BUSINESS PLAN
CEN/TC 343
SOLID RECOVERED FUELS

EXECUTIVE SUMMARY

CEN/TC 343 is established to develop the relevant European Standards for the market for solid recovered fuels. The scope is: “Elaboration of Standards, Technical Specifications and Technical Reports on solid recovered fuels, prepared from non-hazardous waste to be utilised for energy recovery in waste incineration or co-incineration plants, excluding fuels that are included in the scope of CEN/TC 335”. The standardization work is based on Mandate M/325 from the European Commission, partly in support of the RES-E Directive 2001/77/EC.

Business environment
- European standardisation of solid recovered fuels is seen as a key to increase the safe and efficient use of solid recovered fuels and for their acceptability in the fuel market in Europe. Classified solid recovered fuels can be used for the substitution of fossil fuels in many sectors, i.e. for the production of heat and/or power and in different industrial furnaces. Different technologies for solid fuel combustion, e.g. grate firing, fluidized bed firing, pulverized fuel firing, gasification etc. can be used.
- Parties involved are material producers, waste management companies, producers of heat and/or power, producers of lime and cement klinker, equipment producers, trade associations, authorities and NGOs.

Benefits
- Less dependency on imported fuels (security of supply)
- Increased public trust in and acceptance of solid recovered fuels
- Common procedures and free trade on the internal market
- Measurement of “biodegradable = biomass content” in support of the RES-E Directive
- Creation of jobs in an expanding industry
- Increased recovery and less final disposal of combustible non-hazardous wastes

Priorities
- Technical Specifications have been published in 2006
- Validation of the TSs has been completed in 2007
- Technical Specifications have been upgraded to full EN standards, apart from a few TSs where more experience in practice is seen necessary
- the remaining TSs will be reviewed
- ENs will be reviewed as scheduled by CEN timetable
1 BUSINESS ENVIRONMENT OF CEN/TC 343

1.1 Description of the Business Environment

The following political, economic, technical, regulatory, legal, societal and/or international dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of this CEN/TC, and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards: The production of solid recovered fuels from non-hazardous combustible waste for the substitution of primary fuels for the production of heat and/or power and for the production of material products, such as klinker for cement, is part of a complicated business environment, which is affected by a wide legal framework:

The Directive gives a wide definition of waste. The definition on ‘recovery’ covers the production of SRF.

The Directive sets binding targets for the diversion of biodegradable waste from landfill.

- Note 1. Some Member States do not, or will not, allow combustible waste in landfill; others do the same for untreated waste.
- Note 2. Some Member States have introduced a Landfill Tax to encourage diversion of wastes from landfill.


BAT reference documents (BREF) for incineration and waste management are being developed by the IPPC Bureau of the Joint Research Centre in Seville. BREF on waste treatment includes installations preparing fuel from non-hazardous waste. The update of Waste treatment BREF started in 2013. "Final draft as of October 2017 can be found as document http://eippcb.jrc.ec.europa.eu/reference/BREF/WT/WT_Final_Draft1017.pdf


This Directive sets ambitious targets for all Member States, such that the EU will reach a 20% share of energy from renewable sources by 2020 and a 10% share of renewable energy specifically in the transport sector. The heating/cooling sector is included in the overall frame. This Directive establishes a common framework for the promotion of energy from renewable sources. It lays down rules relating to statistical transfers between Member States, joint projects
between Member States and with third countries, guarantees of origin, administrative procedures, information and training and access to the electricity grid for energy from renewable sources. It establishes sustainability criteria for biofuels and other bioliquids.

The directive defines "biomass" as: "the biodegradable fraction of products, waste and residues from biological origin from agriculture (including vegetal and animal substances), forestry and related industries including fisheries and aquaculture, as well as the biodegradable fraction of industrial and municipal waste". Hence, as it was the case with the Dir. 2001/77 EC, it supports the market development of SRF.

The Kyoto Protocol

The Kyoto Protocol sets binding targets for different countries for emissions of six Greenhouse Gases. Member States have different practices for calculating the reductions of the emissions of Greenhouse Gases from energy generation through the incineration of waste and combustion of waste-derived fuels.

Note. The Standards are not intended to resolve discussions about (a) the relative merits of recovery vs. disposal or (b) whether solid recovered fuels are products or still wastes (or both), but they will serve as tools for the Community Legislator and Competent National Authority when these issues are considered.

1.2 Quantitative Indicators of the Business Environment

The following list of quantitative indicators describes the business environment in order to provide adequate information to support actions of the CEN /TC:

In line with the Waste Hierarchy, the preparation and use of solid recovered fuels helps to reduce the amount of non-recyclable waste that is landfilled today. Solid recovered fuels can substitute solid fossil fuels and thus lower the overall emissions of CO₂. Being an indigenous alternative fuel, the use of solid recovered fuel helps to reduce dependence on fossil fuel imports by the Member States. Uniform procedures based on European Standards will contribute to security of supply and other environmental and socio-economic goals of the Commission.

