

THE INTERNATIONAL EPD® SYSTEM



**PCR BASIC MODULE**

CPC Division 64  
Passenger Transport Services

VERSION 1.0 DATED 2009-10-27

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## HOW TO USE PCR BASIC MODULES BASED ON THE UN CPC STRUCTURE

CPC is a complete product classification scheme covering goods and services. It is based on the physical characteristics of goods or on the nature of the services rendered. Each type of good or service distinguished in the CPC is defined in such a way that it is normally produced by only one activity as defined in the International Standard Industrial Classification of all economic activities (ISIC Rev. 4). This PCR basic module is based on CPC ver. 2.0, for more information see <http://unstats.un.org/unsd/cr/registry>.

The use of the CPC system leads to a structure for PCR documents in two dimensions:

- a “horizontal” dimension describing the product’s value chain divided according to business sectors, i.e. building on CPC-coded information modules, and
- a “vertical” dimension defining each information module (with a further delineation of each such section into subclasses).

The CPC concept forms the basis for a PCR structure to:

- provide a structure for industry specific PCR core modules, or rather the PCR core module and up-streams modules as well as down-streams modules within the product group system boundary, and
- open up for differentiated, but defined levels of requirements in the PCR document, i.e. part of the requirements may be applicable on a generic product group level, part of the requirements may be limited to selected individual products.

PCR Basic Modules make use of this option provided by the CPC concept, and are close to ready-made draft PCR documents with some information still lacking, but the lacking information is identified in the document.

The PCR Basic Module document includes:

1. Text which is common for all full PCR documents regardless of product group, e.g. the introduction section
2. Text including requirements which are common for all products which belong to the specified product group on UN CPC code two digit level, e.g. CPC Division 64: Passenger transport services. PCR requirements valid on two digit level are specified (marked with CPC XX).
3. Identified specific requirements or information, written in *italic*, which must be decided upon on a more detailed level than the CPC Division level. In the final PCR document this detailed level could be anything from CPC three digit level to five digit level dependent on the level of the final PCR document. Thus, the information requested in *italic* shall be replaced by the relevant text, e.g. instead of the text “product group” in the PCR Basic Module document the final PCR document may read “transformers” in a PCR for transformers.

The PCR Basic Module document provides a close to ready-made PCR document. Just decide upon and add the relevant information requested in *italic*.

## DIVISION: 64 – PASSENGER TRANSPORT SERVICES

This Division is divided into the following groups (three digits) and classes (four digits):

- 641 Local transport and sightseeing transportation services of passengers
  - 6411 Urban and suburban land transport services of passengers
  - 6412 Local water transport services of passengers
  - 6413 Sightseeing transportation services
- 642 Long-distance transport services of passengers
  - 6421 Interurban railway transport services of passengers
  - 6422 Interurban road transport services of passengers
  - 6423 Long-distance water transport services of passengers
  - 6424 Air transport services of passengers
  - 6425 Space transport services of passengers

***Important!*** PCR requirements valid on level CPC division 64 are specified (marked with CPC 64). Certain requirements are dependent on the choice of specific product group, and need to be defined on lower, more specific levels (Group, Class, or Subclass). These requirements, written in italic, are only identified in general terms in this document. All text written in italic shall be replaced by sharp requirements or deleted as appropriate in the final PCR document.

## GENERAL INTRODUCTION

*(This section shall be included in all PCR- documents)*

The international EPD® system is based on a hierarchic approach following the international standards:

- ISO 9001, Quality management systems
- ISO 14001, Environmental management systems
- ISO 14040, LCA - Principles and procedures
- ISO 14044, LCA - Requirements and guidelines
- ISO 14025, Type III environmental declarations
- ISO 21930, Environmental declaration of building products.

The General Programme Instructions are based on these standards, as well as instructions for developing Product Category Rules (PCR).

