TECHNICAL REPORT

CEN/TR 13983

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

July 2003

ICS 13.030.20; 13.080.99

English version

Characterizataion of sludges – Good practice for sludge utilisation in land reclamation

Caractérisation des boues - Bonnes pratiques pour la valorisation des boues pour reconstitution de sol

Charakterisierung von Sclämmen - Gute praxis des Sclammeinsatzes bei der Rekultivierung

This Technical Report was approved by CEN on 22 December 2002. It has been drawn up by the Technical Committee CEN/TC 308.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

	0,	Page
Forew	word	3
1	Scope	
2	References	4
3	Terms and definitions	4
4	General considerations	5
5	Preliminary procedures	8
6	Operational procedures	18
7	Monitoring	20
Annex	x A Typical municipal sewage sludge nutrient contents	22
	x B Example of calculation of sludge application rates (single application) based nutrient loads	23
Biblio	ography	24
	Ochologo de la companya della compan	

Foreword

This document CEN/TR 13983:2003 has been prepared by Technical Committee CEN/TC 308 "Characterisation of sludges", the secretariat of which is held by AFNOR.

Techn, e and re, udges for ut. The status of this document as Technical Report has been chosen because the most of its content is not completely in line with the practice and regulation in each member state. This document gives recommendations for a good practice concerning sludges for utilisation in land reclamation.

1 Scope

This Technical Report gives indication on sludge utilisation within reclamation programmes of disturbed land.

This Technical Report is applicable to sludges described in the scope of CEN/TC 308; for example:

- storm water handling;
- urban wastewater collecting systems;
- urban wastewater treatment plants;
- treating industrial wastewater similar to urban wastewater (as defined in Directive 91/271/EEC [18]);
- water supply treatment plants:
- water distribution systems;
- sludge derived materials;
- but excluding hazardous sludges from industry.

NOTE Because of the wide range of reclamation sites where sludge use as a soil ameliorate or source of plant nutrients is beneficial, and the different potential final uses of these sites, recommendations for application should be considered on a site-by-site basis. It is far beyond the scope of these guidelines to describe all the possible situations and the individual ways in which sludge could be used. The aim is to address, in a general qualitative way, the key issues which will determine in each particular case whether, how much and which type of sludge can be used.

Planning considerations (clause 5) are emphasised due to the fact that a general scheme can be adopted as a common procedure in nearly all situations.

2 References

EN 1085:1997, Wastewater treatment — Vocabulary.

EN 12832:1999, Characterisation of sludges — Utilisation and disposal of sludges — Vocabulary.

EN 12255-8, Wastewater treatment plants — Part 8: Sludge treatment and storage.

ISO 5667-13:1997, Water quality — Sampling — Part 13: Guidance on sampling of sludges from sewage and water treatment works.

ISO 10381, Soil quality — Sampling.

CR 13097, Characterisation of sludges — Good practice for utilisation in agriculture.

CR 13714, Characterisation of sludges — Sludge management in relation to use or disposal.

CR 13846, Recommendations to preserve and extend sludge utilisation and disposal routes.

3 Terms and definitions

For the purposes of this Technical Report, the terms and definitions given in EN 12832 and EN 1085 and the following terms and definitions apply.

3.1

sludge utilisation

beneficial and harmless use of sludge [based on 3.2 EN 12832:1999]