Stakeholder Consultation – Chemical, Product, Waste Interface

EURELECTRIC Comments

July 2017

EURELECTRIC is the voice of the electricity industry in Europe.

We speak for more than 3,500 companies in power generation, distribution, and supply.

We Stand For:

***Carbon-neutral electricity** by 2050*

We have committed to making Europe's electricity cleaner. To deliver, we need to make use of **all low-carbon technologies**: more renewables, but also clean coal and gas, and nuclear. Efficient electric technologies in **transport and buildings**, combined with the development of smart grids and a major push in **energy efficiency** play a key role in reducing fossil fuel consumption and making our electricity more sustainable.

***Competitive** electricity for our customers*

We support well-functioning, distortion-free **energy and carbon markets as** the best way to produce electricity and reduce emissions cost-efficiently. Integrated EU-wide electricity and gas markets are also crucial to offer our customers the **full benefits of liberalisation**: they ensure the best use of generation resources, improve **security of supply**, allow full EU-wide competition, and increase **customer choice**.

***Continent-wide** electricity through a coherent European approach*

Europe's energy and climate challenges can only be solved by **European – or even global – policies,** not incoherent national measures. Such policies should complement, not contradict each other: coherent and integrated approaches reduce costs. This will encourage **effective investment to** ensure a sustainable and reliable electricity supply for Europe's businesses and consumers.

EURELECTRIC. Electricity for Europe.

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WG By-Product, Residues & Wastes

Contact:
Hélène Lavray, Advisor Renewables and Environment – hlavray@eurelectric.org

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KEY MESSAGES

EURELECTRIC calls for a harmonised implementation of the Waste Framework Directive across the EU. This would ensure more clarity as regards the status of coal combustion products (CCPs) which should benefit from the by-products and end-of-waste status, as appropriate. Such a harmonised approach would avoid legal uncertainties and remove barriers within the internal market. The harmonisation at European level both for the direct commercialisation of CCPs as by-products, and for the recovery as end-of-waste in the case of CCPs previously disposed in landfills, would be consistent with the EU Circular Economy policy and support its goals.

In many member states, there are still no rules on by-product or end-of-waste status for specific materials. In addition, competent authorities have chosen different ways to implement a by-product or end-of-waste status. These range from simple verification (such as "placed on the market"), to additional certificates with additional and different testing schemes, to a simple statement that e.g. CCPs remain as waste. However, since CCPs are effectively placed on the market, they are subject to REACH and the requirements of relevant European standards.

Each year, more than 100 million tonnes of coal and lignite ash and desulphurisation products are produced by power stations across the European Union, in addition to their primary output product, which is electricity. These solid materials, described collectively as coal combustion products (CCPs), can replace natural non-renewable raw materials in many applications such as cement, concrete, aggregates in building and road industries, in mining and other operations (as a construction or fill material), as mineral fillers and, in the case of FGD gypsum, for the production of plasterboard and other plaster uses.

CCPs are used as a replacement for naturally occurring non-renewable materials in a variety of applications that offer environmental benefits as they avoid the need to quarry or mine for primary resources, as well as a reduction of CO2 emissions during natural materials processing. CCPs can either be used directly as products, in some applications can be considered as 'by-products', or can be recovered from stockpiles and mono-landfill sites, and cease to be 'waste', in line with the requirements of Directive 2008/98/EC on waste.

EURELECTRIC's members have compiled a number of examples showing that across the European Union the exact same product can be subject to different requirements for by-products or end-of-waste status.

The increase in biomass combustion for power production leads to an increase in biomass ash. Biomass ash could also be used as an alternative for raw and construction materials or in or as fertiliser. As issues are expected, a suitable framework should be envisaged.

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EURELECTRIC comments to the stakeholder consultation "Chemical, Product, Waste"[1]

Question 3: Uncertainties about how materials can cease to be waste

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CCPs are used as a replacement for naturally occurring non-renewable materials in a variety of applications that offer environmental benefits as they avoid the need to quarry or mine for primary resources, as well as a reduction of CO2 emissions during natural materials processing. CCPs can either be used directly as products, in some applications can be considered as 'by-products', or can be recovered from stockpiles and mono-landfill sites, and cease to be 'waste', in line with the requirements of Directive 2008/98/EC on waste (Waste Framework Directive). Since they are effectively placed on the market, they are subject to REACH and the requirements of relevant European standards.

