



Environment and Spatial Planning  
*Ministry of Housing, Spatial Planning and  
the Environment*

# Criteria for the Sustainable Public Procurement of **Vessels**

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# 1 Introduction

The Dutch government wants to take concrete steps towards a sustainable society, and to set a good example. Each year, government organisations spend more than EUR 50 billion on the purchase of Supplies, Services and Public works. By purchasing sustainably, the government can significantly boost the market for Sustainable Public Products. Governmental authorities have set clear objectives to achieve this: the central government is aiming for 100% Sustainable Public Procurement in 2010, while the municipalities aspire towards 75% in 2010 and 100% in 2015. Provincial governments and water boards have set themselves the target of at least 50% in 2010. 100% Sustainable Public Procurement is understood to mean that all purchases meet the minimum requirements that have been set for the relevant product groups at the time of purchase. More information on this topic is available from the website Sustainable Procurement ([www.agentschapnl.nl/sustainableprocurement](http://www.agentschapnl.nl/sustainableprocurement)).

NL Agency supports government authorities in various ways to help reach these objectives. These include developing criteria for Supplies, Services and Public works procured by these authorities. This document focuses on the criteria for the Vessels product group, the elaboration of the criteria in specification texts and a more detailed assessment of the criteria, as well as a number of points for attention in the pre- and post-procurement stages. Additional background information and considerations regarding the content of the criteria can be found in the criteria document on the website Sustainable Procurement [www.agentschapnl.nl/duurzaaminkopen/criteria](http://www.agentschapnl.nl/duurzaaminkopen/criteria), available in Dutch only.

Every year governments purchase new vessels, both inland navigation vessels and seagoing ships. The (national) government uses ships for supervision and work on the North Sea, the larger rivers and inland waterways. Port authorities, the Directorate-General for Public Works and Water Management, the National Police Services Agency (KLPD) and the Royal Netherlands Navy all use ships.

Vessels have a long lifespan in general. The Procurement of Sustainable Vessels for a long period of use contributes positively to sustainable development, whereby there is a balance between economic, social, safety and ecological interests. Using (award) criteria in procurement makes it possible to achieve important environmental improvements in a relatively simple manner.

## 1.1 Definition of the product group

In describing the sustainability aspects in the procurement process, a distinction can be made between the procurement of Vessels, the procurement of services in which vessels are used and the repair and maintenance of vessels. Environmental requirements are stipulated for the vessel upon purchase which should result in as low an environmental impact as possible in the construction and operation of the vessel. For repair and maintenance, there are requirements and wishes that relate to the manner in which repair and maintenance takes place.

The product group Vessels includes:

- Design, construction and procurement of vessels for use at sea and on inland waterways, including public transport ships, such as ferries;
- Maintenance and overhaul of vessels. Maintenance and overhaul are not included as a service in this document. That does not alter the fact that the criteria are also useful if such work is tendered out.

The product group Vessels does not include:

- The procurement of services or work in which vessels are used, such as dredging activities, passenger transport over water and transport over water;
- The purchase and/or maintenance of small vessels (< 15 m or <15 tonnes). These are vessels that under Dutch law are not regarded as inland navigation vessels or as seagoing ships. The government's purchasing volume for this group is limited. In addition it is an extremely diverse group in terms of composition, which makes the formulation of criteria for this group difficult (a definition of this group is included in Annex 1).

For the benefit of the contracting authority, a number of CPV codes that might be of relevance to this product group have been included in this document. The selection is by no means exhaustive or complete. The contracting authority will remain responsible for compiling the correct set of CPV codes to match the relevant tender.

The following CPV codes apply to this product group:

34500000-2	Ships and boats.
34510000-5	Ships.
34512000-9	Ships and similar vessels for passenger or goods transport.
34512100-0	Ferries.
34513200-8	Tugboats.
34513250-3	Dredgers.
34513300-9	Seaworthy floating docks.
34513350-4	Diving support vessels.
34513400-0	Floating cranes.
34513450-5	Production vessels.
34513500-1	Vessels for seismic research.
34513550-6	Research vessels.
34513600-2	Pollution control vessels.
34513650-7	Fire extinguishing vessels.
34513700-3	Rescue vessels.
34515000-0	Floating constructions.
34520000-8	Boats.
34521000-5	Special purpose boats.
34521100-6	Surveillance boats.
34521200-7	Customs patrol boats.
34521300-8	Police patrol boats.

