The ISO 14000 Challenge

Environmental Management
A Guide for Managers
This video program was sponsored by:

Standards Association of Australia
1 The Crescent
Homebush NSW 2140
Phone 61-2-9746 4700
Fax 61-2-9746 8450

National Association of Testing Authorities, Australia
7 Leeds Street
Rhodes NSW 2138
Phone 61-2-9736 8222
Fax 61-2-9743 5311

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Nicholas & Smith Pty Ltd

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The concern for our environment is rapidly rising. Organisations are under mounting pressure to control the environmental impact of their activities. An environmental management system is a practical way to enhance a company’s performance and ensure the organisation is effectively managing its environmental risks.

The video *The ISO 14000 Challenge* describes the key elements of environmental management by showing how three very different organisations have introduced and implemented an Environmental Management System into their operations. The managers and staff talk first hand how the principles of ISO 14001 applied in their business situations, the challenges they had to meet and the rewards that resulted.

The case studies show how Bonlac Foods, a major producer and exporter of dairy products, and Macmahon Contractors, a leader in rural and remote area mining have introduced an effective Environmental Management System and achieved certification to ISO 14001. It also shows how Woollahra Council, a high profile Sydney council, is tackling environmental management for its community.

This booklet is a summary of the key points covered by the case study organisations in the video program.
Key Questions

Before watching this video program it may be useful to ask yourself and your colleagues the following questions.

- Is your environmental performance up to the standards expected by your customers, shareholders and the community?
- Are you sure that your organisation is complying with the latest environmental laws and regulations?
- Does your organisation have all of the permits and licenses it needs to conduct its business?
- Are there procedures in place to handle incidents that impact on the environment?
- Which activities in your area have a significant impact on the environment?
- What are the levels of energy use, waste and discharges resulting from your operations?
Introduction

Organisations around the world are striving to meet their environmental responsibilities. ISO 14001 links an organisation’s activities to its environmental responsibilities.

1. Nearly every business activity in nearly every organisation has some impact on the environment.

2. Management systems are implemented to control business activities.

3. Standards are used by organisations to provide a framework for management systems.

4. ISO 14001 is the international standard for environmental management systems. It is the tool that many organisations around the world are using to control their environmental performance.

Organisations operate in very complex business conditions. Environmental laws and regulations are continually changing and becoming increasingly demanding. To remain profitable and to stay in business, organisations often have to cope with seemingly ambiguous demands.
Gaining ISO14001 certification can provide companies with:
- a comprehensive strategy for meeting legal requirements and assist its Officers to demonstrate due diligence,
- a marketing edge,
- an improved relationship with the community which benefits sales and operations,
- benefits in yield and quality.

ISO14000 is the international series of standards and guidelines for environmental management.

Developed by industry, the standard ISO14001 provides a framework for a management system. ISO 14001 is not a product standard. It is a standard which covers the process of producing a product or providing a source. It has many similar elements to the quality standards covered in ISO 9000.

ISO 14001 is an international recognition of an organisation’s commitment to improving its environmental performance.
ASPECTS AND IMPACTS
The building blocks of an environmental management system is an understanding of aspects and impacts.

Implementing ISO 14001 begins with identifying how an organisation’s business activities impact on the environment.

Many organisations believe they are already aware of the significant aspects and impacts of their operations. The process of implementing ISO 14001 may uncover significant impacts not previously identified and allows for a consistent approach to analysis.

Generally this analysis is done department by department or centre by centre.

It is best if it is a team approach that involves the employees who do the activity. An employee’s familiarity with a task is essential for both the identification of the environmental impacts of business activities and the determination or implementation of control measures.

An aspect is any element of an organisation’s activities, products or services that can interact with the environment.

An impact is the change caused to the environment.
**Impacts** may occur during normal and abnormal operating conditions, such as accidents and emergencies.

Aspects can often be isolated by analysing the inputs and outputs of an activity.

**Case Study Examples**

At North Parkes Mine, some of the activities include: drilling, blasting, dust containment and refuelling.

At Bonlac Foods Stanhope factory, the activities in the milk separator and receiveal department include skim milk and cream separation.

At Woollahra Council, one of the activities is management of storm water run-off.

At Bonlac Foods this type of analysis of activities identified waste milk discharge as an output during flushing. Milk is flushed through the separator every 15 minutes to clean it. This discharge or flushing is an aspect because the waste milk interacts with the environment. The impact occurs when milk flows out with waste water. Its high nutrient load can cause algal bloom and contribute to an offensive odour.

So, in this example, flushing is an aspect and algal bloom and odour are impacts.
In the Bonlac Foods garage, there are a number of activities required to service vehicles. Each of these activities is an aspect of servicing a vehicle. One of the aspects is changing the oil. If there is no recycling of the oil, the impact is the pollution of the soil if the oil is dumped.

During construction on a building site there can be waste water run-off. In the Woollahra area if the run-off is not contained then there is the impact of pollution of the Woollahra foreshore.

**EVALUATION OF IMPACTS**

Once the impacts have been determined they have to be evaluated.