The revised Waste Framework Directive entered into force on 12 December 2008. Member States had to comply with the Directive within 24 months, i.e. by 12 December 2010. Most of the Member States have implemented the Directive and especially Article 5 on by-products and Article 6 on end-of-waste without indication on how CCPs could be accepted either as by-products or end-of-waste. This pending issues hurdles placing on existing markets products known for more than 50 years (1).

A compilation of the status of implementation of the Waste Framework Directive from June 2017 is given in the table below (2). It shows the implementation of the Waste Framework Directive into national law in a number of Member States and indicates the existence of specific by-products or end-of-waste rules for a particular national or regional market. The "tools and application" column provides concise information about the approaches in Member States and/or regions. EURELECTRIC's members have compiled a number of examples showing that across the European Union the exact same product can be subject to different requirements for by-products or end-of-waste status (3).

[1] This document is an update from the March 2016 EURELECTRIC comments: "The implementation of the Waste Framework Directive and CCPs": http://www.eurelectric.org/media/269629/eurelectric-wsfd_implementation-final_formatted-2016-2430-0001-01-e.pdf

1. Implementation of the Waste Framework Directive, especially regarding the status of CCPs

Observations regarding implementation

Delays between the transposition of the Waste Framework Directive and the adoption of additional regulations for by-product or end-of-waste status for specific materials is 2 years at a minimum (with the exception of Portugal and Ireland) and in some countries it is still pending.

Authorities have chosen different ways to implement a by-product or end-of-waste status. These range from simple verification (such as "placed on the market"), to additional certificates with additional and different testing schemes, to a simple statement that e.g. CCPs remain as waste (although CCPs are registered according to REACH and produced according to European standards).

Observations from a market perspective

The consequences for materials used in construction markets and registered under REACH range from acceptance (registered waste) to logistics (licenses for waste/product handling; transport accompanying papers for waste versus product).

Different evaluation schemes in Member States lead to waste status when, for example, CCPs are transported to customers cross border.

The fact that focus and regulation priorisation set by EU and thus, by Member States, is on waste streams such as food waste and slag from metallurgy for by-product status and compost or construction and demolition waste for end-of-waste consideration, leads to an ongoing transition period for CCPs.

Conclusion

The late implementation of specific rules for by-products and end-of-waste leads to legal uncertainty for materials already placed on the market as construction materials.

Because of the inconsistent assessment of by-products and end-of-waste across the EU, such materials are only accepted in a given region/country. For materials used in earthwork, this is not considered a major problem as the markets do not allow long distance transports. However, for materials with high value application (e.g. cement and concrete), the impacts are obvious.

As REACH registered and CE-marked construction materials, CCPs have already been in use for more than 50 years and cannot be delivered to customers across European borders as products. They have to be transported as a waste and have to comply with additional certification schemes in the country of use.

2. Overview Table

Country	Status 2010[1)]	By-products	End-of-waste	Since	Tools and application
Austria	X	X		2017	On March 22, 2017 by-product status for fly ash, bottom ash as well as FGD gypsum from the power plant Mellach was granted.
Belgium	X	(X)		2012	Vlarema certificate indirectly indicates products status; valid in Flanders only
Czech Republic	X	(X)		2012	By-products or REACH registered materials accepted as "chemical substances"
Denmark	X				pending - uncertainty
Finland	X	(X)		2014	Case-by-case consideration for by-products status by environmental authorities, applied also to end-of-waste status
France	X		X		E-o-W approach pending. Action as request to French Ministries
Germany	X	(X)			accepted as by-product in some regions already before WD revision, and in some also after. No common rule - uncertainty!
Greece	X	X		2012	by-product status based on end-use
Ireland	X	X		2011	Materials served to markets are by-products (implemented via WD)
Italy	X	(X)		2016	Decree 264 defines general procedure for by-product producers and users 'registration' (no specific rule or example for CCPs). Still uncertainty on by-product status definition.
Netherlands	X	X			Letters for by-product status to single power plants considering end-uses
Poland	X	X	X	2012	LAW ON WASTE gives details about permits for companies doing recovery operations. Partly by-product acceptance for ash and FGD gypsum