The documentation to the International EPD® system includes three separate parts ([www.environdec.com](http://www.environdec.com)):

- Introduction, intended uses and key programme elements
- General Programme Instructions
- Supporting annexes

This PCR-document specifies further and additional minimum requirements on EPDs of the product group defined below complementary to the above mentioned general requirement documents.

Principle programme elements concerning the Product Category Rules (PCR) included in International EPD® system are presented below.

Purpose	Element identification and principal approach
Complying with principles set in ISO 14025 on modularity and comparability	1. "Book-keeping LCA approach" 2. A Polluter-Pays (PP) allocation method
Simplifying work to develop Product Category Rules (PCR)	3. PCR Module Initiative (PMI) in order to structure PCR in modules according to international classification 4. PCR moderator for leadership and support of the PCR work

Secure international participation in PCR work	5. Global PCR Forum for open and transparent EPD stakeholder consultation
Facilitating, identification and collection of LCA-based information	6. Selective data quality approach for specific and generic data

Product Category Rules (PCR) are specified for specified information modules “gate-to-gate”, so called core modules. The structure and aggregation level of the core modules is defined by the United Nation Statistics Division - Classification Registry CPC codes (<http://unstats.un.org>). The PCR also provides rules for which methodology and data to use in the full LCA, i.e. life cycle parts up-streams and down-streams the core module. The PCR also has requirements on the information given in the EPD, e.g. additional environmental information. A general requirement on the information in the EPD is that all information given in the EPD, mandatory and voluntary, shall be verifiable.

In the EPD, the environmental performance associated with each of the three life-cycle stages mentioned above are reported separately:

## 1 GENERAL INFORMATION

*(This section shall after editing be included in all PCR document)*

<b>Date and registration no:</b>	<i>date and registration number of the PCR</i>
<b>This PCR was prepared by:</b>	<i>names of organisations</i>
<b>Appointed PCR moderator:</b>	<i>Name, organisation,, e-mail address</i>
<b>Open consultation period:</b>	<i>date until date.</i>
<b>Valid within the following geographical representativeness:</b>	<i>Describe the geographical representativeness for the PCR.</i>
<b>Valid until:</b>	<i>date</i>

This document provides Product Category Rules (PCR) for the assessment of the environmental performance of *UN CPC 64XXX (define product group)* and the declaration of this performance by an EPD. *(CPC 64)*

This PCR is based on the requirements and guidelines given in “PCR Basic Module, CPC Division 64: “Passenger Transport Services” dated x 2009. *(CPC 64)*

Any comments to this PCR document may be given on the Global PCR Forum or directly to the PCR moderator during the period of validity. *(CPC 64)*

The PCR document is a living document. If relevant changes in the LCA methodology or in the technology for the product category occur, the document will be revised and any changes will be published on the international website: [www.environdec.com](http://www.environdec.com). *(CPC 64)*

The EPD shall refer to a specific PCR version number. The production of new PCR versions does not affect the EPD certification period. *(CPC 64)*

## 2 DEFINITION OF THE PRODUCT GROUP

*The services included in the product group shall be described. Examples on services included and not included may be given for assistance to the EPD developer.*

The purpose of this PCR is to provide necessary rules to enable development of an EPD for a specific type of passenger transport service. This approach include the environmental load from the transport work including defined indirect environmental load from supporting systems.

This PCR document may also be used to develop data for comparison of different system solutions for transport services. It may also be used to develop data for a specific part of a system in order to assess and optimize the environmental performance.

## 2.1 SPECIFICATION OF SERVICE COMPANY

*The PCR shall specify the information on the company that is required in the EPD, separated into mandatory and voluntary information.*

*Example:*

*Mandatory information:*

- *Service company*
- *Production site*
- *Issuer and contacts*
- *Information on environmental management system*

*Examples of voluntary information:*

- *Specific aspects regarding the production*
- *Environmental policy*
- *Manufacturers logotype*

## 2.2 SPECIFICATION OF THE PRODUCT

The PCR specifies rules for passenger transport services and passenger. The specified rules for passenger transport services enables development of an EPD for e.g.

