

Nordic Ecolabelling for

## Wash installations for vehicles



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## Contact information

In 1989, the Nordic Council of Ministers decided to introduce a voluntary official ecolabel, the Nordic Swan Ecolabel. These organisations/companies operate the Nordic Ecolabelling system on behalf of their own country's government. For more information, see the websites:

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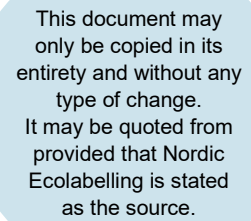
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## What is a Nordic Swan Ecolabel wash installation for vehicles?

Nordic Swan Ecolabel wash installations for vehicles focus on the impact wash installations have on the environment. The environmental impact from wash installations is mainly from the areas of effluents, water consumption, energy consumption, chemical products used in the wash installation, and handling of sludge and oil. Nordic Swan Ecolabel wash installations for vehicles must comply with requirements in all of these areas.

### **Nordic Swan Ecolabelled wash installation for vehicles:**

- Has reduced water consumption.
- Has reduced effluents of oil, lead, chromium, nickel, cadmium, copper, zinc, antimony and the phthalate DEHP.
- Has implemented measures to reduce energy consumption.
- Use 100 % Nordic Swan Ecolabel care products and thereby meet strict requirements for chemicals.
- Has water treatment technology dimensioned according to the washing method and the washing capacity at the site.
- Has documented procedures for operation and maintenance.

## Why choose the Nordic Swan Ecolabel?

- Wash installations for vehicles may use the Nordic Swan Ecolabel trademark for marketing. The Nordic Swan Ecolabel is a very well-known and well-reputed trademark in the Nordic region.
- The Nordic Swan Ecolabel is a simple way of communicating environmental focus and commitment to customers.
- The Nordic Swan Ecolabel clarifies the most important environmental impacts and thus shows how a company can cut effluents, resource consumption and waste management.
- Environmentally suitable operations prepare wash installations for vehicles for future environmental legislation.
- Nordic Ecolabelling provides businesses with guidance on the work of environmental improvements.
- The Nordic Swan Ecolabel not only covers environmental issues but also quality requirements, since the environment and quality often go hand in hand. This means that a Nordic Swan Ecolabel licence can also be seen as a mark of quality.

## What can carry the Nordic Swan Ecolabel?

Wash installations for cars, buses, trucks (incl. tractors and other construction vehicles), trains, other rail transport and airplanes can be Nordic Swan Ecolabelled.

The wash installations must be automated and/or manual, pre-programmed installations, meaning that the consumption of water and care products are controlled by time or quantity.

The owner and/or operator of the wash installation (for example a petrol station) is the licensee/license holder.

Licences are issued to each individual wash installation. If a chain/group has several wash installations, a licence will be awarded to each wash installation, on the precondition that each wash installation meets the requirements.

A total supplier of washing units, chemical products and water treatment units may obtain a **basic licence** for their washing technology. If the supplier uses an external care product supplier, it must be stated on the licence. The wash installation where the initial sampling took place must also be stated on the licence.

Wash installations for containers and for use in other services, such as reconditioning and repairs, are not covered by the criteria. Graffiti wash installations are also not covered by the criteria.

## How to apply

### Application and costs





For information about the application process and fees for this product group, please refer to the respective national web site. For contact information see at the beginning of this document.

### What is required?

The application consists of an application form and documentation showing that the requirements are fulfilled.

The criteria for wash installations for vehicles comprise a combination of obligatory requirements and point score requirements. The letter "O" and a number indicate obligatory requirements. These requirements must always be fulfilled. The letter "P" and a number distinguish point score requirements. Each requirement of this type gives a point score. These scores are then totalled. A minimum total score must be achieved to fulfil the licence constraints.

The text describes how the applicant shall demonstrate fulfilment of each requirement. There are also icons in the text to make this clearer. These icons are:

-  Enclose
-  Upload
-  State data in electronic application
-  Requirement checked on site

To be awarded a Nordic Swan Ecolabel licence:

- All obligatory requirements must be fulfilled.
- A minimum of 5 total points score must be achieved (for manual wash 4 total points is sufficient). See requirement O18 to calculate the points score.
- Nordic Ecolabelling must normally inspect the site. If the site is based on a basic license at least the reference site must be inspected. For license holders with several sites at least 5% of the sites must be inspected.

All information submitted to Nordic Ecolabelling is treated confidentially. Suppliers can send documentation directly to Nordic Ecolabelling, and this will also be treated confidentially.

### **Licence validity**

The Nordic Swan Ecolabel licence is valid providing the criteria are fulfilled and until the criteria expire. The validity period of the criteria may be extended or adjusted, in which case the licence is automatically extended, and the licensee informed.

Revised criteria shall be published at least one year prior to the expiry of the present criteria. The licensee is then offered the opportunity to renew their licence.

### **On-site inspection**

In connection with handling of the application, Nordic Ecolabelling normally performs an on-site inspection visit to ensure adherence to the requirements. For such an inspection, data used for calculations, original copies of submitted certificates, test records, purchase statistics and similar documents that support the application must be available for examination.

### **Queries**

Please contact Nordic Ecolabelling if you have any queries or require further information. See contact information at the beginning of this document. Further information and assistance (such as calculation sheets or electronic application help) is available. Visit the relevant national website for further information.