## 2 Sustainability in the procurement process

The criteria in this document have been classified in the various steps of the public procurement process. More information about these steps and how to combine them with sustainability can be found in the Sustainable Public Procurement Manual. This manual can be downloaded from the website Sustainable Procurement [www.agentschapnl.nl/sustainableprocurement](http://www.agentschapnl.nl/sustainableprocurement).

A distinction is made between different types of procurement for which specific criteria apply:

- **Design:** in the design phase, a vessel is drafted on the basis of the user's wishes. On this level choices are made for the type of power generation, steering and propulsion, but also the coating to be used. As such, the future environmental impact is actually determined in this phase. Environmental engineering adjustments to the engine, for example, or the propulsion once a ship is afloat are only possible to a limited extent or at high costs. Moreover, ships have a long useful lifespan, sometimes more than 40 years. That is why it is important to stipulate requirements early on in the process. The design phase is therefore the subject of considerable attention in this document;
- **Construction:** when a design for a vessel can actually be contracted out to a shipyard, a great deal has already been laid down. For this phase, the Environmental Management Act ensures that production and maintenance at shipyards in the Netherlands satisfy good basic requirements with respect to environmental management. That is also properly provided for in our Western European neighbours, though this is not necessarily the case in other parts of the world;
- **Design and construction:** design and construction are often contracted out together. In such a case tenderers provide a draft design of the vessel in their tender. The criteria from the groups 'design' and 'construction' both apply for this category;
- **Purchase:** government ships are also sometimes purchased 'ready to use'. A set of criteria applies for this as well;
- **Maintenance:** some of the criteria apply for maintenance work;
- **Overhaul:** a ship is considered to undergo an overhaul if main components such as engines, propulsion, steering set-up, or coating are entirely replaced or upgraded.

Table 3.1 illustrates what criteria apply to the different forms of procurement.

### 2.1 Preparatory stage (points for consideration)

Every purchase or call for tender starts with drawing up the inventory of the needs of the internal or external customer. Sustainability can be incorporated into this stage by considering whether the purchase is truly necessary and whether a more sustainable alternative might be available. We cite a number of points for consideration for procurement of the Vessels product group below.

#### **Total Cost of Ownership**

It is important that the government budget be used efficiently and effectively. It can help here to aim to manage and where possible reduce the total cost of ownership (TCO).

This involves both the direct purchase costs (the purchase price) and indirect (operational) costs, such as purchasing, administration, stock, maintenance and exploitation costs during the entire useful life of the product. In practice, the TCO approach is often difficult for governments because the funds for procurement and management must come from different budgets.

Table 3.1 Overview of criteria

Scope of applicability	<u>Design</u>	<u>Construction</u>	<u>Purchase</u>	<u>Maintenance</u>	<u>Overhaul</u>
<b>Criteria</b>					
<u>Supplier qualification</u>	-	-	-	-	-
<u>Minimum requirements</u>					
Waste water	X	X	-	-	O
Oil and grease	X	X	-	X	X
Emissions and engines	X	X	-	-	O
Energy consumption	X	X	X	-	X
<u>Award criteria</u>					
Antifouling	O	O	O	O	O
Avoiding sacrificial anodes	O	O	O	-	O
Oil and grease	O	O	O	-	O
Emissions and engines	O	O	O	-	O
Energy consumption	O	O	O	-	O

X = mandatory  
O = optional  
- = not applicable.

### Eco-labels and 'green' classifications

It is possible to construct a new ship entirely within the requirements of an eco-label or 'green' classification. An example of the former is the 'Blauer Engel' label for marine navigation; an example of a 'green' classification is Det Norske Veritas 'Clean' or 'Clean Design'. Blauer Engel, Clean and Clean Design provide for a set of environmental requirements over and above the statutory requirements which must be satisfied. Sometimes in the design, but also during operation (see also section 2.1).

## **Functional deployment profile**

It is important to include the wishes and requirements for the future vessel in a functional deployment profile even as early as the preparatory stage.

By indicating precisely what the ship will be used for, how it will be used and what engine usage is expected, all parties who bring out a tender can optimally meet the wishes of the principal, while limiting the emissions at the same time.

A functional deployment profile includes the following components:

- The water in which the vessel will be used, at port or offshore, and the sailing conditions;
- The speed at which the vessel will sail and how often this speed must be attained (for example, 80% of the time at 5 knots; 20% of the time at 12 knots). And what degree of deviation from the speeds given is acceptable (may the speed also be 10 or 14 knots?);
- The number of hours per year that the ship will be deployed.

