

Environmental Management System ISO 14001

35 searching questions and contrasting pairs of examples

Self-assessment Work Book

What separates the successful from the average?



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www.changemanager.org

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**Well begun is
half done!**



**Change is like a rocket.
It requires an enormous amount of energy
to escape the atmosphere.
After that nothing can stop it.**

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Introduction

Environmental issues have come to corporate life to stay. The effects of the various environmental demands directed at companies are seen in the pressures and compulsion to change business practices with regard to the environment.

However, the environment is no longer just a factor that restricts companies' operations. It is part of everything companies do, and instead of representing a threat it is becoming more and more of an opportunity. The challenge for companies is to use these opportunities to try to improve their competitiveness and grow stronger so they can fight off threats.

The book shows how these issues can be approached in different ways and how different approaches can be taken to solving the problems they raise. The successful differentiate themselves from the average because they think and act in different ways.

Real life examples of the ways in which the successful and average think and behave provide a concrete understanding of what the sections of the ISO 14001 standard actually mean. The official, formal language is translated into everyday events.

The self-assessment model presented in the book lowers the threshold for creating an ISO 14001 environmental system. The model also provides the impetus for gaining an understanding of the system and how it can be applied.

You do not need to learn the ISO 14001 standard in order to use the self-evaluation model, since the model works by asking you to compare your own development needs against the model by asking about the importance of each area and how it needs to be developed. The role of the book is to develop your imagination in these areas.

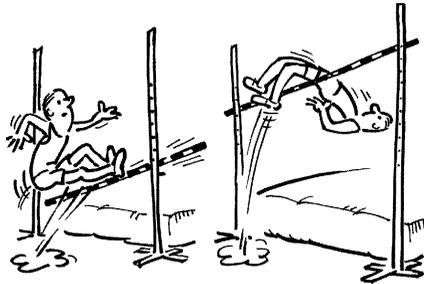
The objectives of this book

The book is intended to be a study and guide for people undertaking a self-assessment process.

It covers the contents of the ISO 14001 Environmental standard and illustrates each point in the standard by comparing what average companies do with what successful companies do.

Every point is illustrated by comparing average and successful performers. When we see good and poor performance at the same time, we understand where the difference comes from and can develop our own approach.

Examples of successful organisations raise our limits and give us the courage to set our own targets higher.



The book, questions and self-assessment process can be adapted as a development tool and training material for an organisation even if the organisation does not adopt an ISO 14001 based Environmental Management System.

The *ChangeManager Pro* -product family is designed to support development in all organisations irrespective of the sector they operate in.

The self assessment question form can be downloaded by clicking the icon below.

What does self-assessment mean for an organisation?

A constructive approach to self-assessment creates the basis for a successful launch of a development project.

Self-assessment process supports the organisation's need and

preparedness for development by mapping them out quickly, systematically and in a participative manner.

Self-assessment quickly shows what should be developed, where people agree or disagree and what people are already committed to. It is on this basis that the real development project is planned.

Self-assessment is a good first step in applying the quality awards model, building a quality management system, implementing the Six sigma development model or launching a programme of process development or benchmarking.

Self-assessment can also be used to test change management skills, monitor the progress of a development project, and measure the outputs of a project and their sustainability.

The self-assessment process is described in the book *ChangeManager Pro* - self-assessment guide and is covered in more detail in the guide which accompanies the *ChangeManager Pro* software.

For more information go to: www.changemanager.org



What can you gain?

Self-assessment lets you:

- Discover what people think about the need for change
- Identify the topics seen as important
- See how good you are and how good you should be.
- See where opinions differ, and where they are the same
- Find out what people are already committed to

The process of carrying out the survey:

- Makes us think in different ways and start learning
- Creates a better understanding of change management
- Encourages people to set higher targets
- Generates commitment to change
- Reinforces peoples' feeling of being appreciated.

Environmental Management System ISO 14001

This book presents the essentials for an Environmental Management System, to help organizations formulate policy and objectives which take account of legislative requirements and information about significant environmental impacts. The ISO 14001 based environmental management standard is applicable to any organization that wishes to:

- implement, maintain and improve an environmental management system;
- make sure it conforms with its stated environmental policy;
- demonstrate conformity to others;
- seek certification/registration of its environmental management system by an external organization;
- determine and declare its conformity with the ISO 14001 standard.

Some ISO 14001 definitions

environment

The surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans, and the interaction between them

environmental policy

A statement by the organization of its intentions and principles in relation to its overall environmental performance. This provides a framework for action and for its environmental objectives and targets

environmental objectives

The overall environmental goal, derived from its environmental policy, that an organization sets for itself, and which is quantified where practicable

environmental target

A detailed performance requirement, quantified where practicable, applicable to the organization or parts thereof, that is derived from the environmental objectives and needs to be met in order to achieve those objectives

environmental performance

The measurable results of the environmental management system, related to an organization's control of its environmental policy, objectives and targets

environmental aspects

The elements of an organization's activities, products or services that can interact with the environment

environmental impact

Any change to the environment, adverse or beneficial, wholly or partially resulting from an organization's activities, products or services

Assessment criteria and sub-criteria

The requirements and self-assessment questions for the ISO 14001 standard are presented as follows.

(The number following each section refers to the corresponding section in the ISO 14001 standard):

1. Environmental Management System ISO 14001

1.1	Creation and maintenance of an environmental management system	4.1
1.2	Environmental handbook	4.4.4
1.3	Document control	4.4.5
1.4	Records control	4.5.3

2. Management responsibility

2.1	Definition of initial conditions	4.2
2.2	Management commitment	4.4.1
2.3	Environmental policy	4.2
2.4	Management of environmental policy	4.2
2.5	Establishing objectives	4.3.3
2.6	Managing by objectives	4.3.3
2.7	Updating of objectives	4.3.3
2.8	Management representative	4.4.1
2.9	Line management responsibility	4.4.1
2.10	Internal communication	4.4.3
2.11	Management review	4.6

3. Implementation **ISO 14001**

3.1	Evaluation of environmental aspects and impacts	4.3.1
3.2	Legal and other requirements	4.3.2
3.3	Targets for management programmes	4.3.3
3.4	Initiating management programmes	4.3.4
3.5	Implementing management programmes	4.3.4

4. Organisation and resources for environmental operation

4.1	Defining competence	4.4.2
4.2	Awareness	4.4.2
4.3	Training	4.4.2
4.4	Operational control	4.4.6
4.5	Emergency preparedness and response	4.4.7
4.6	Response exercises	4.4.7

5. Checking and corrective action

5.1	Operational level measurements	4.5.1
5.2	Monitoring of workplace and working methods	4.5.1
5.3	Measurement instructions	4.5.1
5.4	Measurement equipment	4.5.1
5.5	Announcements and investigations	4.5.2
5.6	Corrective and preventative action	4.5.2
5.7	Analyses	4.5.2
5.8	Benefits of measurements and investigations	4.5.2
5.9	Auditing	4.5.4

Assessment instructions

You are not just reading now, you are also starting to learn and evaluate, which is why we believe that the following instructions will let you get the most out of this book.

1. Read the heading and box text carefully, and examine the picture to fully understand the message (see page 18).
2. Read the examples of average and successful organisations and try to understand what factors gave rise to the differences described.
3. On the basis of what you have learned, evaluate how **important** the subject is for the success of your organisation. Evaluate the importance on a scale of 1-5.

Next give your own evaluation of your organisation's **current level** by marking "x" and the **target level** by marking "o".

Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5
4		x		o	

You can learn from those who have better or even just different ways of working

The examples in the book do not attempt to describe poor or excellent practice, but to illustrate the differences between them. The average examples may still be the best possible in some situations and the excellent ones may sometimes be insufficient.

If the concepts are not those you work with, then find the corresponding terms from your own field. Irrespective of the organisation (public sector, industry, training organisation, large or small company) success depends on much the same basic factors even though the terminology may be different.

