

Translation from Danish

The Swan-labelling of
Cleaning Services

Draft 1

Background to ecolabelling

8 October 2008



Nordic Ecolabelling

The Swan-labelling of Cleaning Services – Background to ecolabelling

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1 Summary

Version 1 of the criteria document for cleaning services was evaluated in 2007, as a result of which a decision was adopted to revise the criteria. The evaluation revealed that the level of stringency of most of the requirements, particularly within the areas of transport and chemicals, need to be raised. There is a trend in the cleaning industry in the direction of better vehicles, the use of fewer chemicals (and a parallel increase in the use of, for example, microfiber cloths) and the use of a greater number of ecolabelled chemicals.

In the Consultative Proposal for Version 2, the requirements applicable to chemical use have been tightened up in two ways: a mandatory requirement has been introduced for the maximum permitted use of chemicals and the points requirement has been made substantially more stringent. The project group has also changed the units used in the requirement from mg of active content in the chemicals to ml of chemicals purchased. This is aimed at making it easier for applicants to report on consumption.

The requirement applicable to the proportion of ecolabelled chemicals has also been made considerably more stringent, inter alia by means of the introduction of a mandatory requirement as to a minimum of 50% of ecolabelled chemicals and the tightening up of the points requirement.

The requirement applicable to non-ecolabelled chemicals has been amended slightly with the result that greater attention is now focussed on the hazard classification of the chemicals and the list of prohibited substances in non-ecolabelled products.

This Proposal amends the requirements applicable to transport. The requirement as to Euronorm IV vehicles has been made a mandatory requirement since the project group found that the environmental focus in the Euronorm and in the fuel consumption were not directly comparable, and could therefore not be equated in terms of points requirements. The proportion of Euronorm IV vehicles required in the Consultative Document is very high, since Euronorm IV has been a statutory requirement since 2006. The points requirement applicable to fuel consumption has been tightened up and a mandatory maximum limit for fuel consumption has been introduced. Moreover, as a result of developments in the fuel sector, more environmentally friendly alternatives to petrol and diesel are being introduced. We have taken account of this in the Consultative Proposal.

The requirement applicable to waste has not been amended greatly. However, the option of points for in-house waste sorting has been introduced.

One entirely new feature is the introduction of scope for scoring points for using various ecolabelled products or services related to the cleaning service. The thinking here is that if the cleaning business maintains a focus on environmental issues in a broader perspective than simply the actual cleaning process, then the environment will benefit greatly.

The project group has also decided to introduce ethical requirements in this Proposal. The cleaning industry is burdened by service providers that use illegal workers and offer their employees poor working conditions. The purpose of introducing ethical requirements, which focus on safeguards against the use of illegal workers, is to ensure that Swan-labelled service providers are reputable businesses. They follow the applicable laws and regulations on tax, VAT, employer's National Insurance contributions etc. The failure of a service provider to comply with these rules will not simply represent a breach of the law, but will also send out a signal that other breaches of ethical rules are occurring.

2 Basic facts about the criteria

Services that are eligible for a Swan Label

The product group encompasses cleaning services and was selected against the background of recommendations made in a preliminary study into cleaning services which pointed out a number of relevant requirement parameters: chemical consumption, waste processing, transport, health and safety and training. These environmental and health effects are all relevant to the environmental targets defined in Nordic Ecolabelling's Environmental Philosophy.

The decisive point as regards the choice of product group has been the scope for achieving environmental gains within the key parameters, without shifting environmental problems over into other areas.

During the process of developing criteria for Version 1 of the cleaning service criteria, the decision was taken to limit the product group to what might be termed general cleaning. This encompasses tasks that are necessary in order to keep an indoor area clean in the form of standard cleaning and periodic cleaning, including maintenance of floors, collection of waste etc. The cleaning service might be performed in the premises of private consumers, businesses and the public sector and could be performed by contractors or by the organisation itself. The ecolabel will always apply to the entire general cleaning processes of the licenceholder. Nevertheless, there is scope for excluding financial profit centres within the business from the licence.

During the development of both Versions 1 and 2 of the criteria, the possibility of permitting the ecolabelling of other cleaning services, such as window-cleaning, renovation work, cleaning after accidents, cleaning ventilation ducts, cleaning industrial production premises (e.g. clean rooms, production premises in the food and agriculture industry) and the cleaning of buildings was also discussed. However, it has been decided that these cleaning services should not be included.

An extensive effort would be required in order to extend the product group to take in all types of specialist cleaning, whereas there is a risk that the environmental dividend could be relatively small. The reasons for this include the fact that the range of chemicals used for specialist cleaning is very broad and would require extended technical expertise. By far the greatest proportion of the cleaning that is conducted today falls within the definition of "general cleaning", for which reason the work on obtaining licences for this area of cleaning will generate a far greater environmental benefit per unit of resources used.

Nevertheless, service providers that apply for an ecolabel are not precluded from offering these other cleaning services or indeed other services. However, these must not be marketed as part of the Swan-labelled cleaning service.

Thus, the product group definition is that the ecolabelling of cleaning must encompass all cleaning that comes within the product group definition. This means that an ecolabel will not be available for individual cleaning contracts with customers. However, the ecolabel may be confined to separate financial profit centres, for example a regional division.

One reason that contracts cannot be ecolabelled individually is that it would be difficult for the marketing of the Swan Label to be divided up according to the customer at which cleaning services were conducted. Generally, cleaning is referred to as a totality and not divided up according to customer. It would also require considerable extra administration to set up a system to keep ecolabelled and non-ecolabelled materials and transport separate.

Justification for Swan-Labeling

The areas of environmental impact associated with cleaning services are: consumption of materials, energy consumption, waste formation, air and the aquatic environment.

Our experience from the criteria for cleaning products is that considerable variation exists between the environmental harmfulness of different cleaning products.

Overdosing cleaning products and the unnecessary use of chemicals where a micro-fiber cloth or, quite simply, water would deal with the problem, is also an area in which potential exists for bringing about environmental improvements.

Worldwide, waste is an increasing problem for the environment and the cleaning industry generates large quantities of refuse. The use of refuse disposal bags in particular accounts for 45% of the total refuse produced by cleaning businesses. There are a number of ways of reducing the consumption of refuse disposal bags.

The criteria document for cleaning services offers excellent scope for ensuring that service providers change from more environmentally harmful cleaning products to less environmentally harmful products. To secure a certain minimum environmental level, this will be achieved by increasing the proportion of ecolabelled products and imposing requirements on products that are not ecolabelled.

The criteria for cleaning services safeguard a low consumption of chemicals by imposing requirements on overall chemical consumption per square metre of space cleaned. The criteria also seek to reduce the fuel consumption of the service providers. In addition, reduced refuse production is sought by imposing requirements on the quantity of bags that may be used per square metre cleaned.

No requirements are imposed on water consumption. Firstly, the controllability of a requirement relating to water would be very limited. Service providers take water

from their customers and, accordingly, do not record accounts of their water consumption. Furthermore, a requirement relating to water consumption could result in an increase in the use of less-concentrated cleaning chemicals in order to save on the amount of water added. This in turn would entail the unnecessary additional transportation of water in non-concentrated cleaning chemicals, which creates an additional environmental problem. Even so, the criteria do contain indirect requirements as to water consumption, since we impose requirements as to the quantity of chemicals that may be used per square metre. Since most cleaning chemicals need to be diluted with water, a requirement as to low consumption of chemicals per square metre will also entail low consumption of water.

The criteria for cleaning services stress that the personnel of the service provider must undergo training, and that the customers of the service provider must be offered appropriate information.

Thus, scope exists for directing cleaning services towards a greater degree of sustainability with the aid of the ecolabelling criteria.

The version and validity of the criteria

The first version of the criteria for cleaning services was adopted on 17 December 2002.

In June of 2004, the Board of Nordic Ecolabelling adopted a decision to extend the criteria until 16 December 2007 and to rewrite the criteria document to make the criteria more readily understandable (this became Version 1.1 of the criteria).