The European Union’s main energy policy targets, known as the “20-20-20” targets include:

- A 20 % reduction in EU greenhouse gas emissions from 1990 levels
- Raising the share of EU energy consumption from renewable resources to 20 %;
- A 20 % improvement in the EU’s energy efficiency;

The EU has launched a communication to move up from 20 % to 30 % target in cutting greenhouse gas reductions. Yet the final decision of a new target for 2030 has not been made.

The estimated quantity of solid recovered fuels produced in the European Union in 2008 was 12 million tonnes (6 Mtoe). That figure could rise to approx. 50 million tonnes and is likely to continue to grow as biodegradable waste is diverted from landfill, in accordance with the Council Directive on the landfilling of waste (source: European Recovered Fuels Organization).

2 BENEFITS EXPECTED FROM THE WORK OF CEN/TC 343

The political, economical, social, technical, legal and international factors that directly require some or all of the standardisation activities proposed by the CEN/TC, or significantly influence the way these activities are carried out, are the following:
Environmental legislation

The Waste Directive (2008/98/EC) lays down the hierarchy of principles of waste-management policy. Prevention of waste is the first priority, followed by recycling and other recovery (including energy recovery); final disposal is the least favoured option. This hierarchy must be applied with some flexibility and its implementation must be guided by considering the best environmental solution taking into account economic and social costs. In particular, where environmentally sound, preference should be given to recovery of material. The evaluation of environmental, economic and scientific effects of each option can lead to preference being given to the energy-recovery option. If preference to energy recovery is given, standardization of SRF is a tool for operators and permitting authorities for creating trust of the public in environmental parameters and quality assurance of SRF. Waste Directive also lays down principles when certain specified waste shall cease to be waste. EN-standards may play a role when the EU or a National legislator sets criteria for end-of-waste status.

Economic

Planning and realisation of energy-conversion plants for solid recovered fuels is dependent on the long-term availability of, and predictability of price levels of those fuels. The cost of preparation of SRF is often higher than for the production of traditional fossil fuels, one reason being the comparably smaller scale of operation. The development of European Standards is seen as a major driver to expand the market for solid recovered fuels. Increasing competition, because of increasing trade, should assist in stabilising prices for solid recovered fuels at acceptable levels.

Social

An increased use of waste for energy purposes will have positive socio-economic effects at regional, national and European levels. Regionally, it will create new market opportunities for waste-management companies and improve the local infrastructure. At the national level, the increased production of solid recovered fuels will lead to the creation of new jobs in the business sectors of fuel production, design and manufacturing of equipment, energy production and consultancy.

Technical

One of the major problems for the creation of a dynamic and sustainable market is that the quality of traded recovered fuel may vary among the various producers. Users are often reluctant to buy fuels whose quality and compositions are not well known. The development of standards for sampling and testing of solid recovered fuels as well as on fuel quality assurance will help to develop the market. A reliable quality management system for the production of solid recovered fuels is therefore a prerequisite for increasing the market and particularly the use of new types of solid recovered fuel.

The interaction between fuel characteristics and conversion technology is still one of the most important factors for successful commercialisation of solid recovered fuels. As suppliers of solid recovered fuels develop their ability to specify their products more accurately, so the manufacturers of conversion technology, etc. will become more willing to guarantee the performance of their equipment.

3 PARTICIPATION IN CEN/TC 343

All the CEN national members are entitled to nominate delegates to CEN Technical Committees and experts to Working Groups, ensuring a balance of all interested parties. Participation as observers of recognized European or international organizations is also possible under certain
conditions. To participate in the activities of this CEN/TC, please contact the national standards organization in your country.

Interested parties are material-producing companies, waste-management and other fuel-producing companies, combustion-equipment producing companies and companies operating incineration and co-incineration installations using solid fuels, as well as trades unions, public authorities and non-governmental organisations. All are represented in CEN/TC 343 Solid Recovered Fuels.

4 OBJECTIVES OF CEN/TC 343 AND STRATEGIES FOR THEIR ACHIEVEMENT

4.1 Defined objectives of CEN/TC 343

CEN/TC 343 is established to develop the relevant European Standards for the market for solid recovered fuels. The route via Technical Specifications was seen as a faster and more flexible procedure. The process to upgrade from TS to EN includes a public enquiry. Validation of the sampling methods and testing procedures has taken place within the EC co-funded project QUOVADIS. After validation Technical Specifications were reviewed and upgraded into EN standards as required by the Mandate, except for some of them which were reconfirmed as Technical Specifications as more experience on them was seen necessary before possible upgrading.

