

# **SLOVENSKI STANDARD** SIST CEN/TR 14310:2003

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### Transport - Tovorni transport - Napoved in poročanje o okoljevarstvenih vplivih pri sistemih za transport tovora

Freight transportation services - Declaration and reporting of environmental performance in freight transport chains

Frachttransporte - Deklarierung und Berichterstattung zum Umweltverhalten in Frachttransportketten iTeh STANDARD PREVIEW

Services de transport - Déclaration et rapport de la performance de l'environnement en chaînes de transport de marchandises T CEN/TR 14310:2003

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# TECHNICAL REPORT RAPPORT TECHNIQUE TECHNISCHER BERICHT

# **CEN/TR 14310**

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# Freight transportation services – Declaration and reporting of environmental performance in freight transport chains

Services de transport - Déclaration et rapport de la performance de l'environnement en chaînes de transport de marchandises Frachttransporte - Deklarierung und Berichterstattung zum Umweltverhalten in Frachttransportketten

This Technical Report was approved by CEN on 2001-12-23. It has been drawn up by the Technical Committee CEN/TC 320.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

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### Foreword

This Technical Report (CEN/TR 14310:2002) has been prepared by Technical Committee CEN/TC 320, "Transport, Logistics and Services", the secretariat of which is held by DS.

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### Introduction

It is necessary for the proper including of transport in the different environmental activities in companies that there is a harmonized standard for the flow of information to facilitate easy and foolproof calculation. This Technical Report is a step towards fulfilling this need for a common international and multimodal standard or guideline i.e. for declaration and reporting of environmental performance in goods transport.

This Technical Report is targeted at the information exchange in and between companies, as well as from companies to authorities. It should therefore be used for delivering transport data e.g. for green accounting, environmental declarations, certification (EMAS, ISO 14000), LCA (Life Cycle Analysis), KPI (Key Performance Indicators), environmental benchmarking, environmental labelling etc. that will become management activities in companies in the coming years.

This Technical Report specifies the content and structure of a declaration of environmental performance in freight transport. The principles may be applied for documentation of environmental performance of any mode or relevant combination of transport modes in a goods transport chain.

This Technical Report is a guideline for the presentation of data and source of data used for calculating environmental performance, but does not specify which models or methods that should be used.

To make it easier to analyse environmental performance of goods transport in the future, further development of standardised models and methods for simulation of emission should be made. Annex A and B (informative) are examples of how this Technical Report can be used. DARD PREVIEW

This document is not an interpretation guideline of the ISO 14001 standard but is compatible with existing standards defining requirements for environmental management systems. The recommendations described can be used whether within environmental management systems, or independently.

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### 1 Scope

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This Technical Report is a guideline for preparing environmental declarations and reporting. The guideline recommends the content and structure for documentation and evaluation of environmental performance in freight transportation. The guideline is applicable to freight transport purchasers and freight transport operators. Reliability and trustworthiness are essential to the use and acceptance of eco reporting. When specific data is not available it is therefore paramount to use commonly acknowledged data.

The calculations and results should be presented in a transparent and true way that aids the evaluation of the environmental performance of a given freight transport. As a rule of thumb, it can be said that when the method, used for calculating the energy consumption and emissions for one customer, is extended to all the costumers of a transport company, then all transport related energy consumption and emissions from that transport company should be accounted for.

### 2 Terms and definitions

For the purposes of this Technical Report, the following terms and definitions apply:

#### 2.1

#### freight transport

transport of goods on road, railway, sea and inland navigation

#### 2.2

#### transport chains

movement of a given consignment of goods/products from the time the goods are made available by the shipper, until they are delivered as instructed

### 2.3

#### transport system

transport on road, railway, sea and inland navigation including all necessary actions by the participating parties to the continued function of the transport system

### 2.4

#### goods

the shipped items including the packaging received by the recipient, excluding packaging and transport material forming part of a common pool, e.g. EUR pallets, containers, swap bodies and tara weight of the vehicle

### 3 Content and structure

#### 3.1 General recommendations

Information and declaration of energy consumption and of exhaust emissions should include the following as a minimum:

- a) Transport profile
- clear and unambiguous identification of the transport (e.g. period, assignment, customer covered by the declaration);
- weight/dimension/number of goods (e.g. l, kg, t, m, m<sup>3</sup>);
- identification of the transport (from A to B), and the modes involved (road, sea, rail).
- b) Basic transport data, per mode STANDARD PREVIEW
- transport distance (km);
- transport work (e.g. t/km).