In June of 2005, the Board of Nordic Ecolabelling adopted Version 1.2 of the criteria, the re-written document.

The criteria have since been extended to 31 December 2008 (Version 1.3)

The criteria have since been extended yet again to 31 December 2009 (Version 1.4)

The Consultative Version for the future Version 2 of the criteria was published in October 2008

The Nordic market

The number of licences and revenue from licences in the individual Nordic countries:

Country	Number of licences
Denmark	1 (to until Feb. 2007)
Norway	3
Sweden	9
Finland	1
Iceland	1
TOTAL	15

Turnover by cleaning businesses in the individual Nordic countries:

Country	Total turnover of cleaning businesses
Denmark	1542 mill euro* = 11.6 billion DKK
Norway	6.4 billion NOK
Sweden	17 billion SEK
Finland	
Iceland	

* Figures for 2004, source Statistics Denmark

To these figures must be added the very large proportion of in-house cleaning, which is widely used, particularly by public institutions. The proportion of in-house cleaning may be as high as 40% of the total market for cleaning services in some Nordic countries. In other words, the figures for turnover in the cleaning industry could well be almost twice as high as specified in the above table. Nevertheless, there has been a trend in the direction of a greater degree of outsourcing of services, including cleaning, amongst public and private institutions.

However, the figures for turnover for service providers may encompass more than the areas covered by our criteria. For example, our figures from Statistics Denmark show that in 2002, 15% of the turnover of service providers took the form of specialist cleaning, and 10% derived from other services, such as window cleaning and property functions.

According to Version 1 of the Background Document for Swan-labelled Cleaning Services, the turnover of Danish cleaning businesses rose by 36% between 1996 and 1999. New figures from Statistics Denmark show that this figure increased by a further 18% between 1999 and 2004. In other words, this is a growth industry. Moreover, an increase in outsourcing will also offer further potential for growth within the industry.

Operators:

A characteristic feature of the cleaning industry is the large number of small and medium-sized service providers and the relatively limited number of large business, as shown in the following table:

Country	Number of business	Large and organised businesses
<i>Denmark</i>	<i>5154*</i>	<i>75 in SBA (Servicebranchens Arbejdsgiverforening) and 135 in RSBA (Rengøringssekskabernes Branche- og Arbejdsgiverforening)**</i>
<i>Norway</i>	<i>Approx. 5000</i>	<i>Approx. 68 in the National Federation of Service Industries</i>
<i>Sweden</i>	<i>4500</i>	<i>66 in SSEF*** and 750 are members of Almega</i>
<i>Finland</i>		
<i>Iceland</i>		

* for 2004 according to Statistics Denmark

** Jan. 2007 according to the websites of SBA and RSBA

*** March 2007 according to www.ssef.se

The service providers generally supply cleaning services, although the provision of other services does form part of the range of services offered by many businesses. This might, for example, include renovation, messenger and security services, kitchen services, gardening, caretaking services, etc.

Some Nordic businesses operate at international level. Two examples: formerly Danish-owned ISS is the biggest cleaning organisation in the Nordic countries with operations in no fewer than 43 countries worldwide. Worldwide, ISS now has 300,000 employees, of whom 13,000 in Denmark (according to the ISS website). L&T operates service business in Finland, Norway and Sweden as well as in Russia and Latvia. L&T has 9500 employees, of whom 7100 in Finland (according to L&T's website).

Other ecolabelling schemes

According to GEN (www.gen.gr.jp), no other ecolabelling organisations have criteria in place for cleaning services.

Some service providers in the Nordic countries are certified to ISO 14001. However, environmental certification is an expensive process, and small and medium sized businesses may find it difficult to afford the money and resources required in order to maintain ISO 14001 certification.

In Denmark, the public sector procurement agency, National Procurement Limited, has criteria for framework contracts for cleaning services. These focus on dividing cleaning products into various groups, with a focus on the working environment and a ban on certain individual substances. However, to date, no contracts negotiated under this scheme are in place.

Within the European Union, work is underway on the development of European Directives for public procurement. These include template values for environmental requirements in tenders for public sector cleaning services.

Industry schemes

In Norway, the Federation of Service Industries operates an authorisation scheme known as Ren Utvikling (Clean Development). A strong wish was expressed during the drafting of the preliminary study for specific requirements to be imposed on service providers with regard to health, environment, safety and quality.

In Sweden, SSEF (Sveriges Städentrepörers Förbund) recommends that its member companies draft their own environmental programmes. These might typically contain:

- Working environment and environmental policy
- Environmentally-friendly cleaning products
- Cleaning methods that are more environmentally-friendly
- Sorting of waste at source and recycling
- Energy issues
- Familiarity with environmental issues and legislation

- Certification

In addition, many cleaning companies argue that they are environmentally-friendly since they use ecolabelled products.

3 About the revision process

The objective of the revision

Nordic Ecolabelling evaluated the criteria for cleaning services (Version 1) in 2007. Particular attention was focused on the level attained by our existing licenceholders in relation to the criteria. The evaluation revealed that the requirements imposed are relevant, but that the level of the requirements should be tightened up.

The objective of the revision of the criteria to create a Version 2 is to tighten up the requirements and to introduce a couple of new requirements into the criteria document.

About this revision

This revision has taken the form of an internal Nordic Ecolabelling project, but with continuous outside contact and anchoring (see below).

All points shown by the evaluation to require further work and tightening up have been reviewed and new requirements have been formulated.

We have drawn particular support from the expertise of our licenceholders. Our licenceholders have therefore been informed on an ongoing basis and have been used actively in the criteria revision process. A public consultative process will be conducted in which all relevant parties will receive the draft criteria for comment.

Project participants:

Karen Dahl Jensen, Project Manager and Danish representative

Arne Godal, Norwegian representative

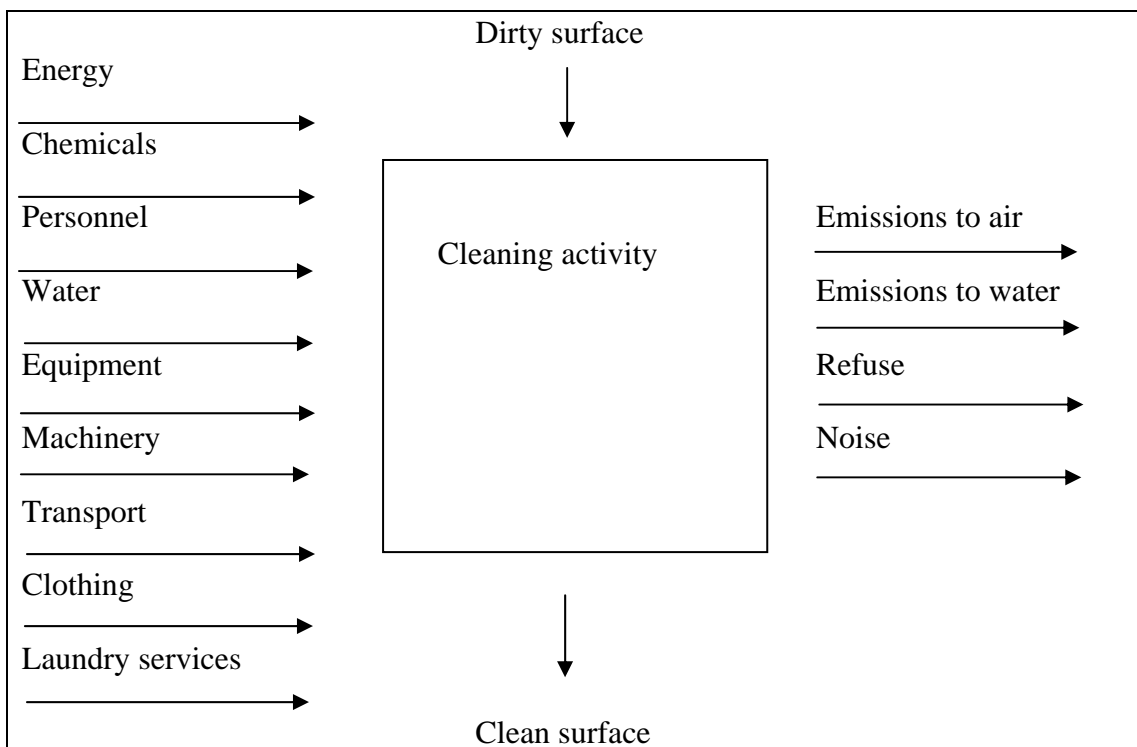
Cecilia Ehrenborg, Swedish representative

In addition, Terhi Uusitalo, Finnish representative, was apprised of developments on a continuous basis.

