

AbstractSystem and method for detecting leakage in a gas pipeline

Disclosed is a leakage detection system (200) and a leakage detection method for
5 detecting leakage in a gas supply system (10') comprising a gas source (11; 12)
connected to a gas delivery module (14) by a pipeline. The leakage detection system
(200) comprises a flow meter (113) connectable along the pipeline remotely from an
inlet of the gas delivery module (14); and a detection module (110) configured to
receive signals representing a measured flow rate from the flow meter (113), and to
10 compare the measured flow rate (115) to a stored leakage-free reference value (116) to
detect an increase in flow rate in the presence of a leak. A flow resistance between the
detection module (110) and an outlet of the gas delivery module (14) amplifies the
increase in flow rate in the presence of a leak. The system (200) may comprise a flow
rate elevation system (121) connectable between the gas source (11; 12) and the flow
15 meter (113) for temporarily increasing the flow rate in the pipeline.

[FIG. 2]