



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

Criteria for the Sustainable Public Procurement of **Preservation Works**

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Table of contents

1	Introduction.....	2
1.1	Definition of the product group	2
2	Sustainability in the procurement process	4
2.1	Preparatory stage (points for consideration)	4
2.2	Specification stage (criteria).....	5
2.2.1	Supplier qualifications	6
2.2.2	Schedule of requirements.....	7
2.2.3	Award criteria.....	8
2.2.4	Contract	8
2.3	Utilisation stage (points for consideration).....	9

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).

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 Preservation Works, 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, available in Dutch only.

1.1 Definition of the product group

The Product group Preservation Works includes all activities in the Civil Engineering sector to protect wood, steel and concrete surfaces from external influences, or to decorate them by application of a preservation system including any necessary pretreatment of the base.

Preservation Works mainly apply to the realisation, management and maintenance of civil engineering constructions such as bridges, locks, viaducts, hydraulic engineering constructions and pumping stations, etc.

Criteria for street furniture and for buildings are included in separate documents.

Steel preservation

In steel preservation, we are considering long-term protection against corrosion: the protective operation of the system of preservation must be maintained for as long as possible. This may be by means of inorganic preservation methods (metal layers, ceramic, enamel), of which particularly thermal galvanisation is employed in the civil engineering sector, and organic covering layers such as paint, rubber and artificial resin.

Preservation Works for steel with organic covering layers include both the pretreatment and the application of the paint system or maintenance layer. There are various categorisations of paint system available. One of these categorisations is the classification of paint systems for steel from RAW, based on the binding agent. In broad terms, the following systems are distinguished: Epoxy, Epoxy/PUR, Chlorine rubber, Vinyl, Alkyd and Acrylic. Besides these, powder coatings and ceramic protective layers form a separate group of preservation systems.

Metallic covering layers (galvanised, thermally galvanised, sherardised, electrolytically galvanised, or otherwise sprayed on – flame spraying and aluminisation) sometimes form part of the system of steel preservation.

Finally in preservation works for steel constructions, systems for cathodic protection may be considered. Such systems specifically also provide protection against damage to parts of a

steel construction situated under water, for example the use of zinc and aluminium anodes on steel sheet piling. The prevention of material loss through electrochemical processes in the steel is the basic principle. This may be implemented with zinc anodes or by the creation of potential differences with an active voltage source. For this very specific form of preservation, no criteria have yet been developed. It is certain that cathodic protection systems can make a positive contribution to the lifetime particularly of hydraulic engineering constructions and can thus provide environmental gains. These systems do however have the limitation that they can only be applied underwater or underground.

Concrete preservation

The preservation of concrete is not by definition necessary in order to protect the construction and is also not implemented as standard. The application of coatings to concrete often occurs from an aesthetic viewpoint. In certain cases, a coating is indeed used in the repair of constructional faults and to prevent damage. The use of coatings to prevent graffiti or to allow their easy removal also happens. A specific application is the use of hydrophobic agents, by means of which surfaces become water-resistant.

Wood preservation

With respect to the building material wood, specific paint systems are used, including alkyd, acrylic, stains and varnishes.

Besides the preservation of wood – by the application of paint layers – wood is also preserved by means of impregnation. Here may be considered creosoting and pressure treatment (CCA-treated wood). In recent years, the government has developed policy to combat the detrimental environmental and health effects of these forms of preservation. Thus, in the Environmentally-hazardous substances Act, PAH-containing coatings and products Decree 2003, the use of creosoted wood is restricted to certain applications. Further, the Environmental Management Act currently in force prohibits the import, trade and use of wood treated with CCA for applications where the danger of repeated skin contact exists. This means, among other things, that the use of wood treated with CCA is prohibited in this country. Since 1 September 2006 the use of arsenic for wood treatment among other things is completely prohibited based on the European Biocides Directive. Because great steps have already been made in this very specific and relatively small part of preservation works, it has been opted not to develop any criteria for wood impregnation.

CPV codes

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:

45221119-9	Bridge renewal construction work.
45442120-4	Painting and protective-coating work of structures.
45442200-9	Application work of anti-corrosion coatings.
45442210-2	Galvanising work.
45442300-0	Surface-protection work.
50232100-1	Street-lighting maintenance services.
50232200-2	Traffic-signal maintenance services.

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.

