

EFG 2008 Bratislava – CEN/SFGas-I WG

„CO₂ Measurements under the Emission Trading Directive“

- **CEN/Sector Forum Gas**
- **Emission Trading Directive 2003/87/EC**
- **Guidelines for Monitoring and Reporting**
- **Background related to SFG_I/WG**
- **Interim Results**
- **Next Steps**

EFG 2008 Bratislava – CEN/SFGas-I WG „CO₂ Measurements under the Emission Trading Directive“ CEN/Sector Forum Gas

- CEN Sector Forum Gas (SFG) encompasses all technical committees which conduct gas-specific standardisation activities
- It represents the interests of the gas industry at all levels (e.g. Commission) and deals with horizontal activities (e.g. directives, guidance documents)
- It is composed of 2 groups:
 - ▶ SFG_Utilisation (Gas Appliances)
 - ▶ SFG_Infrastructure (Gas Networks)



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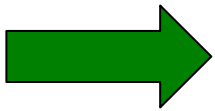
„CO₂ Measurements under the Emission Trading Directive“

Directive: General Provisions

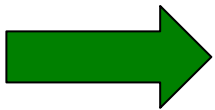
- Goal: promote reduction of greenhouse emissions
- Provisions for trading procedures to follow (e.g Gas Emissions Permits, National Plans, etc)
- **Art.14: Guideline for monitoring and reporting of gas emissions: to be adopted by the Commission**
- **Annex 1: energy activities, combustion installations with a rated thermal input > 20 MW → concerned GHG: Carbon Dioxide CO₂**

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- published as “*Commission Decision*”
- Annex 1, 4.2: 2 methodologies for determining the amount of emissions:



Calculation-based: measurement systems, additional parameters from laboratory analyses, standard factors



Measurement-based: continuous measurement of the concentration in the flue gas and the flue gas flow

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Guidelines: Calculation-Based Methodology

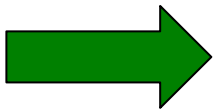
Formula:

CO₂ emissions =

fuel flow x net calorific value x emission factor x oxidation factor

- Oxidation factor = 1

- Emission factors: given in table 1 in conjunction with the type of methodology designed as “TIERS” (e.g. 2a/2b) → Annex II, 2.1.1



FUEL FLOW and NET CALORIFIC VALUE

are the sole significant parameters for this methodology

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SFG_I/WG

Background: Plenary SFG_I Meeting (May 2007)

SFGas_I Recommendation 4/2007: *WG CO₂ Measurement*

SFG_I agrees to set up a working group in charge of analysing the Commission guidelines and drafting common procedures and methodologies for CO₂ emissions measurements under the Directive 2003/87/EC on Emission Trading.

A co-operation with TC 264/WG 24 might be envisaged in the course of the activities.

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SFG_I/WG

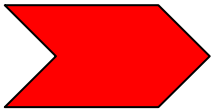
Goal: Common Calculation and Measurement Procedures yielding equivalent results

Starting Considerations

- Participation of real experts with daily practice (e.g. TSO, measurement equipment manufacturers)
- Examination of the current situation in the EU countries
- Possible co-operation with CEN/TC 234 (Air Quality)
- Concept for a possible guidance document
- SCOPE: compressor stations and industrial plants in a first step

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SFG_I/WG; Interim Results

Calculation-based methodology chosen unanimously by the European countries



Focus on Gas Flow and Calorific Value

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SFG_I/WG: Interim Results

Gas Flow: Measurement by Meters

Critical issues

- Calibration, frequency of surveillance and recalibration
- Converters
- Accuracy
- Storage (not operating)



Questionnaire to the WG members

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SFG_I/WG: Interim Results

Calorific Value: Measurement by Chromatographs

Critical issues

- Calibration, frequency of surveillance and recalibration
- Type of requirements (legal, company, gas association)
- Accuracy
- other technical devices/apparatus



Questionnaire to the WG members

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Gas Flow and Calorific Value

Rules and Requirements for Surveillance/Calibration/Accuracy

→ different situation from one country to another:

- legal provisions (national authorities)
- rules of the national gas association or gas company
- no regulations at all



Questionnaire to the WG members

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SFG_I/WG: Interim Results

Co-operation with CEN/TC 264 Air Quality

- TC composed of many WGs (> 24) dealing with all kind of emissions to air
- TC 264 representatives are member of the SFG_I WG
- reports and exchange of information within CEN/SABE (Environmental Advisory Committee)
- regarding CO₂ measurements the methods used by TC 264 (flue gases) and the gas sector (gas flow) are different

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Member will have to consider following issues:

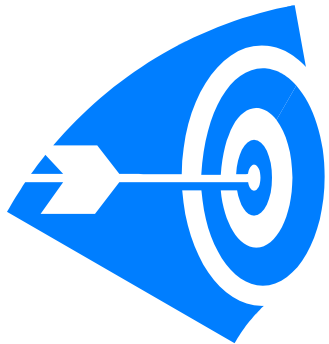
- different levels of regulations, legal by the authorities or devolved on associations/companies
- differences in the accuracy limit values
- differences in the frequency of surveillance assessments and the responsible bodies: authorities, accredited laboratories, certification bodies, gas company, ...
- Structure and contents of the guidance documents

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Next Steps



Pondering deeply and long enough ...

and then



hit the target → GUIDANCE DOCUMENT?