



ISCC

International Sustainability
& Carbon Certification

ISCC EU 202-5 WASTE AND RESIDUES



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Note: From 1st July 2021, only the version 4.0 of this ISCC document is applicable. This version of the document has been submitted to the European Commission in the framework of the recognition process of ISCC EU under the legal requirements of the Renewable Energy Directive (EU) 2018/2001 (RED II). The recognition of ISCC EU in the framework of the RED II is pending. This ISCC document may be subject to change depending on further legislation and further requirements of the European Commission.

Content

Summary of Changes	IV
1 Introduction	5
2 Scope and Normative References	6
3 Definitions and Regulatory Framework	6
3.1 Waste.....	6
3.2 Residues.....	7
3.3 Co-Products.....	8
3.4 Further Definitions	9
3.5 Advanced Biofuels.....	10
3.6 EU Member States	10
4 Sustainability and Traceability Requirements	11
4.1 Sustainable Land Use Requirements	11
4.2 Greenhouse Gas (GHG) Emissions	11
4.3 Traceability and Chain of Custody	11
5 Verification Process	12
5.1 Overview.....	12
5.2 Deliberate Production.....	13
5.3 Intentional Contamination or Modification.....	13
5.4 Discarding a Material.....	14
5.5 Origin of the Material	15
5.6 Distinguishing between Co-Products and Processing Residues	15
5.6.1 Further Use is Certain.....	16
5.6.2 Direct Use Without Further Processing	17
5.6.3 Integral Part of the Production Process.....	17
5.6.4 Further Use is Lawful.....	17
5.6.5 Correct Declaration of Material.....	18

Summary of Changes

The following is a summary of the main changes to the previous version of the document (ISCC EU System Document 202-1 “Waste and Residues” v 3.0). The revision of the document is a major review in the framework of the re-recognition of ISCC under the Directive (EU) 2018/2001 (recast). Minor amendments, e.g. corrections of phrasings and spelling mistakes, are not listed.

Summary of changes made in version 4.0	Chapter
General: All reference with regard to the RED refer to the recast Renewable Energy Directive (EU) 2018/2001 (recast) (also referred to as RED II)	
Amendment: Only a consistent verification can avoid a deliberate increase in the production of waste or residues. For this purpose, <i>“the correct determination whether a material meets the applicable definitions for waste and residues is crucial”</i> .	1
Addition: <i>“For materials that are or may be eligible for extra incentives in individual EU Member States (e.g. “double counting”) a higher risk may be associated with the correct determination of the raw material. This includes but is not limited to waste, residues materials that are eligible for the production of advanced biofuels (i.e. biofuels or biogas produced from materials listed under Annex IX (Part A) of the RED II) and products derived therefrom.”</i>	1
Addition: <i>“It is the responsibility of the auditor to determine whether a material meets the definition for waste and residues at the point in the supply chain where the material originates (i.e. the point of origin). This verification is generally done during an audit.”</i>	1
Addition: <i>“The RED II provides further specification by stating that this excludes “substances that have been intentionally modified or contaminated in order to meet this definition”</i>	3.1
Adjustment of the definition of “Residues”	3.2
Addition: New chapter 3.3. “Co-Products”	3.3
Addition: New chapter 3.4 “Further Definitions”	3.4
Addition: New chapter 3.5 “Advanced Raw Materials”	3.5
Amendment: The content of the previous chapters 4.3.1 - 4.3.3 are now included in the ISCC EU System Document 203 “Traceability and Chain of Custody”	
Amendment: The information from the previous chapter 3.3 “ISCC” have been included throughout the document where appropriate	
Adjustment of the process to determine if a material meets the definition for waste and residues or has to be considered as product or co-product	5
Addition: <i>“It is the responsibility of the auditor to determine whether a material meets the definitions of waste or residue at the point of origin, i.e. the element in the supply chain where the material is generated. The auditor shall follow the below process to determine if a material meets the definitions for waste or residues as defined in the RED II. This process is based on the definitions for waste, residues and co-products as stated in the RED II and WFD...”</i>	5.1
Addition: New chapter 5.3 “Intentional Contamination or Modification”	5.3
Addition: New chapter 5.4 “Discarding a Material”	5.4
Addition: New chapter 5.5 “Origin of the Material”	5.5
Addition: New chapter 5.7 “Correct Declaration of Material	5.7

1 Introduction

The use of waste and residues as raw materials has numerous advantages. Using these raw materials supports the transition to a renewable and more sustainable economy by replacing finite resources such as mineral oils. It can reduce greenhouse gas emissions, environmental pollution, and diminishes demand for landfills. Furthermore, their use can reduce the pressure on agricultural crop land, as waste and residues do not compete with food or feed crops for the arable land.

