PD CEN/TS 16214-2:2014

BSI Standards Publication

Sustainability criteria for the production of biofuels and bioliquids for energy applications — Principles, criteria, indicators and verifiers

Part 2: Conformity assessment including chain of custody and mass balance

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National foreword

This Published Document is the UK implementation of CEN/TS 16214-2:2014.

The UK participation in its preparation was entrusted to Technical Committee PTI/20, Sustainability of bioenergy.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Sustainability criteria for the production of biofuels and bioliquids for energy applications - Principles, criteria, indicators and verifiers - Part 2: Conformity assessment including chain of custody and mass balance

Critères de durabilité pour la production de biocarburants et de bioliquides pour des applications énergétiques - Principes, critères, indicateurs et vérificateurs - Partie 2: Évaluation de la conformité, incluant chaîne de surveillance et bilan massique

Nachhaltigkeitskriterien für die Herstellung von Biokraftstoffen und flüssigen Biobrennstoffen für Energieanwendungen - Grundsätze, Kriterien, Indikatoren und Prüfer - Teil 2: Konformitätsbewertung einschließlich überwachter Lieferkette und Massenbilanz

This Technical Specification (CEN/TS) was approved by CEN on 14 October 2013 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

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COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (CEN/TS 16214-2:2014) has been prepared by Technical Committee CEN/TC 383 “Sustainably produced biomass for energy applications”, the secretariat of which is held by NEN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This standard comprises the following parts:

— EN 16214-1, Sustainability criteria for the production of biofuels and bioliquids for energy applications — Principles, criteria, indicators and verifiers — Part 1: Terminology;

— CEN/TS 16214-2, Sustainability criteria for the production of biofuels and bioliquids for energy applications — Principles, criteria, indicators and verifiers — Part 2: Conformity assessment including chain of custody and mass balance;

— EN 16214-3, Sustainability criteria for the production of biofuels and bioliquids for energy applications — Principles, criteria, indicators and verifiers — Part 3: Biodiversity and environmental aspects related to nature protection purposes;

— EN 16214-4, Sustainability criteria for the production of biofuels and bioliquids for energy applications — Principles, criteria, indicators and verifiers — Part 4: Calculation methods of the greenhouse gas emission balance using a life cycle analysis approach.

This Part 2 has originally been drafted as a full standard, but due to a lack of consensus in the end it is now be proposed as a CEN/TS. This would allow the European stakeholders and economic operators to use it in harmonizing their conformity assessment without the risk of contradicting national legislation and national sustainability schemes still under development at the moment of publication of this part.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Directive 2009/28/EC of the European Commission on the promotion of the use of energy from renewable sources, referred to as the Renewable Energy Directive (RED, [1]), incorporates an advanced binding sustainability scheme for biofuels and bioliquids for the European market. The RED contains binding sustainability criteria for greenhouse gas savings, land with high biodiversity value, land with high carbon stock and agro-environmental practices. Several articles in the RED present requirements to European Member States and to economic operators in Europe. Non-EU countries may have different requirements and criteria on, for instance, the GHG emission reduction set-off in the framework of their own national legislation.

The sustainability criteria for biofuels are also mandated in Directive 98/70/EC relating to the quality of petrol and diesel fuels [2], via the amending Directive 2009/30/EC (as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions, [3]). Directive 98/70/EC is referred to as the Fuels Quality Directive (FQD).

Created in 2008, CEN/TC 383 initiated the elaboration of a standardization programme on sustainability criteria for biomass for energy application. After being contacted by CEN, the European Commission in return in May 2009 formally wrote to request CEN to work on standard(s) on:

— the implementation of the mass balance method of custody chain management;

— the provisions of evidence that the production of raw material has not interfered with nature protection purpose;

— the auditing by member states and by voluntary schemes using them of the information submitted by economic operators.

Both the EC and CEN agreed that these may play a role in the implementation of the EU biofuel and bioliquid sustainability scheme. In the Communication from the Commission on the practical implementation of the EU biofuels and bioliquids sustainability scheme and on counting rules for biofuels (2010/C 160/02, [4]), awareness of the CEN work is indicated.

It is widely accepted that sustainability at large encompasses environmental, social and economic aspects. The European Directives make mandatory the compliance of several sustainability criteria for biofuels and bioliquids. This European Standard has been developed with the aim to assist EU Member States and economic operators with the implementation of EU biofuel and bioliquids sustainability requirements mandated by the European Directives. This European Standard is limited to certain aspects relevant for a sustainability assessment of biomass produced for energy applications. Therefore compliance with this standard or parts thereof alone does not substantiate claims of the biomass being produced sustainably.

This Technical Specification defines requirements for the verification of compliance with the sustainability criteria for biofuels and bioliquids, in accordance with legal requirements, such as in Article 18 of the RED [1]. In particular, this Technical Specification defines requirements for an adequate standard of independent auditing of the information submitted by economic operators (Clause 5), and the implementation by economic operators, of the mass balance method of chain of custody control (Clause 6).

This Technical Specification is a tool that can be used as part of voluntary schemes, national systems or bilateral agreements.

This Technical Specification defines requirements for a mass balance system which:

a) allows consignments of raw material or biofuel or bioliquids with differing sustainability characteristics to be mixed;

b) requires information about the sustainability characteristics and sizes of the consignments referred to in a) to remain assigned to the mixture; and

c) provides for the sum of all consignments withdrawn from the mixture to be described as having the same sustainability characteristics, in the same quantities, as the sum of all consignments added to the mixture.

Each economic operator in the chain of custody is responsible for the data supplied in the product declarations submitted to the next economic operator as detailed in 5.1. The validity of these declarations is assessed through a conformity assessment procedures carried out as described in Clause 5 of this Technical Specification.

Where applicable, the parts of this standard contain at the end an annex that informs the user of the link between the requirements in the European Directive and the requirements in the CEN Standard.

1 Scope

This Technical Specification defines requirements for provision by economic operators of the required evidence that biofuels and bioliquids fulfil the sustainability criteria as defined in the Renewable Energy Directive [1]. This Technical Specification is applicable to the initial biomass production or to the point of collection for waste and residue and to each stage within the chain of custody. It also defines requirements on conformity assessment bodies when checking compliance with the present standard.

NOTE An example of supply chain of biofuels and bioliquids to be covered by the chain of custody is given in Figure 1. This supply chain is a simple representation, actual supply chains are typically more complex.