Portugal	X	X		2010	Fly ash, bottom ash and gypsum in specific applications accepted as by-products by Letter of Env. Agency.
Romania	X	(X)	(X)		In some regions considered as by-products or E-o-W by producers when used
Serbia	X				CCPs still considered waste material based on former WD
Spain	X	X		2015	In some regions, CCPs were already accepted as by-products before implementation WFD. Since July 2015 new procedure to declare by-products. No update on classification by now.
United Kingdom	X		X	2010	Quality protocol for bound application. For unbound uses still no decision.
Sweden	X	X			Bottom ash from waste-to-energy could sometimes be used in specific applications after getting permit but there are major barriers to use these ashes in general. The major barrier is lack of classification of ashes as hazardous and non-hazardous waste based on balanced risk analysis for environment.

[1)] Implementation of Articles 5 and 6 of the Waste Framework Directive without change and additional information on how to apply

Key:

no activity or guidance and tools on by-products or end-of-waste routes for specific materials
pending actions or regulations valid in regions or members states.
applied regulations or legal acts for implementation specific rules

3. Examples of implementation

The examples below have been provided by EURELECTRIC's members to illustrate issues with the implementation of the Waste Framework Directive across Europe.

Issues at EU level

European Union

Type of residues: CCPs

Issue: The late implementation of specific rules for by-products and end-of-waste leads to legal uncertainty for materials already placed on the market as construction materials. Because of the inconsistent assessment of by-products and end-of-waste, such materials are only accepted in a given region/country. For materials used in earthwork, this is not considered a major problem as the markets do not allow long distance transports. For materials with high value application (e.g. cement and concrete) however, impacts are obvious. As REACH registered and CE-marked construction materials, CCPs have already been in use for more than 50 years and cannot be delivered to customers cross European borders as products. They have to be transported as a waste and have to comply with additional certification schemes in the country of use.

European Union

Type of residues: wood ash

Issue: Wood ash is not listed in the Basel Convention. For trans-border transport, wood ash has to be treated as an orange-list material, which results in additional administrative work

Examples of different status for CCPs across the EU (by-products)

Austria

Type of residues: fly ash

Issue: The delivery of coal fly ash to a concrete producer came to a complete standstill when authorities did not accept the by-product status as the license of the concrete plant did not include handling of a waste material, although this was accepted and practised in all the previous years.

Belgium (Flanders)

Type of residues: coal fly ash

Issue: The status of by product is coupled to specified production sites. This means that for every new site one has to ask for a declaration to the Flemish authorities, whether it is a by-product or

not. There are several power plants that have new production sites; for these sites a request for new declarations needs to be started.

Germany / neighbouring countries

Type of residues: fly ash

Issue: The consequences for materials being used in construction markets and being registered in REACH appear for acceptance (registered waste) and in logistics (licenses for waste/product handling; transport accompanying papers for waste versus product.

Different evaluation schemes lead to waste status when e.g. CCPs are transported to cross-border customers. The national routes results in national or partly regional acceptance of by-product status which is not valid for CCPs from other areas and countries.

This led to several struggles at borders (Germany/Poland; Germany/Switzerland; Germany/Czech Republic; Germany/Netherlands) when fly ash according EN 450-1 (fly ash for concrete) should be transported to customers, but this was refused by custom border services due to formal problems with Annex VII of the Waste Material completed. This resulted in several punitive payments and consequently led to uncertainty and customer losses due delayed or lack of delivery.

One case resulted in a court case in the region Brandenburg which resulted in a lack of judgement as the judiciary did not want to decide on whether fly ash is by-product or not. The case was also discussed by lawyers and customs official which resulted in a clear statement on by-product status. The relevant discussion was published in conference on ash and slag.

