

Nordic Ecolabelling for  
**Building operations**



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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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## Environmental communication guideline for Nordic Swan Ecolabel Building operations

Nordic Swan Ecolabel Building operations are a better choice for the environment, the climate, and the occupants. They meet strict requirements for the use phase of buildings. This includes requirements on energy, water, waste, outdoor environment as well as chemicals and building products.

The requirements promote reduced climate impact, adaptation to a changing climate, extended lifespan of the building and improved resource efficiency.

Nordic Swan Ecolabel Building operations:

- Operate buildings that are either energy-efficient from the start or after implementing energy-saving measures.
- Save energy through metering and continuous operation optimization.
- Identify and analyse potential climate change risks and adapts to the changing climate over time.
- Controls the indoor environment by meeting requirements for moisture control and minimised exposure to harmful substances.
- Save water through metering, continuous operation optimization and implementation of water-saving technologies.
- Promote resource efficiency by offering the tenants a system to easily recycle, repair and reuse.
- Promote biodiversity by banning herbicides and protecting natural elements of high value.
- Meet strict chemical requirements for substances harmful to health and the environment by using ecolabelled products and services.

The overall environmental impact throughout the lifecycle of this product group and the areas where Nordic Swan Ecolabelling have the most significant effect are described in the Background document chapter 5, "Environmental impact of the Nordic Swan Ecolabel Building operations". See Background document, chapter 6 "Alignment with the EU Taxonomy framework", for a description of how the criteria aligns with the EU Taxonomy.

# 1 What can carry the Nordic Swan Ecolabel?

Building operation for a building, understood as the entire physical unit, can be labelled with the Nordic Swan Ecolabel. The licence is granted for the service, with the building serving as the frame for the operational performance. Each licence can cover several buildings however each individual building must be documented separately.

The operation of the following building types can be certified:

1. Buildings classified as residential buildings in the national building legislation.
2. Educational buildings, including preschool buildings, kindergartens and day-care centres, schools, universities, and other schools for higher education.
3. Office buildings, including all associated facilities in the building.
4. Buildings for residential care facilities for people in need of 24-hour health care and service, such as homes for the elderly, nursing homes (NO: sykehjem), hospices, rehabilitation centres, and homes for persons with disabilities. If buildings are nationally classified as residential buildings, they are covered by bullet one.
5. Buildings for health centres and clinics that accommodate health consultations, diagnosis and treatment of injuries or ailments from qualified physicians, dentist, chiropractors, physiotherapists, etc. Surgical clinics and surgical centres are not included.
6. Commercial areas, such as cafés, hairdresser, clothing stores, supermarkets, etc., that are integrated in one of the building types 1-5. The commercial areas may constitute a maximum of 25 % of the total area of the building.
7. Temporary constructions such as modules, pavilions or annexes classified as the building types 1-5.

**The following buildings cannot have their operation Nordic Swan Ecolabelled within these criteria:**

- Residential apartment buildings with decentralised heating and ventilation systems.
- Holiday homes and cottages.
- Ice skating halls, public and private swimming pools.
- Gymnastics halls, and other sports halls not associated with the building types 1-5.
- Hospitals, surgical clinics, surgical centres and veterinary clinics.
- Hotels and conference centres. Hotels and conference operations can be Nordic Swan Ecolabelled according to criteria for hotels, restaurants, and conference facilities.
- Separate commercial buildings, shops and shopping centres. Grocery stores can be Nordic Swan Ecolabelled according to criteria for grocery stores.
- Factories and other industrial buildings.

**The following can be granted the Nordic Swan Ecolabel for the operation of specific buildings:**






- Property owners
- Companies whose main activities includes operation and maintenance services (building operation contractors)

The licensee must take full responsibility for the fulfilment of all requirements, regardless of who performs the work. Thus, it is only possible to become a licensee if full responsibility for all requirements is withheld.

## 2 How to read this criteria document

Each requirement is marked with the letter O (obligatory requirement) and a number. All requirements must be fulfilled to be awarded a licence.

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                               |
|   | Download                             |
|  | State data in electronic application |
|  | Requirement checked on site          |

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

## Requirements and justification of these

This chapter presents the requirements and explains the background to them. The appendices referred to are those that appear in the criteria document “Nordic Swan Ecolabelling of Buildings operations”. The requirements are divided into 9 main chapters:

1. General requirements
2. Management
3. Energy
4. Climate change
5. Indoor environment
6. Water
7. Recycling, reuse, and waste management
8. Outdoor environment and biodiversity
9. Services and products

## Buildings certified within Nordic Ecolabelling for New Buildings and Renovation of buildings

Buildings certified within Nordic Ecolabelling for New Buildings, generation 3 or generation 4, have fulfilled strict requirements for the whole life cycle of the building and automatically fulfil the following requirements within these criteria:

- O8 Energy action plan
- O13 Risk analysis Climate change\*
- O14 Adaptation to a changing climate\*\*
- O15 Damp, mould, and moisture survey
- O17 Inventory of environmental hazardous substances
- O18 Measurement of PCB levels in indoor air
- O21 Radon
- O26 Water-saving technologies and measures

Buildings certified within Nordic Ecolabelling for Renovation of buildings, generation 1 or generation 2, have fulfilled strict requirements for the renovation of the building and automatically fulfil the following requirements within these criteria:

- O8 Energy action plan\*\*\*
- O15 Damp, mould, and moisture survey
- O17 Inventory of environmental hazardous substances
- O18 Measurement of PCB levels in indoor air
- O21 Radon

Buildings certified within Nordic Ecolabelling for New Buildings or Nordic Ecolabelling for Renovation of buildings must be able to show their licence and must guarantee that no changes have occurred that would result in the requirements not being met.

*\*Only applicable if meeting the point requirement for "Assessment of risks in a changing climate" in criteria generation 4.*

*\*\*Only applicable if gathering the point requirement regarding "Adaptation to a changing climate" in criteria generation 4.*

*\*\*\*Only applicable if meeting part A in requirement O8 Energy action plan.*

## 2.1 General

### O1 Description of the business

The licensee is responsible for all requirements in the criteria document and for the fulfilment of the requirements, no matter who the work is performed by. The applicant must provide the following information about the business:

- Company name and address.
- Description of the operation service e.g. is it externalized, what are the different stakeholders and their areas of responsibility, areas of operation and maintenance, etc.
- Information about any subcontractors, for example, external facility service providers (canteen services, cleaning services, gardening services etc.)

- Information about the responsible person for the Nordic Swan certification.
- Information about other relevant personnel related to building operation and maintenance and the division of responsibilities.

☒ Documented description of the bullet points listed above.

## O2 General information about the building

A description of the building(s) and the immediate surroundings included in the building operation must be given, containing information/description on the following:

- Description of the building(s) (building type, use profile, year of construction, situation plan, general layouts and facade drawings).
- Number of floors, number of square metres (NO: BRA, SE: BTA and Atemp, FI: A (netto), DK: Brutto and Netto, IS: A (brutto)).
- For residential buildings: Number of residential units. For offices and educational buildings: Intended number of users/tenants of the building.
- The heating system, cooling system, ventilation system, automation and control systems, and other relevant installations.
- Planned indoor operative temperature during winter.
- Planned indoor operative temperature during summer in spaces with comfort cooling.
- For offices and educational buildings: Operational/work hours and operating hours for spaces with ventilation.
- For offices and educational buildings: Occupant load factor, (m<sup>2</sup> per person) for each room.
- Outdoor areas included in the operation, including playgrounds and courtyards.
- Any supplementary buildings such as garages, storerooms, bicycle storage rooms, waste sorting stations, etc.
- Commercial spaces or other supplementary activities (canteen, gym etc.) in the building.

☒ Documented description of a) to k) above. Appendix 1 or corresponding documentation can be used.

## O3 Annual follow up

To ensure that the licensee complies with all routine related requirements during the validity period of the Nordic Swan Ecolabel licence, the licensee must submit the information in Table 1 annually\*. Nordic Ecolabelling may include a review of all requirements or selected ones\*\*.



**Table 1 Requirements that need to be reported once a year.**

| Req.      | Explanation  |
|-----------|--|
| O4        | Copy of journaling of activities from the maintenance plan for the last year.  |
| O8. B2*** | Status of the three-year plan, with improvement objectives and targets achieved to reduce the energy consumption following Table 4.  |
| O9        | Annual report of the energy consumption.   |
| O23       | Annual report of the water consumption.  |
| O26****   | Description and documentation of the water-saving technologies and/or measures implemented.  |
| O33       | List of the products covered by the requirement used during the last year. Licence number, datasheet, construction product declaration/information for each of the products. If reused, confirmation that the product is reused. |

*\*Information about follow-up and deadline for reporting is given in advance.*

*\*\*See Appendix 2 for examples of information that may be requested as part of the annual follow-up. This information must be maintained within the licensee's own systems and must be available if necessary, during the annual follow-up process.*

*\*\*\*Only applicable for licensees that fulfil requirement O8 through section B2.*

*\*\*\*\*Only applicable the first year after the licence has been obtained and if not already fulfilled at the time of application.*

☒ Confirmation that the licensee conducts annual follow-up of the licence.

## 2.2 Management

### O4 Maintenance plan

The licensee must have a building-specific maintenance plan. This must cover at least all construction components and installations\* stated in Appendix 3 and report on at least 30 years. The maintenance plan must as a minimum contain the bullets in section A and describe the routines from section B:

#### A. Content of the maintenance plan:

- planned maintenance measures.
- performed actions based on planned maintenance.
- technical life span of installations and relevant building parts.
- maintenance intervals including estimated time for implementation.
- responsible for each task and action within the maintenance plan.

#### B. Routines:

- there must be routines for regular follow-up on the planned actions in the maintenance plan, at least once a year.
- The maintenance plan must be updated regularly, at least once a year.
- There must be specified a professional role responsible for the content and updates regarding the maintenance plan.

*\*If any component is not relevant to include in the maintenance plan for the specific building, this must be stated.*

☒ Maintenance plan including the content described above, for all construction components and installations in appendix 3.

☒ Responsible person for the content and updates of the maintenance plan.

- ☒ Routines for updating the maintenance plan.
- ☒ Annually: Copy of journaling of activities from the maintenance plan for the last year, see requirement O3.

