



Information about identifying and
evaluating environmental aspects
within ISO 14001 for service companies



We at SCCM are convinced - and our experience has proven - that any organization, large or small, will achieve better environmental performance by using the 'plan-do-check-act' approach outlined in the ISO 14001 standard.

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The purpose of this publication

The purpose of this document is to provide a better practical understanding of how to plan and implement the 'environmental aspects' element (identifying environmental aspects and determining which aspects can have a significant impact, section 4.3.1 of the standard), when implementing an environmental management system following the ISO 14001 standard. The document is intended as an aid; organizations can choose whether to use the suggestions in it or not.

The first section of the document further defines a number of concepts, and explains in detail the choices which must be made when planning this element of the ISO 14001 standard. The second section has a detailed explanation of how to make this identification (inventory). The third section explains several points about content, and the fourth section contains a few additional practical points.

CHAPTER 1

Requirements of the standard

The text of the ISO 14001 standard regarding environmental aspects (section 4.3.1) reads as follows:

The organization must establish, implement and keep records of (a) procedure(s)

A) to identify the environmental aspects of its activities, products and services within the defined scope of the environmental management system that it can control and those it can influence, taking into account planned or new developments, or new or modified activities, products and services, and

B) to determine those aspects that have or can have significant impact(s) on the environment (i.e. significant environmental aspects).

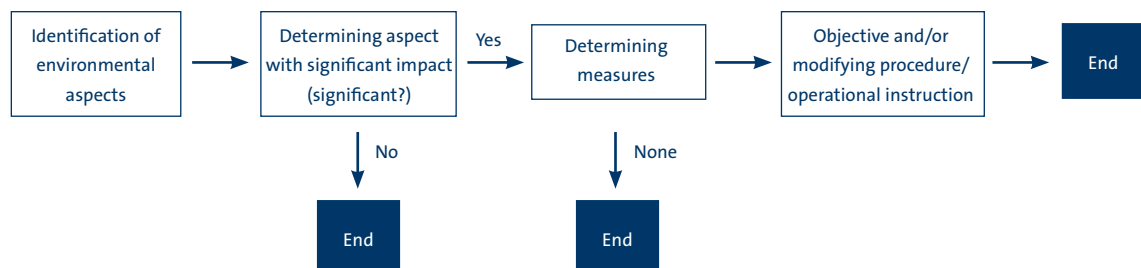
The organization must document this information and keep it up to date.

The organization must ensure that it takes the significant environmental aspects into account when setting up, implementing and maintaining its environmental management system.

The following steps can be distinguished from the text above:

- › identifying the environmental aspects which the organisation can control or influence;
- › determining which environmental aspects have significant impacts;
- › defining measures with regard to these significant environmental aspects;
- › evaluating the implementation of the above steps.

An organisation will have to make choices with each of these steps. For example, when identifying aspects, the question is to what level of detail this should be done. Then, which environmental impacts must be considered significant. Once the significant environmental aspects (those having significant environmental impacts) have been determined, the question is what objectives must be formulated and how these can be guaranteed in the system. This document will examine each of these steps, using an imaginary engineering firm specialized in infrastructure as an example. The process of identifying and evaluating environmental aspects and impacts must be established in a procedure(s) in the management system to guarantee its implementation. The standard does not explicitly ask for a written procedure.



CHAPTER 2

Implementation

2.1 Step 1: Identifying environmental aspects

The standard uses the term ‘identifying’ environmental aspects. In practice this is often referred to as ‘making an inventory’ of environmental aspects. This document will follow the practice and will refer to ‘making an inventory’ of environmental aspects. Making this inventory is a crucial step in developing an environmental management system. It is in this phase that the organization establishes the environmental themes dealt with within its environmental management system. It is accordingly not a one-time action. The organization must determine whether the inventory and priority is still up to date at regular intervals (for example, annually).

Environmental aspects and environmental impacts

The standard distinguishes between environmental aspects and environmental impacts.

The environmental aspects of an organisation can cause environmental impacts. Examples of environmental impacts are acidification of water and soil, the greenhouse effect, etc. An environmental impact is the consequence of the environmental aspect on people, plants or animals.

