Solid recovered fuels - Methods for the preparation of the laboratory sample

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15443:2011 sisaldab Euroopa standardi EN 15443:2011 ingliskeelset teksti.	This Estonian standard EVS-EN 15443:2011 consists of the English text of the European standard EN 15443:2011.
Standard on kinnitatud Eesti Standardikeskuse 31.03.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.03.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 09.03.2011.	Date of Availability of the European standard text 09.03.2011.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 75.160.10

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 15443

March 2011

ICS 75.160.10

Supersedes CEN/TS 15443:2006

English Version

Solid recovered fuels - Methods for the preparation of the laboratory sample

Combustibles solides de récupération - Méthodes de préparation des échantillons de laboratoire

Feste Sekundärbrennstoffe - Verfahren zur Herstellung von Laboratoriumsproben

This European Standard was approved by CEN on 22 January 2011.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 15443:2011: E

Contents

Page

Foreword

This document (EN 15443:2011) has been prepared by Technical Committee CEN/TC 343 “Solid recovered fuels”, the secretariat of which is held by SFS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2011, and conflicting national standards shall be withdrawn at the latest by September 2011.

This document supersedes CEN/TS 15443:2006.

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 document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This European Standard is one of series of European Standards dealing with sampling solid recovered fuel.

EN 15442, *Solid recovered fuels — Methods for sampling.*

EN 15443, *Solid recovered fuels — Methods for the preparation of the laboratory sample.*

This document differs from CEN/TS 15443:2006 mainly as follows:

a) results of interlaboratory tests supplemented as an informative Annex D;

b) whole document editorially revised.

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

Introduction

Solid recovered fuels (SRF's) are a major source of renewable energy. European Standards are needed for production, trade and use of solid recovered fuels. For sampling and sample preparation of solid recovered fuels the following European Standards can be used:

EN 15442, *Solid recovered fuels — Methods for sampling;*

EN 15443, *Solid recovered fuels — Methods for the preparation of the laboratory sample.*

These European Standards can be used by production and trading of solid recovered fuels. They are also useful for buyers of solid recovered fuels, regulators, controllers and laboratories.

Figure 1 shows the links between the essential elements of a testing program.

The sample preparation technique adopted depends on a combination of different characteristics of the material and circumstances encountered at the sampling location. The determining factors are:

— the type of solid recovered fuel;

— the physical behaviour of the specific solid recovered fuel;

— the (expected) degree of heterogeneity (e.g. monostreams, mixed fuels, blended fuels).

For the sample preparation of solid biofuels prEN 14780 is available [1]. For the characterization of waste EN 15002 is available [2].

