Standards for SRF – what comes next?

Recombio Final Conference
Helsinki, 13 June 2013
ERFO

- European Recovered Fuel Organisation; a non profit association, with members from: BE, NL, DE, ES, FR, UK, IT, FI, IE, SW

- Purpose
  - Represent European companies which produce fuels prepared from non-hazardous waste
  - Promote the use of such recovered fuels within the frame of sustainable development
  - Help establish high quality standards for such fuels at European level

- ERFO is involved in
  - SRF standardisation work within CEN / TC 343
  - Participation in R&D programs
  - Pre-normative research on sampling, sample preparation, biomass content
  - QUOVADIS : validation of Technical Specifications, Quality Management system and perspectives in new EU countries
  - Participation in debates, works and lobbying activities related to SRF
  - Contribution to the SRF chapter of the BREF Waste Treatment and preparation of a contribution for the BREF WT review
ERFO defends

<table>
<thead>
<tr>
<th>Category of substitution fuel</th>
<th>Solid Bio-fuels</th>
<th>Solid Recovered Fuel (SRF)</th>
<th>Hazardous waste fuels</th>
<th>Specific fuels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste for this preparation</td>
<td>Non treated wood</td>
<td>I&amp;CW and MSW</td>
<td>Hazardous waste: solvents, waste oil, soiled packaging...</td>
<td>Animal meal, tyres, ...</td>
</tr>
</tbody>
</table>

Solid Recovered Fuel (SRF) is a "solid fuel prepared from non-hazardous waste to be utilised for energy recovery in incineration or co-incineration plants, and meeting the classification and the specification requirements laid down in EN15359"

The wording SRF has only to be used in this context

The specific characteristic of SRF= proof of the compliance with classification and specification requirements
Standards - why?

I. Aims of standards

• To be able to describe our fuels
  – Fundament for precise evaluation of SRF-quality and quality improvements
• To have a “common language”
  – Communication with authorities, public and customers
• To distinguish between SRF and RDF
• To help develop the markets for SRF

II. Relevance for ERFO

➢ SRF shall be classified and specified in accordance with the schemes of EN15359
➢ Meet the quality requirements according to the compliance rules
➢ Use the 13 referenced documents within EN15359, which are indispensable for its application (example: sampling, analysis, ...)
➢ Proof of accordance with the classification scheme in 12 month period
➢ Producers shall give a declaration of conformity
➢ QMS must be applied
➢ Statistical evaluation of the results of analyses
Current use of standards

• Classification schemes recognised and regularly used
• But in general: implementation has to be improved
• Need for more awareness and more push

BECAUSE

• In many cases production of low quality RDF is preferred and this is then referred to as SRF
• It should be made clear to all stakeholders that SRF must be a declared term “according to EN15359”
Still confusion

SRF ≠ RDF

SRF is manufactured in compliance with EN 15359

RDF is not

Inappropriate use of wording without no regulatory body to monitor and control leads to CONFUSION

1st statement : ERFO is working on a clear differentiation
Current developments on SRF

We face today:
• Competition from incineration
• Downturn of economy; which made several production plants shutdown

But:
• Trendresearch study showed increasing demands for secondary fuels

Economic reality is that:
• The SRF and/or RDF production, export and use are cost driven
• SRF/RDF waste streams flow if:

\[ \Sigma \text{costs of } [\text{fuel preparation} + \text{transport} + \text{gate fees} + \text{taxes}] < \text{the local (cheapest) alternative which can be for example landfilling – incineration – co-incineration, not excluding other treatment ways} \]
Examples in recent press articles

Scottish MRF to close due to low recyclate value

- A ‘major’ materials recovery facility (MRF) in Polmont, Scotland, is set to close just 15 months after opening due to ‘increasing operating costs, the reduction in volume and market value of recyclates and rising refuse-derived fuel (RDF) disposal prices’.
- The £20 million facility, owned by Avondale Environmental Ltd (Avondale) processed up to 200,000 tonnes of waste from ‘several Scottish councils’.
- The facility diverted around 60 per cent of this waste from landfill through recycling and developing RDF for energy production.
- The plant will come offline on 31 May.

Biffa closes Trafford Park plant but pledges to re-open mixed plastics line at Redcar

- Biffa is due to close its materials recycling facility (MRF) in Trafford Park, Manchester, and has been experiencing difficulties at its polymers plant in Redcar.
- The Trafford Park MRF, which opened in 2010 and was hailed as ‘state-of-the-art’ at the time, will close in mid June. It processed plastics, aluminium, steel, paper and cardboard from commercial and industrial sources and some household collections.
Examples in recent press articles

- **SITA begins SRF production at Birmingham plant**
  - Waste management firm SITA UK has begun producing solid recovered fuel (SRF) at its £7 million facility in Birmingham, which will be used to power cement producer CEMEX UK’s kiln at Rugby.
  - SRF is a more processed form of refused derived fuel and the SITA UK material will be supplied under a specific SRF specification to meet the needs of CEMEX.
  - SITA is to supply around 250,000 tonnes of waste derived fuel to the cement producer in a deal announced in April 2012. The waste company will also be producing the material, known as Climafuel, at a site adjacent to the Rugby kiln. Construction work on the site for the SRF plant is due to begin this summer and is expected to be completed by the end of 2014.
Work on cost control and value creation

Parameters:

- Preparation of the fuel and making the fuel fit for use
  - mechanical tools, manpower, know-how, ...
- Transport (waterway, train, truck)
- Administrative costs (permit, tfs, taxes, ....)
- Gate fee
- Contract type & duration: bring or pay, spotmarket, short term
- Quality of the fuel > < value of the fuel

2nd statement: cost control and value creation of the fuel
If history predicts the future ...