Advantages for the use of waste and residues

This document provides the definitions, legal framework and verification process for verifying if materials meet the definition for waste and residues. The Renewable Energy Directive (EU) 2018/2001¹ (often referred to as RED II) includes definitions of and specific incentives for the promotion of biofuels, bioliquids or biomass fuels originating from waste and residues. The verification and assessment of a material and its waste or residue status is important as there is no EU-wide harmonised list defining or classifying waste or residues. Only a consistent verification can avoid a deliberate increase in the production of waste or residues or a deliberate declaration of material as waste or residue. For this purpose, the correct determination whether a material meets the applicable definitions for waste and residues is crucial.

Definitions, legal framework and verification process

The sustainability risks for final products that are produced from agricultural and forest biomass are different from the ones related to waste and residues. In the case of agricultural and forest biomass, the main task at the origin of the feedstock (farm/plantation or forest) is to verify that the criteria for sustainable production of the biomass are complied with. In the case of waste and residues, the main task at the origin is to verify the type of raw material and that it meets the applicable definitions of waste or residue. For materials that are or may be eligible for extra incentives in individual EU Member States (e.g. “double counting”) a higher risk may be assumed. This includes but is not limited to waste, residues materials that are eligible for the production of advanced biofuels (i.e. biofuels or biogas produced from materials listed under Annex IX (Part A) of the RED II) and products derived therefrom.

Different risks

The auditing and certification principles under ISCC apply equally to agricultural and forest biomass and to waste and residues. However, for waste and residues there is a special focus on the point of origin as this is the supply chain element where it is determined if the raw material meets the definitions for waste and residues. Furthermore, for points of origin of waste or residues a different risk approach is applied, leading to differences in the frequency and intensity of audits compared to the process for agricultural and forest biomass.

Focus on points of origin

In this document the regulatory framework for waste and residues is described as well as requirements to determine whether a material meets the definition for waste or residues at the point of origin.

Regulatory framework and requirements

¹ Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources (recast), in the following referred to as RED II

ISCC list of materials

ISCC certification can cover all types of biomass and biogenic waste and residues, non-biological renewable materials and recycled carbon-based materials. As a formal requirement and for the purpose of a harmonised description of certified sustainable materials, ISCC keeps a list of all raw materials, intermediate and final products which are eligible for certification according to ISCC (see ISCC EU System Document 201 “System Basics”). On this list, ISCC indicates the raw materials, which may qualify as waste or residue under ISCC. If a material is not published on this list, the material cannot be covered by ISCC certification. However, ISCC can update the list and can add further materials to it upon written request. If a waste or residue material shall be added to this list, ISCC will require a detailed description of the material and of the process from which the material originates as well as sufficient evidence demonstrating that the material is recognised and accepted as a waste or residue in at least one EU Member State within the framework of the RED II. ISCC can also remove certain materials from the list, based on re-classifications by Member States or latest analysis regarding the status as a waste or residue and the required certification approach. During any audit the relevant raw material and the respective output material must be determined and classified according to the ISCC list of materials.

ISCC is not a public authority or agency and therefore ISCC is not in the position to officially classify material as waste, neither by certification nor by publishing a material on the ISCC list of materials. It is the responsibility of the auditor to determine whether a material meets the definition for waste and residues at the point in the supply chain where the material originates (i.e. the point of origin). This verification is generally done during an audit.

Responsibility of auditors

2 Scope and Normative References

The requirements described in this document specify the identification and verification of waste and residues and their certification process. This document is valid in addition to the other ISCC system documents.

3 Definitions and Regulatory Framework

3.1 Waste

“Waste” shall be defined as stated in Article 3 (1) of the *Waste Framework Directive 2008/98/EC*²: “Waste means any substance or object which the holder discards or intends or is required to discard”. The RED II provides further specification by stating that this excludes “substances that have been intentionally modified or contaminated in order to meet this definition”.³

Definition waste

² In the following referred to as WFD.

³ Article 2 (23) of the RED II

The principles of the waste hierarchy as specified in Art. 4 of the WFD lay down a priority order of five options to deal with waste (figure 1).