## 1.1 Definitions

<b>Wash installation</b>	The wash installation means the physical wash hall including washing machines, wastewater treatment, heat system, lighting system, automatic doors, ventilation, etc. It also includes outdoor installation connected to the wash hall, such as outdoor lightning and de-icing facilities.
<b>Care products</b>	Products that have a cleaning function (e.g., degreasers, shampoos, and windscreen washer fluids) and/or polishing function (e.g., waxes or polishes) for the care of cars, buses, trucks, trains and other rail transport and airplanes
<b>Chemical product</b>	In these criteria chemical product means care products, cleaning products for the wash installation and water treatment chemicals.
<b>Car</b>	Car/Passenger car designed for the transportation of no more than 9 people including the driver.
<b>Bus</b>	A vehicle that is registered as a bus for more than 9 persons.
<b>Truck</b>	Truck means a vehicle larger than 3.5 tonnes, with or without trailer.
<b>Basic licence holder</b>	A total supplier of washing units, chemical products and water treatment units may obtain a basic licence for their washing technology. If the supplier uses an external chemical supplier, it must be stated on the licence.
<b>Vehicle unit (vu)</b>	One vehicle unit (vu) is a vehicle, truck, or bus, with a length of 12 metres. - 0.5 vu is a van or minibus, for instance, with a length of about 6 metres. - 1.5 vu is, for instance, an articulated bus or a semi-trailer rig with a length of about 18 metres. - 2 vu is a truck plus trailer with a length of about 24 metres.

## 1.2 Information regarding basic licence and overview of exemptions

### Basic licence:

A total supplier of washing units, chemical products and water treatment units may obtain a basic licence for their washing technology system.

If the supplier uses an external care product supplier, it must be stated on the licence which care product supplier the basic licence holder has a contract with, and which care products are tailored to the treatment technology and wash installation, and thus covered by the basic licence.

When applying for a basic licence, the applicant must refer to a physical wash installation where the initial sampling has been conducted. The installation where the initial sampling took place must also be shown on the licence.

owner

### Exemptions for specific types of licence:

The licensees must meet all the requirements in the criteria document, but there are some exemptions shown in the table below.

**Table Exemptions for specific types of licence.**

Type of licence holder	Exempted from following requirements
Licence holder using a basic licence	<ul style="list-style-type: none"> <li>- O5 Initial sampling</li> <li>- O9 Water treatment chemicals</li> </ul> <p>The licensees that use a basic licence are not required to submit documentation for each requirement above, where the basic licence holder has already submitted documentation.</p>
Basic licence holder	<ul style="list-style-type: none"> <li>- O11 Recycling of packaging for chemical products</li> <li>- O12 Fossil fuel</li> <li>- O13 Thermostatically control of heating</li> <li>- O14 Automatic door closure</li> <li>- O15 Sludge and oil emptying</li> <li>- O16 Emptying systems for toilets</li> <li>- O17 Special vehicles</li> <li>- O18 Summary of points</li> <li>- O23 Information on use of customers' own products/degreasers</li> <li>- O25 Customer information</li> <li>- P1- P7, all point score requirements</li> </ul> <p>But the basic licence holder must document the number of points achieved regarding water consumption (P2).</p>
Licence holder for trains or other rail transport or airplanes	<ul style="list-style-type: none"> <li>- O4 Manual wash installations</li> <li>- O23 Information on use of customers' own products/degreasers</li> </ul>

## 1.3 Design of the wash installation

### O1 General description of the wash installation

A brief description of the wash installation is needed and shall include:

- Type of wash installation (manual self-service installations and/or automated installation, dimensioned for cars, buses, trucks, trains, other rail transport or airplanes)
- Washing method (high-pressure, brush wash etc.)
- Type of wastewater treatment unit (treatment technique)
- Number of vehicles, vehicle units or 12 meters of train/airplane (see definition of vehicle units in O6) that the wash installation is designed for per day
- Number of vehicles, vehicle units or 12 meters of train/airplane (see definition of vehicle units in O6) washed per day
- If a basic licence is being used

The wastewater from the wash installation, (also in the case of overflow) must be cleaned by a water treatment solution tailored to the washing method and washing volume. A sludge and oil separator with sand trap is to be included in the water treatment solution with the exception for biological treatment units if a sludge and oil separator is not required by authorities.

- ☒ Description of the wash installation from the applicant, in line with Appendix 1.



- Declaration from the suppliers of the water treatment solution and the chemical products that the water treatment solution and chemical products are tailored to the washing method and washing volume, in line with Appendix 1.

## O2 Technical description of the wash installation

A sketch of the wash installation shall be provided, showing the location of:

- The wash installation's water and drainage systems
- Washing machines
- Water treatment equipment
- Sludge and oil separator with sand trap, overflow
- Sampling point
- Water meter and energy meter connected to the wash installation

The sludge and oil separator with sand trap and the water treatment solution tailored to the wash installation, must not be used to treat surface water\*.

The water treatment system may be used to treat wastewater from a part of the site that has a use other than the washing of transport, provided this is approved by the supplier of the water treatment system.

Toilets must not be connected to the water treatment system due to the risk of spreading infections.

The sampling point must be at a point after the wastewater treatment but before the connection to the municipal wastewater network. Water turbulence is important at the sampling point, to avoid samples from layered water. The sampling point must be easily accessible.

*\*I.e., rainwater and meltwater from nearby roofs and ground.*

- Description of the wash installation in line with Appendix 1.

- Drawing of the wash installation showing the above points.

## O3 Installations with re-circulated water

Wash installations with re-circulated water must be designed to keep anaerobic conditions in the water treatment system to a minimum. This may be done, for example, by pumping air into the water.

- Description of the measures taken to avoid anaerobic conditions in systems with re-circulated water, in line with Appendix 1.

## O4 Manual wash installations

Re-circulated water must not be used in manual wash installations.

In wash installations where vehicles are washed manually, the choice and use of care products is to be controlled automatically and water consumption is to be time-controlled or dosage-controlled.

- Declaration from the supplier of the wash installation that re-circulated water is not used for manual washing, in line with Appendix 1.

- Declaration of how the choice of care products, dosing and water consumption are controlled in the manual wash installation.

## 1.4 Water consumption and effluents

### O5 Initial sampling

Wash installations using a basic licence do not need to submit documentation for this requirement.

When applying for the Nordic Swan Ecolabel, sampling is to be conducted at the installation to show that the effluent requirements in O6 and the water consumption requirements in O7 are fulfilled.

#### **Sampling period:**

The sampling must be conducted during the period 1<sup>st</sup> of November – 30<sup>th</sup> of April, and when at least 10% of the annual vehicles figure have been washed after emptying of the sludge and oil separator.