Since it is very difficult for an organization to accurately evaluate its environmental impacts, ISO 14001 distinguishes between environmental aspects and environmental impacts. The point of the environmental management system is to control and curtail the environmental aspects in order to prevent environmental impact. The environmental aspects are reasonably easy for an organization to evaluate, and give a good idea of the points to consider in the environmental management system.

Table 1: sample differences between environmental aspect and environmental impact

ENVIRONMENTAL THEME	ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACT
Air (acidification)	Sulphur dioxide emissions	Acidification of water and soil
Water	Discharges of heavy metals	Adverse effects on water ecosystems
Waste	Emissions to air or soil (dependent on process technology)	Air pollution/greenhouse effect, contamination of soil/water
Natural resources/energy	Use of non-renewable energy	Depletion of natural resources, air pollution, greenhouse effect

A good way to start when making the inventory of environmental aspects is to name a few environmental themes. An inventory can then be made of potential environmental aspects for each theme, for the organization as a whole or by activity or department. An example of an environmental theme is air. An environmental aspect is the emission of gases such as CO₂. The environmental impact is the greenhouse effect. Other possible themes are: water, soil, use of materials and natural resources, energy, radiation, vibration, heat, unpleasant odours and noise. The environmental themes are shown in somewhat more detail in annex 1.

2.2 Scope and level of detail of the environmental aspects inventory

Section 4.3.1 of the standard indicates that the organization must identify the environmental aspects of its activities, products and services within the scope of its environmental management system. The organization only has to identify the environmental aspects that it can control and that it can influence.

The annex to the standard indicates that an organization must look at processes such as the following. An interpretation for service organizations is given in parentheses:

- › design and development (development of services);
- › production processes (activities/processes performed by the organization and the impact of its own services, such as the impact of advice or policy on the client's environmental aspects or impacts);
- › packaging and transportation (transportation includes commuter travel and visits to clients);
- › environmental performance and practices of contractors and suppliers of products (and/or services) purchased from outside;
- › waste processing;
- › extraction and distribution of raw materials and natural resources;
- › distribution, use and life span of products, and;
- › wildlife and biodiversity.

Also relevant are the environmental aspects associated with characteristics of, for example, products purchased by the organization (including packaging and transportation).

With regard to environmental aspects outside of the organization, the greatest degree of influence an organization can exercise on environmental aspects probably lies with the environmental performance of contractors and of purchased products and services. When making the inventory, the degree of influence can be expressed through determining the significance of environmental impacts. Examples of aspects which the organization can influence are cleaning procedures or the choice of paper used for printed matter, energy consumption of devices like computers, maintenance methods for cars (such as re-use of parts), etc. The organization is expected to determine how it interacts with suppliers and what requirements it sets for suppliers and for goods and services purchased from outside.

As indicated in the annex of the standard in the overview of processes, the following points should be kept in mind during the inventory:

- › The inventory includes not only the environmental aspects which the organization can completely control, but also those that it can influence. An organization can also be said to have influence if, when purchasing products or services, it can set requirements about the environmental impacts which occur with third parties, or can provide information to users of its own products.
- › Environmental aspects must be identified which are associated with both current and relevant previous activities, products and services, as well as with planned or new developments, and new or modified activities, products and services (often only for product organizations).
- › Attention must be paid to usual and unusual business conditions, conditions during shut-down, start-up and potential emergency situations such as fire, loss of electric power, leaks of hazardous materials, etc.

The inventory results in an overview of environmental aspects and the environmental impacts they cause (see table 2).

2.3 Step 2: Determining which environmental aspects have a significant impact

In the first step, the environmental aspects were determined that can be controlled and influenced. In step 2, the significant environmental aspects are selected for which the company will formulate an improvement or control measure (objectives). An example of an improvement measure is an objective for curtailing the environmental aspect. An example of a control measure is drawing up a procedure or operational instruction guaranteeing better operation, to prevent increase of the environmental aspect (also, see the next step: formulating objectives).

The aspects from the previous step must be evaluated to determine which environmental aspects can be turned into control or improvement measures. One important criterion in this evaluation is that it must be reproducible.

The feasibility of a measure will depend on such factors as the amount of investment and the length of time necessary to recover the costs.