Waste hierarchy

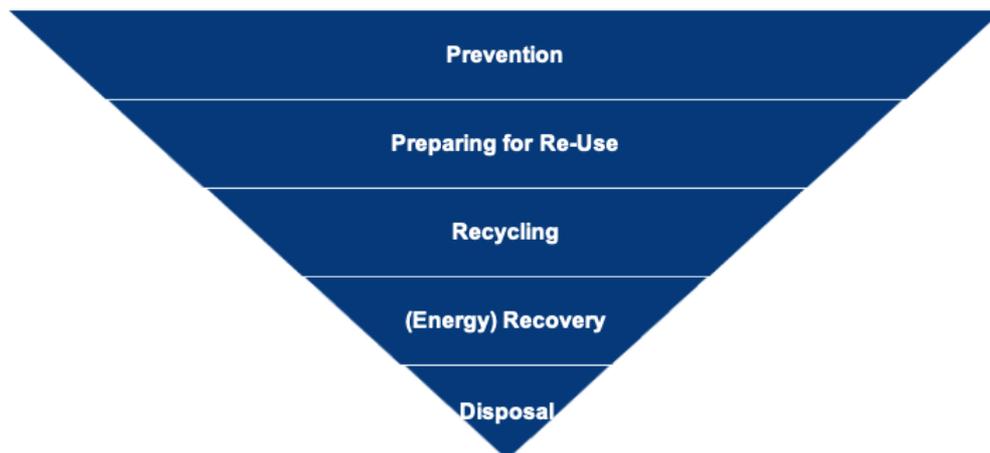


Figure 1: Waste hierarchy according to Article 4 of the WFD

3.2 Residues

A residue “means a substance that is not the end product that a production process directly seeks to produce; it is not a primary aim of the production process and the process has not been deliberately modified to produce it”.⁴

Definition residue

“Residues that are directly generated by agriculture, aquaculture, fisheries and forestry and that do not include residues from related industries or processing” are referred to as “agricultural, aquaculture, fisheries and forestry residues”.⁵ An example for an agricultural (crop) residue is straw.

Agricultural, aquaculture, fisheries and forestry residues

Residues that are generated by “related industries or processing” are referred to as “processing residues” under this standard. Examples for processing residues are crude glycerine (glycerine that is not refined) and bagasse.⁶

Processing residues

The classification according to one of the two residue categories therefore depends on where the material was generated, either at a farm or a forest unit or at a different element of the supply chain, such as a processing unit. This needs to be verified by the auditor as it determines which requirements the material must comply with. If, for instance, corn cobs (i.e. cobs cleaned from the corn kernels) are directly removed from a field they would classify as agricultural residue. If the corn cobs are generated in a processing unit (i.e. corn kernels are separated from the cob in a processing unit) the cobs would classify as processing residue. This distinction is important as processing residues do not have to comply with the sustainability requirements according to Art. 29 (2) – (5) of the RED II (see chapter 4.1 below).

Origin of the residue

A production process may generate multiple substances that can qualify as end products that the process directly seeks to produce, especially if these substances are of significant value to the producer. These “co-products” (see

Co-products are no residues

⁴ Article 2 (43) of the RED II

⁵ Article 2 (44) of the RED II

⁶ Annex V, part C, point 18 of the REDII

chapter 3. 3) do not qualify as (processing) residues. It is therefore important to distinguish between genuine (processing) residues and co-products.

3.3 Co-Products

The RED II specifies that co-products “are different from residues and agricultural residues, as they are the primary aim of the production process”.⁷

Co-products are products

The specification of co-products and the definition for (processing) residues may give the impression that a production process generally results only in one single end product (“the” primary aim of the process), and that all further materials resulting from this process might be considered as processing residues. However, in many cases a production process results in other materials not being the (single) primary aim of the process, but which are still of significant value for the producer. A major use for such “co-products” from the food sector (e.g. sugar production, oilseed crushing, starch production, etc.) is animal feed, i.e. the material is used directly by farmers to feed animals or it is being used by the feed industry. These “co-products” do not qualify as (processing) residues.

Significant value

The WFD refers to co-products as “by-products”⁸. According to the WFD “a substance or object resulting from a production process, the primary aim of which is not the production of that substance or object, is considered not to be waste, but to be a by-product” if the material meets certain conditions. In order to maintain a harmonized wording consistent with the RED II, in the following only the term co-product will be used. A material is considered to be a co-product according to the WFD if all of the following conditions are met:

Criteria to determine a co-product

- > A further use of the substance or object is certain;
- > the substance or object can be used directly without any further processing other than normal industrial practice;
- > the substance or object is produced as an integral part of a production process; and
- > further use is lawful, i.e. the substance or object fulfils all relevant product, environmental and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts.

Co-products in the context of ISCC are treated similarly to main products with regards to the certification process and the greenhouse gas (GHG) emission calculation. This means that co-products require upstream certification (i.e. up to and including the origin of the initial feedstock from which the co-product is derived, such as the agricultural crop) and GHG emissions are allocated to them (i.e. co-products do not have zero life-cycle greenhouse gas emissions at the point where they are generated).

