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CHARACTERISATION OF SLUDGES - GOOD PRACTICE FOR SLUDGES INCINERATION WITH AND WITHOUT GREASE AND SCREENINGS

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English version

Characterisation of sludges - Good practice for sludges incineration with and without grease and screenings

Caractérisation des boues - Bonne pratique d'incinération des boues avec ou sans graisse et refus de dégrillage

Charakterisierung von Schlämmen - Anleitung für die gute fachliche Praxis bei der Verbrennnung von Schlamm mit und ohne Fett und Rechengut

This Technical Report was approved by CEN on 26 February 2004. It has been drawn up by the Technical Committee CEN/TC 308.

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Foreword

This document (CEN/TR 13767:2004) has been prepared by Technical Committee CEN/TC 308 “Characterization of sludges”, the secretariat of which is held by AFNOR.

This document supersedes CR 13767:2001.

Significant technical differences between this edition and CR 13767:2001 is taking account of the new Directive 2000/76/EC (incineration of waste).

The status of this document as CEN Technical Report has been chosen because the most of its content is not completely in line with practice and regulation in each member state. This document gives recommendations for a good practice but existing national regulations concerning the sludges incineration remain in force.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Report: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

The purpose of this document is to describe good practice of the sludge incineration in order to ensure a safe and economical operation. The main goals are to :

— describe the principal design parameters relevant to different process schemes ;

— assess the operating procedures able to perform optimal energy consumption, emissions control and equipment durability ;

— provide the responsible authorities with well established and easily applicable protocols for control purposes ;

— promote the diffusion of this practice and favouring the formation of a public opinion consensus ;

Potential advantages of high temperature processes include :

— reduction of volume and mass of sludge ;

— destruction of toxic organic compounds, if present ;

— energy recovery.

Anyway, priority should be given to reduction of pollutants at the origin and to recover if technically and economically feasible valuable substances (phosphorous and potassium) in sludge and derived products.

The following abbreviated terms necessary for the understanding of this document apply :

COD Chemical oxygen demand

LOI Loss On Ignition

MHF Multiple Hearth Furnace

FBF Fluidised Bed Furnace

RKF Rotary Kiln Furnace

EF Electric Furnace

CF Cyclone Furnace

PCDF Polychlorodibenzofurans

PCDD Polychlorodibenzodioxins

PCB Polychlorinated biphenyls

PAH Polycyclic aromatic hydrocarbons

GCV Greater Calorific Value

LCV Lower Calorific Value

VOC Volatile organic carbon