While you are looking for the similarities in your own organisation, you are also learning. Do not let the setting of the examples confuse you. Try to see the differences between average and excellent performance or thinking, and apply it to your own case.

Significant advances in a field often come from outside that field. If you learn operational approaches from your own field, you will perhaps learn to do the same things better. When you learn from other fields, you learn to do different things. This is what makes jumps in development possible.

Your reading will help you understand the subjects to be evaluated. You are not comparing your operation against any standard or prescribed methodology, but simply your own impression of the importance of an issue and the present and desired performance level. The aim of this material is to make you more imaginative and encourage you to set your sights higher.

1. Environmental Management System

This section looks at the contents of the organisation's Environmental Management System and its documentation.

Key words:

- creation and maintenance of an environmental management system
- environmental handbook
- document control
- records control

1. Environmental Management System

1.1

We have constructed an Environmental Management System, which we maintain and develop continuously (ISO 14001- section 4.1).

An Environmental Management System increases everyone's confidence that the organisation can operate in a manner which considers the environment and protects it, and that the organisation can continuously improve environmental performance.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

“We don't like to have rigid systems. We do things properly and you don't need systems to do that.

The law is system enough. As long as we follow environmental law we won't have any problems.

We had quite enough to do with that ISO 9001. We have the certificate now, but no-one has time even to keep that system up to date.

“If you are small you have to be flexible, systems just make you rigid.”

1. Environmental Management System

This is how the successful perform:

- ❑ The environmental project produced a system whose main contents are:
 - environmental policy
 - environmental objectives
 - environmental management programmes
 - environmental guidelines
 - monitoring and measurement
 - corrective and preventive action
 - auditing and reviews

- ❑ An external consultant confirmed that the system conformed to the ISO 14001 standard.

- ❑ The Environmental Management System helps the organisation fulfill its legal and regulatory environmental obligations.

- ❑ “We use our Environmental Management System throughout the whole organisation and we apply the ISO 14001 standard in a way that suits us.”

- ❑ The issues presented in the Environmental Management System concern suppliers, agency workers, customers and visitors whenever they effect environmental matters.

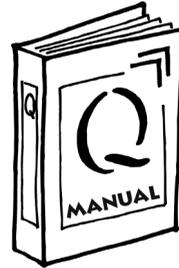
“When the basics are described in the system and we act in accordance with them, then the organisation is more flexible.”

1. Environmental Management System

1.2

The Environmental Management System is documented and maintained so that it is easy to understand and implement effectively (4.4.4).

The Environmental Management System includes the environmental handbook, plans, registers, operating methods and guidelines and it shows that we observe the ISO 14001 standard.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

The Environmental Management System was drawn up and the handbook and the register of the documents required were produced. Someone got halfway through filling in the handbook. Then the whole thing got left and no-one bothered to keep the rest of it up to date.

“All the papers are around somewhere. From time to time we put them all into the same file.”

1. Environmental Management System

This is how the successful perform:

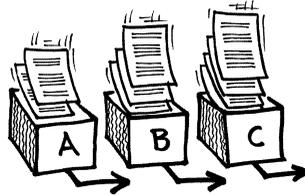
- ❑ “Our environmental handbook contains the guidelines on how environmental matters should be documented.”
- ❑ The documents describe the parts of the Environmental Management System and how they relate to each other. The Environmental Management System also includes references to other documents where further information can be found.
- ❑ When planning the documentation we assumed that:
 - it was possible to meet the environmental requirements
 - the requirements of the ISO 14001 standard could be met
 - responsibilities and authorities could be described
 - the legal requirements could be met
 - the documentation methods are secure, easy to use, easy to adapt and that documents are distributed to the people who are supposed to get them.
- ❑ “At first there seemed to be too many documents, but we have now found a workable number. The employees we questioned thought the same.”

“It is described clearly enough so that we can get other people to understand what we mean by an Environmental Management System.”

1.3

Control of environmental documentation and information follows a planned system (4.4.5).

Documents and information are stored in accordance with procedures, information is up to date and out of date information is discarded.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

The papers are around somewhere, old and new.

“This must be important, it has come from head office.”

Responsibility and authority for document control was defined once, but most of the people have since left the company though their names are still on the paperwork.

“Does the law say anything about keeping this one?”

“This is an important looking paper and it is signed by a lawyer. Does it still matter?”

“Can this be published?”

“Where is that investigation report about the fire? The police are asking for it.”

1. Environmental Management System

This is how the successful perform:

- ❑ The organisation has defined the systems, responsibilities and authorities for approving, recording, publishing, storing and disposing of environmental documents. There is a document control register.
- ❑ “When we had damage from spillage, we found the chemical analysis immediately thanks to our effective systems.”
- ❑ “Questionnaires show that the general opinion is that the documents and information can be easily obtained by people who need them and the documents are up to date.”
- ❑ Documents and information are reviewed regularly, updated when required and approved by an authorised person as satisfying requirements.
- ❑ Out of date documents and information are taken out of circulation immediately and removed from the places where they are consulted, and other steps are taken to ensure they are not used by mistake.
- ❑ Archived information (for legal or other purposes) is identified.
- ❑ An electronic storage project has been commissioned.

“Our straightforward, electronic system is invaluable, we can find everything.”

1. Environmental Management System

1.4

The information in the Environmental Management System meets the stipulated requirements (4.5.3).

Our information gives a good picture of how our Environmental Management System works.

Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

Some of the documents needed have been drawn up, others are missing. Some are kept where they should be, others are not and no-one knows what is kept where.

The rest are either missing or they could be anywhere.

“The paper is no-where to be found. Where can we conjure it up from suddenly?”

1. Environmental Management System

This is how the successful perform:

- ❑ Information in the Environmental Management System
 - meets legal requirements
 - contains the necessary permits
 - includes environmental training records
 - describes the inspection, calibration and maintenance regimes
 - includes environmental monitoring data
 - includes data on incidents, near misses, complaints and responses
 - includes information on the properties and composition of products including their environmental impact
 - includes information about suppliers whose work has an environmental aspects
 - includes the results of audits and reviews

- ❑ Instructions for recording and storing information have been drawn up. These include
 - information and data gathering
 - document approval
 - distribution
 - storing
 - maintaining
 - removal of out of date documents

“Could you get that paper for me. Its location is given in the register.”

1. Environmental Management System

1. Environmental Management System	Priority	Current and Target Performance				
	1 - 5	1	2	3	4	5
1.1 Creation and maintenance of an environmental management system						
1.2 Environmental handbook						
1.3 Document control						
1.4 Records control						
Overall grade						

1. Environmental Management System

My comments:

2. Management responsibility

2. Management responsibility

This section looks at how management shows its commitment to the creation, maintenance and continual improvement of an Environmental Management System and how it gets involved in it.

Key words:

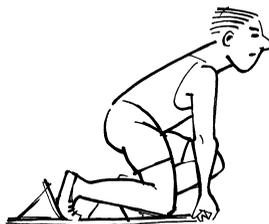
- definition of initial conditions
- management commitment
- environmental policy
- management of environmental policy
- establishing objectives
- management of objectives
- updating of objectives
- management representative
- line management responsibility
- internal communication
- management review

2. Management responsibility

2.1

The initial condition of the organisation’s environmental position is determined by a thorough environmental review (4.2).

We carried out a thorough review to determine our environmental aspects and the significant factors affecting it, the expectations of stakeholder groups, as well as our environmental development needs and opportunities, we then drew up our environmental policy and its main objectives.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

“Have we ever caused any environmental damage? I don’t think so, though we did have a water leak in the cellar once. They don’t meant that sort of thing. No then.

What about whether we produce any waste that is harmful to the environment? No, we take it all to the dump and pay promptly.

Does our packaging produce any waste? No, the customers take it with them.”

“It’s good that we mapped out these environmental things before we make any rushed decisions.”