- a specific journey, travelled with a specified mode of transport,
- a specific journey, travelled with a specified multimodal transport chain,
- a specific journey, travelled with a specified integrated multimodal transport chain

An integrated transport system includes a geographical rigid network consisting of terminals (nodes) and transport legs (links) providing sufficient transport services, by utilizing the total production resources as efficient as possible.

The product group 'passenger transport services' comprises transport of a certain number of passengers over a certain distance on a transport route. A full EPD for passenger transport services must therefore include the environmental load from energy providing systems, maintenance of vehicles/ vessels etc., support functions in terminals etc and the transportation, including the environmental load from positioning. A more detailed description of system boundaries can be found in section 5.

The product group and CPC code shall be specified in the EPD. *(CPC 64)*

## 3 FUNCTIONAL / DECLARED UNIT

The declared unit shall either be transport of one person over one kilometre [1pkm] with the specified passenger transport service or transport of an average person with the specified passenger transport service. *(CPC 64)*



*If relevant the functional unit shall be defined at a more detailed CPC level.*

The functional unit shall be declared in the EPD. The environmental impact shall be given per functional unit.

## 4 UNITS AND QUANTITIES

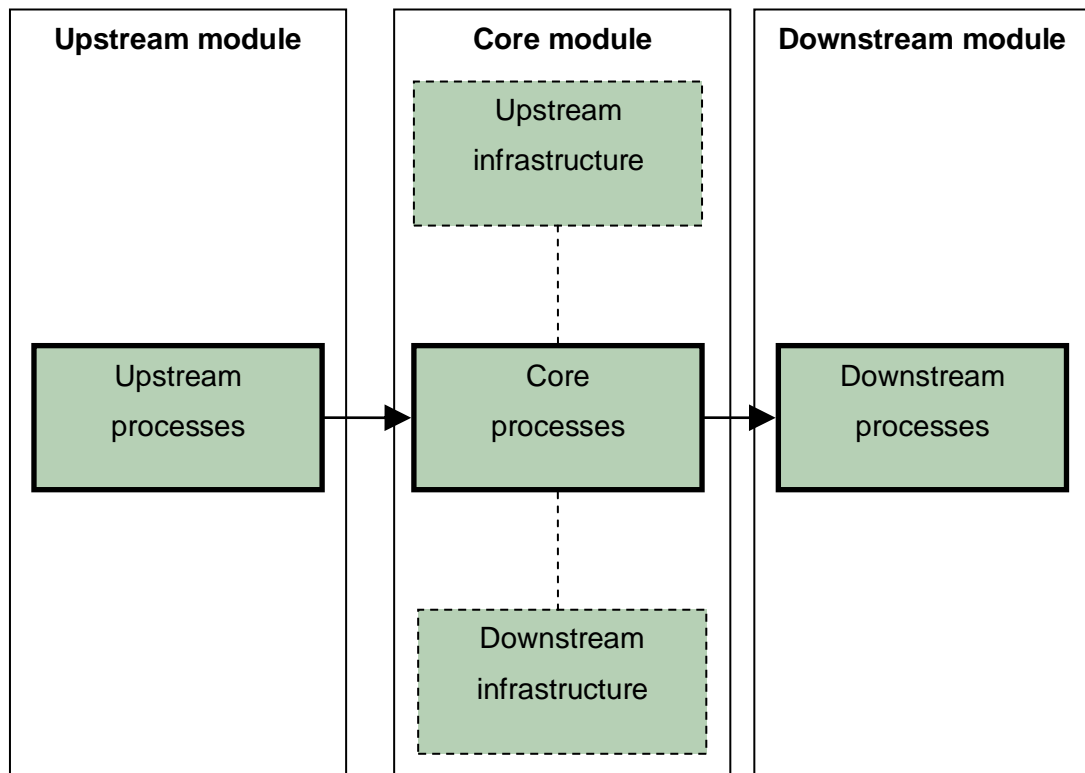
Following units shall be used (*CPC 64*):