## O5 Training of employees

The licensee must have a procedure that ensures that employees\* who participate in the day-to-day operation and management of the building must complete training on the environmental practises connected to the building.

The training must include, as a minimum:

- Information on what a Nordic Swan Ecolabelled building operations stands for.
- Environmental impact of the building during the use phase.
- What the employees can and must do to help with the environmental practices connected to the Nordic Swan Certification in each building.
- Detailed information\*\* on specific requirements connected to the certification.

Training must take place no later than two months after obtaining the Nordic Swan Ecolabel licence. New employees must receive the necessary training within two months.

*\*Including subcontractors who participate in the day-to-day operation and management of the building.*

*\*\*This information must be given as part of the training to those employees who work directly with tenant adaptations, maintenance projects, indoor environment, handling complaints, energy optimization, purchase of new equipment/products, and other routines within operations and maintenance.*

- ☒ The procedure of the licensee's training showing how employees are trained, in accordance with the requirement.
- ☒ Procedure that ensures the training of all new employees.
- 🔍 Participant lists checked on site.

## O6 Information to the users/tenants

The licensee must fulfil sections A and B ensuring that the users/tenants of the building have sufficient information of the consumption data and general information.

### A. Consumption information

The licensee must either fulfil A1 or A2.

A1. Information on the consumption of energy and water in the building must constantly be available to users/tenants.

A2. The licensee must at least once a year inform the users/tenants about the building's operational performance. The information (e.g. provided in an annual letter or shared in an annual meeting) must at least include:

- The energy use of the building compared to at least the previous\* five years (kWh/year). Data from O9 shall be used.

- The water use of the building compared to at least the previous\* five years (m3/year). Data from O23 shall be used.

## B. General information

The following information must as a minimum be available for users/tenants:

- Communication about the environmental work and information on what holding the Nordic Swan Ecolabel means.
- Intended room temperatures in winter and summer.
- Information about how furniture placement can affect the airflow and temperature in the room and how it can be addressed, for example by avoiding placing furniture or other obstructions in front of radiators or supply air diffusers etc.
- Information on how tenant behaviour can reduce energy and water use.
- Information about cleaning and maintenance methods\*\* (for example, supply and exhaust air devices, filters in the kitchen hood and surface layer of the floor)
- For offices and schools: Information about the environmental benefits of choosing reused items instead of newly manufactured ones. For example, chairs in offices and schools, desks, planters, etc.

*\*If the data available is for less than five years, this will be used as start point. If there is no data from previous years, this bullet point will be evaluated as part of the follow-up during the coming years. This is applicable only to new licensees who have not previously measured the data.*

*\*\*Applicable when the users/tenants are responsible for maintaining parts or areas in the building (e.g. apartments, offices, etc).*

- ☒ Part A1: Description of the system which provides the users/tenants with constant information of the energy and water consumption.
- ☒ Part A2: Description of the process for annual reporting to users/tenants.
- ☒ Part B: General information for users/tenants.

## O7 User complaints and fault reports

The licensee must fulfil the following bullets (A-D):

- A. A system for handling, journaling and archiving faults and complaints from users/tenants must be implemented.
- B. A description of how the faults and complaints are handled, journaled and archived, must be in place and communicated to the users/tenants. Reported issues must be investigated immediately (within 48 h).
- C. There must be clear instructions and information to the users/tenants on where and how to report issues.
- D. The areas of faults and complaints must at least cover:
  - Issues on air quality.
  - Issues with draughts from the ventilation.
  - Issues with temperatures, for example, room temperature deviating from planned levels.
  - Issues with abnormal building or installation-related noises.

- Issues related to moisture problems or suspicion of moisture problems.
- Issues related to abnormal smells/odours.
- Issues with leaking faucets.
- Other issues related to the performance of the building

☒ Description of the fault reporting system including A to D sections.

## 2.3 Energy

### O8 Energy action plan

The building must comply with section A\* and either B1 or B2.

An Energy Performance Certificate and associated report must be conducted by an accredited\*\* independent expert with a minimum of 5 years experience. The documentation must not be older than 10 years.

*Heritage-listed buildings<sup>1</sup> are not covered by this requirement.*

*Buildings certified within Nordic Swan Ecolabel Renovation of Buildings must comply with section A but are exempted from fulfilling Sections B1 and B2.*

*If new legislation comes into force during the validity period of the criteria, Nordic Ecolabelling will assess the requirement and an adjustment may be implemented.*

#### Section A

The building must at least meet the energy class from Table 2, according to the energy declaration for buildings covered by the Energy performance of Buildings Directive\*\*\*.

**Table 2 Minimum energy class per respective Nordic country.**

| Country**** | Energy class |
|-------------|--------------|
| Sweden      | E            |
| Finland     | E            |
| Denmark     | D            |
| Norway      | E            |

#### Section B1

The building must at least meet the Energy class from Table 3, according to the energy declaration for buildings covered by the Energy performance of Buildings Directive\*\*\*.

<sup>1</sup> **DK:** Protected buildings and buildings worthy of preservation with high conservation value (class 1-4 in the SAVE method1). **FI:** Protected buildings and buildings worthy of preservation that are defined in the law on built heritage or in town plans. **NO:** Protected buildings, as defined in the act kulturminneloven or svalbardmiljøloven, and buildings worthy of protection, as defined in the act plan- og bygningsloven, or naturmangfoldloven. **SE:** Protected buildings and buildings worthy of preservation are defined by the Country administrative Board (Länsstyrelsen). In addition, buildings q-marked by the municipalities in the local/zone plan, or alternatively buildings that are part of a municipality cultural environment programme or conservation programme. **IS:** Protected buildings and structures that are defined as protected by the Cultural Heritage Agency of Iceland, see: [Friðuð hús og mannvirki | Minjastofnun](#).

**Table 3 Energy class per respective Nordic country.**

| Country**** | Energy class |
|-------------|--------------|
| Sweden      | C            |
| Finland     | C            |
| Denmark     | B            |
| Norway      | C            |

## Section B2

1. An energy audit must be performed through a certified energy management system such as EN 16247-2:2022 or similar. The energy audit must be conducted by an accredited\*\* independent expert with a minimum of 5 years of experience.
2. Based on the energy audit, the building must reduce the energy consumption according to Table 4 no later than 3 years after the date the Nordic Ecolabel licence is issued.
3. The reduction must be verified by an energy action plan based on the energy audit.
4. The continuous improvement objectives and targets relating to the reduction of energy consumption must be reported annually after the requirement is met. The progress of the measures will be evaluated annually according to O3. Applicants failing to implement and/or failing to show progress for the planned measures will lose their licence.

**Table 4 Reduction of energy consumption per energy class and respective Nordic country.**

| Country**** and energy class |            | Reduced energy consumption based on an energy audit***** |
|------------------------------|------------|--|
| Sweden                       | At least C | Fulfil section B1  |
|                              | D          | 10 %   |
|                              | E          | 20 %   |
|                              | F, G       | Do not fulfil section A                                  |
| Finland                      | At least C | Fulfil section B1  |
|                              | D          | 10 %   |
|                              | E          | 20 %   |
|                              | F, G       | Do not fulfil section A                                  |
| Denmark                      | At least B | Fulfil section B1  |
|                              | C          | 10 %   |
|                              | D          | 20 %   |
|                              | E, F, G    | Do not fulfil section A                                  |
| Norway                       | At least C | Fulfil section B1  |
|                              | D          | 10 %   |
|                              | E          | 20 %   |
|                              | F, G       | Do not fulfil section A                                  |

*\*Nordic Swan Ecolabel encourage possible applicants to look at the criteria for Renovation of Buildings if their building cannot comply with section A.*

*\*\*Accreditation can be related to a person or a company.*

*\*\*\*The Energy Performance of Building Directive (2010/31/EU) in Sweden, Finland and Denmark and the Energy Performance of Building Directive (2002/91/EC) in Norway. If the Energy Performance of Buildings Directive is renewed or levels are updated during the validity of these criteria, Nordic*

*Ecolabelling will perform a new assessment of this energy requirement and adjust the requirement accordingly. The adjustment may involve a national consultation round.*

*\*\*\*\*An Icelandic company seeking certification is required to contact the Nordic Swan Ecolabel to agree on an acceptable energy level or protocol to fulfil this requirement.*

*\*\*\*\*\*Unweighted and actual energy consumption, in relation to energy consumption (kWh/year) at the time of application*

- ☒ An EPC (Energy Performance Certificate) for the building including the report alternatively documentation stating a heritage-listed building.
- ☒ Documentation that the EPC were conducted by an accredited independent expert.

Additional documentation for Section B2:

- ☒ The energy audit and energy action plan, including the report, for the building.
- ☒ Documentation that the energy audit and action plan are conducted by an accredited independent expert.
- ☒ Documentation of the energy action plan (bullet 4) and of the planned improvements showing compliance with Table 4 no later than 3 years after the date the Nordic Ecolabel licence is issued.
- ☒ Annually status of the three-year plan, with improvement objectives and targets achieved to reduce the energy consumption following Table 4 (see requirement O3).

## O9 Energy metering

The licensee must ensure the fulfilment of the following:

1. The following must be measured (in kWh/year) and documented separately on a building level:
  - The energy for heating,
  - The energy for preparation of hot tap water\*,
  - Property electricity\*\*,
  - Energy for cooling,
  - Energy from renewable energy production (electricity and/or heat), for example, solar PV,
  - Energy for energy intensive equipment\*\*\*.
2. An annual report\*\*\*\* on the energy consumption from each measured energy area (heating, electricity, hot water, cooling, etc.) must be compiled.
3. The reported energy consumption must be compared to the previous five years\*\*\*\*\*.
4. If the energy consumption has increased by more than 10 % compared to the previous year, a variance analysis must be submitted, describing possible reasons behind the increment and measures taken to return the energy consumption to the previous levels.