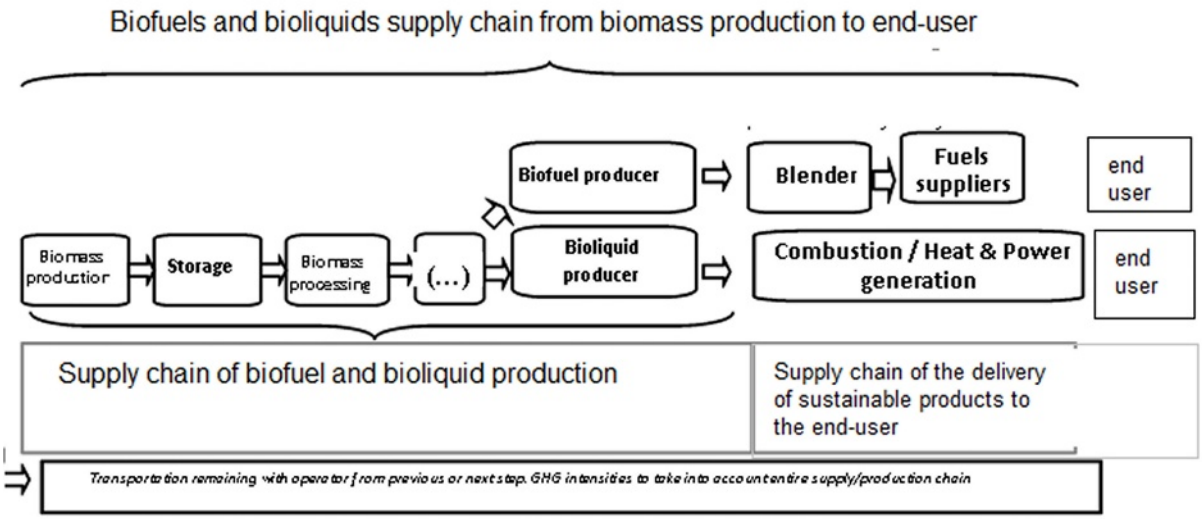

Figure 1 — Example of a supply chain of biofuels and bioliquids

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 16214-1:2012, *Sustainability criteria for the production of biofuels and bioliquids for energy applications – Principles, criteria, indicators and verifiers – Part 1: Terminology*

EN 16214-3, *Sustainability criteria for the production of biofuels and bioliquids for energy applications – Principles, criteria, indicators and verifiers – Part 3: Biodiversity and environmental aspects related to nature protection purposes*

EN 16214-4, *Sustainability criteria for the production of biofuels and bioliquids for energy applications – Principles, criteria, indicators and verifiers – Part 4: Calculation methods of the greenhouse gas emission balance using a life cycle analysis approach*

EN ISO/IEC 17000:2004, *Conformity assessment – Vocabulary and general principles (ISO/IEC 17000:2004)*

EN ISO/IEC 17050-1, *Conformity assessment – Supplier's declaration of conformity – Part 1: General requirements (ISO/IEC 17050-1)*

EN ISO/IEC 17050-2, *Conformity assessment – Supplier's declaration of conformity – Part 2: Supporting documentation (ISO/IEC 17050-2)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO/IEC 17000:2004 and EN 16214-1:2012 apply.

4 Principle

This Technical Specification defines the requirements for the economic operators, based on the following principles:

1) Economic operators transfer the data of their consignments to the next operator through a product declaration, and need to meet the sustainability requirements as laid down in this document, and

2) Economic operators have the possibility to follow the conformity assessment procedures set out in this document (see 5.1.5).

5 Requirements for conformity assessment

5.1 Basic elements

5.1.1 In order to ensure that the sustainability criteria for biofuels and bioliquids are fulfilled different conformity assessment procedures as described in this clause shall be used.

5.1.2 Each economic operator shall issue a product declaration in accordance with 6.2 and on the basis of EN ISO/IEC 17050-1 and EN ISO/IEC 17050-2 for each consignment it delivers. The product declaration is the basis of further conformity assessment procedures.

5.1.3 The economic operator can be assessed whether it fulfils the requirements for economic operators described in 5.3.

5.1.4 When an economic operator takes delivery from an economic operator which has not been assessed according to 5.4, it shall take responsibility for the sustainability data of the delivering non-assessed operator within its own assessment scope, including verification of supplier. This may be extended to cover previous economic operators and up to the full chain of custody.

5.1.5 The economic operator shall be assessed.

NOTE This assessment may be done by a conformity assessment body in accordance with European and national legislation in this regard, the requirements of EC recognised voluntary schemes or with the requirements of a national system (see 5.5). The result of this assessment is a conformity assessment statement issued by the conformity assessment body.

5.2 Requirements for sustainability

5.2.1 The consignments taken into account for this Technical Specification shall not be made from raw material obtained from land with high biodiversity value, namely land that had one of the following statuses in or after January 2008, whether or not the land continues to have that status:

a) primary forest and other wooded land, namely forest and other wooded land of native species, where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed;

b) areas designated:

   1) by law or by the relevant competent authority for nature protection purposes; or

   2) for the protection of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature, unless evidence is provided that the production of that raw material did not interfere with those nature protection purposes;

c) highly biodiverse grassland that is:

   1) natural, namely grassland that would remain grassland in the absence of human intervention and which maintains the natural species composition and ecological characteristics and processes; or

   2) non-natural, namely grassland that would cease to be grassland in the absence of human intervention and which is species-rich and not degraded, unless evidence is provided that the harvesting of the raw material is necessary to preserve its grassland status.

5.2.2 The consignments taken into account for this Technical Specification shall not be made from raw material obtained from land with high carbon stock, namely land that had one of the following statuses in January 2008 and no longer has that status:

a) wetlands, namely land that is covered with or saturated by water permanently or for a significant part of the year;

b) continuously forested areas, namely land spanning more than one hectare with trees higher than five metres and a canopy cover of more than 30 %, or trees able to reach those thresholds *in situ*;

c) land spanning more than one hectare with trees higher than five metres and a canopy cover of between 10 % and 30 %, or trees able to reach those thresholds *in situ*, without providing that the carbon stock of the area before and after conversion is included in the GHG balance of the consignment,

The provisions of this paragraph shall not apply if, at the time the raw material was obtained, the land had the same status as it had in January 2008.

5.2.3 The consignments taken into account for this document shall not be made from raw material obtained from land that was peatland in January 2008, unless evidence is provided that the cultivation and harvesting of that raw material does not involve drainage of previously undrained soil.

5.2.4 The greenhouse gas emission saving from the use of biofuels and bioliquids taken into account for this Technical Specification shall be at least 35 %.

With effect from 1st January 2017, the greenhouse gas emission saving from the use of biofuels and bioliquids taken into account for this Technical Specification shall be at least 50 %. From 1st January 2018 that greenhouse gas emission saving shall be at least 60 % for biofuels and bioliquids produced in installations in which production started on or after 1st January 2017. In the case of biofuels and bioliquids produced by installations that were in operation on 23rd January 2008, the first subparagraph of 5.2.4 shall apply from 1st April 2013.

5.3 Requirements for economic operators

Requirements for economic operators consist of:

a) Compliance with the land-related criteria:

   1) For raw materials for biofuel production (except for waste and residues from processing, but including residues from agriculture, aquaculture, fisheries and forestry) compliance with environmental criteria in 5.2.1 to 5.2.3. EN 16214-3 shall be used as guidance for verifying compliance as regards the exceptions from the land-use related requirements.

   2) For agricultural material cultivated within EU, compliance with requirements referred under the heading 'Environment' in part A and in point 9 of Annex II to Council regulation (EC) 73/2009 and with minimum requirements for good agricultural and environmental condition defined pursuant to Article 6(1) of that regulation [5].

b) Compliance with the mass balance requirements detailed in 6.1.

c) Compliance with the requirements for GHG emission savings according to 5.2.4. EN 16214-4 shall be used as guidance for calculating the GHG emission savings.

d) Compliance of the product declaration provided to the next economic operator in the chain of custody to 6.2.

e) Compliance of the management system to 6.3.