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- c) Calculated transport data, per mode 7ff353778a1e/sist-cen-tr-14310-2003
- use of energy (e.g. l, t, kg, MJ or kWh);
- emissions, CO<sub>2</sub>, NOx, SO<sub>2</sub>, HC, CO, PM (g or kg).
- d) Documentation of calculation method and data used
- data source and system boundaries for the use of fuel or energy (e.g. reference to own registered system, commonly known simulation models or key figures);
- the specific data, on which the calculations are based;
- if general or average data is used, description of calculation method and data origin (e.g. business average, adjusted country average, company or trade model).
- e) Issuer responsible for the declaration
- clear and unambiguous identification of the company, or the person, responsible.

#### 3.2 Information on road transport

Apart from the information to be given according to 3.1, the road transport declaration should include the following information, if available:

- description of vehicle (for the specific or average truck used for the transport);
  - EURO standard or year of production, and/or engine rating (kW);

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- type/weight/dimension (e.g. empty and gross weight, volume, etc.);
- capacity utilisation (e.g. %, maximum load, m<sup>3</sup> or load metre, average load, percentage of empty run, load metres, etc. (state whether or not EUR pallets, containers and swap bodies are included in the weight of the goods));
- use of energy (e.g. litres of diesel per km, km/l, kWh, MJ etc. (state type of fuel, sulphur contents (%) and/or energy contents (MJ/kg))).

#### 3.3 Information on rail transport

Apart from the information to be given according to 3.1, the rail transport declaration should include the following information, if available:

- description of train (e.g. make/model, year of construction of locomotives, number of axles on the wagons, empty weight, volume of wagons etc., for the specific or average train used for the transport);
- capacity utilisation (e.g. %, maximum load, average load, percentage of empty run, etc. (state whether or not EUR pallets, containers and swap bodies are included in the weight of the goods));
- use of energy;
- share of diesel traction (%, MJ or km);
  - diesel consumption (MJ per t/km), (state type of fuel, sulphur contents (%), and/or energy contents (MJ/kg));

# - share of electric traction (%, MJ or km) TANDARD PREVIEW

NOTE In order to ensure transparency, it is necessary that the declaration of the energy consumption by electric locomotives includes the power consumption in kWh delivered into the electricity network, as well as the primary energy (in MJ), consumed at the power plant for the production of the energy; <u>SIST CEN/TR 14310:2003</u>

— power consumption (kWhiper/t/km);rds.iteh.ai/catalog/standards/sist/8200595d-1e0e-4924-8e7c-

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- renewable energy (kWh);
- nuclear energy (kWh);
- fossil energy (kWh).

#### 3.4 Information on sea transport and inland navigation

Apart from the information to be given according to 3.1, the sea transport and inland navigation declaration should include the following information, if available:

description of ship(s) (specific or average ship used for the transport);

- year of construction;
- length between pp;
- type of ship (e.g. container, bulk carrier; tanker, reefer, RO RO ferry, etc.);
- type of engine (slow, medium, high speed, gas turbine);
- type/weight/dimension (e.g. maximum capacity in TEU, ton payload or lane metre, etc.);
- name and shipping company/operator of the ship(s) included in the transport;
- capacity utilisation (e.g. %, maximum load/TEU/lane metre, average load/TEU/lane metre, percentage of distance in ballast, etc. (state whether or not EUR pallets, containers and swap bodies are included in the

weight of the goods));

NOTE For combined passenger and freight ferries, allocation between passengers and goods should be taken into strong consideration (a model for the allocation should, in that case, be used in all emissions)

use of energy (e.g. tonnes of oil per hour (t/h), MJ, etc. (state type of fuel, sulphur contents (%), and/or energy contents (MJ/ton))).

#### 3.5 Information on other conditions

The following information can be included in the declaration, if regarded relevant:

- use of energy and emissions for other handling than transport (e.g. loading and unloading of goods, containers and swap bodies);
- environmental initiatives to obtain other reductions than in the transport chain (e.g. use of environmentally adapted paint, green cleansing agents, exhaust control systems, etc.);
- environmental initiatives regarding optimisation of systems (e.g. use of IT for route planning, adjustment of capacity according to the transport assignment, use of specialists for city logistics, etc.);
- use of energy and emissions for temperature controlled goods during transport (ATP);
- congestions (e.g. traffic jam, terminal congestions, etc.).

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