*\*Hot tap water can alternatively be calculated from other measured data.*

*\*\*This includes at least permanent lighting in common areas and operational spaces, heating cables, pumps, fans, motors, control and regulation equipment, elevators, and similar components.*

*\*\*\*Energy intensive equipment are appliances that use more than 10 % of the total building electricity. This can include items such as heat pumps, large refrigeration units, process electricity for areas like server rooms, etc.*

*\*\*\*\*The information must be based on readings from the facility's own meters. Invoices can also be accepted if individual buildings can be distinguished.*

*\*\*\*\*\*If data on energy consumption for the individual building is unavailable for all the past 5 years, existing data from the available previous years may be used. If no data is available, this bullet point will be evaluated as part of the follow-up during the coming years. This is applicable only to new licensees who have not previously measured the energy consumption.*

*An Icelandic company seeking certification is required to contact the Nordic Swan Ecolabel to agree on a minimum level to fulfil this requirement.*

- ☒ Documentation of metering structure which fulfils the requirements in bullet 1.
- ☒ Annual report of the energy consumption (see requirement O3) and if relevant, together with a variance analysis.

## O10 Energy efficiency – continuous operation optimisation

The applicant must describe building-specific procedures, to ensure optimization and energy efficiency, including at least the following:

1. Routines\* complying at least with the checklist set out in Table 5.
2. Routines being updated in the event of changes in operations or new components in the building.
3. Identified deviations being addressed immediately in the case of an urgent matter, and non-urgent cases analysed and documented in the maintenance plan.
4. Changes to setpoints for the energy system being recorded in a journal with the date and details of the modification.
5. The monitoring and adjustments being optimized for the specific building.
6. Specification of a professional role responsible for ensuring that monitoring and adjustments are carried out.

**Table 5 Routines for continuous operation optimization for energy**

|  |   |
|--|---|
| Monthly follow-up  |   |
| A  | Meters for the building's energy consumption are read, monitored, and logged.   |
| B**  | Monitoring of the electrical heating system to verify that, for example, panel heaters are adjusted to the designated operational temperature.  |
| Seasonal follow-up***  |   |
| C  | Inspection of setpoint for seasonal adjustment of ventilation flow.   |
| D  | Inspection that the lighting control in common areas, such as the entrance hall, is functioning.  |
| E****  | Ensure that the supply air temperature is kept low, for example 18°C during the heating season.   |
| Annual follow-up   |   |
| F  | Inspection of the fans' specific fan power (SFP)  |
| G  | Inspection to ensure that valves do not leak when they are closed.  |
| H  | Inspection and optimization of the cooling machine for comfort cooling concerning flows, pressures, condensation temperature, temperature differentials, valves, cleaning of heat exchanger surfaces, and compressor control. |
| I  | Inspection of the coefficient of performance (COP) of refrigeration machines and heat pumps.  |
| Annual follow-up – only for buildings with installed cooling |   |
| J  | Inspection of setpoint to ensure that heating and cooling cannot occur simultaneously in the same area.   |

*\*If there is a routine that is not relevant for the specific building and therefore not covered in the building's operation, that shall be described in the application.*

*\*\*Only for buildings with direct electrical heating systems, i.e. heat pumps are not covered.*

*\*\*\*Actions conducted periodically, based on the changing seasons.*

*\*\*\*\*Only applicable for buildings with balanced ventilation systems with heat recovery.*

- ☒ Routines that document the bullets 1 (A-J in Table 5), 2 and 5.
- ☒ Confirmation of bullet 3 and description of identified deviations that have been or will be addressed immediately in the case of an urgent matter or analysed and documented in the maintenance plan.
- ☒ Routines for recording changes in the setpoints for the energy system, examples of the journal and details of the latest modifications.
- ☒ Description of the professional role responsible of these routines.

## O11 Operation and maintenance instructions

The applicant must provide operation and maintenance instructions\* which comply with at least the following:

1. Easily accessible and available where the work is to be carried out.
2. Written comprehensibly for those performing the practical work.
3. Tailored to the current activity and type of system.
4. Specification of a professional role responsible for ensuring that monitoring and adjustments are carried out.
5. Instructions are updated in case of changes in operations, setpoints, or component elements.



*\* Appendix 4 offers a list of instructions for the heating, cooling and ventilation systems that can be followed by the applicant.*

*If the applicant hires a professional external service provider, the documentation can be limited to basic information about the technical systems for the specific buildings necessary to enable a change of service provider.*

- 9 Bullet point 1: Checked on site
- ☒ Operation and maintenance instructions for the heating, cooling, and ventilation systems that at least cover bullet points 2 to 4.
- ☒ Routines for fulfilling bullet point 5.

## O12 Purchasing of white goods

The requirement applies to licence holders who are responsible for the purchasing of white goods and within the areas where they have the responsibility.

Household appliances and professional kitchen appliances must at least fulfil the energy class requirements in accordance with Tables 6 and 7.

The licensee must have routines to ensure that documentation is collected from the producer/supplier, and that energy consumption is considered and assessed when purchasing white goods.

**Table 6 Requirements for household white goods**

| Product type  | Energy labelling according to Energy Label Regulation 2017/1369 (including supplements)           |
|---|---|
| Washing machine   | B   |
| Refrigerator  | E   |
| Freezer   | E   |
| Combined refrigerator and freezer   | E   |
| Refrigerator for mini kitchen (height ≤ 80 cm)                                    | F   |
| Drying cabinets   | Must have an energy consumption of no more than 0.4 kWh/kg of laundry                             |
| Combined wash and tumble dryer  | D   |
| Dishwasher  | C   |
| Tumble dryers   | C   |
| Product type  | Energy label in accordance with the Energy Labelling Directive 2010/30/EC (including supplements) |
| Integrated oven   | A+  |
| Oven in free standing stove   | A   |
| Electric water heaters installed in individual apartments or single-family houses | C   |

**Table 7 Requirements for professional kitchen appliances**

| Product type                           | Energy level according to Energy Labelling Directive 2010/30/EC (1094/2015/EU)                                 |
|--|--|
| Combined freezer/refrigerator cabinets | D  |
| Refrigerators                          | B  |
| Freezers                               | D  |
| Boiling pans                           | At least 90% energy efficiency according to EFCEM's Energy Efficiency Standard for boiling pans or equivalent. |

*If new legislation comes into force during the validity period of the criteria, Nordic Ecolabelling will assess the requirement, and an adjustment may be implemented.*

*Refrigerators and freezers with central cooling systems are not covered by the requirement.*

- ☒ Routines to ensure that documentation (type/model, a datasheet or product label) is collected from the producer/supplier, and that energy consumption is considered and assessed when purchasing white goods.

## 2.4 Climate change

### O13 Risk analysis climate change

A climate risk and a vulnerability analysis of the building and property must be performed, including the following parts A)-C):

#### **A) Risk analysis (Exposure)\*:**

- Screening of which physical climate risks, both geographically and in the building's vicinity, that may affect the performance of the building during its expected lifetime (minimum 50 years).
- All risks in Table 8 must be assessed\*\*.
- Methods and sources used to carry out the mapping of potential climate risks must be presented.

#### **B) Vulnerability analysis (Vulnerability)\*:**

- An analysis of the specific buildings' ability to withstand identified climate threats must be performed.
- A description of how the users/tenants are affected, for example sensitivity to heatwaves must be presented.
- Methods used to evaluate the vulnerability must be presented.

#### **C) List of necessary climate adaption measures (Measures of action):**

- A list of climate adaptation measures\*\*\* must be presented. At least one climate adaption measure for each individual significant identified physical climate risk must be presented.
- It must be clearly described how the measures contribute to reducing the relevant climate risks for the specific property.
- Each risk without a suggested measure must have an explanation describing why no specific measure is needed.

- Methods used to evaluate necessary climate adaptation measures must be presented.
- The adaptation measures must further:
  - Not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities.
  - Promote nature-based solutions or to the extent possible rely on blue or green infrastructure<sup>2</sup>.
  - Be consistent with local, sectoral, regional, or national strategies and plans.

**Table 8 Classification of climate-related hazards.**

| Time                | Temperature related                                  | Wind-related                                      | Water-related  | Solid mass-related |
|---------------------|--|---|--|--------------------|
| Chronic (long term) | Changing temperature (air, freshwater, marine water) | Changing wind patterns                            | Changing precipitation patterns and types (rain, hail, snow/ice) | Coastal erosion    |
|                     | Heat stress  |   | Precipitation or hydrological variability                        | Soil degradation   |
|                     | Temperature variability                              |   | Ocean acidification  | Soil erosion       |
|                     | Permafrost thawing                                   |   | Saline intrusion   | Solifluction       |
|                     |  |   | Sea level rise   |                    |
|                     |  |   | Water stress   |                    |
| Acute (short term)  | Heat wave  | Cyclone, hurricane, typhoon                       | Drought  | Avalanche          |
|                     | Cold wave/frost                                      | Storm (including blizzards, dust, and sandstorms) | Heavy precipitation (rain, hail, snow/ice)                       | Landslide          |
|                     | Wildfire   | Tornado   | Flood (coastal, fluvial, pluvial, ground water)                  | Subsidence         |
|                     |  |   | Glacial lake outburst  |                    |

*\*The climate and vulnerability analysis must be based on RCP scenarios from the IPCC and correspond to a period of at least 50 years. Risk assessments must be performed using at least base scenarios (RCP2.6/RCP4.5) and RCP8.5 according to IPCC. Local or national official data sources, guidelines and tools are accepted.*

*\*\*If any risks are irrelevant for the specific building, that must be described.*

*\*\*\*Climate adaption measures include nature-based solutions (blue or green infrastructure<sup>3</sup>), building and installation techniques, systematic control in operation, as well as providing users/tenants and staff information about risks, effects, and self-help measures.*

*If new legislation comes into force during the validity period of the criteria, Nordic Ecolabelling will assess the requirement, and an adjustment may be implemented.*

☒ Documentation of risk and vulnerability analysis covering A and B.

<sup>2</sup> Green infrastructure (GI) – Enhancing Europe’s Natural Capital (COM(2013) 249 final

<sup>3</sup> Green infrastructure (GI) – Enhancing Europe’s Natural Capital (COM(2013) 249 final

- ☒ Documentation of climate adaption measures according to C.

## O14 Adaptation to a changing climate

Based on requirement “O13 Risk analysis climate change”, the licensee must ensure the fulfilment of the following bullets:

A: Maintenance plan

- Identified climate adaptation measures must be implemented in the maintenance plan.