#### **Sampling for water analysis:**

The results of the sampling will form the basis for a Nordic Swan Ecolabel licence application and must show compliance with the effluent requirements in O6.

In the case of a new application, water samples must be taken using the automatic flow proportional method or manual random sampling. Two wastewater samples shall be taken within the period 1<sup>st</sup> of November – 30<sup>th</sup> of April, and there must be a minimum of one month between the two samples.

Licence applicants which use washing technology from a basic licence holder, do not need to conduct the initial sampling, since it has already been documented that the technology works to a satisfactory degree.

#### **Water consumption:**

Water consumption must be measured for seven days during the sampling period. In the case of initial sampling, the water consumption must be measured over the same period as the water analysis sampling.

- ☒ Description of compliance with the requirement, see Appendix 2 and Appendix 6.

### O6 Effluents from the wash installation

Effluents to the drainage system from automated and manual wash installations must not exceed the values specified in the table below.

The sampling shall be conducted during the period 1<sup>st</sup> of November – 30<sup>th</sup> of April, and when at least 10% of the annual vehicles figure have been washed after emptying of the sludge and oil separator.

Water samples shall be taken using the automatic flow proportional method or manual random sampling. Two wastewater samples shall be taken within the period 1<sup>st</sup> of November – 30<sup>th</sup> of April, and there must be a minimum of one month between the two samples.

The effluent values must be calculated as monthly average values. The estimated loss of water in the system can be included in the calculations (max 15 l/car, 45 l/vehicle unit or 45 l/12 metres of train/other rail transport/airplanes). For more information on water sampling, see Appendix 7 “Explanations, analysis and control”.

For geographical zones, see Appendix 8.

**Table Effluents, maximum levels allowed.**

Geographical zones	Substances	Effluents for car washes (mg/car)	Effluents for bus and truck washes (mg/vu*)	Effluents for trains, other rail transport and airplanes (mg/12 metres)
1	∑ Pb, Ni, Cr	3	10	4
	Cd	0.02	0.05	0.05
	Zn	50	120	50
	Cu	7	15	15
	Sb	2	2	2
	DEHP	13	13	13
	Oil	300	1500	1000
2	∑ Pb, Ni, Cr	4	12	4
	Cd	0.03	0.10	0.05
	Zn	50	120	50
	Cu	8	25	25
	Sb	2	2	2
	DEHP	13	13	13
	Oil	750	2250	2250

\* See definition in section 1.1.

- ☒ Test results. The water analysis shall be carried out by a competent laboratory according to test methods specified in Appendix 7. The sampling must take place at a point after the wastewater treatment equipment but before the connection to the municipal wastewater network.

## P1 Measurement of phthalates and microplastic in effluents (max. 2p)

### a) Measurement of phthalates (1p)

Wash installations that take measurements of phthalates dibutyl phthalate (DBP), butyl benzyl phthalate (BBP) and diisobutyl phthalate (DIBP) in effluents are awarded 1 point.

Water samples must be taken both before and after the water treatment unit in order to measure the phthalate content before and after treatment with the exception for biological treatment where water samples are taken after treatment.

### b) Measurement of microplastic (1p)

Wash installations that take measurements of microplastics\* in effluents are awarded 1 point. This must at least include measurements of rubber components from tire wear (e.g., styrene-butadiene rubber) and these synthetic polymers; PE, PP, PS, PMMA, PVC, PET\*\*.

Water samples must be taken both before and after the water treatment unit in order to measure the microplastics content before and after treatment with the exception for biological treatment where water samples are taken after treatment.

\* Microplastics are synthetic polymer microparticles as defined in REACH Regulation ((EC) No 1907/2006), Annex XVII, Entry no. 78: Synthetic polymer

*microparticles: polymers that are solid, and which fulfil both of the following conditions:*

- a) are contained in particles and constitute at least 1 % by weight of those particles; or build a continuous surface coating on particles.*
- b) at least 1 % by weight of the particles referred to in point (a) fulfil either of the following conditions:*
  - (i) all dimensions of the particles are equal to or less than 5 mm.*
  - (ii) the length of the particles is equal to or less than 15 mm and their length to diameter ratio is greater than 3.*

*The following polymers are excluded from this designation:*

- c) polymers that are the result of a polymerisation process that has taken place in nature, independently of the process through which they have been extracted, which are not chemically modified substances.*
- d) polymers that are biodegradable as proved in accordance with Appendix 15 [to REACH, Regulation (EC) No 1907/2006].*
- e) polymers that have a solubility greater than 2 g/L as proved in accordance with Appendix 16 [to REACH, Regulation (EC) No 1907/2006].*
- f) polymers that do not contain carbon atoms in their chemical structure.*

*\*\* Explained abbreviation for the synthetic polymers:*

*PE - Polyethylene*

*PP - Polypropylene*

*PS - Polystyrene*

*PMMA - Polymethyl methacrylate*

*PVC - Polyvinyl chloride*

*PET - Polyethylene terephthalate*

- ☒ a): Test results using the GC-MS method (Gas Chromatography-Mass Spectrometry) with detection limit  $\leq 0.5$  micrograms/litre.
- ☒ b): Test results in micrograms/litre using Pyr GC-MS method (Pyrolysis Gas Chromatography-Mass Spectrometry), list with the synthetic polymers and rubber components measured and the test report incl. information about detection limits.

## 07 Water consumption

Water consumption is calculated as the number of litres of tap water consumed per wash, vehicle unit or 12 metres of train/other rail transport/airplane, calculated as an annual average, and must not exceed the values in the table below. If any manual washing is combined with automatic washing, this water consumption must be included.

Points will be given for water consumption that is lower than the limit values in the table below. See requirement O18 for required minimum total points.

Water consumption is to be measured and logged on a monthly basis.

For information on calculating water consumption, see Appendix 7.

For geographical zones, see Appendix 8.

**Table Tap water consumption**

Geographical zones	Cars (litres/wash)		Buses and trucks (litres/vu*)		Trains, other rail transport and airplanes (litres/12 metres)
	Automated	Manual	Automated	Manual	Automated/Manual
1	70	50	210	150	130
2	85	70	250	200	130

\* See definition in section 1.1.