Upstream certification required

⁷ Preface (117) of the RED II

⁸ Art. 5 (1) of the WFD

Examples for co-products are rapeseed meal (a co-product from the production of rapeseed oil) and dried distillers grains with solubles (a co-product from the ethanol distillation process).

3.4 Further Definitions

“Biowaste” means biodegradable garden and park waste, food and kitchen waste from households, offices, restaurants, wholesale, canteens, caterers and retail premises and comparable waste from food processing plants.⁹

Biowaste

“Food” (or ‘foodstuff’) means any substance or product, whether processed, partially processed or unprocessed, intended to be, or reasonably expected to be ingested by humans. Food shall not include feed (defined as any substance or product, including additives, whether processed, partially processed or unprocessed, intended to be used for oral feeding to animals).¹⁰

Food

“Food waste” means all food as defined in Article 2 of Regulation (EC) No 178/2002 of the European Parliament and of the Council that has become waste.¹¹

Food waste

“Municipal waste” means:

Municipal waste

- > mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste, including mattresses and furniture;
- > mixed waste and separately collected waste from other sources, where such waste is similar in nature and composition to waste from households;
- > Municipal waste does not include waste from production, agriculture, forestry, fishing, septic tanks and sewage network and treatment, including sewage sludge, end-of-life vehicles or construction and demolition waste.¹²

“Point of Origin” means the point in the supply chain where a waste or residue is generated. In the WFD this is referred to as the “original waste producer”.

Point of Origin

“Used Cooking Oil (UCO)” means oils and fats of vegetable or animal origin that have been used for cooking or frying food. UCO is usually generated at restaurants, canteens, or similar operations where food is cooked or processed.

Used Cooking Oil

⁹ Art. (3) No. 4 of the WFD
¹⁰ Art. 2 Regulation (EC) No 178/2002 of the European Parliament and of the Council
¹¹ Art. 3 No. 4a of the WFD
¹² Art. 3 No. 2b of the WFD

3.5 Advanced Biofuels

Advanced biofuels are biofuels produced from raw materials listed in Annex IX Part A of the RED II. The “share of biofuels and biogas for transport produced from the feedstock listed in Annex IX may be considered to be twice its energy content” for the purposes of demonstrating compliance with the minimum shares referred to in Article 25 (1) of the RED II.¹³ According to the RED II, biofuels produced from those raw materials may be eligible for being counted twice towards the quota as the technology for the production of advanced biofuels is more innovative and less mature and would therefore require a higher level of support. For this purpose, Annex IX is reviewed every two years by the European Commission to assess whether new raw materials should be added and to ensure that latest technological developments are being taken into account. Raw materials that can be processed only with advanced technologies will be added to Part A of the Annex IX, raw materials that can be processed into biofuels with mature technologies will be added to Part B of Annex IX.¹⁴

Biofuels from innovative and less mature technologies

Even though several materials listed in Annex IX Part A of the RED II qualify as waste or residues, it is not a “positive list” of waste and residues. Raw materials listed in Annex IX Part A and Part B can generally be products, co-products, wastes or residues. Raw materials listed in Annex IX Part A and Part B can be certified under ISCC.

Annex IX materials can be certified under ISCC

3.6 EU Member States

Member States are responsible to decide whether a biofuel produced from a certain raw material is eligible for double counting (i.e. counting the energy content of a batch of biofuel twice towards the biofuel quota obligation of a quota obligated party) in the respective country. Some EU Member States have published so-called “positive lists” of waste and residues or have included the raw materials eligible for double counting within the national legislation.

Individual EU Member State requirements

EU Member States might set additional or more specific requirements for materials to be accepted as waste or residue or to be eligible for double counting. ISCC does not guarantee the acceptance of biofuels produced from waste and residues by the competent authorities. It is therefore recommended that market participants research the requirements for biofuels produced from waste and residues in the country in which the final biofuel shall be counted towards a national biofuel quota. As a general rule, requirements set by competent public authorities or regulators must always be complied with. ISCC does not overrule national legislation.

Analysis of target market

¹³ Article 27 (2) letter (a) of the RED II. Note: The implementation of incentive mechanisms such as “double-counting” depends on the individual EU Member States.

¹⁴ See Preface (91) and Art. 28(6) of the RED II. Materials can only be added to but not removed from Annex IX.

4 Sustainability and Traceability Requirements

4.1 Sustainable Land Use Requirements

Waste and residues other than agriculture, aquaculture, fisheries and forestry residues (i.e. processing residues) do not need to comply with the sustainability requirements for sustainable production of agricultural and forest biomass.¹⁵ This means that the further use of waste and processing residues can be considered as sustainable if they meet the respective definitions (see chapters 3.1 and 3.2) and comply with the applicable ISCC requirements.

