CEN

WORKSHOP

AGREEMENT

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English version

Methodology to measure and improve the resource efficiency of resource intensive processes

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European foreword

CWA 17185:2017 was developed in accordance with CEN-CENELEC Guide 29 “CEN/CENELEC Workshop Agreements – The way to rapid agreement” and with the relevant provisions of CEN/CENELEC Internal Regulations - Part 2. It was agreed on 2017-07-07 in a Workshop by representatives of interested parties, approved and supported by CEN following a public call for participation made on 2016-05-15. It does not necessarily reflect the views of all stakeholders that might have an interest in its subject matter.

The final text of CWA 17185:2017 was submitted to CEN for publication on 2017-07-25. It was developed and approved by:

- Danish Standards Foundation (Denmark)
- Dow Chemical Iberica SL (Spain)
- Deloitte Conseil (France)
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Introduction

The efficient management and use of limited resources have always been part of a successful economic activity. Achieving the goal of a safe, reliable, economical and environmentally friendly resource supply also requires the efficient use of available resources in order to increase the competitiveness and efficiency of the resource-intensive process industry. In recent years, focus has increased on resource efficiency. Stakeholders such as investors, NGOs or end users are demanding more environmental friendly products and services.

To ensure this, reliable indicators are essential for measuring and controlling environmental performance. In economic terms, standardization contributes to improve Europe's competitiveness in world markets with a better use of raw materials, natural resources and renewable energies. The current policy framework has set the way for more environmental friendly laws and regulations, and this fact has incentivized companies to improve their environmental and resource efficiency performance.

This CWA is an opportunity to further improve resource efficiency by introducing economy-wide resource efficiency indicators that will contribute to better informed decisions from both industrial agents and policy makers. The determination of comparable, reliable, accurate and globally accepted eco-efficiency indicators will be essential in the near future for the evaluation of the eco-efficiency of companies.

This CWA presents a cross-sectorial methodology for the identification and characterization of the critical process parameters (CPP) in order to establish and improve resource efficiency measures.

The application of this CWA will allow companies to have better knowledge of their environmental performance and footprint and their related financial impact which will allow a real comparison between companies and initiatives, ensuring the competitiveness of EU companies in global markets.

1 Scope

This European CWA specifies a cross-sectorial methodology for identifying, characterizing and implementing a set of indicators whose purpose it is to enable an organization to improve the resource use efficiency of a process or the impacts associated with the consumption of these resources.

It specifies a methodology applicable to resource use and consumption efficiency, including measurement, performance and optimization, and applies to all industries, but particularly to the resource-intensive process industry.

This European CWA has been designed to be used independently, but it can be aligned or integrated with other standards or management systems.

This European CWA also provides, in Annex A, informative guidance on its use.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
critical Process Parameter
CPP
operational variable of the system directly related to Key Performance Attribute values; the modification of the CPPs values along the utilities and product plants ensuring that the Key Performance Attributes are kept on range due to the influence of CPPs on Key Performance Attributes

3.2
exergy
maximum amount of work a system may theoretically perform by bringing a resource into equilibrium with its surrounding environment by a sequence of reversible processes

3.3
global sensitivity analysis
methodology to identify and rank the inputs according to their impact on the model's outputs; the term “global” describing that the impact is determined over the entire value range of inputs and that no assumptions are made about the linearity or additivity of the underlying model

3.4
In Site Battery Limit
fence of a production plant that is going to be considered as the system boundary in the methodology

3.5
Key Performance Attribute
KPA
variable directly related to products, by-products or interconnections between plant and utility systems which magnitude must be in a range of values that ensures quality, safety or production rates; which should be defined ad hoc for each process.