5.4 Competence of conformity assessment bodies

All conformity assessment bodies doing any conformity assessment work under this document shall first have demonstrated, and shall then continue to demonstrate, that they are competent to do that work.

One of the ways for conformity assessment bodies or individuals to demonstrate competence is to obtain accreditation from their national accreditation body or approval from the responsible authority from a EU Member State in accordance with such arrangements as are made by that government for implementation of the directive in that country.

5.5 Requirements for the conformity assessment process

5.5.1 General requirements

Conformity assessment shall be undertaken by an independent conformity assessment body.

The requirements that shall be included in the conformity assessment process are specified in 5.2.

Conformity assessments based on this document are open for all conformity assessment bodies fulfilling the requirements as stated in 5.4. The level of auditing recommended is a limited assurance level according to ISAE 3000 [6].

5.5.2 Conformity assessment process

5.5.2.1 General

The conformity assessment process shall consist of conducting special audits described in 5.5.2.2 and 5.5.2.3. For a checklist that may be used see Annex B.

Compliance with the sustainability requirements of this document may be demonstrated by conformity assessment processes other than those defined in 5.1. In this case, economic operators may use the following options to demonstrate compliance with:

— Group auditing systems (see Annex A, Example 3) - in particular for farmers, producer organisations and cooperatives. Conformity assessment is done on a sample of units. Such an example is given in Annex C. Group auditing for compliance with the scheme's land related criteria is only acceptable when the areas concerned are near each other and have similar sustainability characteristics. Group auditing for the purpose of calculating greenhouse gas savings is only acceptable when the units have similar production systems and products.

— Conformity assessments of specific consignments as described in Annex D.

NOTE For ”small-holder” farmers, producer organisations and cooperatives relevant conformity assessment processes can be used, e.g. “group auditing” regarding 2.2.2 in communication 2010/C 160/01 [4].

5.5.2.2 Initial audit

This is the first procedure for assessment if the economic operator has not been assessed previously or has no valid conformity assessment statement according to this Technical Specification (initial assessment, before delivery of first consignment). The conformity assessment process will specifically check the conformity of the management system as described in 6.3 and whether the operator fulfils all the requirements set out in this Technical Specification, as described in 5.2.

5.5.2.3 Surveillance audit

This is the assessment procedures used during the surveillance visits and when the economic operator has been assessed previously and has a valid conformity assessment statement running according to this Technical Specification The conformity assessment process will verify whether the conditions for issuing the first conformity assessment statement are still in place. Furthermore, it will check the conformity of the data supplied product declarations according to this Technical Specification, the conformity of the operator according to 5.2. as well as all the data requirements as set out in 6.2. and the conformity of the mass balances with 6.1.

6 Requirements for chain of custody control - mass balance method

6.1 Basic elements for application of the mass balance method

The mass balance method shall balance the sustainability data, including GHG emission data, taken from the product declarations as defined in 6.2, of all consignments at the end of the inventory period. An example of such a mass balance is given in Annex E. The sustainability data from the proportion of compliant consignments that are not destined for use as biofuels and bioliquids shall be excluded from the mass balance calculation, to avoid allocation of sustainability data to only the bioenergy consignments portion.

When consignments with different (or no) sustainability characteristics are mixed, the separate sizes and sustainability characteristics of each consignment remain assigned to the mixture.

If a mixture is split up, any consignment taken out of it may be assigned any of the sets of sustainability characteristics (accompanied with sizes) as long as the combination of all consignments taken out of the mixture has the same sizes for each of the sets of sustainability characteristics that were in the mixture. It is necessary for appropriate arrangements to be in place to ensure that the balance is respected. The amount of compliant material going out of a mixture shall be equal to the amount of compliant material going into the mixture (provided that corresponding conversion values have been applied).

Non-compliant consignments shall not be used in calculating aggregated GHG emission saving data. When a facility operates simultaneously for production of the same material both for energy and non-energy application, the production for non-energy application is excluded from the GHG balance. When a production facility cannot distinguish the process between bio-based material for energy purpose and for other applications, the GHG impact of the production process will be deemed equal for all applications.

When consignments with the same sustainability characteristics are mixed only the size of the consignment is adjusted accordingly.

When several consignments are aggregated, the aggregated consignment shall be allocated the highest GHG intensity of all combined consignments.

The mass balance method shall be applied within a set periodic inventory period. The recommended period has a maximum duration of three months. When national legislation allows for additional flexibility, the period shall not exceed 12 months.

6.2 Product declaration − Identification of compliant consignment

When the economic operator delivers or transfers a consignment of compliant products, the economic operator shall provide the next economic operator with a product declaration clearly stating at least the following information concerning each consignment when applicable for the specific step in the supply chain:

a) date and place of product declaration emission;

b) economic operator's identification;

c) conformity assessment statement reference (case 5.1.2) or other valid reference demonstrating the compliance of the economic operator (case 5.1.3);

d) quantity of delivery;

e) date of delivery;

f) product description;

g) point of delivery;

h) unique reference number enabling the tracing of the issued document within the internal mass-balance accounting system;

i) cumulative greenhouse gas emission (saving) data, using actual or default values (see example in Annex F) up to the point of delivery, including emission received from the previous economic operators, in gCO2eq/MJ (LHV) or gCO2eq/t. When using actual values, they shall be calculated in accordance with EN 16214-4. Biofuels and bioliquids GHG emission data shall be reported as in EN 16214-4. The detailed procedures for the calculation of the GHG emission saving as provided in EN 16214-4 shall be respected.

   It is possible for operators to use actual data regarding transport for the calculation of the GHG profile of their product. In this case they should ensure that there is no double counting of GHG emission by using actual data for all the previous transport legs.

j) declaration by the economic operator that delivered material is conform to the land-use requirements as in RED art 17(3) to 17(5) and/or in FQD art. 7(b)(3) to 7(b)(5) (see also EN 16214-3);

   NOTE Waste and some residues (see EN 16214–1) are exempted from fulfilling the land-use requirements.

k) country of biomass origin;

l) if applicable, fraction of origin from severely and heavily degraded land according to EN 16214-3;

m) whether the feedstock is a waste or a residue and if applicable mention which type of residue;

n) if one or several sustainability criteria are not assessed under Clause 4 of this Technical Specification, reference shall be made of the EU approved scheme (or bilateral agreement);

o) has a recognised voluntary scheme certified the operator (Yes / No) and in case “Yes”, the name of this voluntary scheme;

p) has the bonus for degraded land be applied ? (Yes / No);

q) has the factor for emissions savings from soil carbon accumulation via improved agricultural management be used (Yes / No);

r) name, function and signature of authorised person acting on behalf of the issue.

Product declarations for several consignments may be included on the same document, provided every consignment has its unique reference number and its own set of the above data.

Consignments fulfilling these requirements are deemed sustainable according to this Technical Specification

An example of such a product declaration is given in Annex G.