Not applicable to waste and processing residues

Residues from agriculture, aquaculture, fisheries and forestry, must comply with the relevant sustainability requirements for sustainable cultivation of biomass laid down in Article 29 (2) – (7) of the RED II and in ISCC EU System Documents 202-1 “Agricultural Biomass: ISCC Principle 1” and 202-3 “Forest Biomass: ISCC Principle 1”. Therefore, the certification process for such residues starts at the level of cultivation, similar to the process for agricultural and forest biomass.

Applicable to residues from agriculture and forestry

4.2 Greenhouse Gas (GHG) Emissions

Waste and residues shall be considered to have zero life-cycle greenhouse gas emissions up to the point of collection of those materials. This is irrespective of whether the materials are further processed to intermediate products before being processed into the final product.¹⁶ In this context, the “point of collection” is the point where the waste or residue occurs in the first place. Under ISCC the point where a waste or residue arises in the first place (i.e. is generated) is referred to as “point of origin”. For UCO, for example, this would be the restaurants or plants producing fried products, for rendered animal fats the point of origin would be the rendering plant producing animal fat from animal by-products. In the case of UCO or other wastes generated by households, the point of origin could be a private company or a municipality collecting or receiving the waste from the households.

Zero GHG emissions up to the point of collection

Biofuels, bioliquids and biomass fuels produced from waste and residues must comply with the GHG reduction target laid down in Article 29 (10) of the RED II.¹⁷

GHG reduction target

The requirements for GHG calculation and verification are specified in ISCC EU System Document 205 “Greenhouse Gas Emissions”.

4.3 Traceability and Chain of Custody

Traceability of waste and residues starts at the point where the waste or residue occurs or is generated (i.e. the point of origin) and covers the entire downstream supply chain. Traceability is achieved by applying an appropriate chain of custody method (e.g. mass balance or segregation) as well as

Traceability starts at point of origin

¹⁵ Article 29 (1) c of the RED II

¹⁶ Annex V, part C, point 18 and Annex VI, part B, point 18 of the RED II

¹⁷ Article 29 (1) of the RED II

relevant documentation. This includes self-declarations and Sustainability Declarations, assuring that all relevant information, such as the country of origin (i.e. the country where the waste/residue was generated), the type of (raw) material, the scope of certification of the raw material, the amount and the respective GHG emissions of a material can be clearly identified on each level of the supply chain.

The entire supply chain of sustainable material must be covered by certification. The first element of the supply chain requiring individual certification is the economic operator collecting the waste or residue from the point of origin and becoming the owner of the material. In case of waste and processing residues, this economic operator is called “collecting point”. In case of residues from agriculture or forestry, this economic operator is called “first gathering point”.

Certification starts at the Collecting Point

The general definitions of supply chain elements are specified in ISCC EU System Document 201 “System Basics”. The requirements for traceability and chain of custody as well as general and specific audit requirements for the chain of custody elements are specified in ISCC EU System Document 203 “Traceability and Chain of Custody”.

Relevant reference documents

5 Verification Process

5.1 Overview

It is the responsibility of the auditor to determine whether a material meets the definitions of waste or residue at the point of origin, i.e. the element in the supply chain where the material is generated.

Responsibility of the auditor

The auditor shall follow the below process to determine if a material meets the definitions for waste or residues as defined in the RED II. This process is based on the definitions for waste, residues and co-products as stated in the RED II and WFD (see also chapters 3.1 to 3.3).¹⁸

Definitions of the RED II and WFD apply

It is the responsibility of the point of origin to enable the auditor to conduct the entire verification process appropriately and to provide adequate evidence to the auditor proving that the material generated by the point of origin qualifies as a waste or residue.

Responsibility of the point of origin

The flow chart (figure 2) provides an overview of the process to determine if a material meets the definition for waste and residues or has to be considered as product or co-product.

Process for determination of waste or residues

¹⁸ The result of this process (including a subsequent certification under ISCC) is not an official classification of the respective material according to national or international waste law. Such a classification depends on the applicable waste legislation and is the in the jurisdiction of competent public authorities or agencies.