Possible criteria for evaluation are:

- › Are there legislation and regulations which apply?
- › What is the range and frequency of the aspect?
- › Have internal standards been drawn up?
- › Are there associated environmental risks (with 'permanent' environmental damage)?
- › Is there a nuisance for neighbours and/or have they complained, or is there any significance for employees?
- › Are there local conditions, for example, are a company's premises close to a nature preserve or water-collection area?

The ISO 14001 standard's basic assumption is that the organization is complying with legislation and regulations. If the inventory shows this not to be the case, then as a minimum, these points must be addressed. This means that identifying the environmental aspects is associated with identifying the legal requirements (from the standard, section 4.3.2). After identifying the legal requirements, the organization determines how these legal requirements apply to its environmental aspects. Environmental aspects to which legislation and regulations apply are categorized as significant environmental aspects.

Table 2 lists the evaluation criteria for the inventory as used by our sample company. The company has chosen the following as principles for determining its significant environmental aspects:

- › The environmental aspects with legal requirements are significant;
- › The environmental aspects not under control are significant;
- › The environmental aspects with a high risk are significant;
- › The environmental aspects which have generated complaints are significant.

The table below was compiled based on the above; in it the environmental aspects are 'weighed' to arrive at a selection.

Table 2 is the result of 3 steps:

- 1 making the inventory of environmental aspects and impacts;
- 2 weighing their significance;
- 3 the end result: which environmental aspects are significant and which environmental aspects must be assigned improvement measures?

Table 2: Inventory of two activities of an infrastructure engineering firm: significance of environmental aspects and possible measures (NOTE: not all activities have been worked out in detail).

ACTIVITY	ENVIRON- MENTAL THEME	ENVIRONMENTAL ASPECT	ENVIRONMENTAL IMPACT	LEGAL REQUIRE- MENTS	SCOPE/EFFECT POTENTIAL MEASURES	SURROUN- DINGS/ COMPLAINTS	RISK	SIGNIFICANT ASPECT?	POSSIBLE MEASURE 1)
Consultancy services, internal organization	Air	Employee car emissions (leased and private)	Acidification, green- house effect	No (pro-posed law)	W/regard to other impacts of firm, relatively large	No	Limited	Yes	"Green" lease scheme, smaller cars, reduce no. of km, change driving habits.
	Various	Environmental aspects associated with recommendations about structures and materials to be used	Various	Sometimes	Can be relatively l arge depending on project	No	Sometimes	Yes	
	Energy	Energy consumption of computer equipment	Depletion of natural resources	No	Small compared to consumption of building	No	Limited	No	Energy-efficient computer equipment
	Waste	Waste products of office activities	Air or water pollution (depending on process)	Yes	Limited	No	Limited	No	Reduction in paper consumption
Building management	Energy	Energy consumption for heating and lighting office	Depletion of natural resources	No	Relatively large	No	Limited	Yes	Energy savings for office building
	Waste	Building and facility maintenance	Air or soil pollution from processing waste	Yes	Relatively large w/ regard to other impacts of firm	No	Limited	Yes	Agreements with service suppliers about waste disposal
	Air	Emissions from maintenance to building and facilities	Air pollution from maintenance to building and facilities	Yes 2)	Main impact from accidents	No	Limited	Yes	Verify suppliers are complying with legal requirements

Notes on table 2:

The table is an example of the inventory of some of the firm's activities. The organization itself can choose the level of detail that works best for it. For example, this company could choose to give an even more concrete indication of its environmental aspects. All environmental aspects not well under control now are seen by the organization as significant aspects.

- 1 The potential improvement can be either a technological / 'technical' measure or a control measure/ system modification.
Also, instead of naming the measure at this point, a 'yes/no' in the table can indicate whether a measure is possible, and the measure can be named in the next step: formulating objectives.
- 2 Examples of legal requirements are the European cooling fluid directive for cooling installations and emissions limits for heating plants.

According to section 4.3.2 of the ISO 14001 standard, an organization must identify the legal and other requirements associated with its environmental aspects. For a smaller organization (such as our sample company), it is simpler to incorporate the legal requirements in the inventory. A larger organization will make a separate overview of legislation and regulations.

The method for weighing the background of and prioritizing environmental aspects can be more qualitative, as in the example above.

