNB) is responsible for gas quality. In this context, quality means the composition of the gas and its odour characteristics.

The RNB has no influence on the quality of the gas; it only checks the processes used by the supplying party, the national gas network operator (landelijke gasnetbeheerder or LNB), which is charged with guaranteeing gas quality. Kiwa performs these quality checks. In addition to the composition of the gas, the quantity of transferred gas is also important. The gas quantity measurement is carried out by the LNB. Kiwa also performs quality checks in respect of the gas quantity measurement on behalf of the RNBs. Regional network operator, RNB, DSO, NMA supervisory body, central and local government

Checking the quality of the gas composition and measuring the quantity of gas is required on a continuous basis. In the Netherlands, the national network operator (Gastransportservices) has approximately 1100 natural gas transfer points (gas transfer stations, in Dutch: gasoverdrachtstations or GOS) where gas is transferred to the regional network operators (650 in total) and large industrial purchasers (450 in total).

Most of the checks are carried out based on the data provided by Gastransportservices with regard to gas quality (composition; in general hydrocarbons, carbon dioxide (CO₂) and nitrogen, upper calorific value or heating value, Wobbe index). Because of the importance of this data, the availability of the data is also monitored.

The gas chromatographs deployed by Gastransportservices also play a key role in determining quality. Kiwa randomly checks the operation of the gas chromatographs and also checks the data relating to the calibration gases that are used.

The quality check for gas quantity measurement is performed based on a random sample of 25 GOS stations per year. These stations are subjected to a comprehensive inspection (checking the calibration certificates for the gas meters, settings and calibration of the volume correction meters (EVC), logbooks, fault registration, anti-tamper seals).

Any discrepancies are discussed with Gastransportservices and reported to the RNB.

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The odour characteristics of the natural gas are an important safety aspect and warn end-users when combustible gas is unintentionally released. In the Netherlands, Gastransportservices adds THT (Tetrahydrothiophene) to natural gas to give it a distinctive odour. Kiwa checks the odour characteristics and THT content by analysing gas samples and using a mobile measuring system for THT. The odourisation equipment is checked on a random sampling basis.

And? Is it effective?

In the Netherlands, the composition of the gas that is delivered to end-users complies with very strict requirements. The checks performed by Kiwa in respect of the technical systems and processes of Gastransportservices make a major contribution to maintaining the desired quality level in order to ensure that the RNB demonstrably complies with its obligations under the stipulations of the Dutch Gas Transportation and Delivery Act (Gaswet).

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