6.3 Management system requirements

6.3.1 General

The economic operator shall operate a management system covering the requirements in 6.3.2 to 6.3.5, which ensure correct implementation and maintenance of the chain of custody process. The management system shall be appropriate to the type, range and volume of work performed. These requirements may be incorporated in an economic operator's quality or environmental management system.

6.3.2 Commitment

The economic operator shall define and document its commitment to implement and maintain the chain of custody requirements in accordance with this document. The operator's commitment shall be made available to the operator's personnel, suppliers, customers, and other interested parties.

6.3.3 Responsibilities and authorities

The economic operator shall appoint a member of the management who, irrespective of other responsibilities, shall have overall responsibility and authority for management of the chain of custody. The economic operator shall identify personnel performing work affecting the implementation and maintenance of chain of custody and establish and set responsibilities and authorities.

6.3.4 Documentation

The economic operator shall prepare and keep as evidence all necessary documentation to be able to demonstrate their conformity with this document. The chain of custody documentation shall include at least the following elements:

a) description of the economic operators processes which influence and define the allocation of sustainability characteristics (conversion, blending, etc.);

b) organisation structure, responsibilities and authorities relating to chain of custody;

c) procedures for chain of custody control covering all requirements of this document.

6.3.5 Records

The economic operator shall establish and maintain records necessary to provide evidence of conformity with the requirements of this document. The product declaration shall be in line with 6.2 and with EN ISO/IEC 17050-2. The operator shall keep at least the following records:

a) records of all suppliers of product including information which confirms that the requirements at the supplier level are met;

b) records of all received product including all information included in the product declarations;

c) records of all products delivered and all information included in the product declarations and next economic operator identification;

d) records of internal audits, non-conformities which occurred and corrective actions taken.

The economic operator shall retain documentation for a period of at least five years or longer if mandatory according to prevailing laws and regulations.

Annex A
(informative)

Examples of conformity assessment procedures

Examples of conformity assessment procedures are given below (based on [7] and [8]).

EXAMPLE 1

Operator N-1 is conformity assessed according to the document (5.4) by an independent conformity assessment body and issues a product declaration of its consignment to Operator N.

Operator N (next operator in the chain of custody) receives the product declaration from N-1. Operator N is itself conformity assessed by an independent conformity assessment body. Operator N can use N-1's product declaration, data in this declaration are N-1's responsibility. The audit of Operator N will check that Operator N-1 was in possession of a valid conformity assessment statement and will ensure data from the product declaration has been appropriately used. The data supplied in the product declaration will only be verified as part of the conformity assessment of Operator N-1.

EXAMPLE 2

Operator N-1 is not conformity assessed according to this document (5.4) by an independent conformity assessment body. It issues a product declaration of its consignment to Operator N.

Operator N receives the product declaration and takes responsibility for the data supplied in this product declaration. It may conduct its own (non-independent) 2nd party audit of Operator N-1 or rely on other (non-independent) 1st or 2nd party conformity assessments of Operator N-1, as for example internal audits by Operator N-1. Data included in the Product declaration from Operator N-1 are included in the audits of Operator N.

EXAMPLE 3

Operator N-1 is, together with other Operators supplying Operator N, engaged in a "group auditing" scheme. It issues a product declaration to Operator N of its consignment.

Operator N will accept the product declarations from Operators N-1 in the group auditing scheme and will ensure that a sample of them is independently conformity assessed. The group auditing of Operators N-1 is part of the audit of Operator N.

Annex B
(informative)

Checklists

B.1 Initial audit (focus on management system)

Criteria	minor	major	critical
1. Is there a description of			
a. Site boundaries			
b. Operations and Processes			
c. Conversion factors			
2. Is there a system in place to			
a. Check that incoming product declarations are complete, including validity of conformity assessment			
b. Provide accurate information on outgoing consignments with regard to:			
i. Product declaration template and system			
ii. GHG intensity data			
iii. Land related criteria			
c. Mass balance of the site:			
i. Has the operation introduced a suitable mass balance system that guarantees that the allocation of sustainability characteristics to consignments is carried out as it is described in 6.1?			
ii. Is there a reference period fixed for performing regular mass balance ?			
iii. Is there an internal bookkeeping system to link data records with incoming and outgoing consignments?			
3. Is there a document available defining at least the following elements:			
a. description of the economic operators processes;			

Criteria	minor	major	critical
b. organisation structure, responsibilities and authorities relating to chain of custody;			
c. procedures for chain of custody control covering all requirements of the Standard.			
4. Is this document available to			
a. Personnel			
b. Suppliers			
c. Customers			
d. Interested 3rd parties			
5. Is there a management member appointed to have overall responsibility and authority for management of the chain of custody ?			
6. Are the people affected aware of their responsibilities?			
7. Is there a record system that ensures that the following information is kept for a minimum of 5 years:			
a. records of all suppliers of product including information which confirms that the requirements at the supplier level are met,			
b. records of all received product including all information included in the product declarations,			
c. records of all products delivered and all information included in the product declarations and next economic operator identification			
d. records of internal audits, non-conformities which occurred and corrective actions taken.			
Additional requirements for biomass producer or economic operator taking delivery of non-assessed biomass			
1. Is there a system in place to guarantee compliance with 5.2 ?			

B.2 Surveillance audit (focus on data verification)

Criteria	minor	major	critical
1. Is the management system in place and the boundaries still the ones that were in place during the initial audit?			
2. Is the management system still operational?			
3. Have there been deviations in the system and has this been correctly addressed?			
4. Have the incoming product declarations been appropriately used?			
5. Were the incoming product declarations complete?			
6. Was the information on the incoming product declaration plausible?			
7. Was the validity of the suppliers' conformity assessment verified?			
8. Was all the input from the incoming product declaration correctly transferred to the internal mass balance system?			
9. Was the calculation inside the mass balance system correct and performed according to the definition of the system? Did the operator balance its mass system within the pre-defined period?			
10. Do all the outgoing product declarations contain a unique reference number?			
11. Does this unique reference number allow tracking of the consignment in the mass balance system?			
12. Was the information of the outgoing product declaration accurate and complete?			
13. Were all records saved in an appropriate way for the last 5 years or since the preliminary audit (whichever is the most recent) and made available?			
14. Were all non-compliant consignments excluded from the mass balance?			
15. Were sustainability characteristics of consignments aggregated only when these sustainability characteristics were similar?			
16. Have the GHG emissions of the processing step correctly accounted for? Has the allocation principle been correctly implemented?			

Definitions:

minor deviation: correction needed until the next audit

major deviation: correction needed before certificate can be granted

critical deviation: no certificate without additional inspection

Annex C
(informative)

Example of use of self-declaration documents in a group-auditing scheme

This annex aims at providing an example on the use of self-declarations to demonstrate sustainability compliance of biomass by the biomass producers (Example 3 in Annex A), in combination with verifications as described below.

1) In case biomass producers are not conformity assessed individually, they complete the self-declaration below,

2) The first certified economic operator in the chain (for instance “collecting point”) performs group auditing of all biomass producers from whom it is collecting and have control performed by an external independent auditor of at least yearly x% [1)] of all biomass producers.

3) The first certified economic operator in the chain (for instance “collecting point”) is being conformity assessed according to this norm, part 4, including the group auditing above.