Note 1. The work items of the active work programme cover CEN/ENs and CEN/TSs, which are grouped in a “Package”. The aim of a “package” is to avoid circulating ENs that cannot be used independently due to lack of supporting standards, quoted or not as reference documents.

The objective of CEN/TC 343 is the elaboration of Standards on:

1. terminology
2. fuel specifications and classes
3. quality management system
4. sampling
5. sample reduction
6. physical and mechanical tests
7. chemical tests
8. supplementary tests

so as to develop the growing European market for solid recovered fuels.

4.2 Identified strategies to achieve the defined objectives

The Work Programme for TC 343 contains 27 mandated and five non-mandated Work Items (WIs) which are allocated to five Working Groups (WGs); WG 1 Terminology and quality management, WG 2 Fuel specifications and classes, WG 3 Sampling, sample reduction and supplementary test methods, WG 4 Physical/Mechanical tests, and WG 5 Chemical tests. All technical work is progressed within these WGs, which have to establish close contacts to each other.
The 27 mandated work items cover 16 published ENs, seven CEN/TSs and four CEN/TRs. For the work in the WGs a common language is needed, which gives the WI Terminology a high priority.

Upgrading of the still existing Technical Specifications to EN-standards will be evaluated.

Normal review of the standards will follow according to timetable set by CEN rules, for all mandated standards it is by 2016. In the review process targets and needs of EU environmental policies will be considered and taken into account. When appropriate new work item(s) will be established.

CEN/TC 343 co-operates with the following committees and organisations etc.: CEN/TCs 104, 134, 292, 335, 366 and the European Citizen’s Organisation for Standardisation (ECOS) and the European Cement Association (CEMBUREAU).

4.3 Environmental aspects

Development of a functioning market for classified SRF will reduce Green House Gas emissions per produced electricity unit compared to other waste management options and generating energy from fossil fuels, thereby helping to achieve the environmental goals of European Environmental, Waste and Energy Policies.

The reduction of CO2 emissions is about 1t CO2/t SRF for co-incineration in a cement kiln and a coal fired power plant and about 0.5 t/t for an optimized Waste to Energy plant (reference: pages 42 and 43 of the Prognos report ‘Resource savings and CO2 reduction potential in waste management in Europe and the possible contribution to the CO2 reduction target in 2020’).

In addition, TC 343 provides test methods (including sampling) and related classification and specification of SRF addressing the environmental parameters for consideration in the design and operation of facilities using SRF.
5 FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE WORK PROGRAMME

European Standards have been developed with the active participation of the European Commission, which will enhance the probability of their broad acceptability and coherence with applicable legislation.

EN 15359 (‘Solid recovered fuels - Specifications and classes’) was approved by the CEN Member bodies in 2010 but in February 2011 ECOS made an appeal against the publication. CEN/BT decided in October 2011 that the standard EN 15359 can be published but asked TC 343 for an immediate review of it. In February 2012 CEN/TC 343 plenary meeting handled the matter and decided unanimously that the appeal didn’t cause need for an immediate revision or amendments. CEN/BT subsequently noted that no further actions and discussion on this topic is needed.

The requirements of the mandate M/325 (given by EC in 2002) were confirmed by EC to have been fulfilled in February 2012.

6 CEN/TC 343 AND COOPERATION WITH ISO

CEN/TC 343 decided at its meeting on April 2015 that the possible revision of the standards would take place in ISO, provided that there would be an ISO Committee for SRF. This was realized in the end of 2015 when a new Technical Committee “ISO/TC 300 Solid recovered fuels” was established. The chairmanship and secretariat – like in case of CEN/TC 343 – were allocated to Finland (SFS). CEN/TC 343 also agreed in principle that the projects in the work programme would be carried out under the Vienna Agreement with ISO/TC 300 Solid recovered fuels, with preference of ISO Lead.

At its first meeting ISO/TC 300 listed all CEN/TC 343 deliverables as preliminary work items. Its work items approved so far, scope, business plan and participating countries can be seen on ISO site: [https://www.iso.org/committee/5960430.html](https://www.iso.org/committee/5960430.html)

So far 14 projects have been voted in parallel with ISO and approved in both CEN/TC 343 and ISO/TC 300 as parallel work items. All these will be drafted in ISO Working groups. The approval phases will be organized in both organizations separately according to their own rules, i.e. enquiry stage and formal vote.

As there are still many published CEN projects as preliminary in ISO, CEN/TC 343 has decided to keep its Working Groups active until ISO work programme has been stabilized. The decisions on activation the preliminary projects must be taken in ISO/TC 300 before 18 April 2019.

Mandatory five years’ review of CEN/TC 343 standards has been halted to wait handling within ISO.