B: Routines

- Routines for implementing the climate adaption measures in at least connection with maintenance, renovation, and reconstruction\*.
- Routines for reviewing the climate adaptation measures every fifth year and potentially revising the measures.

*\*Documentation can for example be included in the maintenance plan, in design instructions and systematic operation controls.*

*If new legislation comes into force during the validity period of the criteria, Nordic Ecolabelling will assess the requirement, and an adjustment may be implemented.*

- ☒ Documentation of implemented measures in the maintenance plan according to bullet A.
- ☒ Description of routines that fulfil bullet B.

## 2.5 Indoor environment

### O15 Damp, mould and moisture survey

The building must have gone through a survey to assess moisture damage, fungal growth, dry rot fungus, odours, and water damage.

The moisture survey\* must be performed by an expert\*\* and at least include\*\*\* the following:

- Foundation and terrace joists.
- Basement walls or corresponding.
- The building envelope (including roof).
- Moisture-sensitive elements indoors and outdoors.
- Technical installations.
- Interior surfaces in rooms that are exposed to moisture (wet rooms, kitchens, showers and laundry rooms).

*\*The survey can be performed visually and non-destructively, and it must not be older than 2 years at the time of application.*

*\*\*The survey must be performed by an expert with documented knowledge and experience with moisture related problems within buildings, building constructions and materials. The expert must have a minimum experience of 2 years.*

*\*\*\*If the whole building cannot be surveyed (e.g. technical installations in all residential units) a representative selection of areas must be surveyed, and the selection must be justified.*

- ☒ Report with the status of the building in moisture related risks, including all the information detailed in the bullets.
- ☒ CV of the expert documenting relevant competence.

## O16 Damp, mould and moisture prevention and handling plan

The licensee must fulfil sections A and B ensuring knowledge and routines for preventing and remediating moisture damage in the building.

**A. Routines for moisture prevention:** There must be routines for moisture prevention including at least the following:

- A professional role, responsible for ensuring the checks and adjustments of the routines.
- Description of the regular inspection of potential moisture damages.
  - Type of control and visual checks, e.g. visual checks in Table 9.
  - Areas controlled.
- Description of the frequency of the controls, minimum every year.
- All inspections must be documented and saved.

**B. Routines for addressing moisture, mould, and water damage:** There must be routines describing the actions that need to be carried out when moisture, mould or water damage is found. These routines must include:

- Description of the damaged area.
- Description of the problem and a detailed survey.
- Description of the method chosen to remediate the moisture, mould, or water damage.
- If mould removal is necessary, the work must be carried out in compliance with national occupational health and safety guidelines and performed by a licensed/authorised contractor.
- Description of the time plan\* for execution of actions in case of finding moisture related damage.
- Description of the follow-up plan and implementation in the maintenance plan to ensure that the affected area is now clean and in good condition.

**Table 9 Visual checks for moisture prevention.**

| Visual moisture checks                           |
|--|
| visible moisture stains or moisture damage       |
| salt rash  |
| discolouration                                   |
| bubbles or swelling in flooring and on wallpaper |
| condensation on the inside of the window         |
| presence of a musty smell                        |
| water in pipe shafts                             |

*\*Time plan: An annual plan for the actions planned in relation to moisture damage.*

- ☒ Description of the routines for moisture prevention containing at least the bullet points in A.
- ☒ Description of the routines for addressing moisture, mould, and water damage according to B.
- ☒ If relevant, planned corrective actions to remediate moisture damage that has been found and building components that are at risk of moisture damage.

## O17 Inventory of asbestos and PCB

This requirement is activated for buildings constructed before 2005.

A hazardous material survey\* must be performed by an expert\*\*. The inventory must cover the entire building\*\*\* and as a minimum identify asbestos and PCB.

The report from the inventory must at least include:

1. Responsible for the report.
2. Screening methods for the different hazardous substances.
3. The location of the suspected or identified harmful substances including description, photographs, or drawings.
4. A list of building parts and materials where hazardous substances are retained or suspected to be retained in the building, including amounts\*\*\*\*.

If any harmful substances are found:

- the maintenance plan must be supplemented with the information.
- Instructions on how to handle these building parts as part of future maintenance work and improvements must be established.
- Routines must be in place describing how these hazardous building materials and installations will be replaced\*\*\*\*\* and handled in the future showing compliance with national threshold limits for hazardous waste.

*\*The survey can be performed visually and non-destructively and must not be older than 3 years at the time of application. If a previously performed survey is more than three years old, the person/company responsible for writing the report must assess whether there is a need to update the report.*

*\*\*The person performing the environmental survey must be qualified to conduct an environmental survey and have at least three years of relevant experience. The expert must also show relevant experience with the same type of buildings and complexity as the one in question.*

*\*\*\*In residential buildings, at least 10 % or a representative number of the apartments must be controlled and taken as reference.*

*\*\*\*\*Since the survey can be conducted non-destructively, estimates of the amounts of hazardous materials are accepted.*

*\*\*\*\*\*The requirement does not force the licensee to replace the building parts that contain either asbestos or PCB but to have routines in place for when they may be changed in the future.*

- ☒ Report from the inventory of asbestos and PCB.

- ☒ CV of the expert documenting relevant competence.
- ☒ If harmful substances are found: Documentation of what is included in the maintenance plan.
- ☒ If harmful substances are found: Instructions for how to handle the hazardous waste according to legislation.

## O18 Measurement of PCB levels in indoor air

PCB must be measured in the indoor air in cases where PCB concentrations in materials\* exceed the national threshold limit for hazardous waste. The PCB content must be below 300 ng PCB/m<sup>3</sup> in the indoor air.

If the level of PCBs exceeds the threshold limit value for indoor air, action must be taken to trace the source of the PCB and remove/remediate it. The indoor air must then be tested once again to analyse PCB levels.

The measurement must be conducted in compliance with “Instructions for measuring PCBs in the indoor climate”. See

[https://pcbguiden.dk/Media/637968423794975979/pcb\\_maalemetode.pdf](https://pcbguiden.dk/Media/637968423794975979/pcb_maalemetode.pdf).

If other test methods are used the methods must be verified by Nordic Ecolabelling in advance.

*\*If PCB has only been found in outdoor materials and in a location where it cannot migrate to the indoor environment, it is not necessary to perform PCB measurements. However, Nordic Ecolabelling reserves the right to require testing in case of doubt.*

- ☒ Analysis report showing measured PCB contents in the indoor air expressed as ng PCB/m<sup>3</sup> air.

## O19 Air quality and ventilation – continuous operation optimisation

The applicant must describe building-specific procedures to ensure satisfactory air quality and ventilation, including at least the following:

1. Routines\* complying at least with the checklist set out in Table 10.
2. Routines being updated in the event of changes in operations or new components in the building.
3. Identified deviations being addressed immediately in the case of an urgent matter, and non-urgent cases analysed and documented in the maintenance plan.
4. Changes to system setpoints for the ventilation system are recorded in a journal with the date and details of the modification.
5. The check and adjustment being optimized to the specific building.
6. A professional role, responsible for ensuring the checks and adjustments are carried out, being specified.

**Table 10 Routines for continuous operation optimization for air quality and ventilation**

|  |   |
|--|---|
| Annual follow up                                     |   |
| A  | • Inspection to determine the need of adjustments according to the current number of users/tenants in the building  |
| B  | • Inspection to determine if the ventilation ducts need to be cleaned internally.   |
| C  | • Inspection to determine whether the ventilation system requires adjustments of airflow.   |
| Annual follow-up – only non-residential buildings    |   |
| D  | • Ensure the necessary supply of airflow in each room.<br>• The results are compared with the current operational need for airflow, as outlined in the room description of the building   |
| E  | • Exhaust airflow is measured every three years.<br>• The results are compared with the current operational need for airflow, as outlined in the room description of the building.  |
| F  | • Inspection to ensure that the operating hours of the fans/ventilation are synchronised with the current operational hours (working hours) of the users/tenants.<br>• The ventilation system should be started in advance of operational hours and run for a period after these hours to effectively eliminate pollutants, odours, and moisture. The air volume must be changed at least once prior operational hours. |
| When changing activities, business, or users/tenants |   |
| G  | • Adjustment of airflow in rooms affected by new or modified activities/business/users/tenants.   |

*\*If there is a routine that is not relevant for the specific building and therefore not covered in the building's operation, that shall be described in the application.*

- ☒ Routines that document the bullet 1 (A-G) in Table 10, 2 and 5.
- ☒ Confirmation of bullet 3 and description of identified deviations that have been or will be addressed immediately in the case of an urgent matter or analysed and documented in the maintenance plan.
- ☒ Routines for recording changes in the setpoints for the ventilation system, examples of the journal and details of the latest modifications.
- ☒ Description of the professional role responsible of these routines.

## O20 Thermal comfort – continuous operation optimisation

The applicant must describe building-specific procedures to ensure satisfactory thermal comfort and energy efficiency, including at least the following:

1. Routines\* complying at least with the checklist set out in Table 11.  
Buildings with water borne heating systems must comply with A to H.  
Buildings with electrical heating systems must comply with B, C, E, F and G.
2. Routines being updated in the event of changes in operations or new components in the building.
3. Identified deviations must be addressed immediately in the case of an urgent matter and non-urgent cases analysed and documented in the maintenance plan.
4. Changes to system setpoints for the heating system, and any comfort cooling system, are recorded in a journal with the date and details of the modification.
5. A professional role, responsible for ensuring the checks and adjustments are carried out, being specified.