2.1 Preparatory stage (points for consideration)

In the preparation of a call for tender, many choices are made which have a great impact on sustainability. The inclusion of sustainability in the preparation of projects is not current practice and demands additional policy from the government bodies concerned. By involving sustainability in an explicit way at all stages, sustainable calls for tender gain more content and a sustainable realisation at a higher level becomes possible.

Ensuring sustainability in the project

This approach demands that at an early stage, even before the formal start of the procurement phase, the sustainability aspects of the project are considered within the procuring organisation. In practice this will mean a collaboration among the project leader (advocate of technology and project result), the purchaser (financial advocate) and for example the environmental coordinator (sustainability advocate).

In the sustainable design of preservation works, certain conditions are of importance to a proper organisation and the incorporation of sustainability into the process. Below are listed some general points for consideration for the process, as these are also to be found in the National Civil Engineering Sustainable Building Package (NP GWW = Civil Engineering <http://www.crow.nl/zoek?q=nationaal+pakket&c=okt&c=pub&c=cur&c=con&c=faq>):

- Organise sustainable building in the project (NP GWW 100);
- Take account of sustainable building in the project plan (NP GWW 101);
- Take account of sustainable building in the composition of the project team (NP GWW 103);
- Take account of sustainable building in communication (NP GWW 102);
- Take account of sustainable building in the financing of the project (NP GWW 104);
- Draw attention to risks in civil engineering projects, particularly with regard to the environmental effects to be realised (NP GWW 105);
- Take account during the design of future management and maintenance (NP GWW 106).

Besides ensuring sustainability in the process, there are opportunities to safeguard sustainability in the design, in the execution of works, in the usage phase or at the end of the lifetime. Below are several points for consideration as listed in the National Civil Engineering Sustainable Building Package. The points for consideration are not always specific to preservation works, but there are things in common with the product group Preservation Works included in the measures concerned:

- In the design of steel constructions, implement ISO 12944 (for this, see the criteria in the product group Civil and Hydraulic Engineering constructions);
- Aim for energy saving in civil engineering works (NP GWW 503);

- Harmonise the design with future management and maintenance (NP GWW 505);
- Harmonise the material choice and design with the envisaged lifetime (NP GWW 509);
- Limit the production of waste in construction, use and management (NP GWW 513);
- Restrict traffic nuisance during implementation and maintenance (NP GWW 515 and the manual *Slim reizen langs wegwerkzaamheden* ('Clever travelling past road works'), June 2007, Public Works Dept);
- Limit damage to constructions (NP GWW 811);

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.

The criteria in this document have been formulated to support the purchaser in the Sustainable Public Procurement of Preservation Works. 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.

More information on the various types of criteria and the various tender options can be found in the Sustainable Public Procurement Manual.

Overview of criteria

The criteria apply to new construction, reconstruction and also to the management and maintenance of existing preservation works. Distinction is made in the table among the different forms of contract, such as design-only, design and construct (D&C), and construct-only.

Table 3.1 Overview of criteria for preservation works

	Preservation of new constructions			Management and maintenance Preservation system on existing constructions		
Area of application	design	design & construct	construct	design	design & construct	construct
Criterion						

	Preservation of new constructions			Management and maintenance Preservation system on existing constructions		
Minimum requirements of Preservation Works						
Application of low-solvent preservation systems	-	X	X	-	X	X
Prevention of products with lead- or chromate-containing pigments	-	X	X	-	X	X
Processing/removal of waste arising	-	X	X	-	X	X
Contract provisions						
Management and maintenance plan	-	X	X	-	X	X

X = include in this phase

- = do not include in this phase

In the 'procurement' of Preservation Works, you cannot generally comply merely by including the criteria for Preservation Works. In the design phase, a call for tender for a civil or hydraulic engineering construction or for example the hiring-in of external consultancy services may be involved. A specification is thus included in the product groups Civil Works and Hydraulic Engineering Constructions with respect to design according to the sustainability principles in ISO 12944.

You can find the criteria for these and other product groups on the website: www.agentschapnl.nl/duurzaaminkopen/criteria.