4 Justification for the requirements

4.1 The effects on health and the environment of a cleaning service

In general terms, the mapping of the processes and materials involved in the cleaning service might contain the following elements:



The left side of the illustration shows the input parameters required in order for the cleaning work to be performed. The right-hand side of the figure shows the impacts on the environment caused by the cleaning process, e.g. emissions to air of volatile organic substances from polishes, emissions of cleaning chemicals to water, refuse in the form of used cleaning equipment and machines and noise from for example high pressure cleaners.

In addition to the effects of the cleaning process, there are effects deriving from all the input parameters. These include resource consumption, e.g. personnel, water and electricity. They include emissions from processes such as transport and laundry. The production of, for example, electricity, equipment, machinery, chemicals and clothing also involves environmental impacts.

It is difficult to say whether cleaning lockers for machines and cleaning trolleys also represent an input parameter. The cleaning locker will typically contain a sink with cold and/or hot water and shelves for storing cleaning products, cloths, mops, etc.

4.1.1 Life cycle

The life cycle of the cleaning service has been assessed with a view to identifying the most significant impacts on health and the environment. The point of departure here has been the 15 environmental goals and other principles defined by Nordic Ecolabelling in the Environmental Philosophy. The assessment has been performed on the basis of the expertise of the experts used in the development of Version 1 of the criteria and information in the literature (see the references).

Based on this assessment and the mapping conducted in the preceding section, the life cycle of cleaning services can be said to encompass the following areas:

- consumption of materials
- consumption of energy
- health and the working environment
- the formation of refuse
- air
- the aquatic environment

4.1.2 The consumption of materials

The main consumption of materials is in the form of the use of water, cleaning products, including packaging, and the consumption of cloths and mop heads with the associated laundering of this equipment. Plastic bags for collecting litter and for waste-paper bins also constitute a significant portion of the materials consumed.

According to calculations based on the result of a market survey performed in connection with the development of Version 1 of the criteria (figures from the year 2000), 11,000 tonnes of chemicals were used (dry weight). Converted to liquid chemicals, this represents some 73.000 tonnes, if the average dry weight is 15%.

In Denmark, the industry organisation for detergents producers states that in the year 2000, 52,000 tonnes of cleaning detergents were sold to industry and institutions. This encompasses all chemicals used in cleaning services as well as industrial degreasing agents, specialist detergents used for cleaning in the food industry, detergents for industrial laundries, dishwater detergents etc.

This means that the consumption of chemicals by cleaning services makes up approximately 30% of all industrial and institutional laundry and cleaning chemicals used in the Nordic countries, assuming that Danish consumption constitutes one fifth of the Nordic consumption.

The market survey also found that 2 million tonnes of water are used in connection with cleaning in the Nordic countries. See also the section on refuse for details of consumption of plastic bags and refuse sacks, packaging, cloths and mop heads.

4.1.3 Energy consumption

The main sources of energy used in cleaning services consist of energy for transport, heating of water used in cleaning, the energy consumption of cleaning machines and

washing machines. However, energy consumed for heating water is of less significance since typically water with a temperature of 20°C is used.

According to calculations based on the market survey on cleaning services conducted in connection with the development of criteria Version 1 (figures from the year 2000), some 100 million litres of fossil fuel are used in the Nordic countries by the vehicles of cleaning service providers. If one assumes that fossil fuels have a density of 0.8 tonnes per cubic meter and a calorific value of 43 GJ per tonne, this makes for an energy consumption of 1 billion kWh¹.

This represents approximately 5% of the energy consumed by all cars and vans in the Nordic countries. This figure is based on the fact that according to the Danish Energy Agency, energy consumption in Denmark by these vehicles is 75 PJ, and accordingly that energy consumption in the Nordic countries will be five times this figure.

According to the survey, energy consumed by cleaning machines and washing machines totals 140 million kWh or about 10-15% of the energy consumed for transport purposes.

4.1.4 Health and the working environment

As a result of the large number of people involved in cleaning, working environment conditions are an important issue for cleaning services. The effects on health of cleaning services can be divided into effects on the health of the population via the indoor climate and effects in the working environment.

Indoor climate problems can be caused by the following factors.

- a lack of cleaning
- incorrect cleaning with irritating emissions and pollutions from soap traces
- the risk of accidents caused by slippery floors

The main working environment effects associated with cleaning work are ergonomic, mental and dermatological. A characteristic feature is that there is a very limited degree of variation of the impact pattern.

Ergonomic strains, for example, include heavy and repeated lifting. The effects on the skin will typically be caused by substances such as organic solvents, surfactants and fragrances that may cause problems. Moreover, the water can of itself contribute to an increase in the problems. Microfiber cloths can dry out the skin and release "splinters" that cause problems for the skin. Normally these problems can be mitigated by using gloves.

Most of the personnel employed in the industry are female, and the industry is known for its short-term employment.

In Denmark, it is by no means unusual for 40-60% of cleaning personnel to come from a non-Danish ethnic background, with half unable to read Danish. A further

¹ 1 J = 2.78 10⁻⁷ kWh.

characteristic of the industry in the Nordic countries is that close to 90% of the personnel are untrained, and that immigrant employees have inadequate reading skills.

In recent years, there has been considerable focus on the use of illegal labour and the poor working conditions of personnel work in the cleaning industry. This is not of itself an environmental problem; it is a working environment problem and a social problem which Nordic Ecolabelling wishes to address. Moreover, this situation could easily turn into an environmental problem if personnel employed on unlawful terms do not receive sufficient training to be able to perform their work correctly. Nordic Ecolabelling wishes to ensure that companies that apply for an ecolabel are reputable and well-run firms and that they maintain a focus not solely on environmental issues, but also on the working environment of their personnel.

4.1.5 Waste

The materials that generate the largest quantities of refuse in cleaning processes are plastic bags, packaging from cleaning products and cloths and mop heads.

According to the market survey into cleaning services conducted in connection with the development of Version 1 of the criteria (figures from the year 2000), plastic bags and refuse bags make up more than 85% by weight of the refuse generated by the cleaning services. Plastic bags alone account for 45%. Cloths account for approximately 45%, chemical packaging approximately 4% and mops 4%.

In connection with the development of Version 1 of the criteria (figures for the year 2000), the total quantity of plastic bags used in the Nordic countries was estimated to be 16,000 tonnes, making the total quantity of waste generated some 35,000 tonnes a year.

4.1.6 Emissions to air

There are no major emissions to air from the cleaning processes themselves. The main problems here are health related and associated with emissions of fumes from the cleaning products. See the section on health.

Apart from this, the most significant air pollution derives from transport. Internal combustion engines in cars generate emissions of carbon dioxide (CO₂), carbon monoxide (CO), nitrous oxide (NO_x), hydrocarbons (HC), sulphur dioxide (SO₂) and particles. Hydrocarbons encompass a wide range of substances.

These substances cause global environmental problems in the form of the greenhouse effect, regional problems in the form of forest die-back and over-fertilisation caused by acid rain and nitrogen deposits and local damage in the form of negative effects on health and damage to buildings. Information on this can be found in amongst other sources the Danish Ministry of Transport's TEMA2000 Report.