**Table 11 Routines for continuous operation optimization for thermal comfort**

|  |   |
|--|---|
| Monthly follow up                                    |   |
| A  | Inspection to ensure that the control curve for the heating system's temperature level is set to a specific setpoint.           |
| Seasonal** follow up                                 |   |
| B  | Inspection and maintenance of movable sunshades.  |
| C  | Ensure that the setpoint for indoor air temperature is not lowered during summer in rooms with comfort cooling.                 |
| D  | Inspection to verify that circulation pumps in water-based heating systems have been stopped during the summer.                 |
| E  | Inspection to verify that outdoor de-icing heaters are turned off outside the winter season.                                    |
| Annual follow up                                     |   |
| F  | Inspection to determine if the comfort cooling system needs readjustment.   |
| G  | Ensure that rooms being heated/cooled have functioning room temperature regulation.   |
| When changing activities, business, or users/tenants |   |
| H  | There must be routines to readjust heating and cooling systems when there is a change in temperature requirements in the rooms. |

*\*If there is a routine that is not relevant for the specific building and therefore not covered in the building's operation, that shall be described in the application.*

*\*\*Actions conducted periodically, based on the changing seasons.*

- ☒ Routines that document the bullet 1 and 2.
- ☒ Confirmation of bullet 3 and description of identified deviations that have been or will be addressed immediately in the case of an urgent matter or analysed and documented in the maintenance plan.
- ☒ Routines for recording changes in the setpoints for the heating system, and any comfort cooling system and details of latest modifications.
- ☒ Description of the professional role responsible for these routines.

## O21 Radon

This requirement is activated for all buildings in Finland, Norway, Denmark, and Sweden. There is no requirement for Iceland.

All buildings must show compliance with the limit values in Table 12.

The threshold limits must be verified by long-term (typically 2-3 months) radon concentration measurements\* done during the heating season and following national regulations.

**Table 12 Limit values for radon in the building per respective Nordic country.**

| Country | Limit value of annual average radon concentration in the building |
|---------|---|
| Denmark | 100 Bq/m <sup>3</sup>   |
| Finland | 200 Bq/m <sup>3</sup>   |
| Norway  | 200 Bq/m <sup>3</sup> , action limit 100 Bq/m <sup>3</sup> **     |
| Sweden  | 200 Bq/m <sup>3</sup>   |

*\*Measurements can be up to 5 years old as long as no alterations have been made after the measurements that affect the pressure conditions in the building.*

*\*\*Any measures taken due to the action limit must be accounted for.*

- ☒ Long-term measurement(s) and calculated annual average radon exposure, showing methodology complying with the national regulations.

## O22 Legionella

Temperatures of hot and cold water must be controlled according to the national specifications below.

The licensee must have clear routines for operations and inspection of the water system following the processes in risk assessment of legionella. Deviations that are identified are addressed immediately to avoid diseases.

### SE:

- The temperature in the entire domestic hot water system including the hot water circulation circuit is  $\geq 50$  °C.
- The temperature of stagnant hot water in water heaters (storage cylinders or calorifiers) and storage tanks is  $\geq 60$  °C.

The temperature in the tap cold water system is  $\leq 24$  °C when the cold water has been stagnant for 8 hours.

### NO:

- The temperature of hot water in circulating systems is  $\geq 65$  °C.
- The temperature of stagnant hot water in water heaters (storage cylinders or calorifiers) and storage tanks is  $\geq 70$  °C.

### FI:

- The temperature in the entire domestic hot water system including the hot water circulation circuit is  $\geq 55$  °C.
- The temperature of stagnant hot water in water heaters (storage cylinders or calorifiers) and storage tanks is  $\geq 65$  °C.
- The temperature in the tap cold water system is  $\leq 24$  °C when the cold water has been stagnant for 8 hours.
- In Finland, the data should follow Ministry of the Environment's regulation on buildings' water and sewage installations (1047/2017).

### DK:

- Licensee must comply with the recommendations in BR18 that is stated in "Rørcenteranvisning 017 Legionella - Installationsprincipper og bekæmpelsesmetoder"<sup>4</sup>. Specific temperature recommendations can be seen in figure 6.1 in this publication.

*An Icelandic company seeking certification is required to contact the Nordic Swan Ecolabel to agree on a level to fulfil this requirement.*

- ☒ Specification on who (role) is responsible for following the processes.
- ☒ Routines/systems for follow-up and monitoring according to the instructions.

<sup>4</sup> [https://www.teknologisk.dk/\\_media/74890\\_R%F8rcenter-anvisning%20017.%20Legionella.pdf](https://www.teknologisk.dk/_media/74890_R%F8rcenter-anvisning%20017.%20Legionella.pdf)

## 2.6 Water

### O23 Water metering

The licensee must ensure the fulfilment of the following bullets:

1. Submeters must be implemented for each individual building to monitor and track water usage.
2. An annual report\* on water consumption in m<sup>3</sup>/year must be compiled for each individual building.
3. The reported figures from each building must be compared to the previous five years\*\*.
4. If the water consumption has increased by more than 10 % compared to the previous years, a variance analysis must be submitted, describing possible reasons behind the increment and measures taken to return the water consumption to the previous levels.

*\*The information must be based on readings from the facility's own meters. Invoices can also be accepted if individual buildings can be distinguished.*

*\*\*If data on water consumption for the individual building is unavailable for all the past 5 years, existing data from the available previous years may be used. If no data is available, this bullet point will be controlled as part of the follow-up during the coming years. This is applicable only to new licensees who have not previously measured the data.*

- ☒ Documentation of metering structure which fulfils the bullet 1.
- ☒ Annual report of the water consumption (see requirement O3).

### O24 Water - continuous operation optimisation

The applicant must describe building-specific procedures to ensure water efficiency, including at least the following:

1. Routines complying at least with the checklist set out in Table 13.
2. Identified deviations must be addressed immediately in the case of an urgent matter and non-urgent cases analysed and documented in the maintenance plan.
3. A professional role, responsible for ensuring the checks and adjustments are carried out, being specified.

**Table 13 Routines for continuous operation optimization for water efficiency**

| Monthly follow up |   |
|-------------------|---|
| A                 | Meters for the buildings water consumption are read, monitored, and logged.       |
| B                 | Ensure that there are no water leaks, such as running toilets or leaking faucets. |

- ☒ Routines that document the bullet 1.
- ☒ Confirmation of bullet 2 and description of identified deviations that have been or will be addressed immediately .
- ☒ Description of the professional role responsible of these routines.

## O25 Purchasing of sanitary tapware

The requirement applies to licence holders who are responsible for purchasing of sanitary tapware and in areas where they have the responsibility.

The licensee must follow the water efficiency requirements\* from Table 14 when purchasing new products listed in the table.

**Table 14 Efficiency requirements for purchasing of sanitary tapware.**

| Water demanding equipment                                  | Requirement  |
|--|--|
| Toilets, WCs including suites, bowls and flushing cisterns | <ul style="list-style-type: none"> <li>• Dual-flush toilet with a maximum flush of 3 litres for small flush and 6 litres for large flush.</li> </ul>   |
| Washbasin and mixer taps                                   | <ul style="list-style-type: none"> <li>• Energy class A according to energy classification of bathroom faucets, for example SS 820000, SS 820001 or similar.</li> <li>• A maximum water flow of 6 litres/min</li> <li>• Touchless taps</li> </ul>  |
| Kitchen taps/faucets                                       | <ul style="list-style-type: none"> <li>• Energy class B according to energy classification of kitchen faucets, for example SS 820000, SS 820001 or similar.</li> <li>• A maximum water flow of 6 litres/min.</li> <li>• Touchless taps.</li> </ul> |
| Showers  | <ul style="list-style-type: none"> <li>• Energy class B according to energy classification of thermostatic shower faucets, for example SS 820000, SS 820001 or similar.</li> <li>• A maximum water flow of 8 litres/min.</li> </ul>                |
| Urinals  | <ul style="list-style-type: none"> <li>• A maximum of 2 litres/bowl/hour.</li> <li>• Flushing urinals have a maximum full flush volume of 1 litre.</li> </ul>  |

*\*At least one bullet per water equipment must be fulfilled.*

- ☒ Routines to ensure that documentation (type/model, a datasheet or product label) is collected from the producer/supplier, and that the efficiency requirements are considered and assessed when purchasing sanitary tapware.

## O26 Water saving technologies and measures

The licensee must fulfil one of the following measures at least 1 year after the licence has been obtained\*.

- An installed system that identifies normal water consumption levels, detects leakages in the water system and provides a warning or shuts off the water supply when a leak is detected\*\*.
- At least 75 % of the sanitary tapware (toilets, faucets, showers etc.) within the building\*\*\* fulfils the requirements for newly purchased sanitary tapware according to requirement O25 Purchasing of sanitary tapware.
- Installation of a system for collecting rainwater to use in for example toilet flushing.
- Installation of water reducing nozzles on 100 % of the faucets and outlets in the building\*\*\*\*.
- A water mapping of the building must be conducted to assess its technical status with the focus on water efficiency. At least one water-saving measure must be implemented based on the water mapping. The water mapping must be performed by an accredited independent expert

with a minimum of 5 years of experience. Accreditation can be related to a person or a company.

*\*If one of the measures is already in place at the time of application, no additional measure needs to be implemented.*

*\*\*The system can consist of a water fault breaker, leakage breaker, a method for following up water use in high-resolution measurement data, or water alarm management, i.e., systems that monitor the domestic water system, identify leaks, and centrally or locally shut off the water supply or alarms. Utilization of and connection to the existing water meters from the network owner is accepted as a solution. Base load can for example be identified through a 7-day measurement during nighttime (04.00-04.15).*

*\*\*\*Applies to appliances within the licensee's area of responsibility.*

*\*\*\*\*As an alternative to replacing the entire faucet or outlet. Applies to appliances within the licensee's area of responsibility.*

☒ If already implemented: Description and documentation of the water-saving technologies and/or measures implemented.

☒ If not implemented at time of application: Confirmation of the measure that will be implemented. Description of the type of measure, implementation process and timeline. Annual report 1 year after approved license confirming the implementation (see requirement O3).

## 2.7 Recycling, reuse and waste management

### O27 Information to users/tenants and possibility of sorting at source

#### **Residential buildings:**

The licensee must have clear and available information on how the users/tenants can improve waste sorting through their behaviour. The information must include at least the fractions in Table 15.

The licensee must further implement the following:

#### **A. Residential buildings with waste room**

- Containers for each fraction in the waste room stated in Table 15.
- Information on which containers the respective waste should be sorted into.
- Information about how fractions, that cannot be sorted in the waste room (e.g. hazardous waste), should be handled including information about the closest sorting/waste handling station.

#### **B. Residential buildings without waste room**

- Information about how fractions should be handled and where they should be left including information about the closest sorting/waste handling station.