- Kilometre (km) for traffic
- Vehicle kilometre (vkm) for transport work
- Person kilometre (pkm) for transport work
- Gram or kilogram (g; kg) for emissions
- Preferred power and energy units
  - kW (MW) for power
  - kWh (MWh) for electricity
  - Joule for energy

A maximum of three value numbers shall be used when reporting LCA results

*Other units may be regulated on a more detailed CPC level, if relevant.*

## 5 GENERAL SYSTEM BOUNDARIES



*Figure 1. General presentation of Core Module (core process) and upstream and downstream processes. The figure illustrates that all relevant unit processes taking place in the upstream-, core- and downstream processes shall be included. To identify the relevance of including upstream and downstream infrastructure the commonly defined cut-off rules shall be applied*

Transport processes are dependent on several subsystems, supporting the transport system. All exclusions of sub-systems or other modifications of system boundaries must be justified. A flowchart should be presented in the EPD to graphically show which sub-systems that have been included and excluded.

### 5.1 UPSTREAM PROCESSES

The upstream processes include: (CPC 64)

- Production of fuels and electricity supply
- Distribution losses of fuels and electricity

### 5.2 CORE PROCESSES

The core processes include: (CPC 64)

- Transportation
- Maintenance of vehicles, vessels

- Fuel and electricity usage
- Support functions in terminals etc
- Treatment of waste generated during the core process e. g. tyres

### 5.3 DOWNSTREAM PROCESSES

The following downstream processes are voluntary to include:

- Waste management of chemicals and other auxiliary substances needed for the maintenance

In the EPD, the environmental performance associated with each of the three life-cycle stages above are reported separately. *(CPC 64)*

## 6 CORE MODULE

### 6.1 SYSTEM BOUNDARIES

#### 6.1.1 TECHNICAL SYSTEM

The processes listed below for the personal transport service shall be included.

**Processes which are mandatory to include:**

- Fuel and electricity usage
- Vehicle/ vessel performance and maintenance
- Support functions in terminals etc
- Transportation

The maintenance of vehicles/vessels shall be included

Waste that is deposited in landfill shall not be included in the system boundaries. *(CPC 64)*

Waste that is deposited in landfill shall be declared as kg of waste (and kg of hazardous waste). *(CPC 64)*

The manufacturing of equipment with an expected lifetime over three years, buildings and infrastructure shall not be included *(CPC 64)*.

Business travel of personnel may be included *(CPC 64)*. Travel to and from work by personnel shall not be included *(CPC 64)*.

*Research and development activities may be included if relevant. This should be regulated on more detailed CPC levels.*

### 6.1.2 GEOGRAPHICAL BOUNDARIES

The data for the core module shall be representative for the actual for the region where the respective process is taking place. (CPC 64)

### 6.1.3 TIME BOUNDARIES

The data shall be representative for the year/time frame for which the EPD is valid. (CPC 64)

### 6.1.4 BOUNDARIES TO NATURE

Boundaries to nature are defined as flows of material and energy resources from nature into the system. Emissions to air, water and soil cross the system boundary when they are emitted from or leaving the product system. (CPC 64)

### 6.1.5 BOUNDARIES TO OTHER PRODUCT LIFE CYCLES

If there is an inflow of recycled material to the production system in the production/manufacturing phase, the recycling process and the transportation from the recycling process to where the material is used shall be included. If there is an outflow of material to recycling, the transportation of the material to the recycling process shall be included. The material going to recycling is then an outflow from the production system. (CPC 64)

## 6.2 CUT OFF RULES

The general cut off criteria according to Programme Instruction Annexes applies, why Life Cycle Inventory data for a minimum of 99 % of the respective environmental category impact of the core module shall be included. Processes/ activities not included in the LCA shall be documented in the EPD. (CPC 64)

## 6.3 ALLOCATION RULES

*Allocation rules will be given at a more detailed CPC level.*

All vehicle/vessel emissions shall be allocated to the transported passenger (and cargo if a combined solution) by its relative share contributing to the total emissions, including emissions from positioning empty transport units. The allocation is based on relevant factors dependent on transport mode and system defined by each CPC level.