Reference literature:

Stock, U., Schultz-Sternberg, R., Waldner, G.: Zertifizierte Steinkohlenflugasche im Spannungsfeld zwischen Bauproduktenrecht und Abfallrecht, Berliner Schlackenkonferenz - Aschen-Schlacken-Stäube aus Metallurgie und Abfallverbrennung, 23./24. September 2013, Berlin.

(Ein Autor vom Landesamt für Umwelt, Gesundheit und Verbraucherschutz Brandenburg) (Stock, U., Schultz-Sternberg, R., Waldner, G.: Certified Fly Ash in policy territory between Construction Product and Waste law, Slag Conference Berlin - Ashes-Slags-Dusts from Metallurgy and Waste Combustion, September 23/24, 2013, Berlin (author from state office for Environment, Health and Consumer Protection of Brandenburg)).

Italy

Type of residues: Coal fly ash, Flue-Gas-Desulphurization gypsum

Issue: As long as specific authorisation is not foreseen on by-product classification and management, the producers/power plants should assess (in a potentially contestable manner) on its own if all requirements are fulfilled, according to Article 5 of the Waste Framework Directive. Waste rules are consequently excluded. Different assessment or lack of 'adequate' evidence, according to the competent authority, could lead to litigation and severe sanctions with consequence on business.

Depending on the abovementioned uncertainty and high legal risk related, so far, power plants do not apply by-product classification according to Article 5 of the Waste Framework Directive for coal combustion residues (REACH registered, certified as by EN quality standards, directly addressed to industrial reuse).

To improve legal certainty, competent authorities should 'validate' conditions ex ante, through codified fact-based demonstration of by-product requirements submitted / made available.

Clear indication should be given at EU level in order to specify by-product status validation process, for a substance to be considered as by-product and not as a waste.

The 'Guidance on the interpretation of key provisions of Directive 2008/98/EC on waste' (2012) already stated criteria that should be considered by competent authorities in determining by-product (documents and records).

The process should be detailed adequately (for instance, as plant permit review), depending on internal monitoring rules.

Netherlands

Type of residues: coal fly ash, but this impacts all by-products

Issue: The status of by-product is coupled with specified applications. This means that for every new utilisation one has to check/verify whether it is a by-product or not. Fly ash is a by-product for use in cement and concrete but its status has now to be checked / verified for use in ceramics and asphaltic filler.

Spain

Types of residues: coal ashes, FGD gypsum

Issue: According to the National Law of Wastes and Polluted Soils (which implements the Waste Framework Directive), the Spanish Government has to develop Ministerial Orders with specific requirements for some materials to be considered as by-products or to have end-to-waste status.

These Ministerial Orders have not been published yet, at the time of writing, but depending on the regional governments, coal ashes and desulphurisation gypsum, commercialised as construction materials, may be recognised as "by-products" within the environmental permit of some power-plants, with some conditions that may vary depending on the Region, but generally without any references to the Waste Framework Directive or National legislation. In some regions it may be sufficient that these by-products fulfil the technical requirements for the proposed destination and that the power plant reports to the regional government, on a yearly basis, the amount of ash and/or gypsum send to recovery and destination.

In addition to this, coal ashes and FGD gypsum are registered in REACH, and ashes must be certified as by EN standards (EN 450-1) for certain uses. Different criteria applied by different regions might result in the commercialisation and/or exportation hurdles as by-products and competition distortion, which eventually results in lower valorised volumes and higher stockpile in landfill as a non-hazardous residue.
Furthermore, the lack of internal criteria at European/national level in the application of the end-of-waste status for those CCP previously landfilled as residues, but with the same properties and potential usage that the original CCPs marketed as by-products, also leads to legal uncertainty and eventually in a reduction of the CCP that is valorised, and consequently in an increase in the requirements for landfilling availability.