2. Management responsibility

This is how the successful perform:

- “We made sure we knew what the law said about environmental issues.
- We identified the environmental effects of our operations, products and services and recorded the most significant impacts.
- We found out how others manage similar environmental matters and we got a lot of new ideas.
- We found out which sales, supply and other contracts had an environmental impact.
- We gathered together information about all the environmental damage we had caused over four years and how we had improved.
- We identified the competitive advantages we could gain if we looked after environmental matters in an exemplary manner.
- We found out what our employees, owners, suppliers, partners and customers thought about our environmental performance and took that into account in our planning.”

“There are a lot of environmental issues that you don’t even notice.”

2. Management responsibility

2.2

Ultimately, senior management is responsible for making sure that environmental matters are properly looked after (4.4.1).

Senior management's responsibilities and tasks are clearly defined, management act in accordance with them and everyone knows what management does and is responsible for.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

The top management makes deals and no-one else really knows what they do.

The managing director drew up the environmental policy and objectives when he had to and then said: "It is now your responsibility."

"The boss is always away on business, so how could he be responsible for anything?"

"The boss can certainly sell and he is really good at product development, but how can he be responsible for these environmental issues?"

2. Management responsibility

This is how the successful perform:

- ❑ Senior management draws up the environmental policy and objectives and ensures we have the resources (staff, skills and money) to implement, monitor and improve the Environmental Management System.
- ❑ “Our management team set environmental objectives and commission development projects in their departments. They play a visible role in implementing them and monitoring results.”
- ❑ “Our manager visits the shopfloor and checks that we are considering the environment. He takes a leading role in investigating accidents, secures resources for correcting problems and supports people in various ways.
- ❑ Employees are represented in the organisation’s management team when planning and monitoring environmental issues and so they share responsibility.

“Our top management has emphasised the competitive advantages of environmental efficiency and a positive attitude to the environment.”

2. Management responsibility

2.3

Management demonstrate commitment to good environmental practice by creating an environmental policy (4.2).

Our environmental policy clearly shows the commitment of management and everyone else to the environment and the organisation is expected to continuously improve the level of environmental protection.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

The health and safety manager convinced his line manager of the need for an environmental policy.

The rest of the management team don't see it as necessary, but they suppose it doesn't do any harm.

“John, as health and safety manager, could you write our environmental policy? You're good with words.”

2. Management responsibility

This is how the successful perform:

- ❑ “Our top management use our environmental policy to demonstrate their commitment to obeying legislation and continual refining environmental issues.” According to the environmental policy:
 - Environmental objectives should be concrete and they should guide managerial decision making.
 - Environmental matters should be a natural part of the organisation’s operational planning and performance monitoring. (The Environmental Management System is reviewed annually as part of the evaluation of each section of the European quality awards model.)
 - Management have to reserve resources for looking after environmental matters and continual improvement.
- ❑ The whole management team is involved in drawing up and maintaining the environmental policy, and they are very familiar with it and its spirit.
- ❑ The environmental policy is documented and public, so employees and third parties can see it.
- ❑ At various events, the management encourage employees to contribute actively to managing and developing environmental matters.

“As well as our business operations, we also look after the environment, and we do it better than others.”

2. Management responsibility

2.4

Our environmental policy guides our implementation of environmental matters (4.2).

Our environmental policy directs our development and helps us understand good environmental practice as well as motivating and encouraging us.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

The organisation's environmental policy is the same sort of poster that lots of other companies have. It gives some wonderful aims, but no-one has ever thought about what it means in practice and how its promises could be achieved.

“Customers and operating profit are the factors that decisions should be based on.”

2. Management responsibility

This is how the successful perform:

- Environmental objectives have been set and these direct the organisation's environmental work.
- "Our environmental policy is communicated to every supervisor and employee to that everyone is clear about their duty to the environment."
- "Everyone is trained in environmental matters as well as in their job and everyone is able to meet their environmental obligations."
- Everyone knows about the effects of environmental issues and everyone also assumes that others observe agreed environmental principles.
- The organisation learns and continually develops new technologies and management principles to improve environmental performance.
- Employees are asked annually how well they think that supervisors and managers, they themselves and others in the organisation live according to the environmental policy and what aspects of the environmental policy should be changed.

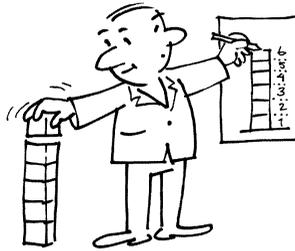
"I want to say openly what I think about environmental issues. I want to express my opinions without losing face."

2. Management responsibility

2.5

Environmental objectives are the product of careful consideration (4.3.3).

Our environmental objectives take into account the environmental issues we need to improve and our own capabilities to carry out this work.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

“You can’t set objectives for environmental matters. There is not normally any environmental damage here. Material use depends on the products and the production process determines what substances we have to use.

Waste products are taken to the dump and the offices recycle paper, those are good environmental objectives.”

“Let’s try to pay more attention to environmental matters and see if there is any benefit in it.”

2. Management responsibility

This is how the successful perform:

- ❑ “We established our environmental objectives on the basis of a thorough environmental review (section 1.2) and we simultaneously drew up our environmental policy (1.3) that way we ensured that our objectives and policy supported each other.”

- ❑ When setting objectives we took into account:
 - legal and other requirements
 - the current level of environmental activity
 - significant factors
 - possible environmental risks
 - technological capabilities to raise the level of care over environmental matters.
 - the views of management, employees, suppliers and customers on our environmental performance

- ❑ “We calculated the investments and other costs needed to achieve our environmental objectives and included them in our budgets and operational planning.”

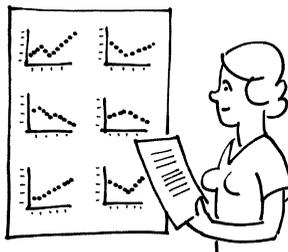
“We considered carefully what demands the environmental objectives would put on our operations, and also what benefits there would be to our operations if our environmental objectives were achieved.”

2. Management responsibility

2.6

The environmental objectives for every part of the organisation are documented and these objectives are measurable (4.3.3).

Our objectives set the level for environmental matters and their continual improvement. The objectives are presented in such a way that they can be measured.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

Management set some general environmental objectives using some figures that no-one really understood anything about.

“There mustn’t be any more oil leaks, but no-one has done anything about it. It costs too much.”

”If there are any environmental objectives they are management’s concern. They don’t have much to do with us.”

2. Management responsibility

This is how the successful perform:

- ❑ “We defined the environmental objectives and the areas of responsibility for the whole organisation. They are challenging, but you can have faith in them when you see how interested the production manager and director are.”
- ❑ The main objectives have been defined: which environmental issues we should develop, how large a step we should take and should we go for a rapid, significant change or continuous improvement and should it be now or during the next year.
- ❑ Environmental development projects are commissioned in line with the environmental objectives (management guidelines, section 3.4)
- ❑ The environmental objectives are explained to employees at the same time as other operational objectives are presented. The objectives are also presented during training and information sessions. By looking at how objectives have been met, the whole organisation can see how well we have improved.
- ❑ The data needed for measurements is easily obtained, the data can be trusted, the results are easy to present and distribute to the whole organisation and they are easy to interpret.

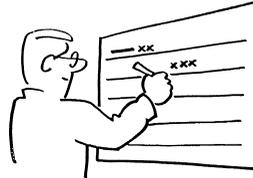
“Oceans are born from streams too. I look after my bit. This pipe will not leak.”

2. Management responsibility

2.7

Environmental objectives are continuously updated (4.3.3).

Our process for setting and checking our environmental objectives is documented and included in our Environmental Management System. We operate in accordance with the documented procedure.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

Figures which show how the environmental objectives have been met appear from somewhere from time to time. For some reason updating the objectives gets delayed.

The figures don't seem to be anyone's concern. "The managing director obviously uses them in some report."

"Can this figure be used in the annual report?"

