



DPC: 24/30474745 DC

BSI Group Headquarters

389 Chiswick High Road London W4 4AL

Tel: +44 (0)20 8996 9000

Fax: +44 (0)20 8996 7400

www.bsigroup.com

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Interested committees:

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E-mail: admin.start@bsigroup.com

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



DRAFT International Standard

ISO/DIS 23882

Sludge recovery, recycling, treatment and disposal — Beneficial use of biosolids land application — Guidelines for risk communication and management of public perception

ICS: 13.030.20

ISO/TC 275

Secretariat: **AFNOR**

Voting begins on:
2024-07-08

Voting terminates on:
2024-09-30

This document is circulated as received from the committee secretariat.

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is Technical Committee 275 Sludge recovery, recycling, treatment and disposal.

Introduction

The World Health Organization (WHO) describes risk communication as the “exchange of real-time information, advice and opinions between experts and people facing threats to their health, economic or social well-being”.^[1]

This document provides guidance on communicating the risks related to the beneficial use of biosolids produced from industrial and municipal sludge and municipal biosolids derived products (e.g., composts, growing medium)¹⁾.

The document also addresses the management of public perception around the beneficial use of biosolids. This document aims to assist biosolids generators (e.g., municipalities), land application/haulage companies, technology providers (e.g., companies providing further processing post wastewater treatment (such as centrifuges, odour reduction), users of biosolids (e.g., farmers) as well as regulators to better understand the public's perception of biosolids. Additionally, this document guides biosolids proponents to better communicate with the public as it relates to biosolids management practices. Those seeking assurance that potential hazards and risks associated with biosolids can be reduced should also find this of value.

Whilst orientated towards land application of biosolids, this guideline can be employed to assist communications activities for any beneficial use. See ISO 196998:2020 "Sludge recovery, recycling, treatment and disposal — Beneficial use of biosolids — Land application" for more information regarding land application of biosolids

This document does not apply to communications regarding hazardous sludge that originates from wastewater which, due to its nature, physical, chemical or infectious properties, is potentially hazardous to human health and/or the environment during use, handling, storage or transportation and which requires special disposal techniques to eliminate or reduce the hazard.

This document includes:

- general information regarding what defines ‘risk’;
- context related to risk and the beneficial use of biosolids;
- public perception on this issue on a global scale;
- risk communication guidance;
- case studies and communication tools;
- a jurisdictional scan of risk-base resources and biosolids communication strategies.

This standard will be a useful tool to assist with the development of a biosolids management plan, especially in the process of community consultation, engagement and messaging activities.

1) Beneficial uses may include land application to produce food and feed crops, energy crops, forestry crops and for the remediation of disturbed sites. Note that this document does not attempt to define beneficial use of biosolids. Some jurisdictions have identified the criteria for beneficial use based on regulations, policies and regional and geographical situations pertaining to the jurisdiction and have differentiated disposal and beneficial use. Nevertheless, defining beneficial use is out of the scope of this document.

Sludge recovery, recycling, treatment and disposal — Beneficial use of biosolids land application — Guidelines for risk communication and management of public perception

1 Scope

The standard will characterize and outline the range of public perceptions and reactions to the beneficial uses of treated sewage sludge (biosolids) and provides descriptions of and steps in risk communication methods intended obtain the recognition and support of interested parties for such beneficial uses.

Although primarily intended for land applications of biosolids, the standard may be used for risk communication related to other beneficial uses of biosolids or of similar material.

2 Normative references

ISO 31000:2018, *Risk management — Guidelines*

3 Terms and definitions

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

ISO and IEC maintain terminological 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 acceptable risk

level of risk that an individual or society accepts to secure certain benefits.

[SOURCE: ISO 13824:2020 (en), 3.1,]

3.2 biosolids

organic products used in agriculture, which include sewage sludge, compost, manure and some industrial wastes

Note 1 to entry: a major source of biosolids is municipal wastewater treatment plants

[SOURCE: ISO 15685:2012(en), 3.2, Note 1 to entry added]

3.3 consequence

outcome of an event affecting objectives.

Note 1 to entry: An event can lead to a range of consequences.

Note 2 to entry: A consequence can be certain or uncertain and can have positive or negative effects on objectives.

Note 3 to entry: Consequences can be expressed qualitatively or quantitatively.

Note 4 to entry: Initial consequences can escalate through knock-on effects.

[SOURCE: Guide 73:2009, Risk Management - Vocabulary (en), 3.6.1.3,]

3.4
event

occurrence or change of a particular set of circumstances.

Note 1 to entry: An event can be one or more occurrences, and can have several causes.

Note 2 to entry: An event can consist of something not happening.

Note 3 to entry: An event can sometimes be referred to as an “incident” or “accident”.

Note 4 to entry: An event without *consequences* can also be referred to as a “near miss”, “incident”, “near hit” or “close call”.

[SOURCE: ISO Guide 73: 2009, Risk Management - Vocabulary (en), 3.5.1.3]

3.5
exposure

the extent to which an organization and/or stakeholder is subject to an event.

[SOURCE: ISO Guide 73: 2009, Risk Management - Vocabulary (en), 3.6.1.2]

3.6
growing medium

material, other than soils in situ, in which plants are grown.

[SOURCE: ISO 8157: 2022 (en), 3.2.8.11.]

3.7
hazard

substance or mixture which has the potential to cause harm to either an individual or the environment.

[SOURCE: ISO 13043:2011(en), 3.6.1, modified by replacement of the word “event” with the words “substance or mixture”.]

3.8
likelihood

chance of something happening.

[SOURCE: ISO Guide 73:2009, Risk Management – Vocabulary (en), 3.6.1.1, modified - NOTES 1 and 2 to entry have been deleted.]

3.9
risk

effect of uncertainty on objectives

Note 1 to entry: An effect is a deviation from the expected — positive and/or negative.

Note 2 to entry: Objectives can have different aspects (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organization-wide, project, product and process).

Note 3 to entry: Risk is often characterized by reference to potential events and consequences, or a combination of these.

Note 4 to entry: Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence.

Note 5 to entry: Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of, an event, its consequence, or likelihood.

[SOURCE: ISO Guide 73:2009, Risk Management - Vocabulary (en), 1.1, modified by merging NOTES 1 to 4 into continuous text.]