It is inadvisable to include ship dimensions, engine types, etc. if there is no functional need for this. This is because adjusted hull sizes and weights in combination with engine types and propulsions other than those prescribed can contribute positively to the ship's environmental performance. It is recommended that shipyards and naval architects be given the leeway to decide on the optimum set-up in this regard, where possible.

## **Communication with the market**

In the case of complex (innovative) projects, the contracting authority may opt to enter a dialogue with the market parties. This dialogue may be focused on gaining more of a view on the feasibility of the ambitions and on possible directions in which a solution can be sought. This can be especially desirable if the purchaser/principal wishes to concretely flesh out the award criteria. It is often the case that not every shipyard is able to provide innovative environmentally-friendly techniques. Added to this is the fact that according to current European tendering regulations, all parties must be given the opportunity to bring out a tender. The broad communication of wishes and solutions to the market, in the form of market consultation, for instance, or dialogue focused on encouraging competition, can be useful in this. See also the 'Sustainable Public Procurement Manual' for this. In particular, it is recommended that for this product group, communication be undertaken with regard to the minimum requirements and award criteria 'Energy consumption of the vessel' and 'Emissions and engines'.

## **Who designs vessels?**

Design services take place:

- by an external party, in combination with the construction;
- by an external party, separate from the construction;
- within the organisation itself.

In all cases, the requirements and wishes contained in this document are useful.

## **Management plan for existing vessels**

A great deal of money is spent on maintaining ships already owned. The ambitions, premises and prerequisites for such activities are usually laid down in a management plan. The management plan serves as an excellent basis therefore to anchor sustainability.

## 2.2 Specification stage (criteria)

During the specification stage, the needs of the internal or external customer are translated into a tender document. This stage entails the formulation of:

- Criteria for supplier qualification. These could include grounds for exclusion, suitability requirements, i.e. requirements with regard to suppliers, and, in the case of restricted procedures, any selection criteria, i.e. wishes with regard to suppliers.
- A description of the minimum requirements pertaining to supply, service or task (the Schedule of Requirements).
- Award criteria, i.e. wishes regarding Supplies, Services and Public works. These are only applicable when the tendering process is based on the principle of the Most Economically Advantageous Offer ('Economisch Meest Voordelige Inschrijving' or EMVI).
- The contract stipulating the contract provisions.

More information on the various types of criteria and the various tender options can be found in the Sustainable Public Procurement Manual. Innovation is also included in the award criteria, where relevant. Innovation is oriented towards the development and introduction of new ideas and products.

The criteria in this document have been formulated to support the purchaser in the Sustainable Public Procurement of Vessels. The criteria have been subjected to legal review. However, every procurement and tender process is unique. For that reason, the drafting of a tender document remains the responsibility of the purchaser. Table 1 contains an overview of the criteria stipulated in this document. A distinction is made here between the different types of contracts: design, construction, purchase, maintenance and overhaul. The table also indicates when certain criteria must be included as mandatory (marked with an 'X' in the table) and when the inclusion of a criterion is optional ('O' in the table).

### 2.2.1 Supplier qualifications

No criteria have been formulated for this specific product group with regard to supplier qualification. More information on the possibilities of incorporating sustainability at this stage of the process can be found in the Sustainable Public Procurement Manual.

### 2.2.2 Schedule of requirements

#### Minimum requirements

Minimum requirement no. 1	<b>Waste water</b> <i>(For design, construction)</i> This ship is provided with: a. leak collectors for leaked water and oil; and b. a separate collection system and storage system for leaked water and oil; and c. a grey water tank with connection for onshore discharge if the system is not closed or treatment does not take place on board; and d. a dirty water tank with connection for onshore discharge; and
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	<p>e. if the ship is provided with more than one fuel bunker, these must be provided with an overfill safety, which shuts off the trim pump in the event of overfill.</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Statement included with the tender that the tenderer satisfies this minimum requirement.</li> <li>2. Copy of the building plan or (relevant parts of the) shipbuilding design.</li> </ol>
Notes for purchaser	<p>This requirement can be applied (wholly or partly) in the event of overhaul if there is sufficient room in the ship.</p> <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. It is immediately evident from the shipbuilding design or drawings whether the required provisions are included.</li> <li>2. No further specification possible.</li> </ol>