## Educational and Office buildings:

The licensee must have information easily available for tenants/users on how they should sort their waste. Further, the licensee must ensure vessels for a certain number of fractions fulfilling the following:

### C. Educational buildings

- Sorting vessels for a minimum of two fractions must be installed in all classrooms and common rooms.
- Sorting vessels for a minimum of four fractions must be installed in or in the vicinity of the main kitchen and in all other permanent kitchen facilities.

### D. Office Buildings

- Sorting vessels for a minimum of two fractions must be installed in all common areas.
- Sorting vessels for a minimum of four fractions must be installed in all kitchens and kitchenettes.

**Table 15 Fractions of waste**

| The following fractions* must be covered:  |
|--|
| <ul style="list-style-type: none"> <li>• Paper,</li> <li>• coloured and clear glass,</li> <li>• plastics,</li> <li>• metal,</li> <li>• electronic waste such as batteries and lightbulbs,</li> <li>• cardboard packaging,</li> <li>• corrugated board,</li> <li>• organic waste for degradation or composting,</li> <li>• unsorted waste.</li> </ul> |

*\*Exemptions apply to buildings situated in areas where managing the specified fractions is not feasible. This may occur, for instance, if the waste reception capacities of the respective municipality are constrained.*

- ☒ Instructions and pictures that confirm fulfilment of requirements.

## O28 Promotion of repair and reuse for users/tenants

To promote the reuse of materials and components for users/tenants, the licensee must offer support to the users/tenants by having/implementing one of the following measures:

- A workspace\* which is conditioned for restoring and repairing.
- A digital system or physical space\* where tools can be shared, for example tool or machine pool.
- A system or physical space\* where items, for example furniture, can change ownership.

*\*The potential space must be available within the building or in the vicinity of the building/neighbourhood.*

- ☒ Description of the measure implemented by the company.

## O29 Promotion of repair and reuse in relation to building improvements and tenant adaptations

To promote the reuse of materials and components, the licensee must offer support to the users/tenants in relation to building improvements and tenant adaptations by implementing at least one of the following measures:

- Offer the users/tenants a reuse inventory in relation to building improvements and tenant adaptations.
- Offer the users/tenants the reuse of materials in place, for example cleaning, fixing and repairing different components, like flooring, walls, doors and different installations from the previous tenant.
- Offer the tenant reused materials from either an own storage or an external marketplace solution.

Buildings classified as residential buildings are not covered by this requirement.

☒ Description of the measure implemented by the licensee.

## 2.8 Outdoor environment and biodiversity

### O30 Outdoor area

This requirement is activated for properties with gardens/outdoor areas.

The licensee must ensure the fulfilment of the following:

1. Herbicides: No chemical herbicides are purchased or used on weeds on the properties (garden/outdoor area).
2. Insecticides/fungicides/rodenticides: Alternative methods\* must be considered before resorting to the use of insecticides/fungicides/rodenticides in the property garden/outdoor area. Any use of insecticides/fungicides/rodenticides must be handled by a licensed professional.
3. De-icers with the purpose of removing ice and snow must be ecolabelled. Sand and grit are exempted.

For properties with gardens/outdoor areas larger than 1000 m<sup>2</sup> the following further applies:

4. Foreign invasive species\*\* found on the property must be removed and controlled. Such species shall also not be planted.
5. Features of high natural value must be protected\*\*\*, including at least:
  - Trees that are over 50 years old
  - Large trees\*\*\*\*
  - Natural watercourses, such as natural streams and ponds

\* For example, mechanical or biological treatments.

\*\* This applies to species for which importing and trading are prohibited. They are found in the following documents: Denmark: The Danish Environmental Protection Agency's list of invasive species.<sup>5</sup> Finland: National list of alien

<sup>5</sup> <https://mst.dk/natur-vand/natur/national-naturbeskyttelse/invasive-arter/de-invasive-arter/>

*species.<sup>6</sup> Norway: Regulation on alien organisms.<sup>7</sup> Sweden: Currently, the requirement applies to species on the EU list and the list of most problematic species that have not yet been regulated by law.<sup>8</sup> This may be changed when the authorities have prepared new lists. Iceland: Law 583/2000.<sup>9</sup> All countries: Regulation EU 2016/1141.<sup>10</sup>*

*\*\*\*Exemptions from the requirement are granted if trees and streams pose a danger to their surroundings, for example if they pose a risk to life, health, or significant property damage. The danger must be confirmed by an independent third party.*

*\*\*\*\*Large trees refer to trees with a trunk circumference over 90 cm, measured 1 meter above ground level.*

- ☒ Routines that document the bullet 1 and 2.
- ☒ Routines to ensure that documentation (datasheet or product label) is collected from the producer/supplier, and that the requirement is considered and assessed when purchasing de-icers (bullet 3).

Additional documentation for properties with gardens/outdoor areas larger than 1000 m<sup>2</sup>:

- ☒ Routines that document the activities related to identification of foreign invasive species and maintaining records of planted species (bullet 4).
- ☒ Routines that document the activities related to the protection of trees and watercourses (bullet 5).

## 2.9 Services and products in daily operations, maintenance and building improvements

These requirements concern the purchasing of new materials and chemicals in connection to operations, maintenance and building improvements. The requirements cover purchases made by the licence holder or building owner (if the licence is held by the service provider) within the areas where they have the responsibility.

Requirements O33 to O37 are not activated for minor repairs or interventions, such as fixing a small section of for example a parquet floor. These activities are exempt from the requirements in this chapter.

### O31 Cleaning products and services

#### For Norway, Denmark and Sweden

**For all types of buildings**, the licensee must fulfil either A or B, depending on whether there is an external cleaning service or not.

A) If the property hires an external cleaning service company for the cleaning of common areas\*, the cleaning services must be Nordic Swan Ecolabelled or EU Ecolabel certified\*\*.

<sup>6</sup> <https://vieraslahti.fi/lajit?EuList=false&FiList=true&invasiveSpeciesMainGroups=HBE.MG2>

<sup>7</sup> <https://www.miljodirektoratet.no/globalassets/publikasjoner/m777/m777.pdf>

<sup>8</sup> <https://lovdata.no/dokument/SF/forskrift/2015-06-19-716?q=forskrift%20om%20fremmede%20arter>

<sup>9</sup> <https://en.ni.is/flora-funga/invasive-plant-species>

<sup>10</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1417443504720&uri=CELEX:32014R1143>



B) If the property does not have an external cleaning service, all the products used for daily general cleaning\*\*\* in common areas must be ecolabelled with the Nordic Swan Ecolabel, the EU Ecolabel, or the Bra Miljöval (Good Environmental Choice) label.

**For office buildings and educational buildings**, when hiring an external window cleaning service, this must be Nordic Swan Ecolabelled certified.

### **For Finland**

**For all types of buildings**, all the cleaning products used for general cleaning\*\* in common areas\* in the everyday must be Ecolabelled with the Nordic Swan Ecolabel, the EU Ecolabel, or the Bra Miljöval (Good Environmental Choice) label. This also applies to cleaning service companies\*\*\*\* performing the work.

### **For Iceland**

An Icelandic company seeking certification is required to contact the Nordic Swan Ecolabel to agree on a national level for fulfilling this requirement.

*\*Common areas: Common kitchens, common toilets, public areas, staircases, staff offices, etc.*

*\*\*If a non-certified external cleaning service is contracted at the time of the application, the licensee has up to 2 years for changing this situation and comply with the requirement. The plan for fulfilling the requirement must be reported and approved by Nordic Swan Ecolabel. During the overlap time, the contracted cleaning service must comply with part B of this requirement.*

*\*\*\*General cleaning: all flooring and surfaces, glass, mirrors, etc.*

*\*\*\*\*Nordic Swan Ecolabelled or EU Ecolabelled certified cleaning services comply automatically with the requirement.*

### **Documentation for Norway, Denmark and Sweden**

- ☒ A. Name of the cleaning service with its licence number and a description of the service provided.
- ☒ B. List with all the cleaning products used for general cleaning. The list must include name of the product, manufacturer, supplier, function, licence number and frequency of use.
- ☒ For office buildings and educational buildings, it must be documented if an external window cleaning service is hired. Name of the company providing the service, and the licence number must be submitted.

### **Documentation for Finland**

- ☒ List with the Ecolabelled cleaning products used for general cleaning. The list must include name of the product, manufacturer, supplier, function, licence number and frequency of use. Alternatively, name and licence number of the certified cleaning service.

## O32 Other Ecolabelled services

This requirement applies to those properties that hire one or more of the listed services, where the responsibility for the hiring belongs to the building owner and/or the building operation provider.

The following services must be Nordic Swan Ecolabelled or EU Ecolabelled certified\*:

- Canteens
- Textile services\*\*

*\*If a non-certified service is contracted at the time of the application, the licensee has up to 2 years for changing this situation and comply with the requirement. The plan for fulfilling the requirement must be reported and approved by Nordic Swan Ecolabel.*

*\*\*For Finland, this only applies to the washing of Handtowels in Textile services. Other type of textile categories does not need to fulfil this requirement.*

- ☒ List and description of the services that the property hires.
- ☒ Information about the licences: licence number, due date, expiry date and licence holder.
- ☒ Information protocol to guide users/tenants in the acquisition of Nordic Swan Ecolabelled or EU Ecolabelled certified services.

## O33 Ecolabelled products

This requirement is activated for purchases of products. Reused products are not covered by this requirement.

All the following product categories must be ecolabelled (Nordic Swan Ecolabel or the EU Ecolabel):

- Indoor wall/ceiling paint
- Outdoor paint
- Adhesives for glass felt and wallpaper\*
- Indoor fillers for ceilings and walls\*
- Indoor acrylic sealants
- Microdispers\*
- Linoleum floors
- Parquet floors
- Laminate floors
- Wood floors
- Countertops
- Particle boards
- Kitchens\*
- Kitchen fittings\*
- Playground equipment (only applicable for schools/preschools)\*

*\*Not applicable in Finland.*

- ☒ Routines to ensure that documentation (licence number, datasheet, construction product declaration/information, alternatively confirmation of reused product) is collected from the producer/supplier, and confirmation that only Nordic Swan Ecolabel or EU Ecolabel certified chemicals and building products, alternatively reused products, from the list are used in daily operations.
- ☒ Annual copy of the products from the list that has been used during the last year, see requirement O3.