Alternatively, a more quantitative approach can be used; prioritizing by assigning each aspect a numerical rank and weight. Additional criteria for determining significance are provided in annex 2.

The next step is to determine the objectives and targets and the details of any control measures.

2.4 Step 3: Incorporating significant environmental aspects in the environmental management system; determining and taking measures

The organization must decide for which of its significant environmental aspects it will formulate measures. The criteria it may use include the following:

- › Are improvements possible (improvement or control measures)?
- › How much influence does the organization have on changing this environmental aspect?
- › What is the state of technology within the branch of industry? Are there technological options?
- › What is the degree of control of the environmental aspect within the organization?
- › Are legislation and regulations being complied with?
- › What are the views of interested parties?
- › Are the measures financially feasible?

Since the measures for all significant aspects cannot always be implemented simultaneously, significant environmental aspects are often prioritized.

The selected significant environmental aspects are the basis for working out the other elements of the environmental management system:

- › The organization must see to it that it keeps the significant environmental aspects in mind when setting up, implementing and maintaining its environmental management system (section 4.3.1);
- › An organization must keep in mind its legal and other requirements as well as its significant environmental aspects when setting its objectives and targets (sec.4.3.3);
- › The organization must identify and plan work activities that relate to the identified significant environmental aspects in accordance with its environmental policy, and environmental objectives and targets, and its goal is to see to it that these activities are carried out **under specified conditions**. This can be done by setting, implementing and keeping records of procedures related to the identified significant environmental aspects of goods and services used by the organization, and informing suppliers, including contractors, about the procedures and requirements applicable to them (sec. 4.4.6).

Activities and operations dealing with significant environmental aspects, as stated in section 4.4.6 of the standard, must be performed 'under specified conditions'. This means that the negative impacts of the significant environmental aspects are controlled or minimized in order to meet the requirements of the organization's environmental policy and to achieve its objectives and targets. If an environmental aspect is significant, it does not automatically mean that short-term improvement objectives must follow. There may be budget, technical, or other constraints on making immediate improvements. However, the organization is expected to indicate how it will tackle this environmental aspect in the medium term. Research into how to implement an improvement can also be a follow-up. At the time when the inventory of environmental aspects is updated, the organization will have to determine if there are any changes (such as new technologies) which now make it possible to formulate concrete objectives.

If an improvement objective has not been formulated for a given environmental aspect, but a control measure is desirable, then the control measures should be laid down in the environmental management system. Examples of such measures are modifying working procedures (such as lowering thermostats, turning off lights, driving more slowly) and modifying the procedure or operational instructions in which these activities are described. Other possibilities include informational presentations or materials (separately or in already scheduled meetings), modifying the emergency response plan to give better control of the aspect in case of emergency, and improving internal reporting in the event of nonconformity with the existing situation. A control measure often results in an improvement of the environmental aspect.

Objectives are established in an environmental programme (sec. 4.3.4), in which activities related to the improvement are also established.

An organization must have a systematic procedure which clearly shows how the organization follows through on the control or improvement of environmental aspects with significant effects (immediate or longer-term).

Table 3 shows which objectives and improvement measures the firm will be implementing for its significant environmental aspects.

Table 3: Follow-through action with regard to significant environmental aspects (table is not completely filled in)

NO.	ENVIRONMENTAL ASPECT	POSSIBLE MEASURE FROM TABLE 2	OBJECTIVE/TARGET	PROCEDURE/ OPERATIONAL INSTRUCTION	IMPROVEMENT MEASURE IN ENVIRONMENTAL PROGRAMME
1	Employee auto emissions (leased and private)	'Green' lease schemes, smaller cars, 'green' maintenance (use of reconditioned parts).	By June, study of possibilities, costs and environmental savings		Change lease arrangement for new cars within 1 year if financially feasible
2	Employee auto emissions (leased and private)	Reducing km driven by improving communications (telephone/picture-phone, internet/e-mail etc.)	By December, study of possibilities and modifications		Application of measures dependent on cost and results
3	Employee auto emissions (leased and private)	Course in improving driving habits	Reduce fuel consumption by 15%	Lay down possible measures from course in environmental management system	Training course for employees within 6 months
4	Energy consumption of computer equipment	Energy-efficient computer equipment and agreements about turning off equipment	Reduce energy consumption by 10% within 2 years	Lay down agreements about turning off equipment in environmental management system	Study energy-efficient equipment, opt for efficiency when buying new equipment. Effective immediately.
5	Energy consumption for office heating and lighting	Energy savings for office building	Study possibilities		Implementing measures dependent on costs and results. Goal is 20% energy savings in 3 years, depending on possibilities.
6	Building and facility maintenance	Agreements with service providers about waste disposal	Lay down agreements in contracts, and inspect for compliance	Modify procedure for purchasing and evaluating suppliers	Annual evaluations of major service providers using supplier evaluations
7	Emissions from maintenance to building and facilities	Verify service providers' compliance with legal requirements	Better overview of service providers	Modify procedure for evaluating suppliers	Annual audits of major service providers