Generic data should be used in cases where they are representative for the purpose of the study.

If an approved EPD exist for a product or service that is similar to a product or service within the system under study, data from that EPD can be used as specific data under the condition that all critical system boundaries are similar.

*The choice of functional unit may provide guidance.*

## 6.4 DATA QUALITY RULES

Assessing environmental performance is often based on various levels of details for the input data. This leads to a need to specify the accuracy level of assessed performance. It is crucial for further use of results to state at what level the calculation was carried out.

### 6.4.1 GENERAL PERFORMANCE – ACCURACY LEVEL 1

Based on estimated vehicles/vessels

Objectives: Average estimations typically carried out by the layman. Data is accessible for public use. Estimation carried out in order to evaluate general logistics changes.

Input data:

1. Estimated vehicle/vessel (based on the market use/share and common production)
  - load capacity
  - load factors
  - link distances

Output: Energy and emissions per passenger km and total figures.

### 6.4.2 DEFINED PERFORMANCE – ACCURACY LEVEL 2

Based on specified vehicle/vessel

Objectives: Estimation carried out by the informed user in order to evaluate logistics changes including minor technical improvements or excluding technical improvements all together.

Input data:

1. Specified vehicle/vessel
  - Load capacity
  - Engine type including after treatment of fumes
  - Average fuel quality (regarding sulphur, alternative fuels and electricity origin mix)
  - Average fuel consumption
  - Calculated utilization
  - Average load factors
  - Calculated link distances

Output: Energy and emissions per passenger km and total figures.

### 6.4.3 DETAILED PERFORMANCE – ACCURACY LEVEL 3

Based on real vehicle/vessel used

Objectives: Estimation carried out by the informed user in order to evaluate logistics changes including technical improvements. The analysis can also serve as supportive to supplier evaluation regarding performance differences.

Input data:

- Load capacity
- Engine type per transport leg and transport leg
- Fuel type per vehicle/vessel and transport leg (regarding sulphur, alternative fuels and electricity origin mix)
- Fuel consumption per vehicle/vessel and transport leg
- Real load factor
- Load factor per vehicle/vessel and transport leg
- Real production link distances

Output: Arbitrary regarding energy and emissions depending on own choice (above)

- per passenger
- per passenger km
- vehicle/ vessel km
- per seats, other (defined by user)
- total figures

Data should represent annual average values for a specific year, taken e.g. from annual reports to authorities.

If transport modes distances are not known, assumed distances should be documented and calculated as transports based on average data.

#### 6.4.4 ROAD

Road transport services are carried out with vehicles spanning from rental cars to bi-articulated buses.

*More on road transport will be given at a more detailed CPC level.*

#### Road engine data for heavy duty vehicles

Heavy duty vehicle engine regulation	Geographical use	Relevant emissions sources
Euro class	Europe, Russia	ARTEMIS & traffic data
US EPA	North America	EPA & traffic data
US EPA , Euro class	South America, Australia	EPA& traffic data, ARTEMIS
JP norms, Euro class	Asia Pacific	ARTEMIS and others& traffic data
To be developed	Africa	To be developed

### Road fuel data

With regard to geographical legislation, fuel quality includes content of sulphur and other harmful substances. GHG emissions from combustion and fuel production/distribution is included as CO<sub>2</sub>e

*Fuel qualities will be given at a more detailed CPC level.*

### 6.4.5 RAIL

Rail transport services are carried out either with electric or diesel locomotives pulling passenger cars or with self-propelled passenger cars. The loading capacity is most often fixed in terms of cars or sets of cars