Emissions of carbon dioxide and by extension the greenhouse effect are directly linked to the release of fossil fuels.

4.1.7 The aquatic environment

At some point, nearly all chemical from the cleaning process end up in an aquatic environment. Some chemicals remain in the place in which the cleaning took place – for example floor polishes – but may subsequently end up in the aquatic environment as a result of wear and cleaning.

Dirty cloths and mop heads that are laundered, carry cleaning detergents, water and dirt to the location in which the washing takes place. Waste water from the washing machines and laundries used for this purpose accordingly account for some of the waste water generated.

The contents of cleaning products and detergents thus constitutes a greater or lesser part of the eco-toxicological impact on the aquatic environment.

Substances on which attention has been and continues to be focused include EDTA², NTA³, optical brighteners, active chlorine compounds, LAS⁴ and APEO⁵. Moreover, during the period 2000-2008, attention has been focused on other substances harmful to health and the environment used in the cleaning process, such as MG⁶, DTPA⁷ and PFAS⁸. Increasing emphasis is also being placed on cleaning products that contain nano-particles, although no real knowledge exists on the effects of these nano chemicals on health and the environment. Since, so far, there are indications only that nano-particles have negative effects on health and the environment, Nordic Ecolabelling has opted to reserve judgment with respect to these new products.

4.2 The background to the requirements set in Version 2 of the criteria document

Nordic Ecolabelling imposes requirements within four indicators, covering the areas below. The values for the indicators are allotted points and are added together to provide a points score. It is on this score that the requirements are imposed on:

- Chemical consumption
- Choice of chemicals
- Transport
- Waste formation

² EDTA (ethylenediaminetetraacetic acid).

³ NTA (nitrilotriacetate).

⁴ LAS (linear alkylbenzene sulfonates).

⁵ APEO (alkylphenol ethoxylates).

⁶ MG (methyl dibromo glutaronitrile)

⁷ DTPA (diethylene triamine pentaacetic acid)

⁸ PFAS (perfluorinated and polyfluorinated alkylated substances)

To ensure that the service provider is able to fulfil the requirements applicable to the indicators and provide cleaning of a high quality, the following qualitative requirements are also imposed:

- Training
- Monitoring of cleaning quality
- Written instructions for work and chemical information

In general terms, the criteria have been selected on the basis of an assessment of the environmental impact of the cleaning service over the course of its life cycle. Other key factors have been the scope for formulating clear criteria that can be documented and offer a high degree of credibility. If the Nordic authorities have legislation in place or have stated goals or policies in the area, this will also have been taken into account.

In addition there are standard requirements, known as general requirements, which function as safety nets for ecolabelling. For example, the requirements of the authorities must be met.

For Version 2 of the criteria the project group has also opted to impose requirements within the areas of

- The proportion of eco-labelled products relevant to the cleaning service used by the service provider.
- Ethical requirements to safeguard the conditions of the employees.

Service providers are often responsible for refilling toilet paper, soap and paper towels in the customer's premises. If in these cases ecolabelled products are used, the service provider will be in a position to bring about further environmental benefits in connection with the service they provide. In addition, the service provider makes a number of purchases in connection with the provision of the cleaning service and these purchases can be made environmentally-friendly by means of the acquisition of ecolabelled products. This might, for example, involve washing vehicles in ecolabelled carwashes, purchasing ecolabelled work clothes for cleaning personnel and using ecolabelled paper in photocopiers and telefaxes. If the service provider maintains an environmental focus right down to these small details, then the project group is keen to reward this effort.

In recent years there have been numerous poor examples in the cleaning industry of companies that have used a high proportion of illegal labour. This makes competing difficult for businesses that act lawfully and the working conditions of employees are very difficult to control/check. There have also been examples of service providers that have cheated their personnel for pay and have made excessively high demands of the number of m² cleaned by personnel during the course of a working day. This causes fatigue and stress on the part of personnel. For this reason, the project group has been keen to introduce requirements that will, as far as possible, ensure that Swan-labelled cleaning complies with a number of ethical guidelines.

4.2.1 Indicators and the level of requirements

One of the guiding principles in the work on developing the criteria has been that administration should be kept to a minimum. For this reason we have stressed that the requirements must be easy to document using information already held by the service providers. Documentation will, for example, typically be based on financial information such as the quantity of chemicals purchased etc.

It is also important that the requirements be measurable and that ecolabelling of cleaning services should be a supplement to environmental management. For this reason we have established a number of indicators. The indicators are related to a functional unit, the number of square metres cleaned, since it is customary in the industry for contracts to be specified in terms of squares metres.

By regulating these indicators instead of specifying a number of mandatory measures, we leave it up to the individual service provider to choose the solution that best suits their business.

We have made the indicator requirements flexible by interlinking them in a points system. This means that the applicant must allot points to the indicators in various ranges. A specific number of points is awarded for each indicator, and the points for all four indicators, plus the proportion of ecolabelled products, are then added together to give a total. It is this total on which Nordic Ecolabelling imposes requirements, not a certain level for the individual indicators. We call this requirement the points score requirement.

This means, for example, that if a service provider has multiple customers for whom heavy cleaning tasks are performed, and accordingly uses large quantities of chemicals, then the provider will score low on chemical consumption. On the other hand, the service provider may score high on waste generation (bags) or use a large number of ecolabelled chemicals and score well in terms of transport. Thus, overall the practitioner will have no problems in meeting the points score requirement.

Simplifying the requirements and imposing a limited number of indicators will undoubtedly involve a loss of precision. There will always be some situations in which the indicators fail to reflect environmental impact to the optimum extent possible. This system represents a compromise between simplicity and complexity.

Service providers already have systems in place that allow them to automatically add up the number of square metres cleaned by the business on the basis of their contracts. A system of this nature must be used for calculating the “unit” in respect of which requirements are imposed, i.e. ”per square metre cleaned”.

The level of stringency of the indicators

As part of the process of developing Version 2 of the criteria, the project group received a substantial amount of data from our licenceholders and we based our tightening up of the requirements on this information. Our assumption is that our licenceholders are cleaning businesses that already maintain a sharp focus on environmental issues, for which reason the level that they have attained reflects the upper half of the service providers operating on the market. This means that we have

assumed that half of our licenceholders will achieve a minimum of three points when the stringency of the requirements is increased.

The level of requirements of the indicators is expressed as the sum of the points for the four indicators plus the proportion of ecolabelled products used. A minimum of 15 points must be scored. In the case of in-house cleaning, there will be no need for transport, and accordingly this requirement will not apply. In this case, 12 points only will be required.

The maximum points score means that *an average* of three points must be achieved for each parameter. Fewer than three points may be scored on one parameter. However, in that case, a correspondingly higher number must be scored on another parameter if the requirement is to be met.

In addition, Nordic Ecolabelling has opted to impose a number of mandatory requirements for the four indicators. This is to safeguard against any Swan-labelled cleaning having a poor environmental profile in any of the key environmental areas.

4.2.2 Correct dosage

One of the main environmental effects associated with the use of cleaning chemicals is the overdosing of chemicals. This often occurs because the person dosing the chemicals does not have the correct measuring/dosing equipment and wishes to make sure that a sufficient amount is used. By imposing the requirement that cleaning personnel must have access to dosage devices/measuring cups, Nordic Ecolabelling has as far as possible safeguarded against overdosing.

4.2.3 Chemical consumption

The selection of chemical consumption as one of the indicators included in the points score requirements reflects Nordic Ecolabelling's aim of reducing ecotoxic substances, improving the working environment and saving resources.

Together with transport, chemical consumption is probably the main environmental impact caused by cleaning services. The chemicals in question are found in cleaning products, textile detergents, floor polish, disinfectants, etc. Disinfectants are still used to some extent in the day-to-day cleaning of corridors and rooms in hospitals, for example.