1) Yearly audited percentage to be appropriate for reaching the level of confidence necessary to issue a verification statement. German Ordinance for instance requires 3 % for farmers participating in EU CAP cross-compliance and 5 % for the others.

SELF DECLARATION FOR BIOMASS PRODUCERS

DECLARATION OF CONFORMITY WITH SUSTAINABILITY CRITERIA IN RED, 2009/28/EC:

Delivery identification number: ……..

Name and address of owner of the delivery:

Date when the delivery was ready for delivery from field/forest or roadside at holding:

Harvested in year and month:

Biomass type (e.g. corn, straw, solid round-wood, forest operation residues etc):

Total weight or volume of delivery:

Identification of harvesting site(s) (if information not available at collecting point, mark on an attached map or give geographic coordinates of the approximate centre of each coherent area subject to the harvest):

Harvested area in hectares (if information not available at collecting point):

The declarant hereby states that the delivery was harvested from land that has not changed its use since 1/1/2008:

o Yes, there was no land use change since 1/1/2008

o No, land use has changed since 1/1/2008

The declarant states that the delivery has not been harvested from land that is in conflict with RED sustainability criteria in RED (2009/28/EC, Article 17) as follows:

- Primary forest with no visible indication of human activity

- Nature protected area (*).

- Internationally agreed areas designated for the protection of rare, threatened or endangered ecosystems or species (*).

- Highly biodiverse natural grassland.

- Highly biodiverse non natural grassland (*).

- Wetlands covered or saturated by water permanently or for a significant part of the year (*).

- Area of at least one hectare that was continuously forested in January 2008 and no longer is.

- Area of at least one hectare that was thinly forested in January 2008 and no longer is.

- Peatland that was not drained in January 2008 and has been drained since (*).

- For biomass produced in the EU: Agricultural land that has not been cultivated in accordance with the requirements in the common agricultural policy (CAP) for direct support for farmers.

(*): if harvest from these areas, the farmer will demonstrate compliance with the exceptions as defined in the RED, for instance by complying with EN 16214-3.

For EU produced biomass only:

- The declarant states to be subject to cross compliance as a recipient of payments from direct support schemes: Yes / No.

- The biomass was harvested in approved NUTS2 area: ……..

Optional (actual GHG emission values):

The actual GHG emissions from the biomass amount to ……. g CO2eq/T harvested material

The declarant declares the above information is accurate and agrees to demonstrate this accuracy to a verification body, on request of the buyer of this biomass and records shall be kept for at least 5 years after signature.

Identification of the declarant of the delivery stated as above.

Date: Name:

Signature:

Annex D
(informative)

Example of use of declaration of conformity of specific consignments

This annex aims to provide an example on the use of declaration of origin to demonstrate sustainability compliance of biomass consignments by the biomass producers, in combination with verifications as described below.

This “declaration of conformity of specific consignment” is applicable to the first owner of the biomass (generally the farmer), when this first owner has not been conformity assessed and when group auditing is not applicable.

1) In case the biomass producer was not conformity assessed or included in a conformity assessment scheme, he/she needs to complete the declaration of origin below for each consignment delivered, declaring conformity to 5.3, list entries a), b), c) and d),

2) The first owner requests specific conformity assessment for this specific consignment from a conformity assessment body, as described in 5.5.

3) After positive conformity assessment, the conformity assessment body formally approves the consignment (“rubber stamping”) and the consignment is considered as sustainable for the purpose of this document.

DECLARATION of conformity of specific consignment by BIOMASS PRODUCERS

DECLARATION OF CONFORMITY WITH SUSTAINABILITY CRITERIA IN RED, 2009/28/EC:

Delivery identification number: ……..

Name and address of owner of the delivery:

Date when the delivery was ready for delivery from field/forest or roadside at holding:

Harvested in year and month:

Biomass type (e.g. corn, straw, solid round-wood, forest operation residues etc):

Approximate total weight or volume of delivery:

Identification of harvesting site(s) (if information not available at collecting point, mark on an attached map or give geographic coordinates of the approximate centre of each coherent area subject to the harvest):

Harvested approximate area in hectares (if information not available at collecting point):

The issuer of the declaration hereby states that the delivery was harvested from land that has not changed its use since 1/1/2008:

Yes, there was no land use change since 1/1/2008
No, land use has changed since 1/1/2008

The issuer of the declaration states that the delivery has not been harvested from land that is in conflict with RED sustainability criteria in RED (2009/28/EC, Article 17) as follows:

- Primary forest with no visible indication of human activity

- Nature protected area (*).

- Internationally agreed areas designated for the protection of rare, threatened or endangered ecosystems or species (*).

- Highly biodiverse natural grassland.

- Highly biodiverse non natural grassland (*).

- Wetlands covered or saturated by water permanently or for a significant part of the year (*).

- Area of at least one hectare that was continuously forested in January 2008 and no longer is.

- Area of at least one hectare that was thinly forested in January 2008 and no longer is.

- Peatland that was not drained in January 2008 and has been drained since (*).

- For biomass produced in the EU: Agricultural land that has not been cultivated in accordance with the requirements in the common agricultural policy (CAP) for direct support for farmers.

(*): if harvest from these areas, the farmer will demonstrate compliance with the exceptions as defined in the RED, for instance by complying with EN 16214-3.

For EU produced biomass only:

- The declarant states to be subject to cross compliance as a recipient of payments from direct support schemes: Yes / No.

- The biomass was harvested in approved NUTS2 area: ……..

Optional (actual GHG emission values):

The actual GHG emissions from the biomass amount to …….. g CO2eq/T harvested material

The issuer of the declaration declares the above information is accurate and agrees to demonstrate this accuracy to a verification body, on request of the buyer of this biomass and records shall be kept for at least 5 years after signature.

Identification of the issuer of the declaration of the delivery stated as above.

Date: Name:

Signature:

Annex E
(informative)

Example of mass balance

Table E.1 gives an example of a mass balance. This one is based on an oil crushing plant over period 2011/1/1 – 2011/3/31.

Table E.1 — Example of a mass balance

Incoming biomass			***From incoming product declaration***						***From own processing documentation***			
Internal reference	**Previous economic operator**	**Previous economic operator consignment unique reference #**	**Quantity** (t)	**Date of delivery**	**GHG intensity** (kg CO2eq/t rapeseed)	**Land-use criteria met ?**	**Feedstock**	**Quantity from heavily degraded land** (t)	**Conversion factor** (t oil produced/t feedstock)	**Energy allocation from feedstock to oil**	**Conversion factor** (g CO_2/gCO2)	**Own energy consumption for processing** (kg CO2eq/t feedstock)
2011–001	Oper1	66	105,000	2–1-2011	1200	Yes	Rapeseed		0,6	61,30 %	1,022	50
2011–002	Oper1	67	25,000	2–1-2011	1150	No	Rapeseed		0,6	61,30 %	1,022	50
2011–003	Oper2	24	30,000	2–3-2011	1100	Yes	Rapeseed	20	0,6	61,30 %	1,022	50
2011–004	Oper3	149	35,000	10–3-2011	1200	Yes	Rapeseed		0,6	61,30 %	1,022	50
2011–005	Oper3	150	65,000	20–3-2011	Default	Yes	Rapeseed		0,6	61,30 %	1,022	50
2011–006	Oper4	29	50,000	20–3-2011	Default	Yes	Soy		0,4	63,00 %	1,575	50
Internal balance									**CHECKS**			