- ☒ Documentation showing the calculation of water consumption, see Appendix 7. For newly built installations, water consumption must be documented in a declaration from the supplier of the wash installation.

## P2 Water consumption (max. 3p)

If the water consumption calculated as an annual average is lower than in requirement O7 up to 3 points can be obtained. Points are given according to the table below showing water consumption per wash/vehicle unit/12 meters train or airplane.

For information on calculating water consumption, see Appendix 7.

For geographical zones, see Appendix 8.

**Table Tap water consumption and points.**

Points	Geographical zones	Cars (litres/wash)		Buses and trucks (litres/vu*)		Trains, other rail transport and airplanes (litres/12 metres)
		Automated	Manual	Automated	Manual	Automated/Manual
1	1	60	45	190	140	120
1	2	80	65	230	190	120
2	1	50	35	155	115	100
2	2	65	55	190	160	100
3	1	40	30	130	95	85
3	2	55	45	160	135	85

\* See definition in section 1.1.

- ☒ Documentation showing the calculation of water consumption, see Appendix 7.

## 1.5 Chemical products

Care products used to clean the vehicles as well as cleaning products used to clean the wash installations themselves must be Nordic Swan Ecolabelled. Water treatment chemicals cannot be Nordic Swan Ecolabelled but must meet requirement O9.

### O8 Overview of chemical products and Nordic Swan Ecolabelled products

An overview of all chemical products used in operating the wash installation i.e., all care products, all cleaning products for the wash installation itself and all water treatment products is obligatory.

Each product must be listed together with information on manufacturer/supplier, function (care product (degreasing, wax, etc), cleaning of the wash installation or water treatment), and if the product is Nordic Swan Ecolabelled, the licence number shall be stated.

All care products used in the wash installation and cleaning products used for cleaning of the wash installation itself, must be Nordic Swan Ecolabelled. Excluded from this requirement are chemicals for graffiti removal and small amounts of special cleaning chemicals used only a few times per year for cleaning of the wash installation and/or brushes.

- ☒ Overview of all chemical products, see Appendix 3.

## O9 Water treatment products – all wash installations

*Wash installations using a basic licence do not need to submit any documentation for this requirement.*

Chemical products used for water treatment (e.g., chemical separation, pH regulation, combating microorganisms) must not contain organochlorine substances or reactive chlorine compounds that may form organochlorine metabolites.

- ☒ Declaration from the supplier of the water treatment products that the products or methods do not contain organochlorine substances or reactive chlorine compounds that may form organochlorine metabolites, in accordance with Appendix 4.

## O10 Safety data sheets

Up-to-date safety data sheets for all chemical products, including care products used for cleaning of the vehicles, cleaning products used for cleaning of the wash installation itself and water treatment products, must be readily available at the installation, and they must be easily accessible to the workers.

- ☒ Information of where the safety data sheets for all chemical products are kept.

## P3 Technology for analysing amount of needed care product (1p)

If the wash installation has advanced technology for analysing the dirtiness of each individual vehicle and has adjustment of the amount of care products needed, 1 points can be obtained.

- ☒ Short description of the technology.

## 1.6 Packaging

### O11 Recycling of packaging for chemical products

Empty packaging from care products, cleaning products for the wash installation itself and water treatment chemicals must be sorted by material and delivered to a recycling facility.

- ☒ Copy of agreement with recycling company or description of how empty packaging is handled.

### P4 Reuse of packaging or direct refilling of chemical products from tank truck (max. 2p)

a): Reuse of packaging (1p)

Wash installations which make sure that used packaging from chemical products are reused for chemical products, are awarded 1 point.

b): Direct filling (1p)

Wash installations which are using direct refilling of at least one of the chemical products from tank truck and hereby do not use packaging, are awarded 1 point.

- a): Documentation of that the used packaging is collected for reuse for chemical products.
- b): Documentation of that direct refilling of chemical products from tank truck is taking place at site.

## 1.7 Energy

Basic licence holders are exempted from requirements in this section 1.7 and have no opportunity to achieve points in requirements P6.

### O12 Fossil fuel

The wash installation may not use fossil fuel as an energy source. The requirement does not apply to electricity from the grid or district heating.

- Declaration of which types of energy sources are used e.g., electricity from the grid.

### O13 Thermostatic control of heating system

If the wash hall is heated, the heating system must be thermostatically controlled to a maximum temperature of 15 °C.

No energy demanding cooling of the hall is allowed.

- Declaration that the wash hall is thermostatically controlled to a maximum heating of 15 °C and that cooling is not used.

### O14 Automatic door closure

The requirement only applies for car wash.

Enclosed wash\* halls must have a system of automatic door closure that operates during periods where heating is used.

In addition, for drive through enclosed wash halls the doors in each end must not be open at the same time during periods where heating is used.

\* *Enclosed wash hall is defined as a hall with roof and walls and/or doors on all sides.*

- Description and declaration that the wash hall has automatic door closure. In addition, for drive through wash halls that the doors are not open at the same time.

### P5 Energy mapping (3p)

An energy audit must be conducted according to the standards EN 16247-1, ISO 50002 or national guidelines.

Based on the energy audit an action plan must be developed with purpose to reduce energy consumption.

The energy audit and action plan must be conducted and verified by an independent third party and must not be older than 5 years.

The requirement can alternatively be fulfilled with a certification according to ISO 50001.

If several wash installations are similar regarding washing technology, age of washing technology, isolation of the hall buildings and heating system, then one energy audit and action plan can be conducted that covers these halls.

- The report from the energy audit. Certificate for ISO 50001 covering the installation can be used as an alternative.
- Action plan for the wash installation. Certificate for ISO 50001 covering the installation can be used as an alternative.
- If one energy audit and action plan covers several halls: Explanation, including at least the topics stated in the requirement, regarding why it is considered that one energy audit and action plan can cover these halls.

## P6 Information about energy consumption (2p)

Energy consumption\* calculated as kWh per wash, vehicle unit\*\* or per 12 meters of train/airplane\*\*\* must be stated.