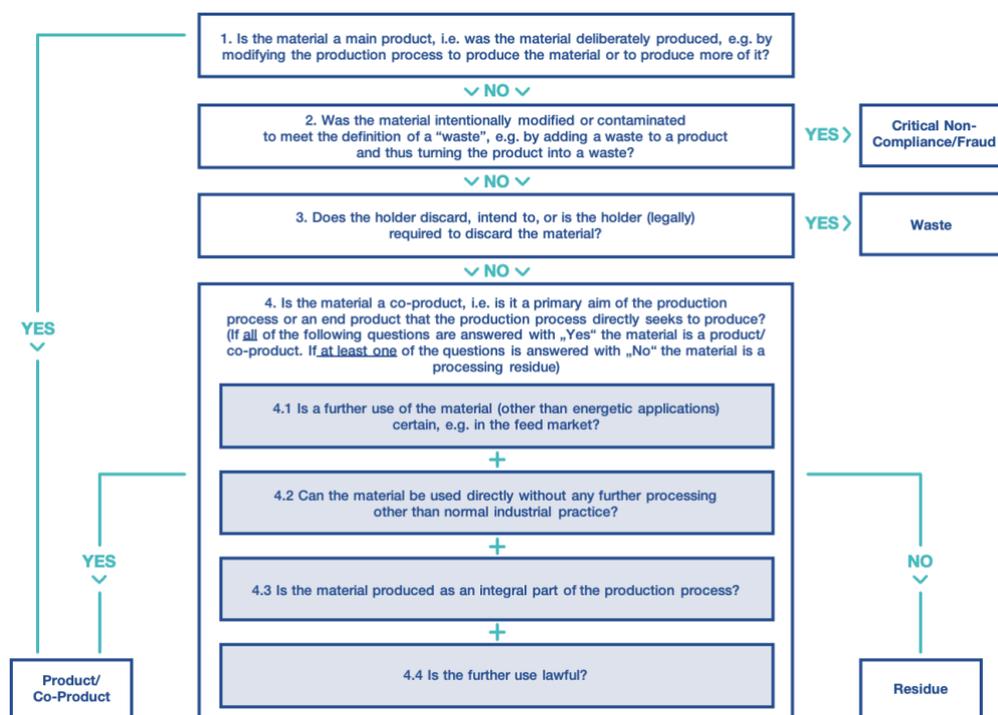


Figure 2: Process to determine if a material is a waste or residue

5.2 Deliberate Production

A deliberate (intentional) production process aims for the production of specific main or primary products. A production must be considered deliberate (intentional), if the production process was modified to influence the amount, the quality and/or the technical characteristics of the outcoming material. If the production of a specific material is the result of a technical choice, the material is considered a product. If the producer could have produced the primary product without producing the material concerned or with producing less of the material concerned but chose not to do so, this can be regarded as evidence that the material concerned is a product. Deliberately produced (main) products do not qualify as waste or residue. The deliberate or intentional production of waste or residues violates the principle of waste prevention and is a critical non-conformity under ISCC.

No deliberate production of waste or residues

It is the responsibility of the auditor to verify that no deliberate production of a material has taken place. The point of origin must explain the process from which the material originates to the auditor to ensure that the auditor has an adequate understanding of the individual process.

5.3 Intentional Contamination or Modification

It is not allowed to intentionally contaminate or modify a material so that it could be declared as waste. An intentional contamination would be, for example, if waste is added to a material that is not a waste, such as adding used cooking oil to unused vegetable oil, and thus turning the unused vegetable oil into a waste. The auditor must verify if such intentional contamination has taken place. One indicator could be if there are any

No intentional contamination or modification

incentives (e.g. a “business case”) for the point of origin to create waste by intentional contamination or modification. The verification should also include a plausibility check of the amounts of the respective material generated by the point of origin, e.g. the ratio between raw material (input), (co-) products and waste, historical data such as production reports, the disposal rate, etc. Another indicator for an intentional contamination could be a sudden increase in the amount of the respective material generated by the point of origin. The intentional contamination or modification of a material to count as waste or residue is regarded as fraudulent activity and is classified as a critical non-conformity under ISCC.

5.4 Discarding a Material

The key term of the waste definition in the WFD¹⁹ is “discard”. This term is used in three alternatives: (1) the holder discards or (2) intends or (3) is required to discard. In the following the “holder” will be referred to as the point of origin. The concept of discarding a material requires a consideration of the circumstances at the point of origin where the material is generated.

Alternatives to discard material

The first alternative (“the holder discards”) describes an actual action or activity of the point of origin. This e.g. refers to a material which was thrown away or which was disposed at a landfill by its original owner. An example is municipal solid waste. Another example is UCO from a private household that is thrown into a public container by the private household. The fact that a material is (or was) disposed at a landfill or in a public container indicates that the material was discarded by the point of origin, and thus that the waste definition is met.