Since a number of environmental aspects will occur in multiple places in the organization, there is sometimes the question of what level of abstraction to choose when working out the environmental aspects.

An alternative is to combine a number of environmental aspects that are associated with each other. For example, our sample company could conceive of energy consumption as belonging to several of its environmental aspects. Instead of formulating a separate objective for each environmental aspect, it could formulate a global objective for reducing energy consumption (e.g. 20% reduction over 3 years) and set up a separate programme for reaching this goal.

2.5 Evaluation of environmental aspects

The process of making the inventory of environmental aspects, determining the significant impacts and taking measures is not a one-time action. The organization is expected to evaluate, with a certain regularity, whether the aspects in its inventory are still correct, the significance of impacts has not changed, and which measures can still be implemented. A logical point to do this is during the management review, since this is often when changes in and around the organization, as well as the implemented objectives and targets, are evaluated and new objectives and targets are set. There may be changes in policy (either the organization's or the government) and legislation and regulations which have changed the listed environmental aspects, significant impacts and the measures formulated. Also see section 3.4.

CHAPTER 3

Notes on implementation

3.1 Environmental aspects by process or by department?

The inventory of environmental aspects can be made from several perspectives, for example, by process or by department. In the case of large departments, it can be made by process within each department. This choice will largely depend on the structure of the organization. In organizations dominated by processes and process steps, this process perspective will be the best option. In an organization in which the departments play the main part, it may be practical to set out the environmental aspects by department. In both cases the environmental aspects of all business operations are laid down, thus not only the environmental aspects of the primary production process or production divisions, but also of the secondary processes such as administration, design, transport and the like, and of the external processes which the organization can influence.

TIP:

Larger organizations will find it convenient to use a single format, which makes it easier to put together all environmental aspects having to do with, for example, energy or water later on.

Any separate sub-processes must also be included when listing the environmental aspects by process. These do not need to be immediately recognizable as sub-processes as long as it is clear that all processes have been included. An example will clarify what is meant by a sub-process: if the process is transporting materials or people, the sub-process is fuelling the vehicles. Different environmental aspects and impacts are at work with the process than with the sub-process.

In listing the environmental aspects by department, all activities or processes of all departments covered by the environmental management system must be included in the inventory. Whichever choice is made, the environmental aspects must be determined for the entire organization for which the environmental management system is set up. A process or department may not be excluded from the environmental management system. If, for example, a retail firm's repair department or warehouse is not included in the environmental management system, its environmental aspect can be included through purchasing, given that this service is being purchased from outside.

3.2 Who performs the inventory and evaluation of environmental aspects and how?

The choice of whether to list the environmental aspects by department or by process can also be based on the official(s) who has to list the aspects. The aspects can be centrally listed, for example by an environmental coordinator, or more locally, for example by several department heads or production supervisors. If the inventory is performed by more than one person, it must be made clear which person is responsible for which elements.

The advantages of a single inventory, done by the environmental co-ordinator:

- › uniformity: all departments/processes done in the same way with the same depth
- › speed: less dependence on input from other departments

The advantages of a decentralized inventory, for example by department heads:

- › probably more knowledge of a process within its own department
- › time savings during implementation of the system
- › greater involvement of departments in managing environmental aspects records

3.3 Procedure for the inventory of environmental aspects

There is no standard procedure for taking the inventory of environmental aspects. In many cases, the person(s) performing the inventory make and fill out a form listing the various departments and/or processes. The environmental themes and environmental aspects can then be filled in for each department and/or process. After the environmental aspects have been filled in, the environmental impacts are defined. The environmental impacts are important for determining the significance of each environmental aspect.