2. Management responsibility

This is how the successful perform:

- ❑ A named individual is assigned to monitor every objective, and a working group is set up for the more important ones.
- ❑ Environmental objectives are updated at least once a year during the strategic planning and budgeting round.
- ❑ A named, senior management representative ensures that the information needed to update the objectives is gathered during the year and that the information is available for operational planning.
- ❑ The results of an environmental impact assessment are used to prioritise the objectives and this is also updated at the same time as the objectives.
- ❑ “Before the objectives and their priorities are approved, our management surveys the organisation, suppliers and other interested parties to ensure that the objectives are sensible and can be adopted easily.”

"In establishing environmental objectives we look for the maximum benefit for the company and the environment."

2. Management responsibility

2.8

The managing director has appointed a management team member to be responsible for environmental matters (4.4.1).

Appointing a senior management representative ensures that the Environmental Management System is set up and that there is sufficient authority, responsibility and resources for it to be maintained and developed.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

The managing director appointed a senior management representative to oversee environmental matters. “He is pretty lightweight anyway, belongs to the Greens apparently. He is a bit soft and quiet, but the job suits him.”

“Environmental matters won’t overload him. We haven’t had any environmental accidents.”

2. Management responsibility

This is how the successful perform:

- ❑ “Our senior management have appointed a management representative for environmental affairs and ensured that they have the skill and time to attend to their environmental responsibilities.”
- ❑ As a specialist in environmental affairs, the representative ensures that the Environmental Management System meets the requirements of ISO 1400 and that the whole organisation operates in accordance with the environmental management system.
- ❑ The management representative presents reports to the senior management to be included in the management review (section 2.11) and participates in regular reviews and in establishing environmental objectives.

“An enthusiastic and knowledgeable chap who seems to have the time to get on with the job too. Even gets the rough blokes to take an interest in environmental matters.”

2. Management responsibility

2.9

Line managers take their share of environmental responsibility (4.4.1).

Department heads and other line managers are responsible for improving the application of environmental matters in their areas.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

We've never had to bother about these things before. The directors and lawyers have always looked after environmental matters."

"I heard that the management team have been talking about them, but no-one has told me anything about it."

"We understand our responsibilities, there can't be any accidents."

2. Management responsibility

This is how the successful perform:

- ❑ Department heads are responsible for improving environmental performance in their areas. Their responsibilities and authority are detailed in the environmental handbook, job descriptions, administrative systems, budgets and operating plans.
- ❑ The management team has delegated responsibilities and authority for environmental matters. Every department head has told their department about them and supervisors have told their subordinates.
- ❑ Authority and responsibility are also covered during the appraisals which everyone has twice yearly with their line manager.
- ❑ Everyone knows who is to call in external experts in given cases.
- ❑ Every project budget includes the cost of employing someone to make sure that the environmental requirements of the project are met. If the amount budgeted is not sufficient then ways of securing additional money are agreed.

“Line managers have done their bit so that every employee knows what they are responsible for.”

2. Management responsibility

2.10

Joint operations in environmental matters work well, and communication is effective (4.4.3).

The company tells its own staff and third parties about its environmental objectives, programmes and development and encourages all the relevant parties to participate in developing environmental matters.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

Nobody is interested in talking about environmental matters and nobody is interested in hearing about them.

“How do we find the time to tell people about them when we don’t even have time for important things?”

“All the important points are in the minutes. Circulate them, they will ask if they need to know anything.”

“They won’t think much of us as managers if we spend a lot of time talking about environmental matters.”

2. Management responsibility

This is how the successful perform:

- ❑ Information about environmental matters is communicated through the organisation's operational reports: on noticeboards, in personnel and customer magazines, in monthly reports, in press releases, the annual report and on the website.
- ❑ Environmental communications enable anyone to see what the organisation's environmental objectives are and how its environmental performance is developing.
- ❑ The switchboard connects external callers with concerns about environmental matters to the environmental manager. During their first call, the caller is told how the issue they have raised will be handled. Details are always recorded.
- ❑ "If someone from outside the company or one of my subordinates raise an environmental concern, I know exactly how matters should be handled."
- ❑ "I get information from audits and management reviews very quickly and I can quickly take any necessary action in my own area or responsibility."
- ❑ Everyone knows the methods that have been agreed for exchanging environmental information with third parties (contractors, visitors, suppliers).

"We treat environmental matters in the same way we treat other important matters."

2. Management responsibility

2.11

Senior management use their review to ensure that all aspects of the Environmental Management System work. They also make suggestions for corrective and preventive actions 4.6).

Senior management review the working of the Environmental Management System at regular intervals and evaluate whether it works comprehensively and whether it supports the environmental policy and achievement of the objectives as well as contributing to continuous improvement in environmental matters.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

Management is interested in sales and does not have the skills to evaluate the Environmental Management System.

During their review, management interfere in trivial things and the “big picture” is not considered.

“There is always a shortage of resources, this will not be an exception either.”

“Don’t worry, I’ll tell you if I’m not satisfied with the system.”

“Financial figures are important, environmental matters are just costs”

2. Management responsibility

This is how the successful perform:

- ❑ The management review focusses on the overall operation of the Environmental Management System, not the details.
- ❑ The review looks at how the environmental policy is applied and whether changes are needed. The drivers for change arise from developments in legislation, expectations, requirements, changes to products and processes as well as technological developments.
- ❑ The management review sets the environmental objectives and takes into account past developments, development needs and opportunities for development.
- ❑ The review analyses the findings of the audit of the environmental management system and checks that any measures needed have been put into place.
- ❑ The management review is able to use the views of staff and others regarding environmental practice and any changes required.
- ❑ Following the review, individual management team members are given responsibility for corrections and improvements to the Environmental Management System and a timetable for these is established.

“It seems to work overall, we just need to sort out some of the details.”

2. Management responsibility	Priority 1 - 5	Current and Target Performance				
		1	2	3	4	5
2.1 Definition of initial conditions						
2.2 Management commitment						
2.3 Environmental policy						
2.4 Management of environmental policy						
2.5 Establishing objectives						
2.6 Managing by objectives						
2.7 Updating of objectives						
2.8 Management representative						
2.9 Line management responsibility						
2.10 Internal communication						
2.11 Management review						
Overall grade						

2. Management responsibility

My comments:

3. Implementation

This section looks at how the organisation works when developing issues that have an environmental impact.

Key words:

- Evaluation of environmental aspects and impacts
- Legal and other requirements
- Targets for management programmes
- Initiating management programmes
- Implementing management programmes

3. Implementation

3.1

We use appropriate methodologies to evaluate the environmental aspects and impacts of our operations, products and services (4.3.1).

Evaluation of environmental aspects is carried out systematically and has objectives. At regular intervals we record the environmental impacts and risks and evaluate their significance.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

After one serious environmental incident and a couple of close calls, the deputy managing director manages to convince the managing director that at least a couple of the worst places should be regularly checked and evaluated.

A serious decision has been made, but there is no time for the work to be done and even the deputy managing director's time is spent on more current matters.

“We already know a lot about environmental matters without having it all mapped out.”

3. Implementation

This is how the successful perform:

- ❑ "We have identified the areas (suppliers, deliveries, products, services and processes as well as use of materials, recycling and disposal), where the environmental impacts are examined at regular intervals."
- ❑ The environmental impact is identified at every point. "Typical environmental problems for us are oil leaks, production of waste, energy consumption and land pollution or the use of non-renewable natural resources."
- ❑ We try to measure environmental impact. "We estimate the breadth and seriousness of potential impact as well as the probability and duration. We consider legislative influences, the level of difficulty of problems, costs and other concerns for each issue."
- ❑ The environmental impacts relating to all new purchases and significant changes are assessed in a similar manner.
- ❑ The nature of the environmental impact is identified including how to cope with exceptional circumstances. For example: unexpected process overflows, fire, major cleaning work, reconditioning and start ups after holiday shutdowns.

"You cannot identify environmental matters just by pressing buttons."