Minimum requirement no. 2	<p><b>Oil and grease</b></p> <p><i>(For design, construction, maintenance, overhaul)</i></p> <p>For new construction, water lubricant and/or recovered grease lubricant is used, so that no oil or grease ends up in the water during operation.</p> <p>Hydraulic oil must be easily biodegradable as well as non-toxic. For this the substance must satisfy the requirements of class II. For existing systems the bio-oil must satisfy the technical specifications of the system, as indicated by the manufacturer.</p> <p>Oils and greases satisfy the requirements of biodegradability and non-toxicity according to class II if:</p> <ol style="list-style-type: none"> <li>a) The base oil in the product is easily biodegradable according to the European dangerous substances directive 67/548 EC (with the exception of the 10-day criterion).</li> <li>b) The acute aquatic toxicity (EC/LC50) of the product is greater than 100 mg/l, according to both OECD 201 and OECD 202.</li> <li>c) The product does not need to report one, several or combinations of the following R phrases according to European Directive 1999/45 EC: R 39, R 40, R 42, R 43, R 45, R 46, R 48, R 49, R 60, R 61, R 62, R 63, R 64 or R 68.</li> </ol> <p>Upon delivery, a maintenance plan must be provided for the hydraulic oil. This contains at least a description of the maintenance intervals to be observed, with accompanying instructions.</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Statement included with the tender that the tenderer satisfies this minimum requirement.</li> </ol>
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	<p>2. The tenderer submits a certificate that demonstrates that the product has one of the following quality marks: European Eco-label, Nordic Swan 4.4, Swedish Standard SS155434 or Blauer Engel (RAL-UZ 79). Products with these quality marks satisfy this minimum requirement. Or the tenderer may submit the following: a list of all main ingredients, which is every substance that constitutes more than 5% of the weight of the oil or grease, the names of these substances and where they can be applied, the unique European Einecs or Elincs identification numbers and the concentrations in which they are used; the product safety sheet (in accordance with Directive 91/115 EC) and the product safety sheets of every main ingredient (in accordance with Directives 91/115 EC and 67/548 EC); measurement reports for the degradability and toxicity according to the aforementioned standards or comparable.</p>
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Notes for purchaser	<p>For existing ships that are presented for maintenance, this requirement is included from the next maintenance servicing. This does not concern engine oil or oils for gear wheel cabinets.</p> <p>At the Directorate-General for Public Works and Water Management, the Environmentally-friendly Lubricant Expertise Centre (KMS) has experience with the use of oils that satisfy these specifications. The categorisation in classes I and II is consistent with the classification used by the KMS. A manual is also available containing technical recommendations for the casing. See the literature list of this document.</p> <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Request a certificate for the oil which indicates that the product has one of the following quality marks: European Eco-label, Nordic Swan 4.4, Swedish Standard SS155434 or Blauer Engel (RAL-UZ 79). Products with these quality marks satisfy this minimum requirement. Or make an inquiry to the agency behind the quality mark. In other cases: the reports on toxicity and degradability must satisfy the requirements indicated in a. and b. If R phrases apply, these are reported on the product safety sheet. If product safety sheets are submitted for all main ingredients and the oil itself, and none of these sheets list the R phrases cited above, then requirement c. is also satisfied.</li> <li>2. No further verification possible.</li> </ol>
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Minimum requirement no. 3	<p><b>Emissions and engines</b> (For design, construction)</p> <ol style="list-style-type: none"> <li>1. The main engine and any auxiliary engines for engines on seagoing ships to which the MarPol Annex VI applies satisfy the Tier II NO<sub>x</sub> standard cited in this document.</li> </ol>
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	<ol style="list-style-type: none"> <li>2. An inland vessel with a diesel engine that satisfies emission standard CCR-2 is provided with a fuel consumption meter that can be read by the individual in charge of the power while the ship is sailing.</li> <li>3. The ship is provided with an onshore power connection.</li> </ol> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Statement included with the tender that the tenderer satisfies this minimum requirement.</li> <li>2. A signed conformity declaration from the engine manufacturer.</li> </ol>
Notes for purchaser	<p>The references to the Marpol Annex VI in part 1 and CCR-2 in part 2 define the relevant groups of engines here to which the criterion applies. The criterion does not apply for example to hydrogen, LPG or electric engines. This formulation also ensures that in the design and construction of new vessels, the choice of power generation and propulsion is not restricted to this kind of combustion engines. After all: alternative fuels and propulsions are actually always cleaner.</p> <p>The Tier standards for shipping are derived from the MarPol Annex VI, which contains the standards for nitrous oxide emission (NO<sub>x</sub>). Tier II is mandatory from 2011; Tier III is expected to be mandatory for the North Sea from 2016. The CCR-2 emission standard is a statutory requirement for inland navigation. A fuel consumption meter goes beyond the statutory requirements here.</p> <p>These requirements can be applied (in whole or in part) for overhaul.</p> <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Request a signed conformity declaration from the engine manufacturer which demonstrates that the engine supplied satisfies the Tier II requirements.</li> <li>2. No further verification possible.</li> </ol>