Material is being discarded

The second alternative (“the holder intends to discard”) describes an intention of the point of origin. An example is food waste, such as leftover food, or UCO, both being generated at a restaurant. Considering the purpose of a restaurant, it can generally be assumed that a restaurant has the intention to discard food waste as well as UCO because the purpose of the restaurant is to sell food to its customers and not sell food waste or UCO. Another example is a palm oil mill generating palm oil mill effluent (POME). POME is a wastewater from the palm oil mill consisting of mainly water and a small amount of solid matter and oil (POME oil). Considering the purpose of the palm oil mill, it can generally be assumed that the palm oil mill has the intention to discard the POME because the purpose of the palm oil mill is to produce palm oil as efficiently as possible and losing oil to the wastewater reduces the yield of the palm oil mill.

Intention to discard material

The third alternative (“the holder is required to discard”) describes an obligation for the point of origin. An obligation to discard a material is usually based on legislation or regulations. This alternative especially applies in case of hazardous wastes. The fact that a point of origin is obligated to discard the material indicates that the waste definition is met.

Legal requirement to discard material

¹⁹ Art. 3 (1) of the WFD: ‘waste’ means any substance or object which the holder discards or intends or is required to discard

If there is evidence that the point of origin pays a fee to dispose the material this generally indicates an intention to discard the material and thus that the waste definition is met. However, it is also possible that the collector pays a fee to the point of origin to collect the waste. It is, for instance, a common scenario that a collector pays a fee for the UCO collected from a restaurant. Such a fee does not necessarily change the intention of the point of origin to discard the material as a waste. However, if a fee is paid by the collector to the point of origin, this could increase the risk of deliberate production of waste or the risk of intentionally modifying or contaminating a material or a modifying the process to produce more of the material. This risk may especially increase if the fee that is paid by the collector to the holder is higher than the price that the point of origin pays for the material in its original state, i.e. before it became a waste, or if the fee paid by the collector of the waste is higher than the price being paid for the main product the point of origin produces. An example would be a collector of UCO paying a higher price for the UCO to the restaurant than the restaurant initially paid for the unused (fresh) oil. Another example would be a collector paying a higher price for the POME oil than the palm oil mill receives for its main product, the palm oil. If a collector pays a fee to the point of origin to collect the waste, the auditor has to compare the respective prices and fees. The auditor must verify that such a fee does not lead to a deliberate production of the material or to an intentional contamination or modification to produce the material or to produce more of the material (see chapters 4.4.2 and 4.4.3).

Fee paid by collector

5.5 Origin of the Material

If a material is not a main or primary product and if it does not qualify as a waste, it may still qualify as a residue. The RED II distinguishes between two types of residues, those resulting from a processing step and those which are directly generated by agriculture, aquaculture, fisheries and forestry. The auditor therefore must verify where the material originates. If a material is directly generated by agriculture, aquaculture, fisheries and forestry and it is neither deliberately produced (see chapter 4.4.2) nor does it qualify as a waste (see chapter 4.4.4), it meets the definition of an agricultural, aquaculture, fisheries or forestry residue (see chapter 3.2).

Distinguishing between different residues

5.6 Distinguishing between Co-Products and Processing Residues

If a material is not a main or primary product, it does not qualify as a waste, and if it is not directly generated by agriculture, aquaculture, fisheries and forestry it may qualify as a processing residue or as a co-product. Especially if the material is of significant economic value for the point of origin (i.e. a significant fee is being paid to the point of origin), this may indicate that the respective material might classify as a co-product and not as a processing residue. To differentiate between co-products and processing residues the principles of the WFD for distinguishing between by-products and waste shall be applied. If all of the following (cumulative) criteria are met, the material must

Co-product or processing residue

be qualified as a co-product but if one of the following criteria is not met, the material meets the definition as a processing residue.

5.6.1 Further Use is Certain

“Further use is certain” means that it is guaranteed that the material will be used. The purpose of this requirement is that if further use were not certain, there would be a risk of the material being disposed of as waste (e.g. to a landfill). During the assessment of this requirement, the waste hierarchy established in Article 4 of the WFD must be considered (see also chapter 3.1).

*Guaranteed use
of material*

“Certainty of further use” may be indicated through, for example:

- > The material is commonly used for specific purposes (other than energy applications);
- > Existing contracts between the point of origin and subsequent users;
- > Established market and market conditions (sound supply and demand);
- > Evidence that the material fulfils the same specifications as other products on the market;
- > Existence of trading specifications or standards;
- > Verifiable market price being paid for the material;
- > A (significant) financial gain for the point of origin

Examples of indications that further use is uncertain:

- > No market or commonly known use (other than energetic applications) for the material;
- > The economic benefit for the point of origin is low / insignificant;

As the existence of a market or an alternative application for a waste or residue material may be difficult to assess during an audit, the economic value of a material is a feasible criterion which can be assessed. If the economic benefit for the point of origin is insignificant, it can be assumed that the main goal of the point of origin is to reduce the amount of waste or residue in favour of the main or primary product(s). Therefore, the risk for deliberate production or intentional contamination can be considered to be low. The economic benefit of a material generated at a point of origin can be regarded as insignificant if the economic value of the material is 15% or lower than the economic value of the main or primary product(s). This only applies if the material in question is used for non-bioenergy purposes. This means, if only bioenergy applications are relevant to be considered as “further use of the material”, the economic value in this case is not relevant to determine if a material meets the definition of a processing residue. In the case of two or more main or primary products, the average economic value of those products shall be used.

