Examples for addressing environmental issues in standards

Extracts from published (draft) standards/CEN deliverables

1. EN 1442 *LPG equipment and accessories - Transportable refillable welded steel cylinders for LPG - Design and construction*

5 Design

5.1 General requirements

…

5.1.5 The design of the cylinder should take into account the following:

— …

— minimising the use of materials; and

— minimising the environmental impact of in service maintenance and end of life disposal.

6 Construction and workmanship

6.2 Environment

6.2.1 The environmental impact of welding and allied processes shall be assessed in accordance with EN 14717.

6.2.2 The manufacturer should endeavour to minimise wastage of materials by selecting appropriately sized materials related to the finished parts required for the manufacture. Unavoidable waste/scrap material should be recycled.

6.2.3 Noise levels from the production process should be evaluated and measures put into place to minimise the impact upon the external environment.

6.4 Plates and pressed parts

…

6.4.2 Any hot forming process should be designed to minimise energy consumption and ensure the environmentally friendly disposal of insulating material and other waste.

6.4.3 Material off-cuts should be processed for recycling.

7 Tests and examinations

7.5 Bend test

…

7.5.2 Requirements

…
Following the tests; all parts and cylinders that are not being retained (for record purposes) should be processed for recycling.

Annex B
(normative)
Over-moulded cylinders

B.5 Environmental Considerations

B.5.1 The design of the over-moulded cylinder shall minimise the waste of materials.

B.5.2 Over-moulded protective casings manufactured from recyclable plastic materials shall display the appropriate recycling symbol.

B.5.3 The manufacturer should endeavour to minimise wastage of material by selecting appropriately sized materials related to the finished parts required for manufacture.

B.5.4 The process should be designed to minimise VOC emissions.

2. EN 1794-2 *Road traffic noise reducing devices - Non-acoustic performance - Part 2: General safety and environmental requirements*

Annex C
(normative)

Environmental protection

A.1 General

Specifiers should be aware of any components of noise reducing devices which might in time either have adverse effects on the environment, or on the other hand could be recycled into similar or other products. There is, consequently, a need for suppliers to identify clearly the constituent materials, so that their breakdown products under natural exposure or if subjected to fire can be identified. The extent to which they have been or can be recycled also provides helpful information to specifiers.

A.2 Requirements

C.2.1 All materials used in the barrier system shall be declared, using chemical rather than proprietary names to describe synthetic materials.

C.2.2 Any physical or chemical conditions which would cause potentially toxic constituents to be released into the environment shall be declared.

C.2.3 If some of these materials are wholly or in part recycled, the percentage of such constituents shall be stated.

C.2.4 Beneficial re-use of the barrier materials may be indicated, but any limitations on reprocessing conditions shall be noted.

3. EN 12542 *LPG equipment and accessories - Static welded steel cylindrical tanks, serially produced for the storage of Liquefied Petroleum Gas (LPG) having a volume not greater than 13 m<(hoch)3> - Design and manufacture*

5 Design

5.1 General

…

NOTE The design of the tank should take account of the following:

— …

— footprint of the tank to minimise land use;

— minimising the use of materials;

— …

— minimising the environmental impact of in service maintenance and end of life disposal;

— …

7 Workmanship and manufacture

7.2 Environment

The environmental impact of welding and allied processes shall be assessed in accordance with EN 14717.

NOTE 1 The manufacturer should endeavour to minimise wastage of material by selecting appropriately sized materials related to the finished parts required for manufacture. Unavoidable waste/scrap material should be recycled.

NOTE 2 Noise levels from the production process should be evaluated and measures put into place to minimise the impact upon the external environment.

4. EN 13160-3 *Leak detection systems - Part 3: Liquid systems for tanks*

8 Environmental aspects

The leak detection liquid shall be classified according to Registration, Evaluation, Authorization & Restriction of Chemicals (REACH) for risk materials: R-statement R 22 (harmful by swallowing) or all non-classified liquids.
The leak detection liquid shall be classified according to Global Harmonized System of Classification and Labelling of Chemicals (GHS) Hazard Statements: H-statement H 302 and category 4 (harmful by swallowing) or all non-classified liquids.
Environmental aspects should be considered, see Annex A.

Annex B
(informative)

Environmental aspects

A.1 Materials should be selected to optimize product durability and lifetime and consideration should be made to avoiding the selection of rare or hazardous materials.