Requiring chemical consumption to be reduced will automatically entail a reduction in water consumption, since most chemicals need to be diluted with water. Water consumption could be determined with the aid of information on chemical quantities, and on the degree of dilution required for each type of chemical, although this would generally not result in more information than is provided by the chemical consumption itself provides. Determining water consumption on the basis of actual quantities used is very difficult since practitioners generally take water from the customers' water taps.

By reducing chemical – and accordingly water – consumption the working environment problem associated with heavy and repeated lifting will also be reduced.

The type of chemicals used varies considerably, depending on the tasks included in the cleaning service.

Chemical consumption will also depend on the cleaning methods used. Dry cleaning methods using microfibre mops or cloths requires very little chemical use, at the same time as which the quality of the cleaning can be maintained.

Viewed in isolation, the degree of soiling will have a considerable influence on the quantities of chemicals that need to be used. However, generally speaking, the degree of soiling will have less significance the more customers a service provider has.

Although the degree of soiling has an impact on the number of chemicals that need to be used in the individual case, Nordic Ecolabelling is of the view that scope exists for improvement by means of the methods chosen and the work routines practised.

In Version 2 the project group has opted to define the chemical consumption requirement in terms of ml of chemical purchased per square metre cleaned. This represents a departure from "active content". There are a number of reasons for this.

Firstly, it is far easier for applicants to work with the actual quantity of chemicals purchased and not to have to convert this to active content. Applicants will not be required to contact the manufacturers to determine the active content of chemical products.

Secondly, it will motivate service providers to increase the number of concentrated products they use to minimize the consumption of ml of chemicals per square metre cleaned. This in turn will reduce the environmental impact associated with transporting water.

Imposing the requirement in terms of "active content" is not a goal in itself since there are extensive differences between the environmental and health effects of chemicals that "active content" will not account for.

This has also meant that the project group has had to think in terms of entirely new requirement levels. The project group did so by investigating the average active content of a number of cleaning chemicals. This investigation revealed that on average the active content is 16%, and this figure was taken as the conversion value for the requirement level. The evaluation also revealed that the requirement needed to be made more stringent. Accordingly, the requirement was tightened up by approximately 25% after the conversion from active content to purchased product.

4.2.4 The proportion of ecolabelled chemicals

As noted in the section on chemical consumption, chemicals have a major bearing on the environmental impact of a cleaning service. The selection of the proportion of ecolabelled chemicals as an indicator for inclusion in the points score requirement

reflects Nordic Ecolabelling's goal of reducing ecotoxic substances in the aquatic environment.

About 90% of the chemicals used by the industry are eligible for ecolabelling in one or more of the impartial ecolabelling systems operating in the Nordic countries (e.g. the Swan, the Flower and Bra Miljöval). In 2000, the proportion of ecolabelled cleaning products for the professional market amounted to 25% and this figure has since risen. Accordingly, they are readily available. Furthermore, the requirements applicable to non-ecolabelled chemicals are relatively limited compared to the requirements imposed on ecolabelled chemicals, for which reason it is important for there to be a high proportion of ecolabelled cleaning chemicals in use.

The requirement is easily documented since lists of ecolabelled chemicals and the quantities in which they were purchased are available from chemical suppliers.

The contribution made by the proportion of ecolabelled chemicals to the overall points score was determined on the basis of information obtained during the evaluation. Information provided by our licenceholders revealed that the requirement could be tightened up. In Version 2 of the Criteria the project group has also opted to impose a minimum limit on the proportion of ecolabelled chemicals that a firm must use in order to obtain a licence to Swan label a cleaning service. Again, the reason is that the requirements for ecolabelled cleaning products are very stringent when compared with the general requirements we impose on non-ecolabelled cleaning products. Moreover, ecolabelled cleaning products for professional use are widely available.

The required proportion of ecolabelled chemicals has been made a good deal stricter. The main reason for this is that Nordic Ecolabelling has opted to focus on achieving a high proportion of ecolabelled products. Nordic Ecolabelling maintains close control over the products without requiring further administration on the part of the service provider in terms of documentation.

4.2.5 Non-ecolabelled chemicals

As noted under the section on chemical consumption, chemicals have a major effect on the environmental impact of cleaning services. The requirements applicable to non-ecolabelled chemicals have been selected against the background of Nordic Ecolabelling's goal of reducing ecotoxic substances in the aquatic environment.

The requirement is not an indicator and the applicant must compile information from the product safety data sheet and in the form of a declaration from the supplier on a number of points. The substances that must not be present are the same substances that are normally prohibited in other ecolabelling criteria. The list of substances that must not be present has been extended since Version 1 (see section 4.1.7 of this document). The reasons for the exclusion of the individual substances can also be found in the background document on, for example, Swan-labelled cleaning products.

In this version, the project group has opted to prohibit cleaning products containing reactive or organochlorine compounds in concentrations. Nevertheless, we have permitted the use of benzalkonium chloride if their use can be justified, and if they are

used only on surfaces where microbiological growths are present. Surfaces of this nature might for example include saunas, which will often be made of organic materials (wood) and are exposed to high heat and high humidity. Benzalkonium chloride is an organochlorine, which in environmental terms is preferable to reactive chloro-compounds and other organochlorine compounds used in connection with disinfection.

The project group has also chosen to extend the list of hazard classifications that are prohibited in the case of eco-labelled cleaning products. This entails that the cleaning products that are most harmful to health and the environment and that accordingly are subject to an environmental hazard classification or a strict health classification must not be used in Swan-labelled cleaning services. The main justification for this is the improvement in the working environment of cleaning personnel that this will ensure.

4.2.6 Concentrated products

Since the focus of the Criteria has now shifted from active content to quantity of product purchased, we have been keen to ensure that the use of concentrated products continues to be rewarded. For this reason, a points requirement has been introduced where the service provider maintains a focus on using highly concentrated products. The requirement is strict. The cleaning chemicals must have an active content of over 60%. The reason for the high content is that a number of manufacturers of raw materials for cleaning products as well as the cleaning product producers themselves have stated that they are working on the development of very highly concentrated cleaning products for the professional users of the future. At present it is not normal for active content to exceed 30%, but the trend is increasingly in the direction of more and more highly concentrated products. The purpose of this requirement is not to reward products that are used in spray form at present, which have a high active content, but to reward very highly concentrated products, with the aim of reducing the transportation of water, and dosing onsite.

4.2.7 Transport

Together with chemical consumption, petrol and diesel consumption represent the most significant environmental impacts caused by cleaning services. The indicators for transport have been specified against the background of Nordic Ecolabelling's objective of reducing energy consumption and reducing emissions of pollutants to the atmosphere.

In Version 2 of the Criteria, Nordic Ecolabelling has adjusted the structure of the requirements. Accordingly, applicants are given two – rather than three, as previously – options for indicators for transport used in the cleaning business.

The fuel efficiency and fuel consumption alternatives are direct requirements aimed at safeguarding low CO² emissions. The Euronorm IV requirements do not require CO² reductions, but do require the reduction of other (relevant) substances harmful to health and the environment released by vehicles (CO, NO_x and HC. In addition particles and SO² in the case of diesel cars). The three indicators are therefore directed at different environmental problems and are accordingly not directly comparable. For

this reason, the requirement as to the proportion of Euronorm vehicles has been removed as a separate mandatory requirement.

In the case of in-house cleaning within the public or private sectors, no vehicles are used in cleaning operations. The requirement applicable to transport for in-house cleaning will therefore not apply.

Differences between the Nordic countries

Climatic differences between the northern and southernmost Nordic countries have very little significance as regards fuel consumption at an overall level. Differences in topography also have very little significance in terms of vehicles carrying limited loads (cars and goods vehicles). This is shown in acknowledged traffic models such as the COPERT model.