Economic value

Figure 3 shows the formula to calculate the ratio of the economic value of the material in question and the economic value of the main/primary products.

*Calculation
formula*

$$\text{Ratio of economic value} = \frac{\text{Price per ton of material (€/t)}}{\text{Price per ton of main/primary product (€/t)}}$$

Figure 3: Formula to calculate the ratio of the economic values

5.6.2 Direct Use Without Further Processing

A material may be considered as a (co-) product if its further use is certain without processing other than normal industrial practice. If the material in question has to be treated before it can be used further, this may indicate a waste treatment operation, thus in turn, indicating a waste or residue. In meeting the requirement of being able to be “used directly without any further processing other than normal industrial practice”, the crucial point is to determine “normal industrial practice”.

(Co-) Product

“Normal industrial practice” can include all steps which a producer would take for a product, such as the material being filtered, washed or dried (modification of size or shape by mechanical treatment); or adding materials necessary for further use; or carrying out quality control. However, treatments usually considered as a recovery operation cannot, in principle, be considered as normal industrial practice in this sense. Some of such processing tasks can be carried out on the production site of the manufacturer, some on the site of the next user, and some by intermediaries, as long as they also meet the criterion of being “produced as an integral part of a production process”.

*Normal industrial
practice*

5.6.3 Integral Part of the Production Process

A material, which is made ready for further use through an integral part of a production process, can be considered as a (co-) product. If a material leaves the site or factory where it is produced in order to undergo further processing, this may be evidence that such tasks are no longer part of the same production process, thus indicating a waste or residue.

*Analysis of
production
process*

The following points can be considered in order to determine if a material is produced as an integral part of a production process:

- > What is the nature and extent of the tasks needed to prepare the material for direct further use? How integrated are these tasks in the main production process?
- > Are the tasks that are undertaken as part of “normal industrial practice” also “an integral part of a production process”?

5.6.4 Further Use is Lawful

A further use of a material is lawful if the material fulfils relevant product, environmental and health protection requirements at EU and at Member States level for the specific use, and if it will not result in overall adverse

*Legal or
technical
requirements*

environmental or human health impacts. Compliance with relevant product, environmental and health protection requirements for the specific use may, for example, be indicated through:

- > A material meeting the technical or product specifications relevant to its further use;
- > If there are no relevant technical specifications for the material, it can still be lawful to use it simply if its use is not specifically forbidden.

The following can indicate that further use is unlawful:

- > The material does not meet the technical or product specifications required for it to be usable.

The material is banned from use or the material must be disposed of or recovered as waste by certain obligatory methods.

5.6.5 Correct Declaration of Material

The correct declaration of waste or residue materials is also a crucial issue and thus an important point for the auditor to verify during the audit. The waste or residue material has to be declared according to the factual circumstances. This means, for example, it is not allowed to declare food waste as UCO or to declare crude palm oil as palm oil mill effluent (POME) oil.

*No false
declaration of
material*

The correct categorisation of animal fats according to the categories 1, 2 and 3 must be done by veterinarians or inspectors of competent authorities.²⁰ Points of origin for animal fat (e.g. rendering plants) require an adequate permit demonstrating which materials can be handled at the specific site. ISCC auditors must verify the respective evidence demonstrating the category of the material before issuing a certificate and before stating a specific category on the annex to an ISCC certificate. This is especially important if the rendering plant (point of origin) is located outside of the European Union. Animal fat which is not categorised according to the respective EU regulations must be considered as “uncategorised” under ISCC.

*Correct
categorisation of
animal fat/tallow*

It is the responsibility of the auditor to check that at the point of origin no false declaration of a material has taken place. This check also includes if there are any incentives (e.g. price premiums) for the economic operator to not correctly declare waste/residues materials as described above.

*Responsibility of
the auditor*

The false declaration of waste and residues is classified as a critical non-conformity under ISCC. The intentional false declaration of waste and residues is regarded as fraudulent activity under ISCC. Please see ISCC EU System Document 102 “Governance” for further information on non-conformities and sanctions.

*Critical non-
conformity*

²⁰ This has to be done in accordance with the EU animal by-product legislation (Regulation (EC) 1069/2009 and Commission Regulation (EU) 142/2011)