ISO/~~DIS~~FDIS 13662:~~2025(en)~~

ISO/TC 308

Secretariat: NEN

Date: ~~2024-12-06~~

Chain of custody — Mass balance — Requirements and guidelines

FDIS stage

iTeh Standards
(https://standards.iteh.ai)
Document Preview

ISO/FDIS 13662
https://standards.iteh.ai/catalog/standards/iso/2f658490-9eba-40e4-839f-b03804e1f95c/iso-fdis-13662

~~Internal~~
Edited DIS - MUST BE USED FOR FINAL DRAFT

© ISO 2025

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

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

Published in Switzerland

iTeh Standards
(https://standards.iteh.ai)
Document Preview

ISO/FDIS 13662
https://standards.iteh.ai/catalog/standards/iso/2f658490-9eba-40e4-839f-b03804e1f95c/iso-fdis-13662

Contents

Foreword v
Introduction vi
1 Scope 1
2 Normative references 1
3 Terms and definitions 1
4 Differentiation between chain of custody models 6
5 Requirements for mass balance chain of custody model 9
6 Mass balance model implementation methods 18
7 Claims and communication 21
Annex A (informative) Set-up of a mass balance model 25
Annex B (informative) Examples for setting up a credit account and utilization of conversion and consumption factors for the credit method 28
Annex C (normative) Designation system for mass balance chain of custody model 36
Annex D (informative) Examples for designation system for mass balance model 9
Bibliography 19

~~Foreword ..... iv~~
~~Introduction ..... v~~
~~1 Scope ..... 1~~
~~2 Normative references ..... 1~~
~~3 Terms and definitions ..... 1~~
~~4 Differentiation between chain of custody models ..... 5~~
~~4.1 General ..... 5~~
~~4.2 Differences between the mass balance and the controlled blending model ..... 7~~
~~4.3 Differences between the mass balance and the book and claim model ..... 7~~
~~5 Requirements for mass balance chain of custody ..... 8~~
~~5.1 General ..... 8~~
~~5.2 Set-up of a mass balance system ..... 9~~
~~5.3 System boundary ..... 10~~
~~5.4 Time period ..... 11~~
~~5.5 Material and credit reconciliation ..... 12~~
~~5.6 Conversion and consumption factor ..... 13~~
~~5.7 Avoidance of double counting in mass balance systems ..... 14~~
~~5.8 Returned materials and products ..... 14~~
~~6 Mass balance implementation methods ..... 15~~
~~6.1 Mass balance rolling average percentage method ..... 15~~
~~6.2 Mass balance credit method ..... 15~~
~~7 Claims and communication requirements ..... 18~~
~~7.1 Claims ..... 18~~
~~7.2 Communication ..... 19~~
~~Annex A (informative) Set-up of a mass balance system ..... 21~~

iTeh Standards
(https://standards.iteh.ai)
Document Preview
https://standards.iteh.ai/catalog/standards/iso/2f658490-9eba-40e4-839f-b03804e1f95c/iso-fdis-13662

© ISO 2025 – All rights reserved

Edited DIS - MUST BE USED FOR FINAL DRAFT

Annex B (informative) Examples conversion and consumption factor for the credit method 22
Annex C (normative) Designation system for mass balance chain of custody 28
Annex D (informative) Examples for designation system for mass balance chain of custody 35
Bibliography 41

iTeh Standards
(https://standards.iteh.ai)
Document Preview

ISO/FDIS 13662
https://standards.iteh.ai/catalog/standards/iso/2f658490-9eba-40e4-839f-b03804e1f95c/iso-fdis-13662

© ISO 2025 – All rights reserved

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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at ~~www.iso.org/patents~~.www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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

For an explanation of the voluntary nature of standards, 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 308, *Chain of custody*.

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~~www.iso.org/members.html.

iTeh Standards (https://standards.iteh.ai) Document Preview
ISO/FDIS 13662

© ISO 2025 – All rights reserved

Edited DIS - MUST BE USED FOR FINAL DRAFT

Introduction

The mass balance model is one of five chain of custody models outlined in ISO 22095. A mass balance model offers different methods for organisations to mix or co-process inputs with and without specified characteristics while transparently documenting the movement of the inputs and their specified characteristics. This is to ensure that the credits or specified characteristics are appropriately accounted for and attributed to outputs within the same system boundary.

NOTE Mixing and co-processing includes activities where those in the value chain (i.e. brokers) do not physically mix or co-process mass balanced material or products.

A mass balance model is ideally suited for certain situations, such as when identity preserved, segregated, or controlled blending chain of custody models are not feasible. For instance, in some supply chains, materials or products with specified characteristics are mixed or co-processed with materials or products without specified characteristics. New materials or products are then produced. It is not possible to distinguish which of these new materials or products were derived from inputs with, and without, specified characteristics. However, the quantity of input with specified characteristics, such as renewable feedstock or fair trade labour practices, are in the system. Therefore, it becomes appropriate to pass forward those specified characteristics through a chain of custody model. Many industries currently use a mass balance model including transportation, agriculture, textiles, forestry, construction, chemicals, metals, steel, energy, glass, plastics, organics and inorganics.

However, the mass balance model may be applied differently in the market based on the criteria selected. This may create confusion and reduce its credibility among consumers, policy makers, standard setters, and other stakeholders. This document provides guidance to explain the mass balance chain of custody model and limit the risk of confusion on mass balance model communication (for example claims) in the marketplace and throughout the value chain.

This document helps organizations outline technical choices, define system boundaries, and specify methods of attribution. In addition, it provides guidance on communication and claims.

iTeh Standards
(https://standards.iteh.ai)
Document Preview
ISO/FDIS 13662
https://standards.iteh.ai/catalog/standards/iso/2f658490-9eba-40e4-839f-b03804e1f95c/iso-fdis-13662

© ISO 2025 – All rights reserved

Chain of custody - — Mass balance — Requirements and guidelines

1 Scope

This document provides requirements and guidelines for the application of the mass balance chain of custody model, as defined in ISO 22095, to any material or product flow within mass balance systems, including how to attribute specified characteristics to flows of such processes.

This document provides requirements and guidelines for the following matters, amongst others:

— differentiations from controlled blending and book and claim models;

— general requirements for organizations active in a mass balance chain of custody model;

— system boundaries including geography and time;

— conversion factors;

— the rolling average percentage method;

— the credit method;

— transparency, communication, and claims.

iTeh Standards
(https://standards.iteh.ai)
Document Preview

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 22095:2020, *Chain of custody — General terminology and models*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 22095 and the following 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~~https://www.iso.org/obp

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

3.1 ~~3.1~~
administrative document
documentation that uniquely identifies the entitlement to claim the ownership of the *specified characteristics* ~~(3.28)~~(3.28) of materials or products at the respective point in the chain of custody

© ISO 2025 – All rights reserved