*More on rail transport will be given at a more detailed CPC level.*

#### Rail electric motors

Rail data are primarily from the main European rail operators working in Ecotransit

#### Rail diesel engines data

Diesel locomotive engine regulation	Geographical use	Relevant emissions sources
III A, III B, IV	Europé	ARTEMIS & traffic data
US EPA	North America	EPA
To be developed	South America, Australia	To be developed
To be developed	Asia Pacific	To be developed
To be developed	Africa	To be developed

#### Rail electricity

GHG emissions from primary energy power generation and distribution losses is included as CO<sub>2</sub>e. With regard to power generation based on fossil fuels emissions includes content of sulphur and other harmful substances.

*Electric mix will be given at a more detailed CPC level.*

#### Fuels

With regard to geographical legislation, fuel quality includes content of sulphur and other harmful substances. GHG emissions from combustion and fuel production/distribution is included as CO<sub>2</sub>e

*Fuel qualities will be given at a more detailed CPC level.*

### 6.4.6 SEA

Sea transport services are carried with vessels of different sizes, from small ferries to large cruise ships.

Category	Ship sizes			
	Inland WW	Product/Chem	Large (VLCC)	
Tanker (e.g. liquid cargo)	Inland WW	Product/Chem	Large (VLCC)	
Bulk Dry (e.g. ore, coal, cereals)	Inland WW	Costal	Handy Size	Ocean
General Cargo	Inland WW	Costal	Handy Size	Ocean
Container	Inland WW	Feeder	Panamax	Post-Panamax
Refrigerated cargo (e.g. meat, produce)			Bulk-Ocean	
Ro-Ro Cargo (e.g. lorries, trailers, cars, containers)		Ro-Ro 'small and slow'	Ro-Ro 'modern'	Car Carrier
Ferry (e.g. trailers, lorries, cars)		Fast Ferry	RoPax	

*More on sea transport will be given at a more detailed CPC level.*

#### Marine engines

Engine	Type	Geographical use
<b>SSD</b>	Slow Speed Diesel engine	Global
<b>MSD</b>	Medium Speed Diesel engine	Global
<b>HSD</b>	High Speed Diesel engine	Global
<b>ST</b>	Steam Turbine	Global

#### Marine fuels

With regard to geographical legislation, fuel quality includes content of sulphur and other harmful substances. Definition on next GHG emissions from combustion and fuel production/distribution is included as CO<sub>2</sub>e

*Fuel qualities will be given at a more detailed CPC level.*

#### 6.4.7 AIR

Air transport services are carried out with jet and propeller aircraft running on high standard fuels.

*More on air transport will be given at a more detailed CPC level.*

Emission for air transport is based on various computations using different software. A recommended software is PIANO. The computations in PIANO includes relevant parameters regarding for example fuel capacity (volume or weight limited) in relation to cargo or passenger loading factors, thus enabling better estimation of flight distances. The computations are furthermore aligned with the Boeing data (payload-range diagrams). Data is benchmarked with data sources such as US EPA, Corinair databook from the EEA etc.

The fuel quality within air transport is globally equal and the aircrafts used are operating on a global market. Thus the air data is globally applicable.



## 7 UPSTREAM MODULE

### 7.1 SYSTEM BOUNDARIES

All elementary flows at energy production shall be included, except for the flows that fall under the general 1% cut off rule (see supporting annex A). Construction/ production of vehicles and vessels shall be included. If relevant, production of auxiliary substances and chemicals may be included. (CPC 64)

### 7.2 DATA QUALITY RULES

Selected generic data shall be used if specific data are unavailable, e. g. data from commonly available data sources such as commercial databases and free databases, describing specific raw materials or processes usually referring to the system under study or to other systems equivalent from a technical point of view. (CPC 64)