Minimum requirement no. 4	<p><b>Energy consumption of the vessel</b> <i>(For design, construction, purchase, overhaul)</i></p> <p>The energy consumption of the vessel may be maximum [X] kWh or [X] tonnes of diesel [per year or per operating hour per deployment] for a period of [X] years after delivery.</p> <p>[The contracting authority fills in the maximum energy consumption in kWh or tonnes of diesel per year, or per operating hour per deployment]</p> <p>[The contracting authority can stipulate a period in which the consumption must be guaranteed in order to avoid consumption not being achieved because of pollution for instance. Guarantee measurements and a penalty provision may be included in the contract].</p>
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	<p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Statement from the tenderer that he satisfies this requirement.</li> <li>2. Statement of consumption by the tenderer, based on calculations, hydraulic model research, plant data or experience.</li> </ol>
<p>Notes for purchaser</p>	<p>The contracting authority requires a maximum for energy consumption be set for the ship as a whole. The contracting authority may have to conduct a brief preliminary survey for this. Also in the case of overhaul, if the engine or propulsion has been replaced for instance, an energy requirement can be included, possibly focused on the ship component to be replaced.</p> <p>The deployment profile may be used in calculating consumption per year. Important values from this profile are: the number of hours/year [X] that the ship is deployed, how often and at what speed it will sail in km/h or knots for [X] hours/year, what deviation from the speeds given is acceptable, in km/h or knots, where the vessel will sail (inland waters or at sea), whether or not there are waves and if so, height of the waves [X] in metres for [X] hours/year, etc.</p> <p>Another, more direct approach is to link the standard to the type of deployment of the vessel, for example for patrol, disaster management, etc. Often the fuel consumption per deployment per operating hour can be figured out quite easily and is easy to monitor in work practice.</p> <p>Comparable vessels can also be used to determine the height of the maximum energy consumption per year. A standard reference design may be available or an energy level may be able to be determined in a preliminary survey. In the case of replacement in an existing situation, the energy consumption of the existing situation can serve as starting point. In this case the contracting authority must, however, set off the effect of the best available technology. In this context the best available technology refers to: 'the best energy-saving technologies available and best energy-saving design solutions that can be applied within acceptable risk and reliability parameters.'</p> <p>If a Most Economically Advantageous Tender ('EMVI') is opted for, this requirement can be linked to award criterion 5 'Energy consumption of the vessel', in order to thus score lower consumption in the tendering.</p> <p>When a fuel other than diesel is concerned, the energy content can be calculated using the table in Annex 4. This annex includes an overview of fuels and their energy content (expressed in Nm<sup>3</sup> natural gas equivalent).</p> <p>In the assessment, also take into account the quality of the evidence submitted. Guarantee measurements after delivery in combination with a penalty provision can prevent unrealistic numbers from being given. This can also prevent over-dimensioning of engine capacity: after all, penalties are also often imposed for failing to meet the functional requirements and tenderers prefer then to be rather safe than sorry by installing capacity in excess of what would suffice.</p>

	<p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Statement of consumption by the tenderer, based on calculations, hydraulic model research, plant data or experience.</li> <li>2. No further verification possible.</li> </ol>
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### 2.2.3 Award criteria

#### Award criteria

Award criterion no.1	<p><b>Antifouling</b> <i>(For design, construction, purchase, maintenance, overhaul)</i></p> <p>If the antifouling used is biocide free and non-toxic to water organisms and the PEC/PNEC ratio is not more than 1 for at least two water organisms normative for the ecosystem, determined in accordance with the Biocidal product directive (98/8/EC), this section of the tender is scored as follows: [XXX].</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Statement from the tenderer that he satisfies this award criterion.</li> <li>2. Overview / technical data which indicate that the ships to be used satisfy the requirement cited.</li> </ol>
Notes for purchaser	<p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Overview / technical data which indicate that the ships to be used satisfy the award criterion. For the antifouling, ask for the product data sheets.</li> <li>2. No further verification possible.</li> </ol>

