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Form 1: Proposal for a new field of technical activity

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Proposer: SFS (Finland)	**ISO/TS/P 252**

A proposal for a new field of technical activity shall be submitted to the Central Secretariat, which will assign it a reference number and process the proposal in accordance with the ISO/IEC Directives (part 1, subclause 1.5). The proposer may be a member body of ISO, a technical committee, subcommittee or project committee, the Technical Management Board or a General Assembly committee, the Secretary-General, a body responsible for managing a certification system operating under the auspices of ISO, or another international organization with national body membership. Guidelines for proposing and justifying a new field of technical activity are given in the ISO/IEC Directives (part 1, Annex C).

The proposal (to be completed by the proposer)

Title of the proposed new committee (The title shall indicate clearly yet concisely the new field of technical activity which the proposal is intended to cover.)

Solid recovered fuels

Scope statement of the proposed new committee (The scope shall precisely define the limits of the field of activity. Scopes shall not repeat general aims and principles governing the work of the organization but shall indicate the specific area concerned.)

Elaboration of standards and other deliverables on solid recovered fuels prepared from non-hazardous waste to be utilised for energy recovery in waste incineration or co-incineration plants or in industrial processes (like cement manufacturing), excluding fuels that are included in the scope of ISO/TC 238.

Proposed initial programme of work (The proposed programme of work shall correspond to and clearly reflect the aims of the standardization activities and shall, therefore, show the relationship between the subject proposed. Each item on the programme of work shall be defined by both the subject aspect(s) to be standardized (for products, for example, the items would be the types of products, characteristics, other requirements, data to be supplied, test methods, etc.). Supplementary justification may be combined with particular items in the programme of work. The proposed programme of work shall also suggest priorities and target dates.

The proposed programme of work for the standardization of solid recovered fuels:

1) Basic standards

- terminology
- a standard for describing and defining the classification system
- a standard defining the quality management for the production of SRF (in line with ISO 9001)

2) Testing and analysis standards and technical specifications for

- sampling and sample preparation of solid recovered fuels
- physical and mechanical tests
- chemical tests

Indication(s) of the preferred type or types of deliverable(s) to be produced under the proposal (This may be combined with the "Proposed initial programme of work" if more convenient.)

ISO standards

A listing of relevant existing documents at the international, regional and national levels. (Any known relevant document (such as standards and regulations) shall be listed, regardless of their source and should be accompanied by an indication of their significance.)

Basic standards:

EN 15357 Solid recovered fuels - Terminology, definitions and descriptions

EN 15358 Solid recovered fuels - Quality management systems - Particular requirements for their application to the production of solid recovered fuels

EN 15359 Solid recovered fuels - Specifications and classes

Testing and analysis standards and technical specifications:

EN 15442 Solid recovered fuels - Methods for sampling

EN 15443 Solid recovered fuels - Methods for the preparation of the laboratory sample

EN 15400 Solid recovered fuels – Determination of calorific value

EN 15403 Solid recovered fuels - Determination of ash content

CEN/TS 15414-1 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 Solid recovered fuels - Determination of moisture content using the oven dry method - Part 2: Determination of total moisture by a simplified method

CEN/TS 15414-3 Solid recovered fuels - Determination of moisture content using the oven dry method - Part 3: Moisture in general analysis sample

EN 15408 Solid recovered fuels - Methods for the determination of sulphur (S), chlorine (Cl), fluorine (F) and bromine (Br) content

EN 15411 Solid recovered fuels - Methods for the determination of the content of trace elements (As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mo, Mn, Ni, Pb, Sb, Se, Tl, V and Zn)

EN 15415-1 Solid recovered fuels - Determination of particle size distribution - Part 1: Screen method for small dimension particles

EN 15440 Solid recovered fuels - Method for the determination of biomass content

CEN/TS 15401 Solid recovered fuels - Determination of bulk density

EN 15402 Solid recovered fuels - Determination of content of volatile matter

CEN/TS 15405 Solid recovered fuels - Determination of density of pellets and briquettes

CEN/TS 15406 Solid recovered fuels - Determination of bridging properties of bulk material

EN 15407 Solid recovered fuels - Methods for the determination of carbon (C), hydrogen (H) and nitrogen (N) content