Other: waste shipment

Italy/European Union

Type of residues: Co-incineration ash

Issue: Waste shipment and market in the EU - The usefulness of the procedure in Article 18 of Regulation (EC) n° 1013/2006 is sometimes jeopardised because Annex III 'GREEN LISTED WASTE' doesn't indicate EC entries but it simply refers to the list in Annex IX of the Basel Convention and OECD Decision entries. As a consequence of Annex III 1013/22006 reference to Basel Convention entries, it is necessary to evaluate and be sure that a GG entry has a direct correspondence in the EU waste code. It is not certain that GG040 and B2050 entries in Annex III can be applied for not contaminated fly ash from coal co-incineration (EWL 100117), and consequently it could be subject to the general information requirement of article 18 of Regulation (EC) n° 1013/2006 when shipped to recovery operations in EU-OECD countries.
The question appears to be solved by the European Commission rather than competent authorities in the Member States, which are responsible for the operative implementation of the waste shipment regulation.
Depending on the abovementioned uncertainty and national authorities precautionary suggestion, so far, EWL 100117 shipment requires notification procedure.

Proposal: Review of the specific Guidance for Annex III of Regulation (EC) n° 1013/2006 should be useful, including EWL entries and/or reviewing the description of existing ones.

Other: ashes from waste-to-energy

Sweden

Type of residues: ashes from waste-to-energy

Issue: There is risk that all ashes from waste-to-energy could be classified as hazardous waste. In Sweden, sometimes bottom ash from waste-to-energy could be used in specific applications after getting permit from authorities. To get permit is often a time consuming and difficult process. The consequence is that the major part of waste-to-energy ashes is per default classified in a way that prohibits their use in relevant applications. The major part of these ashes could substitute natural materials as gravel while smaller volumes should exceptionally be classified as hazardous material. Also, some volumes are more appropriate for covering the landfills. For authorities, precautionary principle and the objective of a poison-free environment go beyond the objective of resource efficient use of materials. One major reason is the lack of practice and the established assessments to rely on, both for companies and authorities. These uncertainties are largely based on EU directives on waste and chemicals and the Swedish interpretation of the directive. The other uncertainty is lack of definitions on responsibility for any needed environmental measures in the future (i.e. who is responsible for possible environmental impacts).

Today, bottom ash is used in Denmark and Netherlands as construction material outside landfill areas. Ashes of the same quality are not allowed to be used in similar applications in Sweden. A harmonised legislation will ease more resource efficient use of ashes.

The calculation model for HP14 (ecotoxicity) which classify the bottom ash from waste-to-energy as hazardous waste prohibit use of all ashes even if the quality is the same as natural material. COM should suggest harmonised and relevant methods for evaluation of the total toxicity impact.

If bottom ashes from waste-to-energy are classified as hazardous waste, companies will have problem to landfill the material due to low landfilling capacity in Sweden.

Proposal: define routines for a registry of how the ash is used, develop criteria for the environmental responsibility when a construction is demolished and criteria how to handle other environmental impacts for ashes used in specific applications. Define the border between what is acceptable to use from a resource efficiency perspective and what should be classified as hazardous waste or should be used more cautiously due to the risks for environment or health.

Question 4: Difficulties in the application of EU waste classification methodologies and impacts on the recyclability of materials

It is important to make compliance with EU classification requirements easier, univocal and not debatable by competent authorities in order to ensure uniform application and avoid legal consequences for industrial operators. This is the case of article.12 (b) for inert matrix but also of inorganic compounds / substances not directly detectable with laboratory analysis and requiring a theoretical assessment (worst case selection among the 'possible' ones). Classification as not-hazardous of hazardous waste could have an impact on environment as relevant as the contrary (not-hazardous waste managed and mixed with hazardous waste).

EURELECTRIC pursues in all its activities the application of the following sustainable development values:

Economic Development

- Growth, added-value, efficiency

Environmental Leadership

- Commitment, innovation, pro-activeness

Social Responsibility

- Transparency, ethics, accountability

Union of the Electricity Industry - EURELECTRIC aisbl
Boulevard de l'Impératrice, 66 - bte 2
B - 1000 Brussels • Belgium
Tel: + 32 2 515 10 00 • Fax: + 32 2 515 10 10
VAT: BE 0462 679 112 • www.eurelectric.org
EU Transparency Register number: 4271427696-87