The energy consumption shall include all energy used related to the wash installation e.g., energy used for the washing machines, wastewater treatment, heating, lighting, automatic doors, ventilation, etc. Also, outdoor energy demands related to the wash installation shall be included, for example de-icing facilities. Locally produced energy, from for example solar PV cells, shall also be included.

Energy consumption is to be measured and logged on a monthly basis.

The size in m<sup>3</sup> of the wash installation must be stated.

*\* Energy consumption shall include both electricity and thermal energy (heat) related to the wash installation and shall be calculated as an annual average. In other words, the total yearly energy consumption must be divided by the total numbers of washes, vehicle unit or 12 metres of train /airplane per year.*

*\*\* See definition in section 1.1.*

*\*\*\* The energy consumption is to be calculated as:*

- kWh per wash for cars.
- kWh per vehicle unit (vu)\*\* for buses and trucks.
- kWh per 12 meters of airplane, train or other rail transport.

- Documentation of energy consumption over the past 12 months, or from a representative period of operation stated as kWh, e.g., via invoices or meter readings.
- Calculations showing annual energy consumption in kWh per wash/vehicle unit/12 meters of train/airplane.
- The size of the wash installation in m<sup>3</sup>.

## P7 Solar PV panels (max. 4p)

### a) Installation of solar PV panels (1p)

If solar PV panels are installed on the building, or in the immediate vicinity, of the wash installation and the electricity is used for operating the wash installation, one point is given.



In periods of surplus electricity, the electricity can be used elsewhere on the premises or be sold to the grid owner.

#### b) Electricity from solar PV panels ( max. 3p)

For locally produced electricity\* from solar PV panels up to 3 points can be obtained. Points are given according to the table below showing % of total annual electricity demand of the wash installation covered by solar PV panels.

Points	% of total annual electricity demand covered by solar PV cells
1	≥ 10%
2	≥ 20%
3	≥ 30%

\* *Locally produced electricity: The solar PV panels must be situated on the building, or in the immediate vicinity of the wash installation.*

- ☒ a): Documentation showing that solar PV panels are installed on the building, or in the immediate vicinity, of the wash installation.
- ☒ a): Declaration on planned electricity production from the solar PV system, in relation to the electricity demand of the wash installation.
- ☒ b): Documentation of locally produced electricity over the past 12 months, or from a representative period of operation, e.g., meter reading of produced electricity. If the solar PV panels are recently installed, a confirmation of the planned annual electricity production from the supplier can be used.
- ☒ b): Calculation showing % of the annual electricity consumption relative to electricity from solar PV panels.

## 1.8 Special requirements

### O15 Sludge and oil emptying

Waste from the possible sludge and oil separator(s) and other contaminants from the water treatment unit must be collected by an approved contractor and hereafter processed by an approved facility.

When emptying the sludge and oil, it must be guaranteed by the collection contractor that the sludge tanker truck is not contaminated with heavy metals or bacteria.

Both the collection contractor and the process facility must be approved by the authorities to handle this type of waste.

- ☒ Declaration signed by the collection contractor, that the sludge tanker truck is not contaminated with heavy metals or bacteria before the sludge and oil is emptied, see Appendix 5.
- ☒ Name of the contractor that collect waste from the sludge and oil separator(s) and other contaminants from the water treatment unit, see Appendix 5.
- ☒ Name and location of the facility that process the waste from the sludge and oil separator(s) and other contaminants from the water treatment unit, see Appendix 5.

- ☒ Documentation that both the collection contractor and the process facility are approved by the authorities to handle this type of waste, e.g., link to authorities list of approved contractors and facilities.

## O16 Emptying system for toilets

*Basic licence holders are exempted from this requirement.*

The requirement applies to wash installations for buses, trucks, trains, other rail transport and airplanes.

If the wash installation is intended to wash buses, trucks, trains, other rail transport and airplanes with toilets, there must be an emptying system in place that ensures the toilet waste is not emptied in a way that can contaminate the re-circulated water.

If there are no facilities for emptying toilets, the customer must be informed that their toilet cannot be emptied at the installation due to the dangers of spreading infections.

- ☒ Description of the emptying system for toilets and description of how customers are informed if there is no emptying system available.

## O17 Special vehicles

*Basic licence holders are exempted from this requirement.*

When vehicles requiring special hygiene are washed, such as vehicles covered by EC 852/2004, only tap water may be used, i.e., no re-circulated water. However, the total effluent values per vehicle must be met.

If the plant washes both vehicles that demand extra hygiene and vehicles that may be washed with re-circulated water, the plant shall be equipped with a so-called double system. Double system means that the plant can temporarily be switched over to using tap water only.

- ☒ Declaration on how the vehicles requiring special hygiene are washed.

## 1.9 Summary of points

### O18 Summary of points

**Automated or combined automated and manual wash installations** must achieve at least **5 points** to be Nordic Swan Ecolabelled.

**Manual wash installations** must achieve at least **4 points** to be Nordic Swan Ecolabelled.

Points are given for the following requirements:

**P1:** Measurement of phthalates and/or microplastic in effluents (max. 2p)

**P2:** Water consumption (max. 3p)

**P3:** Technology for analysing amount of needed care products (1p)

**P4:** Reuse of packaging and/or direct refilling of chemicals from tank truck (max. 2p)

**P5:** Energy mapping (3p)

**P6:** Information about energy consumption (2p)

**P7:** Solar PV panels (max. 4p)

### **Basic licence**

For basic licences holders there is no requirement on total points, but the basic licence holder must document the number of points achieved with regard to water consumption (O7 and P2).

- ☒ Overview and calculation of points.

## **1.10 Licence maintenance**

The purpose of the licence maintenance is to ensure that fundamental quality assurance is dealt with appropriately.

### **O19 Responsible person**

The licence holder/basic licence holder must appoint one person who has the main responsibility for the application process and for annual follow-up of the licence, and who ensures fulfilment of the Nordic Ecolabelling requirements during the validity period of the licence.