Studded tires increase friction on the road surface. However, field measurements conducted by the Swedish National Road and Transport Research Institute reveal that there is no clear difference in actual fuel consumption. Studded tires also have other unfortunate properties since they cause marked wear on road surfaces and are suspected to contributing to the level of dust particles in the atmosphere in urban areas. Even so, Nordic Ecolabelling has opted not to impose separate requirements with respect to studded tires because of their limited connection to the cleaning service requirements and their traffic safety function.

Fuel consumption varies widely depending on a vehicle is driving on roads in a town, on roads in a country area or on a motorway. For example, driving on roads in urban areas involves a great deal of starting and stopping, which in turn entails increased fuel consumption. The speeds of motorways are frequently so high that fuel consumption is higher than would be the case had one driven at lower speeds.

Alternatives

The energy consumption of cleaning machines is far lower than the energy consumed by transport vehicles and accordingly it has not been considered relevant to impose requirements in this area. Moreover, it has proved very difficult to document. As yet, there is little use of what are termed service rental agreements where the machine supplier measures hours of operation and electricity consumption and registers this central on a machine card.

The use of cleaning service personnel's own vehicles on cleaning assignments is not included in the transport requirements. This would be complicated to calculate and would in the case of most service providers constitute a very small proportion of the total amount of driving done in connection with the cleaning services.

On the other hand, it is common for service providers to make company vehicles available to personnel groups that do a lot of driving. These vehicles are used both privately and at work, as a result of which some private use is included in the fuel consumption indicator.

Petrol and diesel consumption

Petrol and diesel consumption can easily be documented by examining the quantities purchased, since this requirement applies only to the businesses' own and leased vehicles. The petrol companies already provide businesses with overviews over quantities purchased during the course of the year.

Petrol and diesel are placed on an equal footing in the calculation since both offer benefits and disadvantages. Diesel vehicles use less fuel, but emit more particles and nitrogen oxide than petrol vehicles. Furthermore, the energy content of diesel is higher than that of petrol, and accordingly CO₂ emissions from one litre of diesel are higher than from one litre of petrol. Thus the environmental benefits of driving on diesel lower than might be expected, if one compares km/l in diesel cars and petrol cars.

In Version 2 Nordic Ecolabelling takes account of fuel types based on alternatives to fossil fuels. This is because the market for alternative fuel types has expanded substantially in recent years, and bioethanol, e.g., is no longer confined to experimental vehicles. The alternative fuels can play a part in ensuring that CO₂ emissions from cleaning service are low. Frequently, the calorific value of alternative fuels is lower than that of petrol and diesel and permits fewer kilometres per litre. Thus vehicles that operate on alternative fuels will be "penalised" in the transport requirement, which is based on petrol and diesel consumption per square metre cleaned. For this reason, Nordic Ecolabelling has opted to place various fuel types on an equal footing by introducing a conversion factor.

There has been some discussion about whether alternative fuels based on crops that could have been or are used as foodstuffs have caused a rise in food prices worldwide. This question must be viewed in a broader context. Failed harvests as a result of bad weather also affect food prices. Large scale production of luxury products, such as coffee, tea, tobacco, wine and beer also takes place in areas in which basic foodstuffs could have been cultivated, and must therefore be taken into account when assessing rising food prices. The use of plants for fuel purposes will contribute to a reduction in CO₂ emissions from vehicles, thereby reducing the global impact on climate and the consequences for our environment in the longer term.

All of these factors must be taken into account before apportioning the blame for the global food shortage to alternative fuels. For this reason, Nordic Ecolabelling has given priority to ensuring that the use of fuels based on alternatives to fossil fuels are not "penalised" in the transport requirements.

The conversion factor is based first and foremost on the use of bioethanol, since for the present this is the most widely used type of alternative fuel.

The energy level of bioethanol is approximately 35% lower than that of petrol. Accordingly, a car running on 85% bioethanol will have a mileage per litre that is approximately 30% lower. Using bioethanol produced on the basis of sugar cane or wheat should bring about a CO₂ reduction of 30-65% relative to ordinary petrol. For this reason, Nordic Ecolabelling has concluded that purchased bioethanol fuel may be converted to correspond to the equivalent of 70% of purchased petrol.

This conversion will apply only if fuel with a bioethanol content greater than 80% is used. This is because fuels with a low bioethanol content (e.g. 5%) give off high quantities of hydrocarbons during refuelling and because the energy content of the

fuel as a whole is not changed much by the fact that the energy level of the bioethanol is approximately 35% lower.

Moreover, Nordic Ecolabelling is opening the way for alternative conversion factors for other fuel types than bioethanol. However, documentation must be submitted that the conversion factor is correct and provides for parity between the alternative fuel and petrol and diesel. This will be determined by Nordic Ecolabelling.

The Swan criteria for biofuels were adopted while the process of developing Version 2 of the cleaning criteria was underway. The Swan biofuel requirements will provide further safeguards against the use of corn products such as maize, wheat and rice as a basis for alternative biofuels and safeguard a certification scheme for palm oil, sugar cane, wood raw materials and soy beans, which in turn will ensure replanting. This will make Swan-labelled biofuel the best alternative in terms of fuel for transport available on the market today. Nordic Ecolabelling wishes to reward the use of Swan-labelled biofuel, and to this end Swan-labelled fuels used in cleaning services will not need to be included in the fuel accounts.

The indicator is related to the number of square metres cleaned during the course of the year in order to link the consumption of fuel to the performance of the service. This even though petrol and diesel consumption has less to do with the number of square metres cleaned than for example chemical consumption and waste formation.

The fuel consumption criterion primarily takes the form of a points requirement. This is because it is a variable factor for a service provider. Consumption may depend on how environmentally friendly the vehicles used are, and also on the average size of customers, whether personnel reside in a town or rural area (the distance between customers) and how environmentally friendly personnel are in their driving habits. Setting the requirement in the form of a points requirement will enable cleaning companies that are environmentally friendly in their chemical choices and use, but need to travel long distances between customers and have relatively small customers (factors that they have difficulty in controlling themselves), to qualify for an ecolabel.

Potential for improvement

Clearly, cleaning contractors have limited scope for influencing where their customers are located. On the other hand, it is possible to improve route planning, by providing training in environmentally friendly driving, use alternative fuels and use vehicles that consume as little fuel as possible. Moreover, plans can also be put in place to employ personnel to service customers in a certain area in relation to where they live.

The disadvantage of the inability of fuel consumption to compensate for the number of square metres comprised in each individual contract and the distribution of customers is to some extent outweighed by the fact that most service providers will have many and different customers. This means that on average conditions are more or less equal.

However, in this version, Nordic Ecolabelling has decided to open up for differentiation between cleaning contractors. Some cleaning contractors specialise in cleaning private homes. This will largely involve cleaning relatively small areas per customer. To allow this type of business to qualify for a Swan Licence, we have opted

to make the fuel consumption requirements slightly easier for this type of company, given that this is a factor that it will be difficult for the companies to control. Nevertheless, these businesses will not be exempted from increasingly stricter requirements as to fuel consumption, and the companies must also work on optimising their routes, environmentally friendly driving and the use of environmentally friendly vehicles.

The level of the requirement

In Version 1 the contribution made by fuel consumption to the overall points score was determined on the basis of information provided in the market survey. In Version 2, our point of departure has been the experience of and information provided by our licenceholders.

In this version we have opted to introduce a mandatory maximum limit on fuel consumption. Given the catastrophic consequences of human CO₂ emissions, it is important that the Swan Label should not be issued to service providers that exploit fuel inefficiently. We now have the experience of existing licenceholders of our choice of criteria and based on these data it is possible to impose requirements as to maximum fuel use.

Fuel efficiency

Fuel efficiency is an indicator that can be used to document low CO₂ impact since it is independent of the distance to the customer and of whether or not a company has numerous small customers. However, the disadvantage of this parameter is that it does not provide an incentive to save on total fuel consumption by route planning. A further disadvantage is that it may be more difficult to compile the number of kilometres driven by all the company's vehicles than to simply provide information on the quantity of fuel purchased.

