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Packaging - Optimisation of energy recovery from packaging waste

S.R. CR 13686:2001

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ICS

English version

Packaging - Optimization of energy recovery from packaging waste

Emballage - Optimisation de la valorisation énergétique des déchets d'emballages

Verpackung - Optimierung der energetischen Verwertung von Verpackungsabfällen

This CEN Report was approved by CEN on 2 June 1999. It has been drawn up by the Technical Committee CEN/TC 261.

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Foreword

This document has been prepared by CEN /TC 261, "Emballage".

This document is actually submitted to the publication.

Introduction

The Directive on Packaging and Packaging Waste, Annex II, 3(b) states that *Packaging waste processed for the purpose of energy recovery shall have a minimum inferior calorific value to allow optimization of energy recovery* (Ref. 1).

The Commission's Mandate M 200 Rev. 3 asks CEN to propose a standard on *Requirements for packaging recoverable in the form of energy recovery, including specification of minimum inferior calorific value* (EN 13 431).

Energy recovery is defined in Article 3.8 of the Directive : *'energy recovery' shall mean the use of combustible packaging waste as a means to generate energy through direct incineration with or without other waste but with recovery of the heat.*

EN 13431 shall apply to packaging placed on the market in order to allow optimization of energy recovery of packaging waste by specifying minimum inferior calorific value and other supplementary requirements. It cannot and does not consider conditions or contaminants of packaging waste at arrival to furnace at the energy recovery plant.

1 Scope

The objective of this report is to identify and define properties of packaging and packaging waste to allow optimization of energy recovery.

This report takes a wide approach to the process of energy recovery in order to identify the items to be standardised according to the Directive and the Mandate.

2 Terminology

Net calorific value (inferior calorific value), Q_{net} : defined in ISO 1928 :1995 (Ref. 3).

Required energy H_a : energy necessary to adiabatically heat the post combustion substances of a material and excess air from ambient temperature to the specified final temperature.

Calorific gain : the positive difference between the energy released on combustion of a material (the net calorific value) and H_a .

Available calorific gain : recovered heat providing useful energy.

3 Packaging and packaging waste

The statement in Annex II of the Directive quoted above refers to **packaging waste**, whereas the Mandate wording refers to **packaging**. Packaging waste can be used for energy recovery, but it is the packaging placed on the market that has to meet the specific requirements for energy recovery and therefore is subject to meeting the standard. The link between the Directive and the Mandate can be described in the following manner :

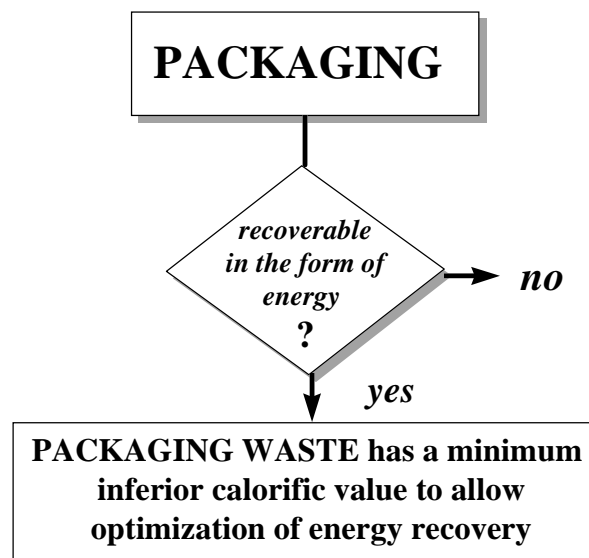


Figure 1

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