• Not in every country the same **drivers** applied, like D : landfill ban and resource strategy, UK : landfill taxes, I : national product status, B : demand of cement plants
• The common **economic** factors stayed in place **and will last**
  – Price of primary, fossil fuels
  – Availability or lack of alternatives fuels at a certain moment (tyres, meat & bone meal, hazardous waste.....)
• The **EU-legislation** and its implementation at MS-level had a major impact **and will last**
  – WFD, Resource efficiency, EoW, .............

• Will the evolution continue in the **West European** countries?
• Will the **NMS** adopt this treatment way? Making a 2-step jump on the waste hierarchy ladder?
... the expected volume and capacity evolution is...

- Decrease of the available waste quantities
  - 5-step hierarchy with focus on prevention, re-use and recycling
  - Implementation: B = source separation, D = Wertstofftonne, Biowaste selective collection (-10%?)
  - Economic unstable situation: less production = less waste (-10%?)
- Capacity evolution during the last 5 years: landfill ↓, thermal treatment ↑, biological treatment ↑, sorting ↑ in general in EU
- Diversity of end-users, increasing interest of power plants, cement & lime
- Will result changing quantities and compositions (caloric value, biogenic content)
- And thus pressure on volumes and pricing

Which will be the place for SRF?

General trend: ↑
Illustration: still important quantities landfilled
(based on Eurostat 2010 figures)
Illustration: Incineration important in W-EU
(based on Eurostat 2010 figures)
Illustration: Recycling also in W-Eu

(based on Eurostat 2010 figures)
Which proves that

Production and use of SRF is a good complementation to recycling

Landfilling prevents recycling

Newer MS have still a lot of work ahead. Use of SRF could lead to quick progress without huge investments

Bilateral cooperation between MSs with thermal overcapacity (MSW / WtE plants, i.e. DE, NL,...) and MSs with rather high landfilling percentages (i.e. UK, PL) could solve problems and help to realize transition into modern resource-system
Although good and bad news ERFO further supports the SRF approach

- Before CEN/TC 343: waste derived fuel had only end-user requirements (except Germany BGS - RAL)

  CEN/TC 343 brought order by **classification**

  Classes allow to distinguish between ‘high’ and ‘low’ **quality**

  Technical & environmental quality has to be **certified**

  **3th statement : Work to do on certification schemes**

  **HIGH QUALITY GUARANTEE**

- In order to achieve a quality approach of alternative fuels, win confidence and trust for buyers and authorities and have accountable CO2 reductions
What comes next? Short term

• Review of the BREF WASTE TREATMENT
  – Review will start by the end of 2013
  – ERFO will apply for the TWF and deliver contributions
  – The main goal is to get SRF recognized as BAT, based on the TS of CEN TC 343 = 4th statement

• List of Waste, currently under discussion
  – Until now, no limit values for waste for environmentally hazardous substances. The introduction of effective limits will have a significant impact on the classification of waste as a lot of chemicals are classified as dangerous for the environment (see list in Annex VI of the CLP Regulation: heavy metals, pesticides, PAHs, PCBs, ...).
  – HP 14 = severe parameter for classifying a waste as hazardous or not
  – SRF can never be a hazardous waste whatever the calculation may be = 5th statement
What do we need for further progress?

• Setting right EU policies
  – Review of recycling targets:
    • SRF-production and use to be allocated to recycling
  – Resource efficiency Roadmap – Important contribution of SRF
  – Solving the issue of plastic waste
  – BREF
  – SRF on Green List:
    • 19 12 20: SRF, EN 15359 conform
    • 19 12 21: SRF, EN 15359 conform and certified
• Good implementation and use of CEN-standards
• Good recognition of CO₂ – benefits
  – Minimum price for CO2-certificates?
• Prevention of taxation for SRF
  – Taxation is counterproductive for efficient use of resources
Could this be the scheme of the near future?

ERFO – European Recovered Fuel Organisation
because SRF has potential

• to satisfy energy requirements

• help to reach landfill targets

• help to stop depletion of fossil fuels

• help to reach CO$_2$-targets

• ....
From highlights to conclusions

ERFO is working on a clear differentiation between SRF and RDF

Costs control and value creation of the fuel is a constant challenge for ERFO

ERFO will work on certification schemes in order to secure quality

The main goal is to get SRF recognized as BAT, based on the TS of CEN TC 343
   This would be the confirmation of the quality driven approach

SRF can never be a hazardous waste, maintaining SRF for which it was designed
Any questions?