Potential for improvement

This is virtually the same as the indicator for petrol and diesel consumption. It is possible to achieve by means of environmentally friendly driving, using alternative fuels and driving in vehicles that use as little fuel as possible.

The level of the requirement

In Version 1, the contribution made by fuel efficiency to the total points score was determined on the basis of information contained in the market survey. The point of departure in Version 2 has been information on developments in recent years in the fuel efficiency of vehicles.

A conversion factor for alternative fuels has also been introduced in the case of fuel efficiency. For further comments on this issue, please refer to the section on pPetrol and diesel consumption above.

In this version we have opted to introduce a mandatory maximum limit for fuel efficiency. Given the catastrophic consequences of human CO₂ emissions, it is important that a Swan licence should not be issued to service providers that exploit fuel inefficiently. We now have access to the experience of existing licenceholders of

our choice of criteria and based on these data it is possible to impose requirements as to maximum fuel use.

Euronorm vehicles

To cover pollution to the air not directly related to fuel consumption a mandatory requirement as to the use of Euronorm IV vehicles in the car fleet of the enterprise has been imposed.

The Euronorms, as they are termed are the European Union's rules on emissions by vehicles of substances that are harmful to health and the environment. They have been in operation for over 10 years, and during this time have brought about a marked reduction (to less than one-tenth) in emissions of CO, Nox and HC, as well as SO₂ and particles from diesel vehicles. In other words, this represents an efficient tool for reducing substances that are harmful to health and the environment. Accordingly, it is appropriate that in the area of transport, the criteria for the Swan-labelling of cleaning services should take account of this scheme. By requiring the fleets of service providers to include a high proportion of vehicles that comply with Euronorm IV, we have ensured that businesses will reduce their emissions of substances that are harmful to health and the environment.

The Euronorm expresses the age of the vehicle fleet of the service provider. In order to ensure that the vehicles used by the businesses are as environmentally friendly as possible, we may require a high proportion of newer vehicles that fulfil EU legislation. This is a requirement over which the service providers themselves will have full control.

The level of the requirement

The requirement as to the proportion of Euronorm vehicles has become a mandatory requirement. Each area of environmental parameters should as far as possible have certain absolute requirements, so that ecolabelling can secure a high "lowest common denominator".

Two alternatives have been considered: To require a very high proportion of vehicles that comply with Euronorm IV or a smaller proportion of vehicles that comply with Euronorm V.

Euronorm IV became a statutory requirement in 2006. However, notice of the requirement had been given several years earlier so a number of manufacturers had already launched vehicles that complied with Euronorm IV the year before. This can be documented by inter alia consulting the information leaflet issued by the Swedish Consumer Agency in 2004, which lists all vehicles on the market in Sweden in 2004. It is clear from this leaflet that a very high proportion of these vehicles (for some car manufacturers over half of their models) already complied with Euronorm IV, which, as noted above, became a statutory requirement two years later.

Euronorm V will become a statutory requirement on 1 January 2011. These requirements have been known since 2007. Little information is available at present about which vehicles comply with Euronorm V, and accordingly it is not reasonable

to impose a requirement as to a specific proportion of vehicles and to require licence applicants to find out whether a particular vehicle complies with Euronorm V. Against this background the project group has decided that the existing requirement, i.e. that the vehicles should comply with Euronorm IV – should continue to apply. On the other hand, this requirement will now be mandatory and 95% of the fleet must as a minimum comply with Euronorm IV. Version 2 comes into force in 2009 and will apply exclusively from the spring of 2010. Since, as we have seen, very many vehicles already complied with Euronorm IV in 2004, our requirements will mean that the fleet should not be much older than 4 to 5 years old.

4.2.8 Waste requirements

Waste formation has been selected as an indicator for inclusion in the points score requirement against the background of Nordic Ecolabelling's goal of reducing waste quantities.

Refuse bags

Investigations conducted in connection with the development of Version 1 revealed that 85% of the waste generated by service providers derived from refuse bags and refuse sacks with plastic bags alone accounting for 45%. The other fractions were very much smaller. The project group has no grounds for believing that this situation has changed in the cleaning industry and accordingly imposing requirements on refuse bags remains relevant.

Many of our licenceholders clean for customers that use a large number of rubbish bins in which thin, small bags are suspended, but which cannot be described as wastepaper baskets. These might for example be permanently placed in rubbish bins in schools, in medical rooms, the cafe area of a fitness centre or the like. In other words, places where these receptacles are not solely used for depositing paper (wastepaper baskets). In the investigations conducted during the development of Version 1 of the Criteria, these bags were divided up into refuse sacks and refuse bags, not into whether the bags were placed in wastepaper baskets or in smaller rubbish bins. The Version 2 project group has therefore decided to specify the requirement to make it clear that it applies to all thin refuse bags. This includes bags used in school playgrounds, lavatories, fitness centres, etc.

The requirement is based on the consumption of bags placed in rubbish bins and wastepaper baskets, since this represents the largest waste/refuse fractions and since the service provider has scope for improving this fraction. The Board of Nordic Ecolabelling introduced the requirement that it should apply to all bags and not simply to plastic bags since this might otherwise be taken to constitute material discrimination and since some service providers in fact use paper bags instead of plastic bags.

One weakness of this requirement is that there is considerable diversity between service providers. This could be because some service providers have a large number of customers with offices and, accordingly, more wastepaper baskets.

Nordic Ecolabelling has also found that some service providers, particularly those providing domestic services, have no control over the refuse bags used by their customers. They are responsible only for emptying the customers' refuse bins, whereas the customers themselves purchase the bags. In these cases the consumption of refuse bags must not be counted for the purpose of the requirement. However, this does also mean that the area cleaned for the customer where the service provider has no control over type/consumption of refuse bag, is not counted for the purpose of the requirement.

Potential for improvement

The service provider can affect the consumption of bags by not emptying wastepaper bins if they do not contain more than a certain amount. On the other hand, the consumption of refuse sacks will depend on the amount of refuse generated by the customer.

Nordic Ecolabelling has found that the requirement has had a favourable effect. One licenceholder has switched to somewhat thinner refuse bags and other licenceholders have, simply by announcing that they now recorded accounts of the consumption of e.g. plastic bags, registered that their consumption of bags has fallen. Wastage is avoided, and personnel are made more aware of the fact that environmental parameters are also measured.

The level of the requirement

In Version 1 the contribution made by refuse bags to the overall points score was fixed on the basis of information provided in the market survey. In Version 2 our point of departure has been the experience of and information provided by our licenceholders.

Sorting of waste

With the view to securing as high a degree of recycling as possible, in this version of the criteria Nordic Ecolabelling has also opted to focus on the sorting of waste by service providers. Our aim has in particular been to reward undertakings that sort a high proportion of their waste.

In the criteria document the term "in-house" is used in connection with waste sorting. This is to be understood as the waste that the businesses themselves generate in their offices and their own cleaning stations (e.g. in the form of worn-out cloths/mops and empty packaging) but not refuse generated by their customers.

4.2.9 The use of ecolabelled products

The scope for scoring points for using ecolabelled products in the cleaning service is a new requirement.

The products for which points may be scored if ecolabelled products are used, are assessed on the basis of whether they are related to the cleaning service and must make up a significant proportion of the related work.

Service providers are often tasked with refilling toilet paper, soap and hand towels for their customers. If in these cases ecolabelled products are used, the cleaning business will be in a position to exert an influence on whether or not further environmental

gains can be made in relation to their services. It should be noted that the requirement applicable to the proportion of ecolabelled products is calculated solely on the basis of purchases for customers where service providers have a genuine responsibility and scope for influencing purchases. If a customer does not want the service provider to have an influence over miscellaneous purchases of products, then the service provider need not account for this customer's purchases.

A service provider will also perform a number of purchases relating to the cleaning process itself, which can be made more environmentally friendly by using ecolabelled products. For example, this might involve washing vehicles in ecolabelled car washes, purchasing ecolabelled clothing for cleaning personnel and using ecolabelled paper in photocopiers and telefaxes. If a service provider thinks in terms of the environment right down to these small details, then Nordic Ecolabelling is keen to offer rewards.

