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Sludge recovery, recycling, treatment and disposal — Laboratory chemical conditioning procedure

Valorisation, recyclage, traitement et élimination des boues — Mode opératoire de conditionnement chimique en laboratoire

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Foreword

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This document was prepared by the European Committee for Standardization (CEN) (as CEN/TR 14742:2006) and was adopted, without modifications other than those given below, by Technical Committee ISO/TC 275, *Sludge recovery, recycling, treatment and disposal*.

— The second sentence was added in the Scope;

— informative references were moved from Clause 2 to the Bibliography;

— the term "sludge" was added in Clause 3;

— in Clause 5, the reference to Annex B was replaced by reference to Figure B.1.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

The laboratory assessment of flocculated sludge dewaterability is sensitive to the operating procedure adopted for the conditioning step. No generalized ranking of products in order of effectiveness can be given since the ranking changes with the sludge type, dosage of conditioning agent (inorganic coagulant, polymer), degree of shearing and dewatering device.

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Sludge recovery, recycling, treatment and disposal — Laboratory chemical conditioning procedure

1 Scope

This method gives a standardized procedure for the conditioning operation when selecting a conditioning product at laboratory scale and also for the production of flocculated thickened sludge for subsequent dewatering tests.

This document provides a method for laboratory chemical conditioning of sludge.

The method applies to sludges and suspensions from:

— storm water handling;

— urban wastewater collecting systems;

— urban wastewater treatment plants;

— industrial wastewater that has been treated similarly to urban wastewater;

— water supply plants.

This document is applicable to all sludge that can have similar environmental or health impacts, or both, with exclusion of hazardous sludge from industry and dredged sludge.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
chemical conditioning
mixing of a chemical product with the sludge in order to increase its thickenability and dewaterability

3.2
sludge
accumulated settled solids separated from various types of water as a result of natural or artificial processes

[SOURCE: ISO 6707-1:2020, 3.8.27]

4 Principle

Sludge conditioned in accordance with the procedure outlined in Clause 6 can subsequently be used in specific characterization tests in order to determine the most suitable operating conditions for each

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