### O34 PVC in floors, ceilings, walls, doors and windows

This requirement is activated for new acquisitions/purchases.

The following products must not contain chlorinated plastics (e.g. PVC)\*:

- Doors
- Windows
- Interior surface layers on floors, ceilings, and walls
- Mouldings
- Skirtings
- Surface wall films

With exemption:

- Mouldings, skirting boards and baseboards in bathrooms, professional kitchens, and stairwells
- Floorings in professional kitchens with floor drains
- Flooring in wet rooms with floor drains in educational buildings and residential care facilities
- Plastic details < 50 grams on windows and doors

*\*This includes watertight layers, wall film, acoustic dampening foams and other products used directly underneath the surface layer.*

- ☒ Declaration from the applicant – Appendix 5 must be used.

### O35 Copper

In new acquisitions, copper is restricted in the following way:

A. Tap water pipes must not contain >1 % weight of copper.

B. Roof and facade cladding materials and products for roofs and facades (roof drainage products, gutters, exhaust hoods, eaves nets, cover profiles and the like) must not contain more than 10 % by weight of copper.

Exemptions:

- Visible pipelines in bathrooms.
- Connecting pipes for water fittings, couplings and manifolds.
- Installation cabinets, such as manifold or water meter cabinets.
- Pipelines that due to national fire protection legislation must be made of copper and where alternatives are not available.
- Pipes through the exterior wall for an outdoor tap.

- Closed pipe systems such as heating or cooling circuits are not covered by the requirement.
- Protected buildings or buildings worthy of preservation that have copper roof or façade can apply for an exemption if they can prove that these building parts are protected specifically.

☒ Declaration from the applicant – Appendix 6 must be used.

### O36 Prohibited and restricted tree species

This requirement applies to all wood-based products acquired during the operations, maintenance work, improvement of the building and tenant adaptations in the building, supplementary buildings, and outdoor areas. The requirement applies only to virgin wood and not wood defined as recycled material according to ISO 14021.

Nordic Ecolabelling's list of restricted tree species<sup>11</sup> consists of virgin tree species listed on:

- CITES (Appendices I, II and III)
- IUCN red list, categorised as CR, EN and VU
- Rainforest Foundation Norway's tree list
- Siberian larch (originated in forests outside the EU)

Tree species listed on a) CITES (Appendices I, II and III) are not permitted.

Tree species listed on either b), c) or d) may be used if they meet all the following requirements:

- The tree species do not originate from an area/region where it is IUCN red listed, categorised as CR, EN or VU.
- The tree species do not originate from an Intact Forest Landscape (IFL), defined in the World's IFL 2000 map in Google Earth  
<http://www.intactforests.org/world.map.html>.
- The tree species shall originate from an FSC or PEFC certified forest/plantation and shall be covered by a valid FSC/PEFC Chain of Custody certificate documented/controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method.
- Tree species grown in plantations shall also originate from a FSC or PEFC certified forest/plantation established before 1994.

☒ A declaration that tree species listed in a–d are not used in any of the activities mentioned in the requirement. Appendix 7 must be used.

<sup>11</sup> The list of restricted tree species is located on the website: [Forestry Requirements \(nordic-swan-ecolabel.org\)](https://www.nordic-swan-ecolabel.org/forestry-requirements)

## O37 Wood and bamboo

The requirement applies to the licence holders that are responsible for the purchase of the following construction elements\* of solid wood, bamboo, glulam or wood-based panels acquired during the operations, maintenance work, improvement of the building and tenant adaptations in the building and supplementary buildings on the property:

- Frames, trusses, studs and joists used in the wooden structure of the building (roof, walls and floors)
- Underlay on roofs, walls and floors such as plywood, particle boards, MDF, OSB, tongue-and-groove and rafters
- Interior panels
- Exterior cladding and facade panels
- Timber for balcony, terrace, decking, veranda and fences

All purchased wood raw materials and bamboo must be FSC or PEFC certified\*\*.

The licensee must have routines in place for the purchasing and documentation of wood/bamboo raw materials (according to principle issued by FSC or PEFC) to ensure that all materials are FSC or PEFC certified.

*\*Minor repairs or interventions, such as repairing a small section of for example a panel are not covered by the requirement.*

*\*\*Purchased wood raw materials are either a) On-product labelled as FSC 100%/-mix/-recycled or PEFC certified/recycled or b) documented with invoices/delivery notes which confirms FSC/PEFC claims for each product that a minimum of 70% of the wood/bamboo originate from forests managed according to sustainable forest management principles issued by FSC or PEFC.*

☒ Routines for ensuring the fulfilment of the requirement.

## O38 Procurement procedures

### Responsible person:

The business must have one person\* with main responsibility for the purchasing of the different products and services covered by requirements O31 to O37. Nordic Ecolabelling must be informed if the responsible person changes.

### Purchasing procedures:

A. The business must have procedures in place for the purchasing of cleaning products and services (req. O31), other services (req. O32) and chemical and building products (req. O33 to O37) to ensure that the business complies with these requirements. The procedures must include:

- Description of the purchasing system and journaling for ensuring the fulfilment of the requirements (O31 – O37).
- Instructions for subcontractors, e.g., via agreements and control plans.
- Procedure for inspections while making maintenance work, improvements, and tenant adaptations to ensure the fulfilment of the material and chemical requirements (O33 – O37).

B. Only applicable when the responsibility of acquisition lies with the users/tenants\*\* rather than the licence holders:

- The licensee must provide an informative protocol to guide the users/tenants in acquiring services and products covered by O31 to O37.

*\*The responsible person for purchasing different products and building materials can be the same person that is responsible for purchasing services. They can also be two different persons.*

*\*\*Users/tenants of the building are not obligated to fulfil requirements O31 to O37, however the licensee must promote the best practise in accordance with the Nordic Swan criteria.*

- ☒ Name, email, phone number and job title of responsible person.
- ☒ A. Purchasing procedures for cleaning products and services, other services, and chemical products including as a minimum the bullets above.
- ☒ B. Informative protocol to guide users/tenants in acquiring services and products covered by O31 to O37.

### 3 Criteria version history

Nordic Ecolabelling adopted version 1.0 of the criteria for 116 Building operations on 30 September 2024. The criteria are valid until 31 October 2029.

Nordic Ecolabelling decided 13 May 2025 to adjust some issues in the criteria. The product group definition has been clarified that residential buildings regard residential apartment buildings. Requirement O7 has been updated to allow some flexibility and no longer include the word “addressed”. Requirement O11 has been clarified on cases where a professional external service provider is used. Requirement O18 has been clarified and updated to better reflect the reality and how it works in practise. Requirement O22 has been updated for Denmark and now reflects the reality and how it works in practise. The background text for requirement O27 has been updated with information regarding textile waste. Requirement O29 no longer covers residential buildings. The new version is called 1.1 and is valid until 31 October 2029.

## 4 How to apply and regulations for the Nordic Ecolabelling

### Application and costs

For information about the application process and fees for this product group, please refer to the respective national website. See contact info first in this document.

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

### 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 prolonged or

adjusted, in which case the licence is automatically prolonged 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 on-site inspection visit/-s 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 info first in this document. Further information and assistance (such as calculation sheets or electronic application help) is available. Visit the relevant national website for further information.

### **Follow-up inspections**

Nordic Ecolabelling may decide to check whether the licensee fulfils 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 licensee does not meet the requirements.

### **Regulations for the Nordic Ecolabelling of services**

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

The descriptive sub text for 116 Building operations is:

#### **Building operations**

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)

## Appendix 1      General information about the building (O2)

|                           |  |
|---------------------------|--|
| <b>Applicant</b>          |  |
| <b>Operations company</b> |  |
| <b>Building name</b>      |  |
| <b>Date</b>               |  |

| Building type   | Year of construction | Area of the building (m2)                   | Number of floors | Number of residential units or number of users/tenants |
|---|----------------------|---|------------------|--|
|   |                      |   |                  |  |
| Use profile of the building   |                      | [Describe here]                             |                  |  |
| Heating system  |                      | [Describe here]                             |                  |  |
| Ventilation system  |                      | [Describe here]                             |                  |  |
| Automation and control systems                                      |                      | [Describe here]                             |                  |  |
| Other relevant installations  |                      | [Describe here]                             |                  |  |
| Outdoor areas including playgrounds and courtyards                  |                      | [Describe here]                             |                  |  |
| Any supplementary buildings   |                      | [Describe here]                             |                  |  |
| Commercial spaces or other supplementary activities in the building |                      | [Describe here]                             |                  |  |
| Indoor operative Temperature (winter)                               |                      | Indoor operative Temperature (summer)       |                  |  |
|   |                      |   |                  |  |
| For offices and educational buildings                               |                      |   |                  |  |
| Operational/work hours  |                      | Operating hours for spaces with ventilation |                  | Occupant load factor for each room (m²/person)         |
|   |                      |   |                  |  |



## Appendix 2 Examples of information in annual follow-up (O3)

Table 1 contains the requirements that need to be reported once a year (same table as in requirement O3 Annual follow up). Table 16 contains examples of information that may be requested for supplementation as part of the annual follow-up process.