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	<p>(In making up preservation system)</p> <p>Application of low-solvent preservation systems</p> <p>The preservation system* must be made up with preservation products of which the volatile organic compound (VOC) content does not exceed the limit values below, per litre of preservation product.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">C. MAXIMUM VOC CONTENT LIMIT VALUES FOR PROTECTIVE COATINGS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 75%;">Product Subcategory</th> <th style="width: 20%;">VOC limit – g/l(*) (from 1.1.2012)</th> </tr> </thead> <tbody> <tr> <td>a</td> <td>Multi-pack primers and intermediates</td> <td>290</td> </tr> <tr> <td>b</td> <td>Zinc primers</td> <td>460</td> </tr> <tr> <td>c</td> <td>1-pack primers and intermediates</td> <td>420</td> </tr> <tr> <td>d</td> <td>Multi-pack finishes</td> <td>420</td> </tr> <tr> <td>e</td> <td>1-pack finishes</td> <td>440</td> </tr> <tr> <td>f</td> <td>Tank linings</td> <td>370</td> </tr> <tr> <td rowspan="2">g</td> <td rowspan="2">Intumescent coatings</td> <td>Solvent borne</td> <td>440</td> </tr> <tr> <td>Water borne</td> <td>140</td> </tr> </tbody> </table> <p>(*) g/l ready for use.</p> </div> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> 1. Statement to be included in this tender by the tenderer to confirm compliance with this technical statement. 2. Product specifications of paint systems to be used, in which the VOC content of the preservation products is shown. <p>* By preservation system is to be understood: the composition of the preservation products to be used in the preservation contract and the application of these in the preservation works</p>		Product Subcategory	VOC limit – g/l(*) (from 1.1.2012)	a	Multi-pack primers and intermediates	290	b	Zinc primers	460	c	1-pack primers and intermediates	420	d	Multi-pack finishes	420	e	1-pack finishes	440	f	Tank linings	370	g	Intumescent coatings	Solvent borne	440	Water borne	140
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Notes for purchaser	<p>The VOC limits listed in the table were proposed by CEPE to the European Commission for inclusion in Product Directive 2004/42/EC. The expectation is that these VOC limits will be included in the Directive between 2012 and 2015.</p> <p>For further information, the purchaser may consult ISO 12944.</p> <p>The purchaser is advised to consult the documents of the PSI Building Project <i>Professionalisering Metaalconservering</i> ('Professionalisation of Metal Preservation') when calling for preservation work tenders (see www.staalplaza.nu).</p> <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> 1. Request to make available product specifications of preservation products to be used, showing the VOC content of the preservation products. 2. No further verification during tendering. 																											

Minimum requirement no. 2	<p>Prevention of products with lead- or chromate-containing pigments</p> <p>No preservation products to be applied may contain lead- or chromate-containing pigments.</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> 1. Declaration from the tenderer that this technical specification will be complied with. 2. The description of the preservation products to be used, showing that they do not contain any lead- or chromate-containing pigments.
Notes for purchaser	<p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> 1. No further verification during tendering. 2. Request to make available product specifications of preservation products to be used.

Minimum requirement no. 3	<p><i>(In implementation activities)</i></p> <p>Processing/removal of waste arising</p> <p>The different types of waste arising during the activities must be stored and transported away separately. On the implementation site, provisions must be made for the separate storage of waste substances.</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> 1. Declaration from the tenderer that this technical specification will be complied with.
Notes for purchaser	<p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> 1. No further verification during tendering.

2.2.3 Award criteria

No award criteria have been formulated for this product group

2.2.4 Contract

Contract provision no. 1	<p>Management and maintenance plan</p> <p>During the handover of the preservation work, a management and maintenance plan must be supplied, in which the extent of the inspection and maintenance measures with respect to the</p>
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	<p>preservation and an estimate of the costs associated with these measures for a certain period (for example 25 years) is included.</p> <p>The plan must include at least the following sections:</p> <ul style="list-style-type: none"> • Description of the materials used and their quantitative details. • Description of the inspection intervals to be observed, with associated instructions (at least a description of inspection points, methods, estimated number of person-hours). • Description of the maintenance intervals to be observed, with associated instructions (at least a description of maintenance activities, necessary materials and estimated number of person-hours). • A list of the agreed guarantee periods for the various parts.
Notes for purchaser	<p>Depending on the contract (a part of) this plan may also be completed by the section inviting tender itself.</p> <p>For texts of sample contracts, reference is made to the various documents drafted in the context of the PSI Building Project <i>Professionalisering Metaal conservering</i> ('Professionalisation of Metal Preservation' - see www.staalplaza.nu).</p>

2.3 Utilisation stage (points for consideration)

After the procurement trajectory has been concluded and a product or service has been purchased, possibilities exist for using the product in a sustainable manner.

Specific points for consideration for the product group Preservation Works are:

- Regular cleaning of preserved surfaces to realise optimum operation of the preservation.
- Application of lifetime-extending maintenance: touching-up of damage.