Irish Standard
I.S. EN ISO 21258:2010

Stationary source emissions - Determination of the mass concentration of dinitrogen monoxide (N2O) - Reference method: Non-dispersive infrared method (ISO 21258:2010)

I.S. EN ISO 21258:2010

Incorporating amendments/corrigenda/National Annexes issued since publication:

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 21258

June 2010

ICS 13.040.40

English Version

Stationary source emissions - Determination of the mass concentration of dinitrogen monoxide (N2O) - Reference method: Non-dispersive infrared method (ISO 21258:2010)

Émissions de sources fixes - Détermination de la concentration massique de protoxyde d'azote (N2O) - Méthode de référence: Méthode infrarouge non dispersive (ISO 21258:2010)

Emissionen aus stationären Quellen - Bestimmung der Massenkonzentration von Distickstoffmonoxid (N2O) - Referenzverfahren: Nicht-dispersives Infrarot-Verfahren (ISO 21258:2010)

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Foreword

This document (EN ISO 21258:2010) has been prepared by Technical Committee ISO/TC 146 "Air quality" in collaboration with Technical Committee CEN/TC 264 “Air quality” the secretariat of which is held by DIN.

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Endorsement notice

The text of ISO 21258:2010 has been approved by CEN as a EN ISO 21258:2010 without any modification.

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I.S. EN ISO 21258:2010

INTERNATIONAL STANDARD

ISO 21258

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Stationary source emissions — Determination of the mass concentration of dinitrogen monoxide (N_2O) — Reference method: Non-dispersive infrared method

Émissions de sources fixes — Détermination de la concentration massique de protoxyde d'azote (N_2O) — Méthode de référence: Méthode infrarouge non dispersive

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Foreword

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ISO 21258 was prepared by Technical Committee ISO/TC 146, *Air quality*, Subcommittee SC 1, *Stationary source emissions*.

Introduction

Dinitrogen monoxide (N_2O, also known as nitrous oxide) is an important greenhouse gas with a global warming potential 310 times that of carbon dioxide (CO_2). N_2O is of both natural and anthropogenic origin. Increased emissions of N_2O have been observed, for example, in the exhaust gas of combustion processes using nitrogenous fuels at temperatures below 900 °C, and in the reduction of NO_x using the selective non-catalytic reduction (SNCR) process, in particular when urea is used. There is considerable uncertainty over current N_2O emissions, which is reflected in the wide range of emission factors cited. The largest uncertainties are for emissions from natural and agricultural sources, which are difficult to measure accurately. In the past, emissions from stationary sources such as coal-fired plants and industry were overestimated due to a serious artefact in the grab-sampling methodology used to measure emissions. N_2O is involved in the EU emission trading scheme along with CO_2 and methane (CH_4).

Improved measurement techniques are helping to reduce uncertainties in emission estimates. Improved measurement techniques are also a prerequisite for accurate information on N_2O and its potential role in the enhanced greenhouse effect.