The company must inform Nordic Ecolabelling if the responsible person is changed.

- ☒ Contact information (name, job title, phone number and e-mail) for the responsible person.

### **O20 Procedures and instructions for operation and maintenance**

Each wash installation shall have documented procedures and instructions to ensure that the Nordic Ecolabelling criteria are fulfilled regarding:

- General operation and maintenance of the wash installation including emptying of the sludge and oil separator(s) according to a predefined frequency. The emptying frequency must be based on an evaluation of the capacity of the wash installation and increased according to needs.
- Daily checks on the washing and water treatment units, including checking that the water treatment equipment is functional and operates when the wash installation is in use. The wash installation must not be used when the water treatment unit is out of service.
- Self-assessments and record-keeping in accordance with a self-assessment programme comprising figures for water consumption and number of transport washes on a monthly basis.
- Technical service to ensure regular checks and service of the washing and water treatment units. Servicing records must be retained and kept readily available.
- Reporting to Nordic Ecolabelling unforeseen non-conformities and planned changes that is covered by the Nordic Swan Ecolabel's requirements (for example change of chemical products).
- Satisfactory protection against the transmission of Legionella, E. coli and other pathogens.

- Measures such as sterilisation or disinfection. This should be considered if the device or parts of the device have been significantly changed or opened for maintenance purposes in a way that might have allowed or might potentially allow infection to occur.

☒ Declaration according to the requirement.

## O21 Training

To ensure satisfactory operation of the installation, employees and personnel involved in daily operations shall received training in how to run the installation correctly including how to handle chemicals.

☒ Description of staff training given to employees that operate the wash installation including information about training topics and frequency.

## O22 Storage and handling of chemical products

Chemical products shall be stored securely and in line with the requirements in the safety data sheets.

The chemical products must be contained separately, for example in a bund that keeps the chemicals separate. The bund must be able to contain the volume of the largest container plus 10% of the sum of the other stored volumes.

When employees are handling chemical products, personal protective equipment must be used according to the recommendations in the safety data sheets.

☒ A description of the way in which chemical products are stored and the way in which the drain in the floor of the chemical room is constructed.

☒ Description of personal protective equipment available at the wash installation to handle chemical products.

## O23 Information on use of customers' own products/degreasers

*Wash installations for trains and other rail transport and airplanes are exempted from this requirement.*

The customers must be informed that use of their own products/degreasers is not permitted. This regards both manual and automatic wash installations.

ℙ Checked on site.

## O24 Customer complaints

The licensee must guarantee that the quality of the cleaning in the wash installations does not deteriorate during the validity period of the license. Therefore, the licensee must have a system for handling and archiving customer complaints.

☒ Send in your company's routine for handling and archiving customer complaints. Note that the original routine must be in a Nordic language or English.

## O25 Customer information

Customers must be informed that they are using a Nordic Swan Ecolabelled wash installation and what that entails.

☒ Description of how the customers are informed.

## O26 Annual follow-up

The environmental requirements listed below shall be followed up by the person responsible for the Nordic Swan Ecolabel licence, and the information shall be compiled in an annual report and then submitted to Nordic Ecolabelling by the 30th of April each year.

The following information must be sent in:

- The annual average of water consumption calculated as number of litres per wash or per vehicle unit or per 12 metres of train, other rail transport or airplanes (please refer O7).
- Number of washed vehicles the year in question.
- Overview of all chemical products i.e., all care products, all cleaning products for cleaning of the wash installation itself and all water treatment products (please refer O8).
- Dates for emptying of sludge and oil from the water treatment system for the year of the follow-up.
- Effluents of  $\sum \text{Pb} + \text{Ni} + \text{Cr}$ , and of Cd, Zn, Cu, Sb, DEHP and oil calculated per wash or per vehicle unit or per 12 metres of train other rail transport or airplanes (please refer O6).

A licence holder using a basic licence is exempted from this requirement, but basic licence holders and licensees who are not linked to a basic licence, must perform these effluent calculations based on effluent samples taken once a year during the period 1<sup>st</sup> of November – 30<sup>th</sup> of April.

For basic licence holders, effluent samples are to be collected once a year from the reference installation that is included in the basic licence and in addition 10% of installations that make use of the basic licence, with the latter amounting to a minimum of one installation and a maximum of four installations per year.

- ☒ Annual report submitted to Nordic Ecolabelling by the 30<sup>th</sup> of April each year.

## Regulations for the Nordic Ecolabelling of services

To easily identify Nordic Swan Ecolabelled services, the licence number and a descriptive sub text shall always accompany the Nordic Swan Ecolabel.

The descriptive sub text for 074 Wash installations for vehicles is:

**Wash installation for cars**

**Wash installation for buses**

**Wash installation for trucks**

**Wash installation for trains/rail transport**

**Wash installation for airplanes**

More information on graphical guidelines, regulations and fees can be found at [www.nordic-swan-ecolabel.org/regulations](http://www.nordic-swan-ecolabel.org/regulations)

## Follow-up inspections

Nordic Ecolabelling may decide to check whether wash installations for vehicles fulfil Nordic Ecolabelling requirements during the licence period. This may involve a site visit, random sampling, or similar test.

The licence may be revoked if it is evident that the wash installation does not meet the requirements.

Random samples may also be taken and analysed by an independent laboratory. If the requirements are not met, Nordic Ecolabelling may charge the analysis costs to the licensee.

## Criteria version history

Nordic Ecolabelling adopted version 4.0 of the criteria for Wash installations for vehicles on 25 of April 2024. The criteria are valid until 1st of April 2029.