A.2 Consideration should be made to using recycled or reused materials, and to the selection of materials which can then be subsequently recycled.

A.3 The possibility of marking components to aid to their sorting for disposal/recycling at end of life should also be reviewed.

A.4 Packaging design should consider using recycled materials, and materials that need little energy for their manufacture, and should minimize waste.

A.5 Packaging design should consider subsequent reuse and recycling.

A.6 The size and weight of packaging should be minimized whilst protecting the products to minimize waste through damage.

A.7 Test fluids should be used and disposed of in accordance with manufacturer’s instructions.

5. EN 13816 *Transportation – Logistics and services – Public passenger transport – Service quality definition, targeting and measurement*

"3 Methodology

…

3.2 Quality criteria

The overall quality of public passenger transport contains a large number of criteria. The criteria represent the customer view of the service provided, and in this standard they have been divided into 8 categories.

Category 1 and 2 describe the PPT offer in more general terms, category 3, 4, 5, 6, and 7 provide a more detailed description of the quality of the service, and category 8 describes the environmental impact on the community as a whole:

1) …

8) environmental impact:

effect on the environment resulting from the provision of a PPT service

Annex A
(informative)
Quality criteria

…

A.2 Quality criteria

Level 1	Level 2	Level 3
…	…	…
8. Environmental impact	**8.1 Pollution**	**8.1.1 exhaust**
		8.1.2 noise
		8.1.3 visual pollution
		8.1.4 vibration
		8.1.5 dust & dirt
		8.1.6 odour
		8.1.7 waste
		8.1.8 electromagnetic interference
	8.2 Natural resources	**8.2.1 energy**
		8.2.2 space
	8.3 Infrastructure	**8.3.1 effect of vibration**
		8.3.2 wear on road/rail etc.
		8.3.3 demands on available resources
		8.3.4 disruption by other activities

6. CEN/TR 14310 *Freight transportation services – Declaration and reporting of environmental performance in freight transport chains*

"1 Scope

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."

7. EN 14427 *LPG equipment and accessories - Transportable refillable fully wrapped composite cylinders for LPG - Design and construction*

4 Design and manufacture

4.1 General

…
The design of the cylinder shall take the following into account:

— minimizing the use of materials;

— the fittings required for the cylinder;

— minimizing the environmental impact of in service maintenance and end of life disposal;

— efficient transport of finished product.

For the welding associated with metallic liners, the environmental impact of welding and allied processes shall be assessed in accordance with EN 14717.

The manufacturer should endeavour to minimize wastage of material by selecting appropriately sized materials related to the finished parts required for manufacture. Unavoidable waste/scrap material should be recycled where possible.

Noise levels and harmful emissions from the production process should be evaluated and measures put into place to minimize the impact upon the external environment.

5 Cylinder and material tests

5.1 General

…
Consideration should be given to minimising the environmental impact of the tests specified by including the possible recovery of test fluids, recycling of mechanical test specimens, safe disposal of chemicals and destroyed cylinders, etc.

8. EN 14619 *Roller sports equipment - Kick scooters - Safety requirements and test methods*

Annex A
(informative)

Environmental aspects

Every product has an impact on the environment during all stages of its life-cycle, e.g. extraction of resources, acquisition of raw materials, production, testing, distribution, use (application), reuse, end-of-life treatment, including final disposal. These impacts range from slight to significant; they can be short-term or long-term; and they occur at global, regional or local level. Provisions in product standards have an influence on environmental impacts of products.

The need to reduce the potential adverse impacts on the environment of a product that can occur during all stages of its life is recognized around the world. The potential environmental impacts of products can be reduced by taking into account environmental issues in product standards.

During the life-cycle of a given product, different environmental aspects can be determined.

The aim is to promote a reduction of potential adverse environmental impacts caused by products.

(For information, an environmental checklist is given in Table A.1. The purpose of the environmental checklist is to explain whether the standard covers relevant product environmental aspects and, if so, how they are dealt with in the draft.)

By no means shall these environmental aspects interfere with the basic health and safety requirements in this standard. In any case, the requirement of this standard prevails any environmental aspect that might be related to this product.