EN 15410 Solid recovered fuels - Method for the determination of the content of major elements (Al, Ca, Fe, K, Mg, Na, P, Si, Ti)

CEN/TS 15412 Solid recovered fuels - Methods for the determination of metallic aluminium

EN 15413 Solid recovered fuels - Methods for the preparation of the test sample from the laboratory sample

CEN/TS 15639 Solid recovered fuels – Determination of mechanical durability of pellets

EN 15415-2 Solid recovered fuels - Determination of particle size distribution - Part 2: Maximum projected length method (manual) for large dimension particles

EN 15415-3 Solid recovered fuels - Determination of particle size distribution - Part 3: Method by image analysis for large dimension particles

EN 15590 Solid recovered fuels – Determination of potential rate of microbial self heating using the real dynamic respiration index

Technical reports:

CEN/TR 14980 Solid recovered fuels - Report on relative difference between biodegradable and biogenic fractions of SRF

CEN/TR 15404 Solid recovered fuels – Methods for the determination of ash melting behaviour by using characteristic temperatures

CEN/TR 15441 Solid recovered fuels - Guidelines on occupational health aspects

CEN/TR 15508 Key properties on solid recovered fuels to be used for establishing a classification system

CEN/TR 15716 Solid recovered fuels - Determination of combustion behaviour

CEN/TR 15591 Solid recovered fuels - Determination of the biomass content based on the 14C method

A statement from the proposer as to how the proposed work may relate to or impact on existing work, especially existing ISO and IEC deliverables. (The proposer should explain how the work differs from apparently similar work, or explain how duplication and conflict will be minimized. If seemingly similar or related work is already in the scope of other committees of the organization or in other organizations, the proposed scope shall distinguish between the proposed work and the other work. The proposer shall indicate whether his or her proposal could be dealt with by widening the scope of an existing committee or by establishing a new committee.)

Fuels prepared from waste are a very specific source of energy. In ISO there is a committee for solid biofuels (ISO/TC 238). It was set up based on the work done in CEN for biofuels. Raw material and use for biofuels, compared with solid recovered fuels, are different and also the regulatory basis for them generally differs. That is why it was not deemed justified to cover these topics in one single committee. Other than ISO/TC 238 there is no other committee where standardization of solid recovered fuels could be incorporated.

A listing of relevant countries where the subject of the proposal is important to their national commercial interests.

Australia, Austria, Belgium, Brazil, Canada, China, Estonia, Finland, France, Germany, Ireland, Italy, Japan, Poland, South Korea, Spain, Sweden, The Netherlands, United Kingdom, United States of America

A listing of relevant external international organizations or internal parties (other ISO and/or IEC committees) to be engaged as liaisons in the development of the deliverable(s). (In order to avoid conflict with, or duplication of efforts of, other bodies, it is important to indicate all points of possible conflict or overlap. The result of any communication with other interested bodies shall also be included.)

European Recovered Fuel Organisation, ERFO

European Federation of Waste Management and Environmental Services, FEAD

European Cement Association, CEMBUREAU

ISO/TC 238 Solid biofuels

A simple and concise statement identifying and describing relevant affected stakeholder categories (including small and medium sized enterprises) and how they will each benefit from or be impacted by the proposed deliverable(s).

Interested parties in the standardization process are waste management companies (especially those who process waste into fuel), producers of heat and/or power, cement and lime manufacturers, manufacturers of equipment used in the valorisation chain, trade associations, authorities and non-governmental organizations (NGO).

All affected stakeholders – like manufacturers and users of Solid Recovered Fuel (SRF), manufacturers of equipment, testing houses, regulators, authorities and NGOs – will benefit from standardized terminology. Manufacturers and users of SRF benefit especially from the possibility to specify and to measure the quality of the fuel in a standardized way. For SRF producers – often SME waste management companies – the increased use of SRF offers a good opportunity to develop a viable business. Equipment manufacturers are often global actors and global standards naturally benefit them. For users of SRF it is often a cost saving fuel alternative, and therefore they have a vested interest to increase possibilities of its use, e.g through standardization. For regulators and authorities standardization gives a possibility to find ways to define Best Available Techniques (BAT) and, for example, to measure the renewable part of the SRF in a commonly accepted way.