Internal reference	Quantity of oil produced (t)	Date of delivery	Land-use criteria met ?	Feedstock	Quantity from degraded land	GHG intensity for feedstock (kg CO2eq/ t oil)	Energy for crushing (kg CO2eq/ t oil)	GHG total (kgCO2eq/ t Oil)	GHG total for meal	GHG recheck (/t rapeseed)	Judgement
2011–001	63,000	2–1-2011	Yes	Rapeseed	0,0	1226,0	51,1	1277,1	1209,375	1250	OK
2011–002	15,000	2–1-2011	No	Rapeseed	0,0	1174,9	51,1	1226,0	1161	1200	OK
2011–003	18,000	2–3-2011	Yes	Rapeseed	12,0	1123,8	51,1	1174,9	1112,625	1150	OK
2011–004	21,000	10–3-2011	Yes	Rapeseed	0,0	1226,0	51,1	1277,1	1209,375	1250	OK
2011–005	39,000	20–3-2011	Yes	Rapeseed	0,0	Default	51,1	Default cultivation + 51,1			
2011–006	20,000	20–3-2011	Yes	Soy	0,0	Default	78,8	Default cultivation + 76,6			

Outgoing balance of oil

Unique ref # as stated on outgoing product declaration	Next economic operator	Date of delivery	Quantity	GHG intensity (kg CO2eq/t oil)	Sustainable	Feedstock	Quantity from heavily degraded land (t)	Comment (for understanding only)
1	OperNext 1	1–2-2011	80,000	1277,1	Yes	Rapeseed		(batch 001 + 17 t from 004), can be aggregated because batches have similar sustainability characteristics including GHG intensity
2	OperNext 2	5–2-2011	4,000	1277,1	Yes	Rapeseed		Remainder of batch 004
3	OperNext 2	5–2-2011	18,000	1123,8	Yes	Rapeseed	12	batch 003
4	OperNext 3	21–3-2011	15,000	1174,9	No	Rapeseed		batch 002, non sustainable material has not impacted other batches

In stock at end of period	Processing status	T Oil or T oil equivalent	GHG intensity	Sustainable	Feedstock		
2011–005	Feedstock	39,000	Default cultivation + 51,1	Yes	Rapeseed		
2011–006	Oil	20,000	Default cultivation + 76,6	Yes	Rapeseed		

Mass balance check at end of period (31/3/2011)

Mass balance result (sum of oil equivalent from all stock at start of the period and incoming batches minus sum of oil equivalent of all outgoing batches)	59,000	tons
Volume of oil equivalent in stock at end of period	59,000	tons

Balance matching: Yes

Annex F
(informative)

Examples for GHG balance

This annex presents examples of calculation of GHG intensity values GHG examples through the supply chain, including mixes of default and actual values. For details, see 6.2, [9] and [10].

Figure F.1 presents an example for calculating GHG values within the supply chain with default values used for biomass cultivation. Figure F.2 presents another example for calculating GHG values within the supply chain using actual values for biomass cultivation and default values for further processing. The following should be noted in both figures:

a) Only one box has been shown for transport for simplicity, but transport default values cover the entire chain. Its default value (*y*) is to be included only once.

b) Default values are expressed in g CO_2 eq/MJ of final product. Actual values are expressed in the unit described, typically g CO_2 eq/ton intermediate product from that step)

c) Values “a”, “b”, “c” are representing actual GHG intensity of the relevant step. Values “B” and “C” are total values up to (and including) the relevant step.

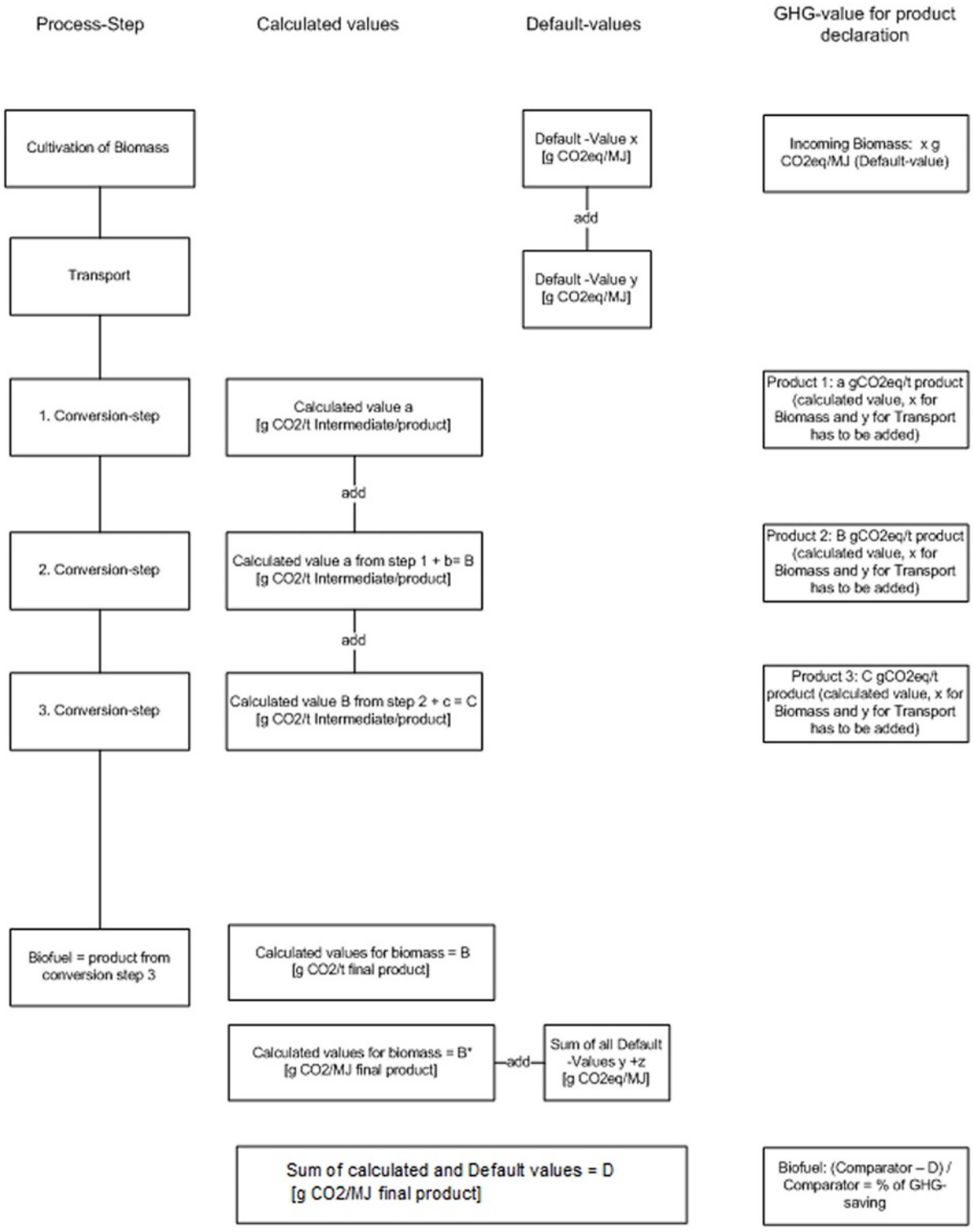

Figure F.1 — Example for calculating GHG values within the supply chain using default values