## Appendix 1 General information of the wash installation and coordination of suppliers (O1-O4)

Wash installation:
Address:

O1, general description of wash installation:

Type of installation:	<input type="checkbox"/> Roll-over (automatic) <input type="checkbox"/> Wash tunnel (automatic) <input type="checkbox"/> Wash tunnel (automatic and manual) <input type="checkbox"/> Self-service (manual) <input type="checkbox"/> Other, please state: _____
Designed for:	<input type="checkbox"/> Cars <input type="checkbox"/> Buses <input type="checkbox"/> Trucks <input type="checkbox"/> Trains and other rail transport <input type="checkbox"/> Airplanes
Wash method:	<input type="checkbox"/> High-pressure <input type="checkbox"/> Brush wash <input type="checkbox"/> Other, please state: _____
Number of vehicles, vehicle units or 12 meters of train/airplane that the wash installation is designed for per day (24h):	Number:
Max number of vehicles, vehicle units or 12 meters of train/airplane washed per day (24h):	Number:
Using a basic licence:	<input type="checkbox"/> Yes, please state the basic licence number: _____ <input type="checkbox"/> No

O2, technical description of the wash installation:

Does the sludge and oil separator and water treatment system handle any of the following?	<input type="checkbox"/> Surface water <input type="checkbox"/> Toilets <input type="checkbox"/> Wastewater from other sources, please state: _____ <input type="checkbox"/> None of the above
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**Declaration from suppliers:**

Declaration that the above adapted washing method, water treatment technology and chemical products are compatible with the stated volume of washes described above.

Signature of the suppliers:

<b>Supplier of wash installation (equipment):</b>
Signature:
Name (BLOCK CAPITALS):
Date:

<b>Supplier of water treatment unit:</b>
Signature:
Name (BLOCK CAPITALS):
Date:

<b>Supplier of water treatment products:</b>
Signature:
Name (BLOCK CAPITALS):
Date:

<b>Supplier of care products:</b>
Signature:
Name (BLOCK CAPITALS):
Date:

In the event of any changes of the information in this declaration, a new declaration must be submitted to Nordic Ecolabelling.

Signature of the applicant:

Date:	Phone:
Contact person:	E-mail:
Signature:	

## Appendix 2 Report – initial sampling (O5)

Wash installation:
Address:

Estimated no. of washes per year:	
Max no. of vehicles per day:	
Date of sampling:	
Date of latest sludge emptying:	
Date of latest oil emptying:	
Number of vehicles washed after latest sludge and oil emptying and before sampling:	

Sampling was performed:

- Automatic flow proportional
- Other method (specify): \_\_\_\_\_

**Table 1: Declaration of number of washes and water consumption during the sampling period**

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Σ
No. of vehicles washed								
Total water consumption (litres)								
Water consumption per vehicles (l/transport)								

**Table 2: Report on effluents during the sampling period**

(Requirement O6)	Concentration in wastewater	Effluents per wash, vehicle unit (vu) or per 12 metres of train/other rail transport/airplanes	Total effluent during the week
Σ Lead (Pb) + Nickel (Ni) + chromium (Cr)	mg/l	mg/wash, vu or per 12 metres	mg
Cadmium (Cd)	mg/l	mg/wash, vu or per 12 metres	mg
Zinc (Zn)	mg/l	mg/wash, vu or per 12 metres	mg
Copper (Cu)	mg/l	mg/wash, vu or per 12 metres	mg
Antimony (Sb)	mg/l	mg/wash, vu or per 12 metres	mg
DEHP	mg/l	mg/wash, vu or per 12 metres	mg
Oil index	g/l	g/wash, vu or per 12 metres	g

Comments:

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**Signature of applicant:**

Date:	Phone:
Contact person:	E-mail:
Signature:	

## Appendix 3 Overview of chemical products (O8)

The following declaration may be used by applicants when applying for a licence for a Nordic Swan Ecolabelled wash installations for vehicles.

The declaration relates to the wash installation with the following name:

Wash installation:
Address:

**Care products** (that have a cleaning and/or polishing function for the care of the vehicles) must be listed in the table below:

Name of care product	Manufacturer/supplier	Function (degreasing, wax, etc.)	Ecolabelled (licence number)

**Cleaning products** (for the wash installation itself) used in the wash installation must be listed in the table below:

Name of cleaning product	Manufacturer/supplier	Function (degreasing, etc.)	Ecolabelled (licence number)

**Water treatment products** used in the wash installation must be listed in the table below.

Name of water treatment products	Manufacturer/supplier

In the event of any changes to the use of chemical products, a new declaration must be submitted to Nordic Ecolabelling.

**Signature of the applicant**

Date:	Phone:
Contact person:	E-mail:
Signature:	

## Appendix 4 Declaration from supplier of water treatment products (O9)

This declaration must be completed by the manufacturer/supplier of water treatment chemicals used in Nordic Swan Ecolabelled wash installations for vehicles.

This declaration must state that the chemical products used for water treatment (e.g., chemical separation, pH regulation, combating microorganisms) do not contain organochlorine substances or reactive chlorine compounds that may form organochlorine metabolites.

Overview of products:

Name of water treatment product	Manufacturer

Does any of the water treatment products above contain organochlorine substances or reactive chlorine compounds that may form organochlorine metabolites?

Yes

No

**Signature of the supplier of water treatment products:**

Date	Company name
Phone	E-mail
Name (contact person, capital letters)	Signature (contact person)

## Appendix 5 Declaration regarding sludge and oil emptying (O16)

This declaration is to be completed by the collection contractor of the sludge and oil emptying.

The declaration relates to the wash installation with the following name:

Wash installation:
Address of wash installation:

Information on the collection contractor and process facility handling the sludge and oil from the wash installation:

<u>Name of collection contractor:</u>
<u>Name of process facility:</u>
<u>Address of process facility:</u>

We hereby guarantee that when emptying the above wash installation's water treatment system, the sludge tanker truck used by the collection contractor is not contaminated with heavy metals or bacteria.

Signature of the collection contractor:

<u>Date:</u>	<u>Company name:</u>
<u>Phone:</u>	<u>E-mail:</u>
<u>Name (contact person, capital letters):</u>	<u>Signature (contact person):</u>



## Appendix 6      Annual follow up (O26)

A template in excel can be obtained from Nordic Ecolabelling.

## Appendix 7 Explanations, analysis, and control

### 1 Water sampling

For a first application or in the event of major changes, water samples are to be taken, as set out in requirement O5 on the initial sampling, to check that the effluent requirements in O6 are fulfilled.