The following environmental aspects should be considered:

a) Materials should be selected to optimize product durability and lifetime and consideration should be made to avoiding the selection of rare or hazardous materials.

b) Consideration should be made to using recycled or reused materials, and to the selection of materials which can then be subsequently recycled.

c) The possibility of marking components to aid to their sorting for disposal/recycling at end of life should also be reviewed.

d) Packaging design should consider using recycled materials, and materials that need little energy for their manufacture, and should minimize waste.

e) Packaging design should consider subsequent reuse and recycling.

f) The size and weight of packaging should be minimized whilst protecting the products to minimize waste through damage. Packaging should be designed to optimize capacity of transportation vehicles whilst facilitating safe loading and unloading.

g) Test materials should be used and disposed of properly, according to their manufacturer instructions and to the enforced law in respect of environmental protection.

h) Test facility, test equipment and tools must be designed to minimize the risk of leak into the environment.

i) Maximum use should be made of high efficiency motors, lighting and displays.

j) The design should facilitate the manufacturing of the product and packaging, using tools which minimize the generation of noise and vibration.

Table A.1 — Environmental Checklist

Environmental Issue	Stages of the life cycle										All stages
	Acquisition		Production		Use			End-of-Life			
	Raw materials and energy	Pre-manufactured materials and components	Production	Packaging	Use	Maintenance and repair	Use of additional products	Reuse/ Material and Energy Recovery	Incineration without energy recovery	Final disposal	Transportation
Inputs											
Materials											
Water											
Energy											
Land											
Outputs											
Emissions to air											
Discharges to water											
Discharges to soil											
Waste											
Noise, vibration, radiation, heat											
Other relevant aspects											
Risk to the environment from accidents or unintended use											
Customer information											
Comments:											

NOTE 1 The stage of packaging refers to the primary packaging of the manufactured product. Secondary or tertiary packaging for transportation, occurring at some or all stages of the life cycle, is included in the stage of transportation.

NOTE 2 Transportation can be dealt with as being a part of all stages (see checklist) or as separate sub-stage. To accommodate specific issues relating to product transportation and packaging, new columns can be included and/or comments can be added.

9. EN 15565 *Tourism services - Requirements for the provision of professional tourist guide training and qualification programmes*

"Introduction

… They [Tourist guides] have a particular role on the one hand to promote the cultural and natural heritage whilst on the other hand to help ensure its sustainability by making visitors aware of its importance and vulnerability.

…

4 Competencies

The training programme shall be designed to enable tourist guides within their area of qualification to:

— …

— interpret for visitors the cultural and natural heritage as well as the environment;

6.3 Business knowledge and skills

The training programme shall comprise the following:

— …

— sustainable tourism;

— …

7 Area-specific subjects

7.1 Theoretical knowledge

…

7.1.3 Environment

The training programme shall comprise the following:

- geography and geology;
- natural heritage;

EXAMPLE ecosystems and protected areas

- flora and fauna;
- ecology;
- environmental impacts of industry and agriculture;
- weather and climate."

10. EN 15696 *Self storage – Specification for self storage services*

"3 The self storage facility

…

3.3 Health, safety and the environment

The self storage facility shall be constructed, maintained and operated in a manner commensurate with promoting the safety and well-being of the customer, and subject to national and local fire, health and safety legislation, to provide the following as a minimum:

— …

— reduction of its environmental impact (which can be through the use of timed and/or movement-sensitive lighting, energy-efficient light bulbs, efficient building design, insulation, recycling policies, and other such equipment or practices);

Annex A
(normative)
List of Prohibited Goods

1. …;
7. toxic waste, asbestos or other materials of a potentially dangerous nature;
8. …"

11. EN 15733 *Services of real estate agents – Requirements for the provision of services of real estate agents*

"**6 Qualifications and competencies of real estate agents**

6.1 General

Persons taking on responsibilities as specified in this standard shall have the professional competences specified in 6.2. …

6.2.2 Other competencies

…

6.2.2.2 Environmental and energy related aspects of properties. This includes at least the following:

a) elementary knowledge of the life cycle of materials and constructions,
b) principles related to buildings of energy saving, sound insulation, humidity, access of light,
c) principles concerning contamination risk and decontamination,
d) natural risks involved with regard to the property (e.g. soil erosion, earthquakes, avalanches, floods)."

12. EN 16258 *Methodology for calculation and declaration of energy consumption and GHG emissions of transport services (freight and passengers)*

"1 Scope

This European Standard establishes a common methodology for the calculation and declaration of energy consumption and greenhouse gas (GHG) emissions related to any transport service (of freight, passengers or both).