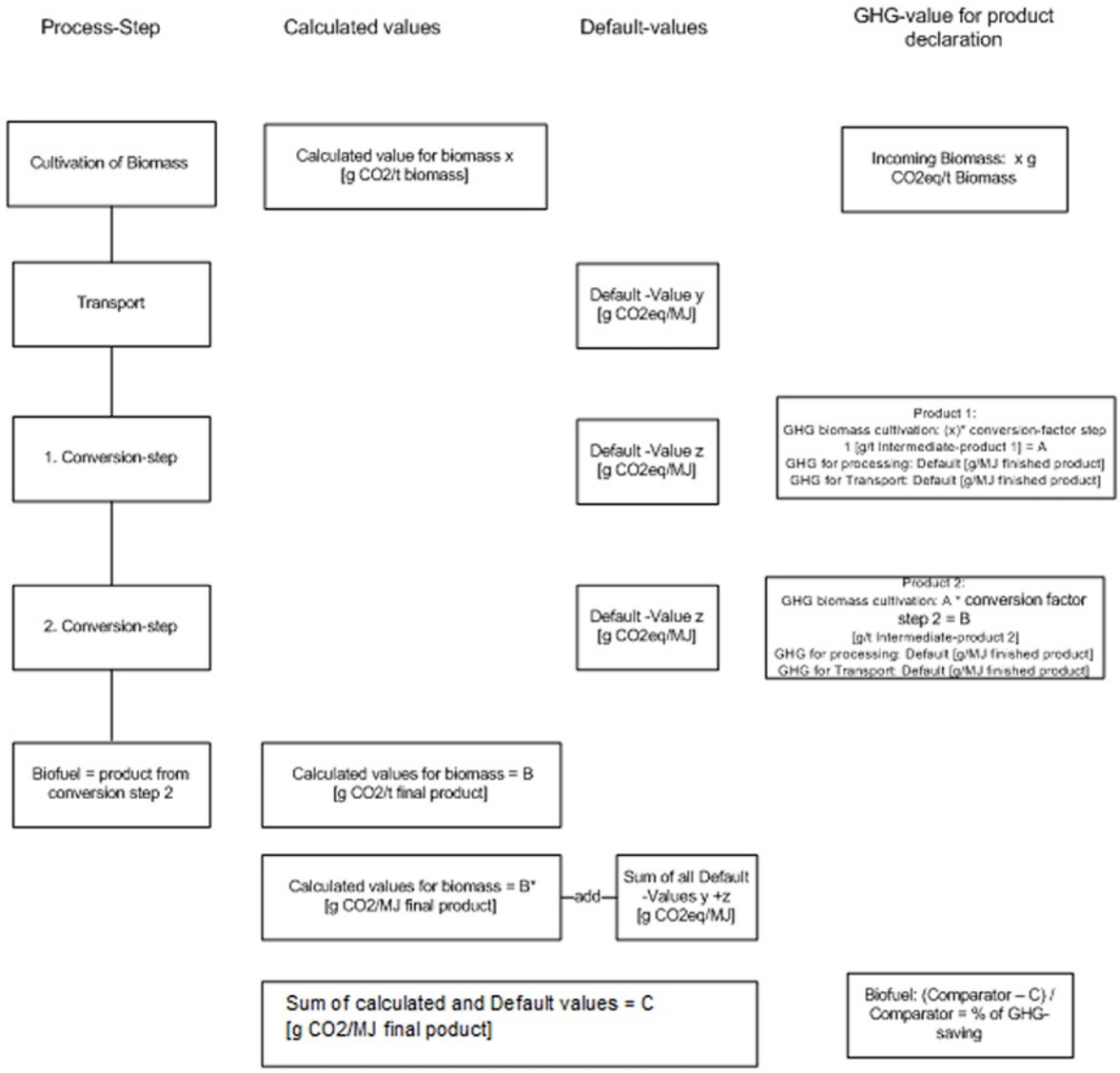

Figure F.2 — Example for calculating GHG values within the supply chain using actual values

Annex G
(informative)

Example of product declaration

This document is showing a template of product declaration document, as described in 6.3.

PRODUCT DECLARATION

(pr)EN 16214

Unique identification number within the economic operator system: yyy/yyyy

_____

We,

DIESEL ALTERNATIVE - (SIREN NUMBER: xxx xxx xxx)-

12 Avenue du Colza 75008 PARIS

Owner of conformity assessment certificate to:

(RedCert/EN 16214…) ref. #### from verifier YYYY

Declare to have: Dated: 10/01/2011

□ charged in the depot of: ……..

□ delivered in the depot of: ……

STOCKAFRANCE, SIREN n° 997 997 997, 1 avenue des biocarburants, 99000 DEPOTVILLE

For the account of: ROY OIL COMPANY, SIREN n° 999 999 999,

A lot of: 3 154 309 l of FAME

origin:

□ EU NUTS2 (zone from which biomass was declared as allowing to produce sustainable biofuels)

□ EU out NUTS2

□ outside EU

Countries (indicative): France

Feedstock: Rapeseed

Certify the sustainable volumes described above respect criteria of sustainability of the directive 2009/28/EC.

The reduction’s percentage (or cumulative GHG intensity) of the emissions greenhouse gases relative to the sustainable fraction of the delivered consignment correspond to 40 % (or x gCO2/T or /MJ).

Optional elements

1 250 l from severely degraded land and 156 l from waste and residues

Done in PARIS, 10/01/2011

(Status of the signatory and signature)

Annex H
(informative)

Relationship between this Technical Specification and the Essential Requirements of EU Directives 2009/28/EC and 98/70/EC

Both the European Commission and CEN agreed to provide a means of conforming to Essential Requirements of the Directive 2009/28/EC on the promotion of the use of energy from renewable sources, also known as the Renewable Energy Directive (RED), and of the Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions, also known as the Fuels Quality Directive (FQD).

The parts of this Technical Specification are intended to cover (as a minimum) the requirements requested by the European Commission (see Introduction):

a) the provision, by economic operators, of evidence that the production of raw material has not interfered with nature protection purposes (Articles 17(3)(b) and 7b(3)(b) respectively); that the harvesting of raw material is necessary to preserve grassland's grassland status (Articles 17(3)(c)(ii) and 7b(3)(c) respectively); and that the cultivation and harvesting of raw material does not involve drainage of previously undrained soil (Article 17(5) and 7b(5) respectively),

b) the implementation, by economic operators, of the mass balance method of custody chain management, as set out in Article 18(1) of the Renewable Energy Directive and in Article 7c(1) of the Fuels Quality Directive, and

c) the auditing, by Member States (under Articles 18(3) and 7c(3) respectively) and by voluntary schemes (in order for them to be recognised by the Commission under Articles 18(4) and 7c(4) respectively) of information submitted by economic operators [2)].