3.4 Periodic update of the environmental aspects inventory

The standard states that the environmental aspects and determination of their significance must be kept up to date, without stating how often this must be done. A company usually sets out its environmental objectives annually. It is logical to have the update (evaluation) of the environmental aspects register linked to this process, so that new objectives can be formulated from this information. During the evaluation the significant environmental aspects for which no improvement was possible in the foregoing year will be looked at in more depth, to determine whether improvement is now possible.

A written procedure sets out which official is responsible for performing the update, how frequently it must take place and who makes these decisions.

When performing the update, special attention must be paid to any changes in legislation and regulations, the facilities, the organization, new technology or the production process, as well as, of course, whether environmental impacts have been reduced, for example, by achieving objectives. This can change the environmental impacts, especially the significance of these impacts.

3.5 Sources of information

An organization can use existing sources of information in making the inventory of its environmental aspects:

- › The environmental licence, use permits, general administrative measures (AMvB);
- › Manuals for its branch of industry;
- › Legislation and regulations and explanatory notes for them;
- › Workbooks from the Target group policy on environment and industry (www.fo-industrie.nl);
- › Manuals from Infomil (www.infomil.nl);
- › Long-term agreements on energy efficiency (MJA's);
- › Information and professional journals from the branch of industry concerned.

CHAPTER 4

Other points to consider

4.1 The relationship with legislation and licences

The inventory of environmental aspects (often called the environmental inventory) must be related to the environmental licence and the legal requirements that apply to the company. Organizations providing services seldom have an environmental licence. Service companies can look at applicable requirements from the AMvB or use permits. The environmental licence (if any) and the legal requirements can be used as background information in the inventory phase. After the environmental aspects of operations have been established, the licence, AMvB and/or use permit can be consulted to see if any activities and/or environmental aspects have been inadvertently omitted. Legal requirements that apply to the company can also be consulted for this purpose.

This document states that in making the inventory of environmental aspects and selecting measures for improvement and control, one of the selection criteria is (compliance with) legislation and regulations. Given that a company must comply with legislation and regulations before it can be ISO 14001 certified, why, then, does this need to be one of the criteria? For one thing, with beginning companies, the inventory of environmental aspects is often set up in an early stage, to get an idea of the points to consider in the environmental management system. The company can also get an idea of the elements which do not (or do not completely) comply with legal requirements or the licence. This can help to solve shortcomings before the certification process.

A change of operations, a change in legislation, regulations, or the licence can mean that companies that have already been certified may temporarily not be able to comply with legislation and regulations. Including these environmental aspects in the inventory shows that the company has noticed the problem and is taking action to solve it. Changes in legislation and regulations can also be a reason for modifying the environmental inventory.

4.2 Environmental aspects in emergency situations

Environmental aspects in the event of emergencies or disasters are in many cases different environmental aspects than those of an organization's day-to-day operations. Environmental aspects relating to the soil, for example, usually will only occur in the event of an accident such as a fire or explosion (possibly from/emitting hazardous substances). In these situations, the environmental aspects must also be considered differently with regard to the significance of their environmental impacts. The risk and scope of the disaster will often be decisive factors in estimating significance.

The disasters can be incorporated in the regular matrix of the environmental aspects inventory (as with our sample company). However, this carries the risk that potential emergency situations are not given the attention they deserve. It is advisable, especially for companies in the Netherlands subject to the Hazards of Major Accidents Decree (BRZO), to perform a separate inventory of emergency situations before the main inventory. In these cases, the significance of an environmental aspect can not only result in objectives for taking measures to prevent this environmental aspect and its impacts, but also to establishing and maintaining adequate emergency procedures.

4.3 Influence in the chain

As previously indicated in section 2.2, 'Scope and level of detail of the environmental aspects inventory', the influence of an aspect on the entire chain must be considered when determining the significance of environmental aspects. This means that a company must look beyond its own products, goods and services and include suppliers of products, goods, services and raw materials as well. Whether a given environmental aspect really is significant or not depends on the influence that the company has on the various elements of the chain.