For allowing the use of selected generic data, a number of pre-set characteristics must be fulfilled and demonstrated: (CPC 64)

- Representativeness of the geographical area should adhere to “Data deriving from areas with the same legislative framework and the same energetic mix”,
- Technological equivalence adhere to “Data deriving from the same chemical and physical processes or at least the same technology coverage (nature of the technology mix, e.g. weighted average of the actual process mix, best available technology or worst operating unit)”,
- Boundaries towards nature adhere to “Data shall report all the quantitative information (resources, solid, liquid, gaseous emissions; etc.) necessary for the EPD”, and
- Boundaries towards technical systems adhere to “The boundaries of the considered life cycle stage shall be equivalent”.

*Recommendations for certain databases for selected generic data which describe material flows connected to a number of input materials may also be used. If recommendations are given to use such selected generic data, such data sources shall be listed in a table in the PCR document.*

### 7.3 RULES FOR GENERIC DATA

If these data sources do not supply the necessary data, other generic data may be used and documented. The environmental impact of the processes where the other generic data are used must not exceed 10% of the overall environmental impact from the product system. (CPC 64)

Data calculated with system expansion should not be used, but if no other data is available, any negative flows should be changed to zero, see supporting annex A.

## 8 DOWNSTREAM MODULE

### 8.1 DISMANTLING AND RECYCLING

*Recommendations for dismantling and recycling of infrastructure, energy carrier systems, vehicles and vessels shall be given, as well as recommendations for consumption, recycling and waste treatment at the consignee shall be given if relevant. The potential environmental impact and benefit of dismantling, recycling and waste treatment shall be presented in the EPD.*

## 9 ENVIRONMENTAL PERFORMANCE RELATED INFORMATION

### 9.1 USE OF RESOURCES

The consumption of natural resources and resources per functional unit shall be reported in the EPD, divided into core, upstream and, if relevant, downstream module. (CPC 64)

Input parameters, extracted resources: (CPC 64)

- Non-renewable resources
  - Material resources
  - Energy resources (used for energy conversion purposes) with and without energy content
- Renewable resources
  - Material resources
  - Energy resources (used for energy conversion purposes) with and without energy content
- Water use
- Electricity consumption (electricity consumption during)
- Use of recycled resources

A complete report of resource use shall be provided in the LCA, while it is acceptable to present only selected, dominating resources in the EPD. Resources which contribute for 5% or more of the total shall be listed and detailed for each category.

Resources are reported as not aggregated inventory data and are specified in mass weight (or its multiples for better understanding), except for hydropower, wind power, solar power and geothermal power, which shall be reported in kWh of electricity.

The sum of all input flows not followed from the cradle shall be given.

## 9.2 POTENTIAL ENVIRONMENTAL IMPACT

The environmental impact per functional unit for the following environmental impact categories shall be reported in the EPD, divided into core, upstream and downstream module: *(CPC 64)*

- The emissions of greenhouse gases (expressed in global warming potential, GWP, in 100 year perspective).
- Emission of ozone-depleting gases (expressed as the sum of ozone-depleting potential in CFC 11-equivalents, 20 years).
- Emission of acidification substances (expressed as the sum of acidification potential expressed in SO<sub>2</sub>- equivalents).
- Emissions of gases that contribute to the creation of ground level ozone (expressed as the sum of ozone-creating potential, ethene-equivalents).
- Emission of substances contributing to oxygen depletion (expressed as PO<sub>4</sub><sup>3-</sup>- equivalents).