An expression of commitment from the proposer to provide the committee secretariat if the proposal succeeds.

Finnish Standards Association SFS is willing to undertake the secretariat duties of the proposed committee, should the proposal be accepted. SFS is also willing to nominate as the Chairman Mr Mikko Talola (Lassila & Tikanoja plc), Chairman of the Finnish Mirror Committee for Solid Recovered Fuels and CEN/TC 343 Solid Recovered Fuels.

Purpose and justification for the proposal. (The purpose and justification for the creation of a new technical committee shall be made clear and the need for standardization in this fieldshall be justified. Clause C.4.13.3 of Annex C of the ISO/IEC Directives, Part 1 contains a menu of suggestions or ideas for possible documentation to support and purpose and justification of proposals. Proposers should consider these suggestions, but they are not limited to them, nor are they required to comply strictly with them. What is most important is that proposers develop and provide purpose and justification information that is most relevant to their proposals and that makes a substantial business case for the market relevance and the need for their proposals. Thorough, well-developed and robust purpose and justification documentation will lead to more informed consideration of proposals and ultimately their possible success in the ISO IEC system.)

Waste management is a global activity and one of the key elements in the protection of the environment. It also has an important role in the fight against climate change. Energy recovery from waste is practised all over the world in various forms. Solid recovered fuel is prepared from non-hazardous waste, main categories of raw material being municipal solid waste (MSW), commercial and industrial waste (CIW) and construction and demolition waste (CDW). Processing burnable parts of waste into fuel – to be subsequently utilized in power plants or industrial processes – is also taking place on all continents. The fuel is often called by different names like Refuse Derived Fuel (RDF), Waste Derived Fuel (WDF) or Solid Recovered Fuel (SRF). The term SRF is used especially in Europe when it refers to fuels fulfilling the requirements of European standards. The use of different terms suggests that there is a need for international standardization in this area.

Standardization of solid recovered fuels is seen as a key means to increase the safe and efficient use of solid recovered fuels and for their acceptability in the fuel market. Classified solid recovered fuels can be used as a substitute to fossil fuels in many sectors, such as 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 and gasification can be used.

Preparation and use of solid recovered fuels help 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 CO_2. Being an indigenous alternative fuel, the use of solid recovered fuel helps to reduce dependence on fossil fuel imports. Uniform procedures based on International Standards will contribute to secure supplies and achieve high environmental and socio-economic goals.

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 the sampling and testing of solid recovered fuels, as well as for 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 for 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 the successful commercialisation of solid recovered fuels. While suppliers of solid recovered fuels develop their ability to specify their products more accurately, the manufacturers of conversion technology will become more willing to guarantee the performance of their equipment.

International Standards are of great importance especially for globally operating manufacturers of SRF production and of waste-to-energy technology. Also many manufacturers such as users of SRF, especially in cement manufacturing industry, are global actors benefiting from universal practices and standards. The concept of SRF production and its use are well-known on every continent. Consequently, focus on international research and development would also benefit standardized terms and practices.

Trans-border shipments of SRF/RDF have recently increased rapidly in Europe. Although there are no statistics about the international trade of SRF, there is good reason to believe that it is remarkable and increasing as well. Global trade and shipments of SRF would undoubtedly benefit from ISO standards.

Standards are also a tool for regulators and authorities when defining policies to prevent climate change e.g. according to the Kyoto Protocol. In climate change prevention it's essential to increase renewable energy sources; standards give an opportunity to measure the biodegradable/biogenic part of solid recovered fuel in a universal way. In Europe, SRF standards are used when defining Best Available Techniques for waste treatment according to Industrial Emissions Directive (2010/75/EU). Standards are also of importance for permitting authorities of SRF production and of utilization plants.

While producers and users can be situated in different countries, ISO standards make it possible to enhance global trade and to reduce the use of coal in power plants. The utilization of waste material such as SRF in accordance with ISO standards would also contribute to the achievement of the targets of the Circular Economy when other types of recycling or reuse is not possible.

Signature of the proposer

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Further information to assist with understanding the requirements for the items above can be found in the Directives, Part 1, Annex C.