3. Implementation

3.2

We take note of legislation that applies to us and other environmental requirements (4.3.2).

We have agreed procedures for ascertaining what the important laws on environmental matters are for us and also how we access the information relating to these laws.

We know what requirements must be observed and what the latest monitoring methods are.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

“We regard legal matters as things for the legal department. External lawyers were used for one case of environmental damage.”

Responsibility for environmental matters is passed on to the production manager, but he has not yet found time to go on the course.

"The lawyer's office has such long rows of legal books that no-one can find the right bit of legislation."

“You save time if you don't look up the legislation until something happens.”

3. Implementation

This is how the successful perform:

- ❑ “Named individuals in our organisation are responsible for making sure that we are kept up to date on legislation and regulations concerning the various environmental areas.”
- ❑ These people pass information about legislation and regulations to line managers, employees, suppliers and other partners so that they can all take care of the areas that concern them.
- ❑ These people know the legislative requirements even when they are working outside their own organisation.
- ❑ The method of storing legal information (paper, CD, floppy disk, intranet) is selected so that the information can be accessed, used and updated easily.
- ❑ “The important regulations affecting our business are those regarding use of premises, sector norms, general environmental legislation, manufacturing licenses, other permits and voluntary programmes we have signed up to.”
- ❑ “The most important sources of information are our own trade association, commercial databases and experts we have signed contracts with.”

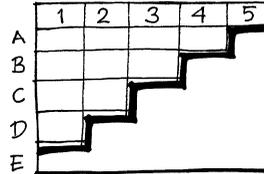
“Once you look into things, there are not so many of these laws and regulations after all.”

3. Implementation

3.3

The targets for every development programme are documented and they are measurable (4.3.3).

The targets relate to each development task which is being started and implemented.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

“Targets, targets, targets. Apparently we have some sort of “balancing scored card”. When someone does something its just more paper shuffling.”

“Change it, do it and change it, but where is it all leading?”

“Put down some sort of target for that plan, the certification inspectors will ask for one anyway.”

3. Implementation

This is how the successful perform:

- ❑ “We have broken down the environmental objectives into concrete development targets so that the overall objective can be achieved.”
- ❑ “Targets are not just dreams, they are exact and relate to a particular development plan (management system, section 3.4), which is designed to achieve the targets.”
- ❑ When objectives are defined, the people responsible for them are named as are the people available to work to achieve them and a plan is produced showing how the funds will be used.
- ❑ These are typical example of our targets:
 - reduce energy consumption by 10% within two years
 - reduce waste by 15% within three years
 - improve process efficiency by 2% within three years
 - improve employees’ knowledge about the environment

“If development programmes do not have targets, assigned responsibilities and resources, then the overall objectives are just dreams.”

3. Implementation

3.4

Environmental development areas and methods are sought out actively and professionally (4.3.4).

We have established procedures for seeking out and commissioning environmental management programmes which improve our environmental effectiveness.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

“Next year’s operating plan should be ready now. We still need to include some environmental programme for form’s sake. Kevin, could you and the team put something together by the end of the month and add it to the plan before you send it on?”

“We had better do something about that leak so we don’t get into the papers again.”

3. Implementation

This is how the successful perform:

- “Our environmental policy and objectives tell us what environmental matters we need to improve. Fulfilling our legal obligations takes priority.” We look for development programmes from a variety of sources:
 - Evaluation of environmental impact brings needs for improvement and development to the fore.
 - Product and process descriptions help us see where the problems are and what we can do about them.
 - Information for programme planning comes from staff, customers, suppliers, the general public and internal reviews.
 - New technology brings new opportunities to solve problems. At the same time, new manufacturing technologies can bring new environmental problems which have to be considered.
- The availability of sufficient, appropriate resources also influences how management programmes can be commissioned.

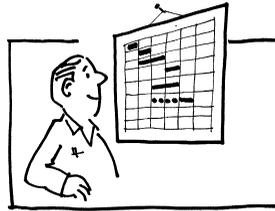
“We take a professional approach to identifying and planning our environmental programmes.”

3. Implementation

3.5

The organisation has documented management programmes for environmental matters (4.3.4).

We use management programmes (development projects) to improve environmental matters.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

Problems are dealt with on a daily basis as and when they arise. “That is how we deal with all issues and environmental issues are no different.”

If there are any environmental projects, they are always listed last on all agendas and considered immediately after personnel issues.

“Can I get a list of environmental programmes, the newspaper is asking for them.”

3. Implementation

This is how the successful perform:

- ❑ Environmental management programmes are drawn up with the operational plan as part of the organisation's strategic plan.
- ❑ Senior management review management programmes at regular intervals and ensure that they will deliver the environmental objectives set out in the organisation's environmental policy.
- ❑ The targets and contents of management programmes are changed if there are changes in operations, products, services or operating conditions that have an environmental impact.
- ❑ "We explain our environmental programmes so that everybody understands what is at issue." We describe:
 - the overall objectives and development objectives
 - the responsibilities and authorities for achieving the targets
 - the methods and timetables for achieving the targets
- ❑ "Environmental programmes are implemented and the results monitored in accordance with our project procedures. In that sense, environmental programmes do not differ from any of our other development programmes."

"Targets without programmes are just dreams."

3. Implementation

3 Implementation	Priority	Current and Target Performance				
	1 - 5	1	2	3	4	5
3.1 Evaluation of environmental aspects and impacts						
3.2 Legal and other requirements						
3.3 Targets for management programmes						
3.4 Initiating management programmes						
3.5 Implementing management programmes						
Overall grade						

3. Implementation

My comments:

4. Organization and resources for environmental operation

4. Organisation and resources for environmental operation

This section looks at how environmental operations are organised in practice.

How are responsibilities assigned and competences identified?
How is the documentation managed? How are incidents prevented and how does the organisation prepare for crises?

Key words:

- defining competence
- awareness
- training
- operational control
- emergency preparedness and response
- response exercises

4. Organization and resources for environmental operation

4.1

The environmental competences required for the various jobs and roles are identified (4.4.2).

At regular intervals, the environmental competence required for each job is evaluated as is the competence required to do the job itself.

They are evaluated when the overall requirements of the job are defined and employees' matching competence ascertained.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

Ability to do the job is a personal quality, you either have it or you don't.

“You can't even do these jobs if you don't already know how. You just can't get those people.”

“Can't you sort out these environmental things? It's just like keeping your house clean?”

4. Organization and resources for environmental operation

This is how the successful perform:

- ❑ Levels of competence are evaluated annually. In order to identify the environmental competence required, line managers need a job description, an evaluation of the environmental aspects and the local environmental operating procedures.
- ❑ The competence required defines the in-depth knowledge, training and experience the employee needs to have.
- ❑ The workplace competence required is used to plan a training programme for everybody so that everyone can work without causing adverse environmental effects.
- ❑ When new production methods are being planned, changes to the competence required are evaluated following the same principles as outlined above.
- ❑ The competence required of each environmental expert and their existing competence is identified and plans are made for any training required.
- ❑ The organisation has identified external experts who can be used in exceptional circumstances to ensure sufficient competence is available.
- ❑ The same requirements for competence, in-depth knowledge and training apply to temporary employees and contractors.

"The company's environmental competence includes a broad range of skills in technology and chemistry."

4. Organization and resources for environmental operation

4.2

We have identified the environmental issues that everyone has to be aware of. Everyone has also taken ownership of these issues (4.4.2).

With all contacts and dealings with the organisation you can see, hear and feel that environmental issues are taken seriously. Everyone is told about them and people actively find out about them.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

For our managing director, environmental issues are financial issues. Nothing can be allowed to give rise to compensation payments.

For the personnel manager, environmental issues just means keeping the yard clean.

For the production manager environmental issues are like lubrication oil bills. He has no influence over them.

For the shop steward environmental issues are a good reason to get negotiations going. The shopfloor workers find that leaks make their work harder.

“Everyone sees environmental issues in very different ways.”