Criteria for evaluation include environmental concerns such as the severity of the impact, and business concerns such as potential regulatory and legal exposure, the probability of the impact occurring, the cost of changing the impact and effect on public image.

This type of evaluation highlights the significant impacts. These, in turn, determine the significant aspects.

Once the significant aspects have been determined, targets and objectives can be set.
CONTROL MEASURES
Even though the interaction of aspects can be complex, control measures themselves are not necessarily complex and expensive. The control measure may be a new method or procedure, a new piece of equipment, or demanding higher standards of your suppliers.

This does not mean that a major expenditure can always be avoided but it can be as straightforward as a request to a supplier to change the specifications of their product.

Case Study Examples
At Bonlac Foods the separator contributed to the nutrient load in Bonlac’s waste water by discharging large volumes of milk each time the machine was flushed.

The Bonlac team analysing this activity developed three control measures.

The first was introducing an additional filter to catch sediment before it entered the separator. This reduced the amount of sediment in the milk and hence the frequency of flushing was reduced by half.

Secondly, a discharge tank was set up and all initial flushings were taken to this tank. This milk was then processed to a product which could be sold to pig farmers.
Lastly, to support similar problems elsewhere in the factory, the waste water treatment system for the plant was upgraded.

In addition to the environmental benefits the control measures also achieved higher yields and a new source of income.

**MANAGEMENT & STAFF**
A successful implementation of ISO 14001 demands commitment from senior management and utilises the skills of all of the employees.

The training of staff in environmental awareness and competency to achieve the environmental objectives is an essential element in the standard.

**Case Study Example**
Concerned about the impact of oil pollution, the Bonlac Foods garage staff redesigned the procedure for removing oil from a tanker. Oil is now pumped directly into a retrieval tank and is then purified and recycled. The procedure is more efficient and the impact of soil pollution is eliminated.

At Bonlac Foods, induction courses now include training on environmental issues and staff are encouraged to suggest new environmental initiatives and are rewarded with incentives. Employees are conscious of their environmental responsibilities. Progress on targets is prominently displayed on noticeboards and published in the company newsletter.
For many organisations, performance appraisals now include performance on environmental indicators.

**MONITORING**
As with any system, monitoring is critical to the success. What you can’t measure you can’t control.

Monitoring is needed to assess the importance of individual impacts and aspects.

Monitoring is integral to both the operation of ISO14001 and continual improvement principles.

Many managers have been surprised when they have studied the results of monitoring their energy usage, waste products and supplies.

The drive to reduce the environmental impacts can highlight inefficiencies and wastage in their current procedures. Many recycling or energy conservation measures are relatively easy to implement and result in cost savings.

**TARGETS & OBJECTIVES**
Targets and objectives are an intrinsic feature of continual improvement which is built into the ISO14001 standard. Environmental performance has to be continually monitored and evaluated against targets.

Once environmental targets have been set they become a focus for the organisation.
SUPPLIERS & EQUIPMENT
ISO 14001 introduces new parameters for organisations in the assessment of contractors, suppliers and equipment.

Quality, performance, yield and cost have always been considered. Now the environmental impact of a service or piece of equipment is important and is often written into the specifications.

INTEGRATING MANAGEMENT SYSTEMS
Some organisations have other management systems in place. For example, a quality system such as ISO 9002 and an OH&S system. Many companies which have implemented ISO14001 have broadened existing management systems to integrate this new emphasis on the environment.

At Bonlac Foods the operators’ manuals cover quality, safety and environmental issues in the one set of standard procedures.

In addition to the efficiency of combining the systems in this way, a centralised manual presents a cohesive view of the process to the operator.
BENEFITS OF ISO 14001
The benefits of ISO 14001 are broad and significant; from improving yields at the production line to giving a company a marketing edge.

All organisations have to operate under local, state and federal environmental laws and regulations and all organisations and even their directors and managers face the legal and financial risks of not meeting these standards.

Many organisations have learnt the hard way about the costs of not complying with regulations.

Fines of $5000 or even $25000 are common. Even a jail sentence for company officers is not out of the question and while fines may be large, they can be dwarfed by the cost of remediation.

Being small or ignorant of an employee’s or contractor’s negligence is not a defence.

ISO 14001 provides a comprehensive and reliable framework for implementing an environmental management system.

All companies whether supplier or purchaser will be increasingly pressured by the demands of their clients and the community to show evidence of their commitment to the environment.
ISO14001 certification is evidence of an organisation’s commitment to the management of the environmental impacts of their operation.

This is recognised internationally by the community, customers, suppliers, employees and investors.

ISO 14001 is being used by companies to gain an advantage in competitive pitches or to capture a market which wants to invest in or buy from ‘clean and green’ organisations.

Some benefits are readily quantifiable. These include reductions in the cost of waste disposal, a reduction in the use and cost of energy and raw materials. Certification to ISO 14001 can also result in lower fees for licenses and lower insurance premiums.
A Nicholas & Smith Business Improvement Resource

For further information on this program contact:
FutureMedia Pty Ltd
Lvl 3, 75 King St
Sydney NSW 2000
Australia
Tel: +61 2 9279 4499
Fax: +61 2 9279 4488
Email: info@futuremedia.com.au