Award criterion no.2	<p><b>Avoiding sacrificial anodes</b> <i>(For design, construction, purchase, overhaul)</i></p> <p>If systems to prevent against corrosion are used that contain no sacrificial anodes, this section of the tender is scored as follows: [XXX].</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Statement from the tenderer that he satisfies this award criterion.</li> <li>2. Overview / technical data which indicate that the ships to be used satisfy the requirement cited.</li> </ol>
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Notes for purchaser	<p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Overview / technical data which indicate that the ships to be used satisfy the award criterion. With respect to anodes, zinc and aluminium are sacrificial anodes in any event.</li> <li>2. No further verification possible.</li> </ol>
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Award criterion no.3	<p><b>Oil and grease</b></p> <p><i>(For design, construction, purchase)</i></p> <p>To the extent more of the hydraulic oils used on the ship, measured as a percentage of the total quantity of hydraulic oils used, are both easily biodegradable and non-toxic according to class I, this section of the tender receives the following number of additional points: [XXX].</p> <p><i>(For overhaul)</i></p> <p>If water or recovered grease lubrication is installed in the rudder hole sheath and propeller shaft seals, or if the seals are adjusted for lubricant that is both easily biodegradable and non-toxic according to class II or I, this section of the tender receives the following number of additional points: [XXX].</p> <p>Oils and greases satisfy the requirements of biodegradability and non-toxicity according to class I if:</p> <ul style="list-style-type: none"> <li>• they satisfy the requirements for class II;</li> <li>• and moreover they have at least the following carbon content from renewable sources (from plant-based oil or animal fat therefore): <ol style="list-style-type: none"> <li>a. 50% (m/m) for hydraulic oils</li> <li>b. 45% (m/m) for greases</li> <li>c. 70% (m/m) for total loss lubricants</li> </ol> </li> </ul> <p>Oils and greases satisfy the requirements of biodegradability and non-toxicity according to class II if:</p> <ol style="list-style-type: none"> <li>a) The base oil in the product is easily biodegradable according to the European dangerous substances directive 67/548 EC (with the exception of the 10-day criterion).</li> <li>b) The acute aquatic toxicity (EC/LC50) of the product is greater than 100 mg/l, according to both OECD 201 and OECD 202.</li> <li>c) The product does not need to report one, several or combinations of the following R phrases according to European Directive 1999/45 EC: R 39, R 40, R 42, R 43, 45, R 46, R 48, R 49, R 60, R 61, R 62, R 63, R 64 or R 68.</li> </ol> <p>Upon delivery, a maintenance plan must be provided for the lubricants and hydraulic oil. This contains at least a description of the maintenance intervals to be observed, with accompanying instructions.</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Statement included with the tender which indicates for what percentage the tenderer satisfies this award criterion. It is</li> </ol>
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	<p>also indicated here where on the ship these systems are located.</p> <p>2. The tenderer submits a certificate for each lubricant and hydraulic oil product used that demonstrates that the product has one of the following quality marks: European Eco-label, Nordic Swan (4.4), Swedish Standard SS155470 class A. Products with these quality marks satisfy this award criterion.</p> <p>Tenderers who do not have a certificate according to one of the quality marks above must indicate for class I which renewable raw materials were used. A statement of compliance with the renewability requirement is also required.</p> <p>For class II the tenderer must also submit the following: a certificate that demonstrates that the product has one of the following quality marks: the Swedish Standard SS155434 or SS155470 (class B or C), Blauer Engel (RAL-UZ 79 or RAL-UZ 64). Products with these quality marks satisfy class II. Or the tenderer can submit the following: a list of all main ingredients, which is every substance that constitutes more than 5% of the weight of the oil or grease, the names of these substances and where they can be applied, the unique European Einescs or Elincs identification numbers and the concentrations in which they are used; the product safety sheet (in accordance with Directive 91/115 EC) and the product safety sheets of every main ingredient (in accordance with Directives 91/115 EC and 67/548 EC); measurement reports for the degradability and toxicity according to the aforementioned standards or comparable.</p>
Notes for purchaser	<p>At the Directorate-General for Public Works and Water Management, the Environmentally-friendly Lubricant Expertise Centre (KMS) has experience with the use of oils that satisfy these specifications. The categorisation in classes I and II is consistent with the classification used by the KMS.</p> <p>A list of oils and greases is available at <a href="http://www.agentschapnl.nl/mia">www.agentschapnl.nl/mia</a> . All the hydraulic oils on this list satisfy the package of requirements for the European Eco-label. The lubricating greases must at least satisfy the requirements of Blauer Engel, but sometimes also those of the European Eco-label.</p> <p><u>Verification of means of proof:</u></p> <p>1. Request a certificate for the oil which indicates that the product has one of the following quality marks: European Eco-label, Nordic Swan (4.4), Swedish Standard SS155470 class A. Products with these quality marks satisfy this award criterion. For class II the tenderer must also submit the following: a certificate that demonstrates that the product has one of the following quality marks: the Swedish Standard SS155434 or SS155470 (class B or C), Blauer Engel (RAL-UZ 79 or RAL-UZ 64) or equivalent. Or make an inquiry to the agency behind the quality mark. In other cases: the reports on toxicity and degradability must satisfy the requirements indicated in a. and b. If R phrases apply,</p>