4.2.10 Requirements as to systems for monitoring cleaning quality

Systems for monitoring cleaning quality

It is not possible to impose ecolabelling requirements on the quality of cleaning. This is something that the customer and the service provider must agree on.

A Nordic framework standard does exist for control systems for quality and a Nordic standardised system exists for measuring and controlling agreed cleaning quality – INSTA 800. Work is underway to make the INSTA 800 system an ISO standard.

INSTA800 is detailed and of itself fulfils the European standard. The European standard is EN 13549 (2001) "Cleaning services – Basic requirements and recommendations for quality measuring systems".

Use of INSTA 800 is increasing, especially in hospitals. Guidelines to the standard can be purchased at, for example www.ds.dk. Nordic Ecolabelling does not require this standard to be used, since its use is still limited. On the other hand, a control system must be established which corresponds to those used by many of the forward-looking businesses in the industry.

Written instructions

In order for cleaning to be performed to the agreed quality and with the proper handling of chemicals and machinery, it is essential that cleaning personnel should be issued with written instructions on how the work must be performed as well as information on chemicals.

This information and these instructions must as far as possible help to ensure that cleaning is performed in a way that ensures compliance with the ecolabelling requirements.

Customer information

In order to increase customers' awareness of environmental issues that effect their day-to-day lives, the service provider must offer the customer information on how the customer can help to reduce environmental impact. Tasking the cleaning undertaking with this function is justified by the fact that cleaning personnel may have information on the customers' operations, waste and waste processing that customers themselves are not aware of. The service provider may also to some extent be in a position to offer to assist customers in improving their environmental profile by performing services such as waste sorting, the selection of more environmentally friendly products or extinguishing lights.

4.2.11 Ethical and working environment requirements

The requirements of the authorities and ethical requirements

In recent years there have been repeated debates in the media in the Nordic countries on the subject of cleaning service providers that use illegal labour. Applicants and potential applicants have also expressed frustration at the unfair competition that comes about where businesses base their services on illegal labour and are accordingly able to charge significantly lower prices. In 2007, Denmark saw further examples of poor working conditions for cleaning personnel and businesses that cheat their staff of pay. For this reason the project group feels that it is not sufficient for the criteria document simply to refer to national legislation. The project group is of the view that we should take firmer action to ensure that Swan-labelled service providers are reputable and offer satisfactory working conditions for their staff. We have attempted to do so in this version of the criteria by imposing certain requirements that applicants will be required to document as evidence that their business is sensibly operated.

The employee and industry organisation for service companies in Sweden, Almega, has recently introduced the term "Authorised Service Contractor" in response to the problem of non-reputable businesses. The goal of this authorisation scheme is to strengthen the image of the cleaning industry and, by simple means, show customers and the public at large that a service provider is reputable and responsible. To become an authorised service contractor, a firm must comply with certain requirements which are checked and approved for one year at a time. These are published on www.almega.se/serviceentreprenor. The project group has taken its ethical requirements from this site. In May 2008, 80 service providers in Sweden had received authorisation.

In Norway, the National Federation of Service Industries and the Norwegian Union of General Workers have drafted a similar approval scheme known as Ren Utvikling. The goal is to ensure that approved undertakings have paid taxes and duties, and have satisfactory arrangements in place related to tariff agreements, contracts of employment, working environment committees etc. Approval is conditional upon membership of the National Federation of Service Industries, and a tariff agreement with Norsk Arbeidsmandforbund. An application form can be found at www.nhoservice.no.

The project group also derived inspiration from the Swedish Environmental Research Institute's draft requirements for cleaning contractors, which were developed in

conjunction with the Swedish Environmental Management Council's work on developing requirements for cleaning contractors. The project group also conducted an e-mail dialog with the tax authorities in Denmark (SKAT) and found inspiration in the membership requirements drafted by the employer's association of the Danish hotel and restaurant industry.

The general contract terms found under ethical requirements formulated by the project group for Version 2 are predicated on the importance of ensuring that cleaning services that bear a Swan Label are reputable businesses that follow the applicable laws and regulations in terms of tax, VAT, Employer's National Insurance contributions, etc. A failure by a service provider to comply with these rules will entail not only a breach of the law, but also gives a warning signal that other ethical breaches may also be occurring. The tendering of unusually low prices for cleaning contracts may indicate that a business is failing to live up to these requirements.

Other requirements may also be relevant to ensure that service providers offer their personnel a better working environment and as a safeguard against a failure to comply with the law. However, this is the first time that Nordic Ecolabelling imposes ethical/social requirements in its criteria for cleaning services. We will, of course, monitor whether they are functioning satisfactorily, require amendment or need to be extended in future criteria.

Training

Training is viewed as essential in order to ensure that employees are able to handle chemicals safely in ways that do not harm their health or the environment.

Training is also essential in order to counter the general perception that cleaning is unqualified work. Marie Aurell of the University of Linköping in Sweden has conducted research into work and identity within the cleaning industry. The main aspects influencing issues relating to work and identity are ethical, cultural and service-related. These aspects are discussed in an article by Marja Aulanko, in which she stresses that cleaning is more than simply a technical performance.

The examples of training contained in the criteria document were drawn up on the basis of a technical memo produced by Ecolabelling Denmark, in which a number of existing training schemes were assessed. The memo discusses training offered by AMU (Arbejdsmarkedsuddannelserne i Danmark), PRYL (Projekt Yrkesbevis Lokalvårdere i Sverige) and EFCL/Uni-Europa (European Federation of Cleaning Industries/EU Trade Union).

The requirements applicable to the content of training also include Ecodriving. Ecodriving involves providing instruction in driving in the most fuel-efficient way possible, and according to studies, can bring about a reduction in fuel consumption of between 5 and 10%.

It is important to point out that the use of temporary personnel should not preclude a licenceholders from ensuring that these also have a suitable level of training that enables them to comply with the ecolabelling requirements and to ensure that they operate in a under satisfactory working environment.

4.2.12 Securing future compliance with the Swan-labelling criteria

To ensure the service provider continues to comply with the Swan-labelling requirements throughout the period that the licence remains in force, requirements are imposed with regard to quality assurance, the recording of journals and the submission of annual reports. By ensuring that the service provider has a quality control system capable of handling complaints, deviations and providing information to Nordic Ecolabelling in connection with changes, Nordic Ecolabelling will ensure that any changes/improvements introduced by the business will always be in compliance with the Swan requirements. In addition, an annual report on consumption relevant to the licence will ensure that the business and Nordic Ecolabelling are always in a position to monitor compliance with the requirements.

4.2.13 Marketing

Because it may be difficult to separate cleaning from other service provisions, strict requirements apply to the marketing of ecolabelled cleaning services. For example, an explanatory text must always be displayed, as specified in the criteria document.

Where a service provider chooses to confine the ecolabel to a regional division, the name of this division must follow the Swan Label. This is to ensure that there is no confusion between departments that are ecolabelled and those that are not.

5 Changes relative to the previous version

The requirements applicable to chemical consumption, the proportion of ecolabelled cleaning products and transport have been tightened up.

A number of additional chemicals have been added to the list of chemicals that must not be present in ecolabelled cleaning products used in the service. The hazard classification requirement applicable to cleaning chemicals has been made stricter. A number of mandatory minimum limits have been introduced into the criteria to ensure that Swan-labelled service providers do not, on certain points, fall below a level that is defensible in environmental terms.

The requirements as to the use of Euronorm IV vehicles has been made mandatory and a very high proportion of the vehicles used must comply with this standard. Scope for scoring points for using Swan-labelled products in areas relating to the cleaning service has been introduced.

Ethical requirements have been introduced to ensure that Swan-labelled service providers do not use illegal labour or treat their personnel unfairly.

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