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this Technical Specification.

Table H.1 — Correspondence between this Technical Specification and Directive 2009/28/EC

Mandatory requirements of Directive 2009/28/EC	(Sub-)clause(s) of this Technical Specification	Qualifying remarks/Notes
Article 17(1), 1st paragraph	6.2	Accountable biofuels and bioliquids
Article 17(1), 2nd paragraph Article 17(1), 2	6.2 i) 5.2	Exemptions for waste and residue Demonstration of compliance
Article 17(2)	-	GHG emission savings
Article 17(3)	5.2	Biodiversity Demonstration of compliance
Article 17(4)	5.2	Land with high carbon stock Demonstration of compliance
Article 17(5)	5.2	Peatland Demonstration of compliance

2) The assessment of the voluntary schemes will itself be carried out by the Commission.

Mandatory requirements of Directive 2009/28/EC	(Sub-)clause(s) of this Technical Specification	Qualifying remarks/Notes
Article 17(6)	-	Good agricultural practice
Article 17(7)	-	EC report on sourcing
Article 17(8)	-	Mutual acceptance by Member States
Article 17(9)	-	Sustainability criteria for other biomass
Article 18(1)	6.1 6.3	Mass balance method Custody chain management
Article 18(1) (a)	6.1, 5th paragraph 6.2 g)	Mixing of consignments Unique referencing
Article 18(1) (b)	6.1, 6th paragraph 6.2 h)	Information about sustainability characteristics Accumulation of data
Article 18(1) (c)	6.2 6.3.5	Product declaration Recording
Article 18(2)	5.1.3 6.2 k)	Alternative verification methods
Article 18(3), 1st paragraph	5.4	Auditing by Member States
Article 18(3), 2nd paragraph	5.1 5.2	Basic requirements Demonstration of compliance
Article 18(3), 3rd paragraph	5.2, last but one paragraph	Administrative burden
Article 18(3), 4th paragraph	5.5.2.2	EU-production or import
Article 18(3), 5th paragraph	-	Member States' reporting
Article 18(4), 1st paragraph	5.2, 2nd paragraph	Bilateral agreements
Article 18(4), 2nd paragraph	5.2, 2nd paragraph 5.4	EU approved voluntary schemes Conformity assessment process
Article 18(4), 3rd paragraph	5.3, 3rd paragraph	GHG emission saving schemes
Article 18(4), 4th paragraph	-	National or regional land recovery programme
Article 18(5)	5.4	Meeting adequate standards
Article 18(6)	-	EC advisory procedure
Article 18(7)	-	Acceptance of schemes
Article 18(8)	-	EC approval of biomass source
Article 18(9)(a)	-	System effectiveness reporting
Article 18(9)(b)	-	Need for mandatory requirements
Article 19(1)	5.2 5.3, 5.2 h)	GHG emission saving calculation compliance GHG emission saving calculation
Article 19(2)	-	NUTS areas
Article 19(3)	-	Use of default values

Table H.2 — Correspondence between this Technical Specification and Directive 98/70/EC

Mandatory Requirements of Directive 98/70/EC	(Sub-)clause(s) of this Technical Specification	Qualifying remarks/Notes
Article 7b(1), 1st paragraph	6.2	Accountable biofuels and bioliquids
Article 7(b)(1), 2nd paragraph Article 7(b)(1), 2	6.2 i) 5.2	Exemptions for waste and residue Demonstration of compliance
Article 7(b)(2)	-	GHG emission savings
Article 7(b)(3)	5.2	Biodiversity Demonstration of compliance
Article 7(b)(4)	5.2	Land with high carbon stock Demonstration of compliance
Article 7(b)(5)	5.2	Peatland Demonstration of compliance
Article 7(b)(6)	-	Good agricultural practice
Article 7(b)(7)	-	EC report on sourcing
Article 7(b)(8)	-	Mutual acceptance by Member States
Article 7(b)(9)	-	Sustainability criteria for other biomass
Article 7(c)(1)	6.1 6.3	Mass balance method Custody chain management
Article 7(c)(1) (a)	6.1, 5th paragraph 6.2 g)	Mixing of consignments Unique referencing
Article 7(c)(1) (b)	6.1, 6th paragraph 6.2 h)	Information about sustainability characteristics Accumulation of data
Article 7(c)(1) (c)	6.2 6.3.5	Product declaration Recording
Article 7(c)(2)	5.1.3 6.2 k)	Alternative verification methods
Article 7(c)(3), 1st paragraph	5.4	Auditing by Member States
Article 7(c)(3), 2nd paragraph	5.1 5.2	Basic requirements Demonstration of compliance
Article 7(c)(3), 3rd paragraph	5.2, last but one paragraph	Administrative burden
Article 7(c)(3), 4th paragraph	5.5.2.2	EU-production or import
Article 7(c)(3), 5th paragraph	-	Member States' reporting
Article 7(c)(4), 1st paragraph	5.2, 2nd paragraph	Bilateral agreements
Article 7(c)(4), 2nd paragraph	5.2, 2nd paragraph 5.4	EU approved voluntary schemes Conformity assessment process
Article 7(c)(4), 3rd paragraph	5.3, 3rd paragraph	GHG emission saving schemes
Article 7(c)(4), 4th paragraph	-	National or regional land recovery programme

Mandatory Requirements of Directive 98/70/EC	(Sub-)clause(s) of this Technical Specification	Qualifying remarks/Notes
Article 7(c)(5)	5.4	Meeting adequate standards
Article 7(c)(6)	-	EC advisory procedure
Article 7(c)(7)	-	Acceptance of schemes
Article 7(c)(8)	-	EC approval of biomass source
Article 7(c)(9)(a)	-	System effectiveness reporting
Article 7(c)(9)(b)	-	Need for mandatory requirements
Article 7(d)(1)	5.2 5.3, 5.2 h)	GHG emission saving calculation compliance GHG emission saving calculation
Article 7(d)(2)	-	NUTS areas
Article 7(d)(3)	-	Use of default values

Bibliography

[1] *Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC*

[2] *Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC*

[3] *Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC*

[4] *Communication 2010/C 160/02 from the Commission on the practical implementation of the EU biofuels and bioliquids sustainability scheme and in counting rules for biofuels*

[5] Council regulation EC 73/209

[6] ISAE. 3000, *International Standard on Assurance Engagements 3000, Assurance engagements other than audits or reviews of historical financial information, International* Auditing and Assurance Standards Board (IAASB) of the International Federation of Accountants (IFAC), 1 January 2005 (http://www.accountability21.net/uploadedFiles/Issues/ISAE_3000.pdf)

[7] EN 45011, *General requirements for bodies operating product certification systems (ISO/IEC Guide 65:1996)*

[8] EN ISO/IEC 17011, *Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies (ISO/IEC 17011)*

[9] EN ISO 14064 (all parts), *Greenhouse gases (ISO 14064)*

[10] EN ISO 14065, *Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition (ISO 14065)*

[11] EN ISO 19011, *Guidelines for auditing management systems (ISO 19011)*

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