	<p>these are reported on the product safety sheet. If product safety sheets are submitted for all main ingredients and the oil itself, and none of these sheets list the R phrases cited above, then requirement c. is also satisfied. For class I, it must be assessed whether the renewability can be deemed to be sufficiently demonstrated on the basis of the documents submitted.</p> <p>2. No further verification possible.</p>
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Award criterion no.4	<p><b>Emissions and engines</b> <i>(For design, construction, purchase, overhaul)</i></p> <p>To the extent engines for inland navigation vessels emit less particulate matter and NO<sub>x</sub> than according to the CCR-2 exhaust gas standard, this section of the tender receives the following number of additional points: [XXX].</p> <p>To the extent engines for seagoing vessels emit less NO<sub>x</sub> than Tier II according to the MarPol Annex VI, this section of the tender receives the following number of additional points: [XXX].</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Statement from the tenderer with a report of the number of grammes/kWh of emission of the substances NO<sub>x</sub> and for inland navigation, PM, as determined using measuring methods in accordance with CCR-2 (for inland navigation) or the MarPol Annex VI (for seagoing vessels), supplemented if applicable with statements of yield and reports for the retrofitted technologies such as SCR and/or soot filter.</li> <li>2. Statements from the engine manufacturer, possibly in combination with statements or reports on the yield of the retrofitted technologies.</li> </ol>
Notes for purchaser	<p>The use of retrofitted technology without disruption does not yet seem possible at present, in particular for smaller vessels. A guarantee period could possibly be requested. Use of alternative fuels is also possible here.</p> <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Statements from the engine manufacturer, possibly in combination with statements or reports on the yield of the retrofitted technologies.</li> <li>2. Check the statement of the reduction for reliability and degree to which it is realistic.</li> </ol>

Award criterion no.5	<p><b>Energy consumption of the vessel</b> (<i>For design, construction, purchase, overhaul</i>)</p> <p>To the extent the vessel has lower energy consumption than the energy consumption required in minimum requirement 4, the tender receives the following number of additional points: [XXX].</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> <li>1. Statement of the energy consumption from the tenderer.</li> <li>2. Calculation, model research or other documents to support the Statement mentioned in 1.</li> <li>3. (If applicable) a testing procedure.</li> </ol>
Notes for purchaser	<p>More information elaborating the scoring system in more detail can be found in various manuals with respect to 'awarding on value' from CROW (information and technology centre for transport and infrastructure).</p> <p>See also the comments to minimum requirement 4 'Energy consumption of the vessel '. The manner of scoring can differ significantly per vessel and will have to be determined for each tendering procedure, possibly after a preliminary survey by the contracting authority.</p> <p>The contract can include a test measurement, possibly in accordance with a proposed testing procedure. A penalty provision could be included for the event that this requirement is not satisfied after delivery.</p> <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> <li>1. The document with the statement of energy consumption.</li> <li>2. Check the statement of consumption and supporting evidence for reliability and degree to which it is realistic.</li> </ol>

## 2.2.4 Contract

### Contract provisions

Contact provision no. 1	<p><b>List of substances that are hazardous for the environment ('Green Passport')</b> (<i>For design, construction, maintenance and overhaul</i>)</p> <p>Upon delivery of the vessel, the contractor will submit a new, or in the case of a maintained or overhauled vessel, updated, list of substances and materials used, with which the vessel is equipped and which may be hazardous for the environment. This list will follow the structure used in the most recent valid version of the</p>
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	<p>'Industry code of practice on ship recycling' of the 'International Chamber of Shipping', also known as the 'Green Passport' (currently Appendix 6 to the MEPC 48/3 Annex 1, page 9; see also Annex 1 of this document).</p> <p>When in doubt as to whether a material or substance used should be on the list, Regulation (EC) No. 1013/2006 should be consulted, in particular Annexes III and IV. It applies here that materials and substances from Annexes III and IV must be included on the list.</p>
Notes for purchaser	<p>When a ship is constructed, materials are used that could harm the environment, in particular when the ship is scrapped or repaired. This includes paints, tank coatings, insulation materials, chlorous materials, batteries, lubricating and hydraulic oils, etc. By listing which materials are used where, the vessel can be more easily repaired and scrapped and dangerous substances can be handled and removed with as little impact on the environment as possible. After being drawn up, this list comprises part of the ship's papers, is updated whenever the ship is maintained, and is handed over to the new owner when the vessel is sold. There is a IMO-document that provides for the preparation and updating of such a list.</p>

