



Measurement Focus Group Agenda

Welcome to The Measurement Focus Group Wednesday, 6 December 2023

The Measurement Focus Group is supported by the UK Government's National Measurement System (NMS) and is managed by TÜV SÜD National Engineering Laboratory on its behalf as the UK's Designated Institute for Flow Measurement. The group focuses on flow measurement and flow-related issues in industry.

09:30 Registration and networking

10:00 Chairperson introduction

Chris Mills (TÜV SÜD National Engineering Laboratory)

10:10 Investigation of the transferability of calibration between alternative fluids for liquid and dense phase carbon dioxide fiscal flow measurement

Russell Brown (TÜV SÜD National Engineering Laboratory)

- Successful implementation of CCUS requires fiscal flow measurement, however there are currently no traceable flow facilities in the world for liquid/dense phase CO₂.
- Many operators will choose to calibrate in water and transfer the calibration to CO₂, however, no data currently published to show if this approach works.
- TÜV SÜD built and tested a transfer package of four flow meter technologies in water, oil and CO₂ to investigate the transferability of a water calibration to liquid & dense phase CO₂.
- The results of the 1-inch Coriolis meter are presented here.

10:35 The need for automatic sampling in CCUS

Godert de Keijzer (KPSNL)

- The energy transition is rapidly shaping a new global infrastructure for H₂ and CCS. Customers, producers, and regulators demand and require confidence, reliability, and accuracy of the value streams they import, export, or inject.
- Where value streams are out of specification, companies face a risk of operational costs, penalties, and claims, more importantly it creates an unreliable system of distrust.
- Automatic sampling has been a cornerstone in the oil and gas industry to ensure trust between industry partners enhancing confidence, accurate and reliable capture of value.
- In this presentation KPS will share insights around the need and challenges for CCUS automatic sampling technology.

11:00 Coffee and networking



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11:30 20 Years of flow metrology at the National Engineering Laboratory
Norman Glen (TÜV SÜD National Engineering Laboratory)

- Direct energy metering, pipeline integrity and data reconciliation.
- First foray into carbon capture, utilisation and storage.
- The dream of tomography.
- Hydrogen – metrology for vehicles and domestic gas metering.
- Densitometer calibration.

11:55 Chairperson's closing remarks

12:00 Lunch, networking and afternoon registration

Steering committee members

- Jim Barton (BP)
- Baron Bennington (SGS)
- Murdo Campbell (TAQA)
- Douglas Griffin (North Sea Transition Authority)
- Chris Mills (TÜV SÜD National Engineering Laboratory)