4. Organization and resources for environmental operation

This is how the successful perform:

- ❑ The role of senior management and line managers in fulfilling legal obligations, managing environmental risks, saving energy and materials, and reducing the environmental load is emphasised.
- ❑ “Everyone here is aware of the importance of following environmental rules, the possible damaging effects of their own work and how to act in the event of an environmental accident.”
- ❑ Everyone who hosts a visit must make their guests aware of the environmental rules and ensure that they observe them.
- ❑ The organisation’s partners take some of the environmental training programme modules as they need information about environmental issues when working on the organisation’s premises.
- ❑ When an employee transfers from one job to another, it is the line manager’s responsibility to make sure the employee has sufficient environmental competence for the new job. Until this has been verified, the transfer cannot take place.

“We communicate the importance of the environment to the community, the company and ourselves.”

4. Organization and resources for environmental operation

4.3

Our environmental training programmes are top class and meet our needs (4.4.2).

The organisation's environmental training programme is made up of various modules on different topics. The trainers for the various modules are environmental experts and department heads.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

Extract from a new employee's induction:

“Turn the tap so it is fully closed. Be careful with that hose. Don't let it touch the ground. Try to remember that. Save, don't waste materials. It should be common sense that you don't throw it down the drain.”

“People learn these things if you tell them often enough.”

4. Organization and resources for environmental operation

This is how the successful perform:

- ❑ “During our training programme, the managing director explained the environmental policy and main objectives enthusiastically and explained the most important parts of the Environmental Management System to us.”
- ❑ The training programme contains induction modules for new employees, office staff, line managers and directors. The programme can also be used when someone transfers to another division, section, department or to another location.
- ❑ There are specific modules for training environmental experts and for evaluating environmental matters.
- ❑ “At the end of the training, the instructor tests what we have learned and how effective the training has been.”
- ❑ When the annual evaluation of training is carried out, environmental training is included and proposals for improvements are put forward. The topic is also covered in the senior management review.
- ❑ “I can see my level of competence from my computer screen and check that it is up to date.”

“Environmental training is planned and is extremely professional and challenging.”

4. Organization and resources for environmental operation

4.4

Procedures are used to prevent environmental incidents (4.4.6).

We have established approaches to make sure that there is no unexpected environmental harm and that we operate in accordance with our environmental policy, legislation and other requirements.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

Procedures are drawn up after an environmental incident. The procedures are in the files, but nobody looks at them.

“Can we still do this according to that instruction?”

“Let Johnson do it, that way nothing will go wrong.”

“This permit is a little out of date, but only a little.”

“Pour more water on it so it doesn’t look so bad.”

“Let’s do it this way this time, but don’t tell anyone about it.”

4. Organization and resources for environmental operation

This is how the successful perform:

- ❑ *Strategic planning procedures* explain how changes to environmental demands and developments in environmental technology are predicted and how these are taken into consideration in strategic planning.
- ❑ *Product development procedures* explain how the environmental burden generated by manufacturing and by the product itself during its life cycle have to be considered in order to reduce the burden and save non-renewable natural resources.
- ❑ *Manufacturing procedures* explain what sort of materials should be used and how waste should be handled to minimize the environmental burden.
- ❑ *Purchasing procedures* stipulate how the transport of goods inwards and outwards is to be organised so that the use of energy and packaging is minimised.
- ❑ *Sales procedures* explain how customers should be advised to consider environmental issues when using the products.
- ❑ “These procedures affect everybody, no matter where they work, whether it is others working on our premises or our people working elsewhere.”
- ❑ The organisation demands that its suppliers demonstrate that they plan for dealing with environmental matters.

“Procedures on environmental matters are part of other procedures and not a special set of environmental procedures.”

4. Organization and resources for environmental operation

4.5

We are prepared for incidents and damage (4.4.7).

We have planned how we work, how we identify situations which could possibly result in environmental damage or incidents and how we prevent them and mitigate any damage that does occur.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

The organisation solves all problems when they happen.
“That’s the way we do it here.”

No-one is interested in solving problems that do not even exist. “We already have plenty to be going on with.”

“Where can I find the time to read all those procedures? Surely it’s just common sense.”

4. Organization and resources for environmental operation

This is how the successful perform:

- ❑ Contingency plans have been drawn up and they also include the equipment that is needed to prevent damage or to reduce the impact of any damage that does occur.
- ❑ When the contingency plans and their contents are decided on, risk analyses are taken into account, as are legal requirements and experience of previous environmental damage and exercises.
- ❑ Contingency plans also include procedures for abnormal operating conditions such as the summer holiday period and long periods of operation at over capacity.
- ❑ Contingency plans identify the following issues:
 - how situations leading to incidents can be recognised
 - who takes command in case of an incident
 - how staff should act during an incident
 - division of work and responsibility during an incident
 - cooperation with external emergency services, the authorities, the neighbourhood and the general public
 - crisis communications plan
 - how damage to the environment can be prevented.

“It is best to solve problems before they arise.”

4. Organization and resources for environmental operation

4.6

Exercises are used to test the feasibility and scope of the plans (4.4.7).

The plans, equipment and the company's abilities are tested in regular exercises in case the worst should happen.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

“Grown men can’t be expected to play at these kinds of exercises.”

“I can’t be bothered with these exercises any more, let the younger ones do them.”

“We haven’t got the right equipment here, but imagine it.”

“Let’s just put our crosses on the paper and go home.”

“This valve is jammed, hasn’t anyone ever tried it?”

“It will never happen to us anyway.”

4. Organization and resources for environmental operation

This is how the successful perform:

- ❑ Exercises are carried out according to plan. External organizations that would be involved in an incident also take part in the exercises.
- ❑ Consideration is given to which exercises that will be carried out on paper, which will be full scale and which will be a combination of theory and practice.
- ❑ The equipment that would be needed in an incident is selected, there is enough of it and it is tested at regular intervals (alarm systems, emergency lighting and reserve power, switches, fire extinguishers and communications equipment).
- ❑ “Make a note that the pipe used in the exercise is too thin and that the job needs at least two men not one as we had planned.”
- ❑ “We nearly had an incident. Now we need to check whether we operated in accordance with the procedures or whether there is something wrong with them.”

“It’s though practise that F-1 teams achieve the best results.”

4. Organization and resources for environmental operation

4. Organization and resources for environmental operation	Priority	Current and Target Performance				
	1 - 5	1	2	3	4	5
4.1 Defining competence						
4.2 Awareness						
4.3 Training						
4.4 Operational control						
4.5 Emergency preparedness and response						
4.6 Response exercises						
Overall grade						

4. Organization and resources for environmental operation

My comments:

5. Checking and corrective action

This section looks at how the organisation measures, monitors, reports and examines its environmental operations, how it takes remedial and preventative action and how it carries out detailed evaluation of its Environmental Management System.

Key words:

- operating level measurements
- monitoring of workplace and working methods
- measurement instructions
- measurement equipment
- announcements and investigations
- corrective and preventative action
- analyses
- benefits of measurements and investigations
- auditing

5. Checking and corrective action

5.1

Environmental operations and results are measured quantitatively and qualitatively (4.5.1).

We take regular measurements to see how well our Environmental Management System is working and what effect it is having.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

The organisation doesn't really measure anything unless it has to. Statistics required by law or contracts are always collected and sent out a couple of months late. "There are more important things that have not been done."

"There is always something happening, there isn't enough time to measure everything."

"Look what that reading is showing. Put the instrument away quickly."

5. Checking and corrective action

This is how the successful perform:

- Regular measurements are used to evaluate the operation of the Environmental Management System, including:
 - how the environmental policy is implemented
 - are environmental objectives and targets set
 - are environmental programmes implemented as planned
 - have contingency plans been drawn up
 - is the risk assessment system used
 - are legislation and regulations being observed
 - are people trained in environmental matters
 - has anything been learned from incidents

- Regular measurements are also taken to evaluate how environmental operations affect operations such as:
 - has the number of environmental incidents decreased
 - has the environmental burden decreased
 - has the proportion of renewable natural resources used increased
 - has energy consumption been reduced
 - has the information from reviews and measurements been used

- “Make sure that the measurements you produce can be used to take action and are not just descriptive.”