## 2.3 Utilisation stage (points for consideration)

Once the procurement stage has been concluded and a product or service has been purchased, there are opportunities for using the product in a sustainable manner. Specific points for consideration for this product group are:

- Climate compensation: the possibility of compensating for the emission of CO<sub>2</sub>;
- The use of green power;
- Training in *Voortvarend besparen* (Dynamic saving), in which the crew is trained to sail in the most fuel-efficient manner;
- 'Good housekeeping', in which the crew is trained to minimise environmental impact.

The use of fuels - for example as engine fuel, but also to generate electricity - releases CO<sub>2</sub> into the atmosphere and this results in global warming and climate change. Different organisations offer climate compensation options. This involves planting trees to compensate for emissions, for example. A number of providers satisfy quality criteria and present themselves on the site [www.klimaatcompensatie.nl](http://www.klimaatcompensatie.nl). The independent information organisation Milieu Centraal supports these providers.

Onshore power can be made even more sustainable if the procurement organisation provides for green power. Green power comes from sources such as wind and water power and can therefore contribute to sustainable operation.

Ultimately there is always a person at the helm who also has an effect on energy use. The Platform *Voortvarend Besparen* (Platform for Dynamic Saving) is a programme set up by and for inland navigation at the initiative of the Ministry of Transport, Public Works & Water Management. The Platform, made up of captains, shipping companies, training institutes, industry organisations and governments, offers captains practical support in reducing fuel consumption while sailing.

Good housekeeping is the general term for reducing environmental impact in the utilisation stage. This not only relates to more fuel-efficient sailing, but also the responsible handling of dangerous substances, timely repairs, environmentally-friendly cleaning, etc. Support in good housekeeping is possible on the basis of an internal environmental management system. The classifications 'Clean' and 'Clean Design' and the marine navigation quality mark of Blauer Engel have included measures with regard to good housekeeping.

# Appendix 1 List of materials for the Green Passport

List taken out of Appendix 6 of the MEPC 48/3 Annex 1, page 9.

LIST OF POTENTIALLY HAZARDOUS MATERIALS WHICH MAY BE ON BOARD VESSELS DELIVERED TO RECYCLING YARDS (Industry Code of Practice on Ship Recycling)

Note 1: This list is not definitive - see also EU Council Regulation No.259/93 Annexes II, III & IV.

## A. Operational Substances and Consumables

1. Cargo Residues including Slops
2. Dry tank Residues
3. Fuel oil, Diesel oil, Gas oil, Lubricating oil, Greases & Anti-seize Compounds
4. Hydraulic oil
5. Waste oils (contents of sludge tank)
6. Antifreeze fluids
7. Kerosene and White Spirit
8. Boiler and Feed Water Treatment Chemicals
9. Boiler and Feed Water Test Re-agents
10. De-ioniser Regenerating Chemicals
11. Evaporator Dosing and Descaling Acid
12. Domestic Water treatment Chemicals
13. Paints and Rust Stabilisers
14. Solvents and Thinners
15. Refrigerants (R12 or R22)
16. HALON
17. CO2 (in cylinders - engine room fire protection)
18. Acetylene, Propane and Butane
19. Hotel Services Cleaners
20. Lead-acid Batteries
21. Battery Electrolyte
22. PCB and / or PCT and / or PBB at levels of 50mg / kg or more
23. Mercury
24. Radio-active Material i.e. liquid level indicators
25. Miscellaneous Medicines
26. Insecticide Sprays
27. Miscellaneous Chemicals such as Alcohol, Methylated Spirits, Epoxy Resins, etc.
28. Plastics as covered by MARPOL
29. Raw and Treated Sewage

## B. Toxic Materials (as part of the ship's structure)

1. Asbestos
2. Lead-based Paint Coatings on Ship's Structure
3. Tin-based Anti-fouling Coatings on Ship's Bottoms.
4. Others.