**Table 1 Requirements that need to be reported once a year.**

| Req.    | Explanation  |
|---------|--|
| O4      | Copy of journaling of activities from the maintenance plan for the last year.  |
| O8. B2* | Status of the three-year plan, with improvement objectives and targets achieved to reduce the energy consumption following Table 4.  |
| O9      | Annual report of the energy consumption.   |
| O23     | Annual report of the water consumption.  |
| O26**   | Description and documentation of the water-saving technologies and/or measures implemented.  |
| O33     | List of the products covered by the requirement used during the last year. Licence number, datasheet, construction product declaration/information for each of the products. If reused, confirmation that the product is reused. |

*\*Only applicable for licensees that fulfil requirement O8 through section B2.*

*\*\*Only applicable after the first year after the licence has been obtained and if not already fulfilled at the time of application.*

**Table 16 Requirements that may be requested to be supplemented as part of the annual follow-up.**

| Req. | Explanation   |
|------|---|
| O6   | Documentation of the annual information given to users/tenants about the building's operational performance (Part A2).  |
| O7   | Journaling of faults/complaints and responses and/or actions taken, showing fulfilment of bullet B.   |
| O10  | Documentation of updated routines, changes to system setpoints, identified deviations and how they have been addressed immediately or analysed and documented in the maintenance plan (bullet 1-5).   |
| O12  | List of the white goods covered by the requirement purchased during the last year. Product sheet or manual showing the energy class for each of the products.   |
| O16  | a. Documentation of performed corrective actions to remediate moisture damage that has been found and building components that are at risk of moisture damage.<br>b. Documentation of the annual moisture inspections.  |
| O19  | Documentation of updated routines, changes to system setpoints, identified deviations and how they have been addressed immediately or analysed and documented in the maintenance plan (bullet 1-5).   |
| O20  | Documentation of updated routines, changes to system setpoints, identified deviations and how they have been addressed immediately or analysed and documented in the maintenance plan (bullet 1-4).   |
| O22  | Results of the monitoring of water temperatures fulfilling the requirement for legionella for the last year, including documentation of how any potential deviations has been addressed.  |
| O24  | Documentation of identified deviations and how they have been addressed immediately or analysed and documented in the maintenance plan or in other relevant documentation (bullet 2).   |
| O25  | List of the sanitary tapware covered by the requirement purchased during the last year. Product sheet or manual showing the efficiency requirements for each of the products.   |
| O30  | a. Information about the insecticide/fungicide/rodenticide products and services purchased during the last year.<br>b. List of the de-icers covered by the requirement purchased during the last year.<br>c. Documentation of activities related to identify foreign invasive species and information about planted species.<br>d. Documentation of activities related to the protection of trees and watercourses. |
| O31  | List of all the cleaning products purchased during the last year. The list must include name of each of the products, manufacturer, supplier, function, licence number and frequency of use.  |

|     |  |
|-----|--|
| O34 | List of all the products covered by the requirement purchased the last year. The list must include datasheet, construction product declaration and/or information from the producer. If relevant, also a description of the use of chlorinated plastics in products covered by exemptions must be supplemented together with relevant information (such as product data sheet, construction product declaration or information from the producer).   |
| O35 | List of all the products covered by the requirement purchased the last year. If relevant, also a description of the use of copper in products covered by exemptions must be supplemented together with relevant information (such as product data sheet, construction product declaration or information from the producer).   |
| O36 | <p>List of all names (species names) of the wood raw material and bamboo that have been purchased during the last year including a valid FSC/PEFC Chain of Custody certificate from all suppliers of the wood-based products, covering all wood materials and bamboo used covered by the requirement. Alternatively, a link to the certificate holder's valid certificate information in the FSC/PEFC certificate database. Also, the invoice of the acquired materials covered by the requirement showing the % of FSC/PEFC certified product.</p> <p>If species from the lists b, c or d are used:</p> <ul style="list-style-type: none"> <li>• a valid FSC/PEFC Chain of Custody certificate that covers the specific tree species and demonstrates that the tree is controlled as FSC or PEFC 100 % through the FSC transfer method or PEFC physical separation method.</li> <li>• documentation of full traceability back to the forest/certified forest unit, thereby demonstrating that: <ul style="list-style-type: none"> <li>o The tree species do not originate from an area/region where it is IUCN red listed, categorised as CR, EN or VU</li> <li>o The tree species do not originate from Intact Forest Landscape (IFL), defined in the World's IFL 2000 map in Google Earth <a href="http://www.intactforests.org/world.webmap.html">http://www.intactforests.org/world.webmap.html</a>.</li> <li>o Tree species grown in plantations shall also originate from a FSC or PEFC certified forest/plantation established before 1994.</li> </ul> </li> </ul> |
| O37 | List of all names (species names) of the wood raw materials and bamboo that have been purchased during the last year including a valid FSC/PEFC certificate from the suppliers of the wood-based products. Alternatively, a link to the certificate holder's valid certificate information in the FSC/PEFC certificate database. Also, the invoice of the acquired materials covered by the requirement showing the FSC/PEFC certified product. Pictures of product packaging with a clear FSC/PEFC logo can also be included in the documentation.  |

## Appendix 3      Maintenance plan (O4)

The maintenance plan should contain at least the following construction components:

- Roofing and roof construction
- Attic floor
- Exterior walls
- Facade
- Windows
- Exterior doors
- Interior fixtures and interior spaces
- Drainage pipes
- Surface layers
- Foundation
- Ground settlement.

The maintenance plan should contain at least the following installation components:

- Ventilation units,
- Heat recovery,
- Fans,
- Ducts,
- Circulation pumps,
- Heat pumps,
- Combustion boilers,
- Sub-centres,
- Pipes for tap water, heating, and sewage,
- Refrigeration machines,
- Automation and control systems,
- Components such as room thermostats, sensors and actuators in systems for heating, ventilation, and, if relevant, comfort cooling.

## Appendix 4      Operation and maintenance instructions for heating, cooling and ventilation (O11)

**The operational part of the operation and maintenance instruction for the heating system should at least include:**

**For water-borne systems:**

- Description of existing activities/operations
- Description of the system with shunt groups and associated components
- Description of which parts of the building each shunt group is serving
- Layout drawings of the heating system, including changes and updates
- Interaction with other systems, such as ventilation systems and hot water preparation
- Information on current temperature schedules
- Operation cards (functions and settings)
- If relevant, weekend temperature setback, night temperature setback

**Electrical heating systems:**

- Layout drawings of the heating system, including changes and updates
- Interaction with other systems, such as ventilation systems and hot water preparation
- Information on current temperature schedules

**The operational part of the operation and maintenance instruction for ventilation units at least should include:**

- Description of existing activities/operations
- System description
- Layout drawings of the ventilation system, including changes and updates
- Description of the areas of the building served by the unit
- Interaction with other systems, such as heating systems and comfort cooling
- Information about present airflows and operating hours
- Pressure setpoints
- Operation cards (functions and settings)
- Defrosting functions
- Summer night cooling
- Morning and afternoon ventilation
- Flowcharts, control system principles, etc.

**The maintenance section should at least include instructions for the inspection and maintenance of ventilation units, which contain checks and time intervals for example:**

- Filter type with instructions for installation and replacements.
- Cleaning of heat exchanger surfaces, fan blades, heating coils and cooling coils.
- Liquid quality concerning contamination.
- Concentration of antifreeze for heat recovery.

- Glycol content in liquid-coupled heat recovery units.
- Air leakage to prevent exhaust air from leaking into supply air within the unit.
- Valve leakage in liquid circuits to air heaters and air coolers.
- Circulation pumps are turned off when there is no heating or cooling demand.
- Bypass dampers are functioning.
- Replacement of belts and pulleys.
- Functional testing of timers and time channels.
- Optimisation of liquid flows for heat recovery.
- Optimisation of liquid flows in heating and cooling coils.

## Appendix 5      PVC in floors, ceilings, walls, doors and windows (O34)

|  |                     |
|--|---------------------|
| Name of the Nordic Swan Ecolabel applicant | Building / Property |
|--|---------------------|

It is hereby declared that the following products that will be procured will not contain PVC:

- Doors
- Windows
- Interior surface layers on floors, ceilings, and walls
- Mouldings
- Skirtings
- Surface wall films

Do any of the exemptions for PVC stated below need to be used:

- Mouldings, skirting boards and baseboards in bathrooms, professional kitchens, and stairwells.
- Flooring in professional kitchens with floor drains.
- Flooring in wet rooms with floor drains in educational buildings and residential care facilities.
- Plastic details < 50 grams on windows and doors.

Please state type of exemption(s):

---

|                               |                             |
|-------------------------------|-----------------------------|
| <b>Signature of applicant</b> |                             |
| City and Date                 | Company                     |
| Name of contact person        | Signature by contact person |
| Phone                         | E-mail                      |

## Appendix 6 Declaration of purchasing routines of copper materials (O35)

|  |                     |
|--|---------------------|
| Name of the Nordic Swan Ecolabel applicant | Building / Property |
|--|---------------------|

It is hereby declared that copper will not be procured for the use in tap water pipes, as facade, or roofing material within the Nordic Swan Ecolabelled Building operations.

Do any of the exemptions for copper stated below need to be used:

- Visible pipelines in bathrooms.
- Water fittings connecting pipes, couplings and manifolds.
- Installation cabinets, such as manifold or water meter cabinets.
- Pipelines that due to national fire protection legislation must be made of copper and where alternatives are not available.
- Pipes through the wall for an outdoor tap.

Protected buildings or buildings worthy of preservation that have copper roof or façade with proof that the building parts are protected specifically.

*Closed pipe systems such as heating or cooling circuits are not covered by the requirement.*

Please state type of exemption(s):

---

Does the following contain more than 10% copper at the application date?

Roof Yes ☐ No ☐

Facade cladding Yes ☐ No ☐

**Signature of applicant**

|                        |                             |
|------------------------|-----------------------------|
| City and Date          | Company                     |
| Name of contact person | Signature by contact person |
| Phone                  | E-mail                      |

## Appendix 7 Declaration – tree species with restricted use (O36)

|  |
|--|
| Name of the applicant/supplier:  |
| Name of building with Nordic Swan Ecolabelled Building operations (filled by applicant): |
| Version and date of the list of restricted tree species used                             |

*The declaration must be completed at the time of application and remains applicable for all building operation procedures throughout the validity of the licence:*

It is hereby confirmed that no tree species on the list of restricted tree species will be procured or used in the operations, maintenance work, improvement of the building, tenant adaptations in the building, supplementary buildings or outdoor areas within the Nordic Swan Ecolabelled Building operations.

It is hereby confirmed that no tree species on the list of restricted tree species are used in the wood-based products.

The list of restricted tree species is located on the website: <https://www.nordic-ecolabel.org/declare-items/pulp-and-paper/forestry-requirements/forestry-requirements-2020/>.

### Signature

|                        |                             |
|------------------------|-----------------------------|
| Date                   | Company                     |
| Name of contact person | Signature by contact person |
| Phone                  | E-mail                      |

A correctly signed declaration can result in the acceptance of the use of the construction product in Nordic Swan Ecolabelled Building operations. This shall not be mixed up with Nordic Swan Ecolabelling of the construction product.