“Good measurements help us operate predictively and run the processes correctly.”

5. Checking and corrective action

5.2

Examining working conditions and methods ensures that good conditions are maintained and correct working practices followed (4.5.1).

Line managers' responsibilities stipulate how often routine checks of workplaces and practical environmental practices should be checked.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

“There is no time to wait for professionals, we have more important things to do.”

“Nothing has happened there before, why should it now?”

“It’s going wrong, but in this rush it will have to do. The manager said that the customer comes first - then everything else.”

“You have to be smart and pretend not to notice to stay in the company’s good books.”

5. Checking and corrective action

This is how the successful perform:

- For place of work, conditions are defined which must be met without causing any unexpected environmental impact. Line managers make sure these conditions are maintained.
- “You can’t remember the points to be checked without a list, and some of the points are so important that you can’t take any risks with them.”
- “There is a legal requirement to check the levels of that substance every two hours. You can see when the colour changes. The water depth should be checked every two hours when it is raining, that was pointed out during the risk assessment.”
- When I assign jobs to new employees, I have to make sure that what they have been taught really has gone through.”
- The points where line managers have to carry out spot checks to make sure we are operating within the norms are also identified.

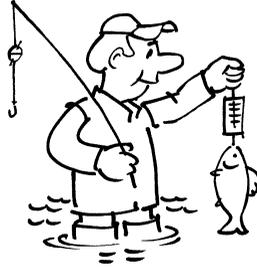
“Inspection is a question of taking care of our responsibilities and obligations.”

5. Checking and corrective action

5.3

Measurements are taken in accordance with procedures and to the appropriate degree of accuracy (4.5.1).

Measurements are taken in accordance with the plans and following tested procedures. The results are recorded and the information is passed on to the appropriate people.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

“I had always thought that Johnson took the samples.”

“The instrument is broken, but this one should do instead.”

“You don’t need any special competence for this. I think Smith measured it like this.”

“I left my pen in the office, but I will be able to remember it.”

“Should this have been mixed before the sample was taken?”

5. Checking and corrective action

This is how the successful perform:

- ❑ The organisation measures the following factors when measuring its environmental performance:
 - results or environmental risk assessment
 - inspections using inspection lists
 - spot inspections during plant tours
 - investigations of equipment, materials, chemicals, technology, processes and working methods
 - sampling
 - use of experts
 - analysis of statistics and documents
 - comparison with best practice
 - surveys of employee attitudes to environmental matters.

- ❑ “Look at the handbook, that details the procedures to be followed when taking measurements.

- ❑ If a measurement is outside the permitted range then find out and record whether the agreed approach for the work was being followed. That is also in the procedures. They use this information to prevent any danger being repeated.”

“You learn to take measurements by following procedures and by measuring.”

5. Checking and corrective action

5.4

Environmental measurement equipment provides information quickly and reliably and also stores measurement data (4.5.1).

There are written instructions on how to use measurement equipment.

The tolerance of measurement equipment is stipulated, it is checked and the equipment is stored according to instructions.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

“This is apparently a really accurate instrument, it can measure to an accuracy of one thousandth.”

“Lets use this one to make sure though, this instrument is newer.”

“Let’s borrow an instrument from the contractors. Their tools are usually in better condition than ours.”

“Didn’t Lisa calibrate them? She can do them when she is back at work from maternity leave.”

5. Checking and corrective action

This is how the successful perform:

- ❑ The instruments used for legal and technical environmental inspections are listed.
- ❑ Instruments are calibrated and serviced at regular intervals in accordance with procedures. Calibration conditions are standardised and instructions are drawn up for critical instruments.
- ❑ The instruments used in calibration follow international standards. If there are no appropriate standards, then the basis of the measurements is explained.
- ❑ “If the reading isn’t what it should be, then look at what it has already been used to measure and make sure that it has not been damaged.”
- ❑ “This mark shows whether this instrument has been calibrated according to plan. If it hasn’t got it, then put this kind of mark on it and take it to calibration and make sure no-one uses it.”

“Yes, it is correct, it has been measured and the instrument has been calibrated regularly.”

5. Checking and corrective action

5.5

Environmental damage and discrepancies are recorded and incidents are investigated thoroughly (4.5.2).

The organisation is clear about what environmental damage and discrepancies are reported and investigated.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

“Yes I told the boss about it. Well anyway, I said something.”

“We don’t make a fuss about little things.”

“Now it’s being investigated will somebody get the sack?”

“What’s happened has happened. It can’t be undone. Don’t go on about it so much.”

“What will the boss say about this? Better not to say anything about the whole thing.”

“Put is back and act like it was never there. Do you know where this pipe should really lead to?”

5. Checking and corrective action

This is how the successful perform:

- ❑ The organisation has procedures for recording and investigating environmental damage and discrepancies, and for setting corrective and preventive measures in motion.
- ❑ “Remember that all discrepancies, accidents, and dangerous situations are reported.”
- ❑ “Everyone here knows how reports are made. Everyone understands their responsibility to report and no-one need be concerned about getting into trouble.”
- ❑ Every investigation covers the following issues:
 - the type of incident
 - the reason for the investigation
 - the authority of the investigator and the competence required
 - the underlying reason for the incident or discrepancy
 - corrective and preventive measures
 - arrangements to interview witnesses
 - storage of evidence
 - reports and explanations for the organisation and the authorities
- ❑ “Davidson, get that investigation going as soon as possible and gather the additional information needed during it.”

“Without an investigation we will never know just why the storage tank leaked.”

5. Checking and corrective action

5.6

Corrective action is implemented immediately and the reason for the incident is investigated thoroughly so that the same problem will not be repeated (4.5.2).

The organisation has operating systems to enable corrective actions to be taken rapidly and to make sure the real reasons are identified and eliminated.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

“It will work for now. It will be fixed next.”

“It is always a worry. It’s a miracle that nothing worse happened.”

“Now at least it won’t go anywhere. Just as long as it isn’t too tight?”

“Who is supposed to repair this? Doesn’t look as if anyone has been asked to look at it. Hi you, apprentice, you must have plenty of time to take a look at this.”

“Is this the spare part? At least it looks the same.”

5. Checking and corrective action

This is how the successful perform:

- “Clever blokes those investigators, they came to ask my advice on how we could prevent the same thing happening again.”
- “Are you sure you have enough information to find the real reason?”
- “This extra screw will make sure for now that there is no danger of a repeat. But we need to make a more permanent repair and change the structure of the product. That will take longer.”
- “When there is no danger of the incident being repeated, can you enter that in the risk assessment report and also amend the measurement instructions.”
- “Walker can put these changes onto the maintenance worksheet so the job will be assigned to someone and be given a completion date. Put a note down that after the changes have been made they need to check that the design works in practice.”
- Measures that have not been taken or are late are reported to senior management immediately.

“Over the past few years we have eliminated repeats of environmental emissions.”

5. Checking and corrective action

5.7

Analyses of environmental incidents and discrepancies are made to understand and monitor incidents (4.5.2).

The reasons for environmental incidents and discrepancies are graded and analysed systematically. Frequency and type of incident are counted following approved practice. The information is used for comparisons and for development.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

“It’s written in some column at least that it happened here.”

“Has the same type of incident occurred before? Does anyone remember?”

“The authorities ask all sorts of questions. Who on earth could answer them all?”

“Don’t bring all those statistics to me, I am not a statistical service.” (Managing director’s comment)

5. Checking and corrective action

This is how the successful perform:

- ❑ Classification and analysis covers the following issues:
 - frequency of occurrence and degree of seriousness
 - location of incident, type of incident, what operation was in progress at the time, whose area, date and time
 - degree and extent of damage to property
 - immediate and underlying reasons.