The tables from General Programme Instructions, Annex B shall be used. *(CPC 64)*

## 9.3 OTHER INDICATORS

The following indicators shall be reported in the EPD, also per functional unit and divided into the three modules: *(CPC 64)*

- Material subject for recycling
- Hazardous waste, kg (as defined by regional directives)
- Other waste, kg
- *Toxic emissions: to be decided in more detailed PCRs*

## 9.4 ADDITIONAL ENVIRONMENTAL INFORMATION

*The additional environmental information shall be specified at a more detailed CPC level. , e.g. field of application, impact on health, technical life length, maintenance, the final use of product, fire risks, risks at fire.*

Information about biogenic CO<sub>2</sub> emissions is not necessary. If reported the biogenic CO<sub>2</sub> emissions shall be separated from the other greenhouse gases (expressed in global warming potential, GWP, in 100 year perspective)

# 10 CONTENT OF THE EPD (CPC 64)

*The requirements in this chapter are mandatory for all PCRs within CPC Division 64.*

## 10.1 PROGRAMME RELATED INFORMATION

The programme related part of the EPD shall include:

- Name of the programme and programme operator
- The reference PCR document
- Registration number
- Date of publication and validity
- Geographical scope of application of EPD
- Information about the year or reference period of the underlying data to the EPD
- Reference to the homepage – [www.environdec.com](http://www.environdec.com) – for more information.

## 10.2 PRODUCT RELATED INFORMATION

### 10.2.1 SPECIFICATION OF THE PRODUCTION COMPANY

See 2.1.

### 10.2.2 SPECIFICATION OF THE PRODUCT

See 2.2.

### 10.2.3 FUNCTIONAL UNIT

See 3.

### 10.2.4 CONTENT OF MATERIALS AND CHEMICAL SUBSTANCES

See 4.

### 10.2.5 COMPARISONS OF EPDS WITHIN THIS PRODUCT CATEGORY

To be able to compare EPDs within this product category, they have to be based on this particular PCR. The user of the EPD information should be made aware of this by the inclusion of this statement in the EPD:

“EPDs from different programmes may not be comparable”

### 10.2.6 VALIDITY OF THE EPD

The validity of the EPD shall be reported in the EPD.

## 10.3 ENVIRONMENTAL PERFORMANCE-RELATED INFORMATION

### 10.3.1 ENVIRONMENTAL PERFORMANCE DECLARATION - MINIMUM SET OF PARAMETERS FROM THE LCA STUDY, REPORTED PER FUNCTIONAL UNIT

Upstream module, core module and downstream module shall be reported separately for the resource use, potential environmental impact and other indicators such as waste.

### 10.3.2 USE OF RESOURCES

In this category the consumption of natural resources and resources per functional unit shall be reported.

See 10.1.

## 10.4 POTENTIAL ENVIRONMENTAL IMPACT

In this category the potential environmental impact per functional unit shall be reported.

See 10.2.

### 10.4.1 OTHER INDICATORS

In this category relevant indicators shall be reported per functional unit.

See 10.3.

### 10.4.2 ADDITIONAL ENVIRONMENTAL INFORMATION

See 10.4.

## 10.5 DIFFERENCES VERSUS PREVIOUS VERSIONS OF THE EPD

The main causes for changes in environmental performance in comparison with previous EPD versions shall be described shortly.

## 10.6 VERIFICATION

The EPD shall give the following information about the verification process (note that the italicized text in the this table should remain as is in the lower level PCR):

PCR review conducted by:	<i>Name and organization of the chair, and information on how to contact the chair through the programme operator</i>
Independent verification of the declaration and data, according to ISO 14025:	<i>Internal (EPD process certificate) or external, if external name of the third party verifier</i>
Accredited or approved by (if relevant):	<i>Name of the organisation</i>

## 10.7 REFERENCES

The EPD shall, if relevant, refer to:

- The underlying LCA
- The PCRs used
- Other documents that verify and complement the EPD
- Instruction for recycling
- Programme instructions

- Sources of additional information

## 11 VALIDITY OF THE EPD

If changes in any of the environmental impacts are larger than +- 5% the EPD shall be adjusted. Regardless, the EPD shall be reviewed every three years. (*CPC 64*)

## 12 CHANGES IN THIS DOCUMENT

VERSION 1.0, 2009-10-27

Draft version.