Various examples can be given, depending on the branch within which a organization operates, such as:

- › Banks can look into the influence of investments: in what kinds of companies do they invest and what are the environmental impacts caused by these companies?
- › Transportation companies can look at their capacity use rates and the type of packaging used. Lighter-weight packaging and higher capacity use will mean a reduction of the environmental impact in many cases.
- › Retail companies can lay down specifications for purchasing in which products that pollute are replaced as much as possible by more environmentally friendly alternatives.
- › Engineering and consultancy firms can look at the impacts of their recommendations and services. What impact does a given recommendation have on the environmental yield of the organization taking the recommendation?

The company must consider the influence it can have on these environmental impacts of the environmental aspects in the chain. In many cases, reducing the impact elsewhere in the chain is more difficult than reducing the organization's own environmental impacts.

As far as purchased goods and services are concerned, according to section 4.3.1, in making its inventory of environmental aspects, the company can make a distinction between environmental aspects associated with:

- › The activities/services of third parties, performed on the organization's premises;
- › The characteristics of products purchased (including such factors as packaging and transportation);
- › The on-site production methods of suppliers of purchased products.

The degree to which influence can be exercised on the environmental aspects is probably the greatest in the first case and the least in the last case. The standard states that environmental aspects which can be controlled and/or influenced must be identified.

The environmental inventory only includes these environmental aspects associated with the activities performed on behalf of the organization in question. After all, the supplier or contractor may perform activities for other organizations having different requirements. The degree of detail of the evaluation of the environmental aspects is dependent on the expected environmental impacts and the degree to which reasonable influence can be exercised. Therefore, there can be suppliers or contractors who are not subject to scrutiny because their expected environmental impacts are limited or because no reasonable influence can be exercised on them.

The organization itself must determine which elements of its environmental management system are associated with its suppliers and contractors. It should assess, for example, what is necessary to control and reduce environmental aspects (prevention of pollution) or to achieve objectives in the context of continual improvement. The organization only needs to consider pollution associated with activities performed for its purposes.

The depth and detail of the inventory of environmental aspects of services will differ from service to service. It will be determined by such factors as the indication that there are significant environmental aspects in other parts of the chain, the place of the organization (performing the inventory) in the chain, the degree of influence on other parts of the chain, etc. What is important is that the organization knows about relevant environmental aspects occurring in other places in the chain, and considers to what degree they can be influenced.

Annex 1

Environmental themes

Potential environmental themes:

Air:	an emission into the air;
Water:	a discharge to surface water;
Waste:	creation of waste products;
Soil:	contamination of the soil;
Natural resources:	the use of raw materials and natural resources (including energy and water);
Local aspects:	a local environmental issue (such as noxious odours or noise);
Space:	taking up space;
Nuisance:	discharge of thermal energy, dust, vibrations or a visual impact (can be specified as radiation , vibration, heat, bad odours, dust, noise, etc.);
Land use:	use of ground.

Annex 2

Criteria for determining significance

Various criteria are used to determine the significance of an aspect. In brief, these are:

- › compliance with legislation and regulations, licences and requirements of outside parties;
- › what the environmental relevance is (nuisance, risk, ...);
- › points of concern for internal and external interested parties.

For some organizations, the risk of disasters and (for consumer-goods companies) their image can be added to the above criteria.

If your intention is to rate criteria for determining significance based on environmental importance and business importance, the following criteria may be useful:

Environmental importance:

- › the scale of the impact;
- › the severity of the impact;
- › the chances of it occurring;
- › the duration of the impact.

Business importance:

- › potential influence on legislation and regulations;
- › problems changing the impact;
- › cost and earnings from the impact;
- › effect of the change on other activities and processes;
- › concerns of interested parties;
- › effect on the organization's image.

Annex 3

Additional information about environmental aspects and ISO 14001

- › NEN-EN-ISO 14001:2004, published by NEN
- › NEN-EN-ISO 14004:2004, published by NEN
- › Werken met ISO 14001, published by NEN, 2005 (Dutch only)
- › Certification system for environmental management systems according to ISO 14001, published by SCCM, 2005 (English version 2006)
- › Guidance on the identification of environmental aspects and assessment of their significance; EU publication about the EMAS scheme, download from SCCM site

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