It specifies general principles, definitions, system boundaries, calculation methods, apportionment rules (allocation) and data recommendations, with the objective to promote standardised, accurate, credible and verifiable declarations, regarding energy consumption and GHG emissions related to any transport service quantified. It also includes examples on the application of the principles.

Potential users of this standard are any person or organisation who needs to refer to a standardised methodology when communicating the results of the quantification of energy consumption and GHG emissions related to a transport service, especially:

— transport service operators (freight or passengers carriers);

— transport service organisers (carriers subcontracting transport operations, freight forwarders and travel agencies);

— transport service users (shippers and passengers)."

13. EN 16321-1 *Petrol vapour recovery during refuelling of motor vehicles at service stations – Part 1: Test methods for the type approval efficiency assessment of petrol vapour recovery systems*

Annex F
(informative)

Environmental aspects

F.1 The number of tests should be as few as necessary for the certification.

F.2 Wherever possible air should be used for the tests instead of petrol vapour.

F.3 Where a simulated test is allowed this test should be used instead of a test with petrol.

F.4 When used for test purposes petrol should be used as often as possible before disposal.

F.5 Used petrol should be disposed of in accordance with national law.

F.6 The test equipment should be designed in a way to minimise unintended petrol vapour emissions.

F.7 The design and the use of the test equipment should minimise spillage of petrol.

F.8 Maximum use should be made of high efficiency motors, lighting and displays.

F.9 Components intended to move in normal use, for example motors and pumping units, should be selected and mounted to minimise noise and vibration.

14. EN 16636 *Pest management services – Requirements, recommend-dations and basic competences*

5.6 Define pest management plan

…

"When defining appropriate methods of control, the principles of integrated pest management shall be followed and include consideration of the following strategies or rational combinations thereof as appropriate for each pest species identified:

— habitat modification;

— biological control;

— physical control;

— chemical control.

When selecting the control methods consideration shall be given to:

— risk to local environment;

— potential to contaminate environmental compartments e.g. agricultural soil or surface waters;

— potential for primary and secondary poisoning of non-target animals."

Annex D
(informative)

Environmental Checklist

Document number: EN 16636	Title of standard: Pest Management Services – Requirements and competences	TC/SC/WG number: CEN/TC 404
Work item number: 00404001	Version of the environmental checklist: 04	Date of last modification of the environmental checklist: 2013-06-06

Environmental Issue	Stages of the Pest Management Services Process													
	Recognition		Appreciation		Prescription		Implementation (deliver agreed service)					Determination	Transport, storage, disposal	
	Inspection	Identification and assessment	Site interaction	Enviornmental risk assessment	Define Pest Management Plan	Consider Environmental management Measures	Non chemical interventions	Chemical interventions	Treatment timing and risk to non-targets	Protective equipment for Pest technician	Results monitoring	Recovery of used biocides and animal carcasses	Delivery, transport and storage of biocides	Safe disposal of used and redundant biocides and packaging
Inputs														
Materials													5.8	5.8
Water														
Energy														
Land														
Outputs														
Air Contamination								5.7						
Water Contamination								5.7						
Soil Contamination								5.7						
Waste								5.8 5.9					5.8	5.8

Environmental Issue	Stages of the Pest Management Services Process													
	Recognition		Appreciation		Prescription		Implementation (deliver agreed service)					Determination	Transport, storage, disposal	
	Inspection	Identification and assessment	Site interaction	Environmental risk assessment	Define Pest Management Plan	Consider Environmental management Measures	Non chemical interventions	Chemical interventions	Treatment timing and risk to non-targets	Protective equipment for Pest technician	Results monitoring	Recovery of used biocides and animal carcasses	Delivery, transport and storage of biocides	Safe disposal of used and redundant biocides and packaging
Noise, heat vibration, radiation														
Other relevant aspects														
Impact on humans								5.7, 5.8, 5.10, 5.11					5.7, 5.8	5.7, 5.8
Risk to the environment from accidents, unintended use or spillage								5.7, 5.8, 5.10, 5.11					5.7, 5.8	5.7, 5.8
Non-target species							5.6	5.7, 5.8, 5.10, 5.11					5.7, 5.8	5.7, 5.8
Animal welfare							5.6	5.7, 5.8, 5.10, 5.11					5.7, 5.8	5.7, 5.8
Comments:														