- ❑ When analysing the information, it should be remembered that low numbers of incidents may not imply development; not all incidents may have been reported and the environmental effects may not have been observed.

- ❑ “Do the analyses so that the managing director can understand them too. He is interested in them anyway and not just for the annual management review.”

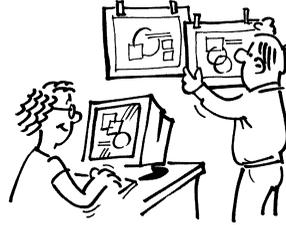
“By identifying the underlying factors we have found the real reasons and we have succeeded in reducing emissions and leaks.”

5. Checking and corrective action

5.8

Measurements of environmental impact and the results of investigations into environmental incidents are used throughout the organisation (4.5.2).

We learn continuously from the results of environmental incident investigations and measurements of environmental impact.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

The organisation does not generally measure the effectiveness of processes except for production capacity.

“We have an effective environmental investigation and reporting system. Don’t the authorities insist on it?”

“Investigations are effective if we identify those responsible.”

5. Checking and corrective action

This is how the successful perform:

- ❑ Reports and proposals from investigations are sent to the management representative and the employee's environmental representatives. They are analysed and archived.
- ❑ “They have got department B's environmental incident investigation ready. I think we ought to look carefully at it too, so nothing similar happens in our department.”
- ❑ A register is kept of all environmental incidents. Legal recording obligations are observed.

“It is much cheaper and faster to learn from other people's mistakes and experience than from your own.”

5. Checking and corrective action

5.9

We use the Environmental Management System audit to check the system's effectiveness at regular intervals (4.5.4).

We check that the Environmental Management System meets the requirements of ISO 14001 and confirm the policy and overall objectives that have been selected. In addition, we ensure that the recommendations of the previous audit have been implemented.



Priority 1 - 5	Current and Target Performance				
	1	2	3	4	5

This is how the average perform:

The audit plan has been produced, but nobody has time to follow it.

People change jobs or leave the company and new ones join. "Audit those who joined last so they will learn about the organization at the same time."

"Just do one department, the others will be the same."

"You can see without an audit whether the system is working or not."

"Our auditors have so much to do in these audits that I don't know what to do."

5. Checking and corrective action

This is how the successful perform:

- ❑ “The previous audit uncovered so many deficiencies that the next one should be carried out a couple of months earlier than scheduled.”
- ❑ “The areas and people to be audited have been selected. Everybody has just received audit training. Jobs have been assigned so neutrality is preserved while people are still interested in the area they are auditing and have the skills appropriate to it.”
- ❑ The audits evaluate in detail the effectiveness of environmental measures and how procedures are followed. If necessary, the auditor proposes corrective actions.
- ❑ The results of the audit are fed back immediately so that corrective action can be started.
- ❑ Audit results are recorded and reported to management who review the audit results in the annual management review (section 5.1).
- ❑ “Our top management show their commitment to audits by looking at what the audits uncover and their recommendations and, when necessary, ordering immediate implementation of corrective action.”

“Make sure that the audits cover a representative sample of all the important operations and that the right people are interviewed.”

5. Checking and corrective action

5. Checking and corrective action	Priori	Current and Target Performance				
	1 - 5	1	2	3	4	5
5.1 Operational level measurements						
5.2 Monitoring of workplace and working methods						
5.3 Measurement instructions						
5.4 Measurement equipment						
5.5 Announcements and investigations						
5.6 Corrective and preventative action						
5.7 Analyses						
5.8 Benefits of measurements and investigations						
5.9 Auditing						
Overall grade						

5. Checking and corrective action

My comments:

About the Authors

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He previously worked as the head assessor at SFS-Sertifiointi Oy for 7 years. He has assessed the operating models of some 200 large or medium sized companies. His previous books are:

- ❑ ISO 9000:2000 ja menestyksen avaimet, SFS 2001
- ❑ IMS-johtamisjärjestelmä - laatu, ympäristö ja turvallisuus liiketoiminnan kehittämässä, Edita 2001

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For 26 years, **Kari Tuominen** worked in managerial and development positions at Rosenlew, Repola, and Ahlstrom companies, both in Finland and abroad.

In addition to operational management, his duties included planning and implementing large development and change programs. He has been president of Oy Benchmarking since 1995 and has trained, consulted and conducted development projects for business processes and benchmarking projects for industrial, service, and public sector clients.

He served as auditor and chief auditor of the Finnish Quality Award from 1995 to 1997, and he has an NLP trainer degree.

Kari Tuominen's other books include:

- ❑ *A Guide to the Benchmarking Process*
- ❑ *Managing Change: Practical Strategies for Competitive Advantage*, ASQ, USA, 2000
- ❑ Developer of *ChangeManager Pro*

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Assessment using *ChangeManager Pro* software

ChangeManager Pro software facilitates selection and modification of questions, responding directly to the software, calculating, analysing, printing and showing results graphically.



The software allows you to set the following factors (on a scale of 1 to 5) for each question: priority, current performance, and target performance. The numerical evaluation is supplemented by written comments in the *Comments* window.

The gaps between current and target figures are the major indicators of the organisation's readiness and willingness to change.

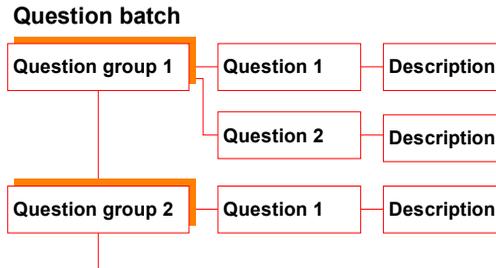
- Results and comments can be reviewed by organisational level as well as by comparing various departments and individual data.
- The *ChangeManager Pro* software allows you to identify differences in opinions and personal views in a manner which facilitates their measurement, presentation and processing.
- With the Client / Server option the survey participants respond on their own computers. Everyone can monitor, analyse, and print results on their own computers as well.
- The data is not processed remotely, but can be viewed and used immediately in the user's and consultant's computers.
- The software allows you to alter questions or to draw up your own.

The *ChangeManager LE* -software is included with the *ChangeManager Pro Self-assessment Guide*. This version of the software allows you to explore its capabilities and to conduct a self-assessment process with the question batch included. A software upgrade to the full version (*ChangeManager Pro*) can be purchased from the website: www.changemanager.org

Self-assessment question batches

The ISO 14001 standard and the questions derived from it are excellent development tools and training material, even if the organisation does not intend to adopt the ISO 14001 based quality management system.

The question batches facilitate an organisation's self-assessment and highlight the essential strengths and improvement topics in an organisation.



In the question batches there are explanations linked to the questions which give examples to illustrate their contents and provide learning material.

ChangeManager Pro product family

1. ChangeManager Pro Self-assessment Guide

The Guide is designed to take you through the self-assessment process. It includes the ChangeManager LE software. This version of the software allows you to explore its capabilities and to conduct a self-assessment process with the question batch included. You can buy and upgrade to the full version at: www.changemanager.org (ChangeManager Pro).

2. Self-assessment Workbooks

Quality award models	Six Sigma
Quality management	Process management
Environmental management	Human resource management
Safety management	Benchmarking
Corporate social responsibility	Change management
Balanced Score Card	

3. ChangeManager Pro software

The software and accompanying guide are designed to take you through the self-assessment process, the questions and processing the results as well as their presentation.

The software also allows you to produce your own questions. The networked version lets you carry out a study across your organisation's internal network.

4. Self-assessment Question batches

Question batches can be bought separately for each of the self-assessment workbooks and can be loaded into the ChangeManager Pro software.

You can examine and buy the ChangeManager Pro family of products at the following website: www.changemanager.org More products are being developed all the time.

You will also find links to trainers in this field on the website.

**Do you manage by
averages or
are you familiar with
individuals'
opinions and motives?**