For basic licence holders and licensees who do not make use of a basic licence, compliance with the effluent requirements in O6 is to be monitored during the period of validity of the licence with the help of water samples. This is to be conducted during the period 1<sup>st</sup> of November – 30<sup>th</sup> of April.

Nordic Ecolabelling reserves the right to demand further water sampling during the licence period if this is considered necessary (such as in case of a change of chemical products, change of washing equipment, or the irregular use of the wash installation).

Sampler	The sampling shall be carried out by a person from an accredited body or a person with a certificate/diploma in water sampling.
Time of year	Sampling must be conducted between 1 November and 30 April, and when at least 10% of the annual transport figure has been washed after the sludge/oil separator has been emptied.
Sampling point	Sampling must take place at a point, after the water treatment equipment but before the connection to the rest of the wastewater network of the property and municipal wastewater network/water recipient, where the collected wastewater flow from the wash installation passes. Water turbulence is important at the sampling point, to avoid samples from layered water.
Sampling technique	The samples are to be taken by automatic flow proportional sampling or manual random sampling.
Number of samples for automatic flow proportional sampling	For initial sampling (O5): Two wastewater samples (full day samples) are to be taken within the sampling period, and there must be a minimum of one month between the two samples. For the annual sampling (O26): One wastewater sample (full day samples) is to be taken within the sampling period.
Number of samples for manual random sampling	For initial sampling (O5): Two random samples are to be taken within the sampling period, and there must be minimum one month between the two samplings. The random sampling is to be conducted while vehicles are being washed in the wash installation. For the annual sampling (O26): One random sample is to be taken within the sampling period.
Load	The sampling is to be conducted while vehicles are being washed in the wash installation so that the water treatment unit is at operating load.

Water consumption	<p>During the initial sampling, <b>tap water consumption</b> is to be measured over a week (7 days). Water consumption per transport is calculated by dividing water consumption over the same period.</p> <p>The annual average water consumption for self-assessment (O26) is to be calculated as litres per year divided by number of washes of vehicles per year.</p> <p>The report on total water consumption is to include all water consumption at the wash installation. The amount of water used to fill up the system after emptying is not included when calculating water consumption per transport (on condition that water is not discharged during filling). The estimated water loss in the system must not be deducted from the total water consumption.</p> <p>If rainwater is collected and used for washing, the rainwater can be excluded from the calculation of water consumed. If rainwater is used and deducted from the water consumption, this must be stated in the report.</p> <p>For trucks/buses, a calculation is first made of the number of washed vehicle units. The water consumption is then divided by the number of washed vehicle units.</p> <p>For trains and other rail transport and airplanes the water consumption is divided with the number of 12 metres of train/other rail transport/airplanes.</p>
Effluents per vehicle unit	<p>Effluents per vehicle unit are calculated by multiplying water consumption (l/vehicle unit or l/12 metres of train/other rail transport/airplanes) by the analysis result from the sampling (mg/l).</p> <p>The quantity of effluents for each parameter is calculated by subtracting the estimated loss of water in the system from the water consumption per car/vehicle unit/12 metres of train/airplane (l/car, l/vehicle unit or l/12 metres of train/airplane). The estimated water loss in the system can be calculated with max 15 l/car, 45 l/vehicle unit or 45 l/12 metres of train/airplane.</p>
Analysis parameters	<p>The samples are to be analysed for:</p> <ul style="list-style-type: none"> <li>• <math>\Sigma</math> Lead (Pb), Nickel (Ni) and chromium (Cr)</li> <li>• Cadmium (Cd)</li> <li>• Zinc (Zn)</li> <li>• Copper (Cu)</li> <li>• Antimony (Sb)</li> <li>• DEHP</li> <li>• Oil index</li> </ul>
Sample handling	<p>The gathered samples must be handled such that no changes occur in the composition of the samples. This means that both the collection container and the sample bottles must be clean. Samples that are to be analysed for the oil index are to be taken directly in a glass container and stored in the dark at a temperature of between 0 and +4 °C until the analysis is conducted.</p> <p>The collection container (applies to metals) is to be thoroughly shaken before a sample is transferred to a sample bottle and sent off to the laboratory.</p>

## 2 Analysis laboratories

The analysis laboratory shall fulfil the general requirements of standard EN ISO 17025 or have official GLP status.

The applicant's analysis laboratory/test procedure may be approved for analysis and testing if:

- the sampling and analysis process is monitored by the authorities, or
- the manufacturer's quality assurance system covers analyses and sampling and is certified to ISO 9001 or ISO 9002, or

- the manufacturer can demonstrate agreement with an initial test conducted at the manufacturer's own laboratory and testing carried out in parallel at an independent test institute, and the manufacturer takes samples in accordance with a fixed sampling schedule.

### 3 Analysis methods

In exceptional cases, the ecolabelling body may permit analysis methods other than those stated below provided that the applicant can verify that the measuring accuracy is at least as precise.

	Requirement	Analysis method
Cadmium (Cd) Lead (Pb) Copper (Cu) Chromium (Cr) Nickel (Ni) Zink (Zn) Antimony (Sb)	O6	EN ISO 11885 or equivalent national standard
Oil index	O6	EN ISO 9377-2 or equivalent national standard
Phthalates DEHP (di-2-ethylhexyl phthalate) DBP (dibutyl phthalate) BBP (benzyl butyl phthalate) DIBP (diisobutyl phthalate)  Microplastics	O6 & P1	GC-MS method (Gas Chromatography-Mass Spectrometry) with detection limit $\leq 0.5$ micrograms/litre. The method must be accredited or validated by other means.  Pyr GC-MS method (Pyrolysis Gas Chromatography-Mass Spectrometry), list with the synthetic polymers and rubber components measured and the test report incl. information about detection limits.

## Appendix 8 Geographical zones (O6 and O7)

**Zone 1** includes Denmark and region Skåne, region Blekinge, region Halland and region Kalmar län in Sweden.

**Zone 2** includes Norway, Finland, Iceland and the regions in Sweden that is not covered by zone 1.