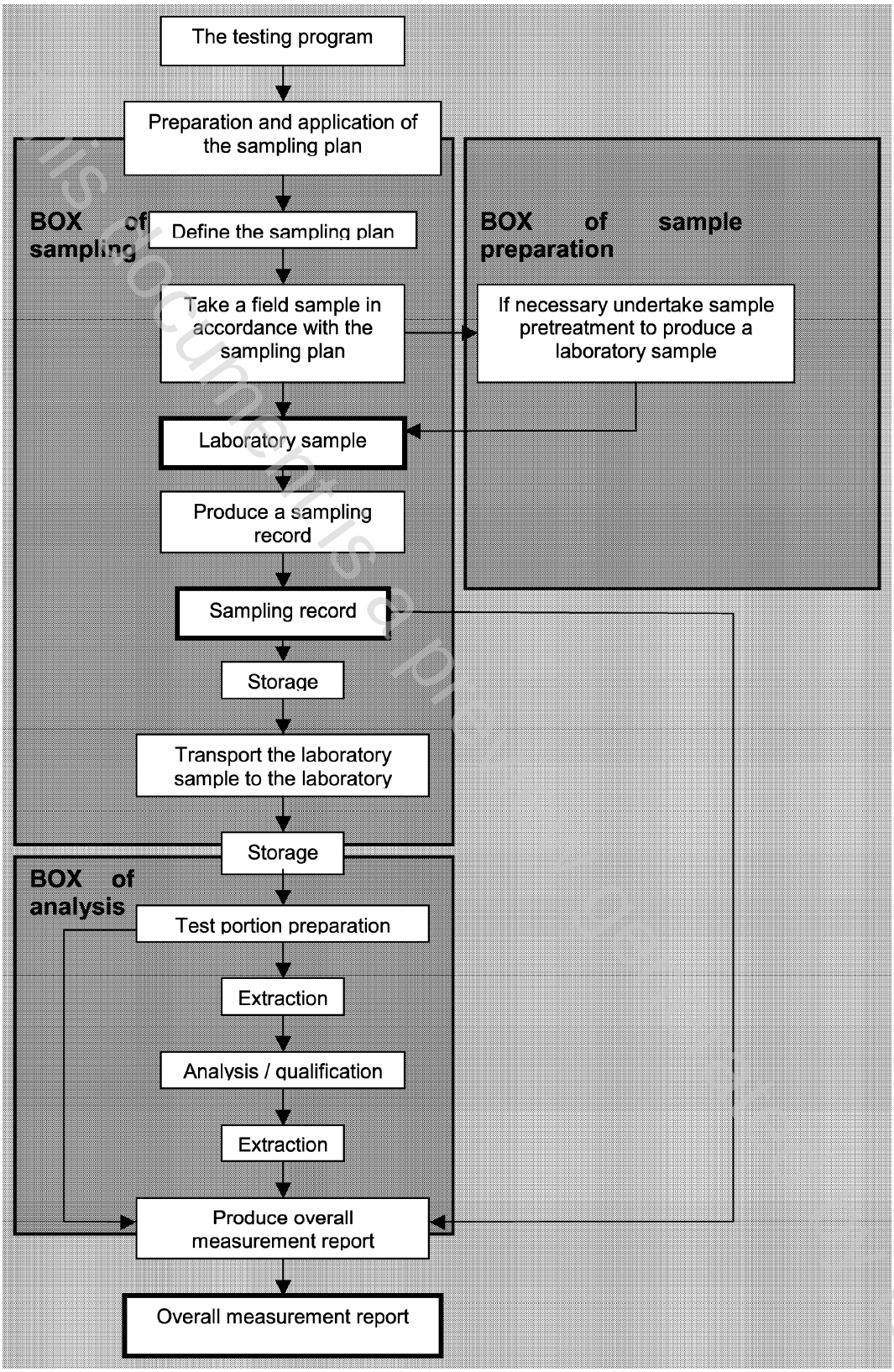

Figure 1 — Links between the essential elements of a testing program

1 Scope

This European Standard specifies methods for reducing combined samples to laboratory samples and laboratory samples to sub-samples and general analysis samples.

The methods described in this European Standard may be used for sample preparation, for example, when the samples are to be tested for bulk density, biomass determination, durability, particle size distribution, moisture content, ash content, ash melting behaviour, calorific value, chemical composition, and impurities. The methods are not intended to be applied to the very large samples required for the testing of bridging properties.

2 Normative references

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

EN 15297, *Solid biofuels — Determination of minor elements — As, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, V and Zn*

EN 15357:2011, *Solid recovered fuels — Terminology, definitions and descriptions*

CEN/TS 15414-1:2010, *Solid recovered fuels —Determination of moisture content using the oven dry method — Part 1: Determination of total moisture by a reference method*

CEN/TS 15414-2:2010, *Solid recovered fuels — Determination of moisture content using the oven dry method — Part 2: Determination of total moisture by a simplified method*

EN 15414-3, *Solid recovered fuels — Determination of moisture content using the oven dry method — Part 3: Moisture in general analysis sample*

EN 15415-1[1)], *Solid recovered fuels — Determination of particle size and particle size distribution — Part 1: Screen method for small dimension particles*

EN 15442, *Solid recovered fuels — Methods for sampling*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15357:2011 and the following apply.

3.1
combined sample
sample consisting of all the increments taken from a lot or a sub-lot

NOTE The increments can be reduced by division before being added to the combined sample.

3.2
general analysis sample
sub-sample of a laboratory sample having a nominal top size of 1 mm or less and used for a number of chemical and physical analyses

3.3
increment
portion of solid recovered fuel extracted in a single operation of the sampling device

[1)] To be published.