



**ISO 14001 LEAD AUDITOR
REFRESHER TRAINING
FOR ENVIRONMENTAL SPECIALISTS**

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ENVIRONMENTAL SPECIALIST CURRICULUM





**OPERATION
FOR ENVIRONMENTAL PROFESSIONALS**

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LEARNING OBJECTIVES





ISO 14001:2015 clause 8 Operation

8.1 Operational Planning and Control

8.2 Determination of Requirements for Products and Services



ISO 14001:2015 CLAUSE 8 OPERATION

ISO 14001:2015 clause 8 Operation deals with the execution of the plans and processes that enable the organization to meet its environmental objectives. There are specific requirements that relate to the control or influence exercised over outsourced processes and the requirement to consider certain operational aspects consistent with a life-cycle perspective.

This means giving serious consideration to how actual or potential environmental impacts happening upstream and downstream of an organization's site-based operations are influenced or (where possible) controlled. Finally, the clause also covers the procurement of products and services, as well as controls to ensure that environmental requirements relating to design, delivery, use, and end-of-life treatment of an organization's products and services are considered at an appropriate stage.

8.1 OPERATIONAL PLANNING AND CONTROL

The organization must establish, implement, control, and maintain the processes needed to meet environmental management system requirements, and to implement the actions to address risk and opportunity as identified in 6.1 and implement actions to meet Environmental objectives as identified in 6.2. This can be done by establishing operating criteria for the processes and implementing control of the processes, in accordance with the operating criteria.

Controls can include engineering controls and procedures. Controls can be implemented following a hierarchy (e.g. elimination, substitution, administrative) and can be used individually or in combination.

The organization must control planned changes. In case the changes are unintended, the organization must review the consequences of unintended changes and must take action to mitigate any adverse effects, as necessary. The organization must also ensure that outsourced processes are controlled or influenced. The type and extent of control or influence to be applied to the processes must be defined within the environmental management system.

8.1 OPERATIONAL PLANNING AND CONTROL+

Operation planning and control should be inconsistent with a life-cycle perspective. Inconsistent with a life-cycle perspective the organization must establish controls, as appropriate, to ensure that its environmental requirements are addressed in the design and development process for the product or service, considering each life cycle stage. The organization must also determine its environmental requirements for the procurement of products and services as appropriate.

It must communicate its relevant environmental requirements to external providers, including contractors. It must consider the need to provide information about potential significant environmental impacts associated with the transportation or delivery, use, end-of-life treatment, and final disposal of its products and services.

The organization must maintain documented information to the extent necessary so as to have confidence that the processes have been carried out as planned.

8.1 OPERATIONAL PLANNING AND CONTROL+

To ensure that your environmental policy is followed and that your objectives are achieved, certain operations and activities must be controlled. The methods defined to ensure operational control will be dependent on the organization's activities, legal obligations, and significant operational controls. Therefore, an organization must decide how to construct and combine processes to ensure that total operational control of its environmental aspects is achieved.

These methods of defining and implementing controls must include constructing processes to ensure consistent results. It must consider the life cycle of a product when establishing controls and using technology to ensure results. It must ensure personnel is competent.

It must monitoring and measuring results. It must decide on the amount of documented information required to support the above. Where an operation or activity is complex and/ or the potential environmental impacts are significant, these controls should take the form of documented procedures.

LIFE CYCLE PERSPECTIVE

ISO 14001:2015 has introduced the requirement for a "life cycle perspective" in environmental management systems (EMS). The new standard does not require a formal life cycle analysis, or quantification, but does require organizations to look upstream and downstream of the processes performed on-site and try to reduce environmental impacts.

Specifically, the life cycle perspective is related to the organization's environmental aspects and impacts. It requires careful consideration of the life cycle stages that the organization can control or influence, including the acquisition of raw materials, production and transportation, use and maintenance, and recycling or disposal.

In doing this, the organization needs to create records as evidence that they have considered each lifecycle stage. The standard also requires the organization to provide information to its external service providers and contractors about the potentially significant environmental impacts of its products and services. It must also consider the need to provide this information to transporters, end users, and disposal facilities.

LIFE CYCLE PERSPECTIVE +

By providing this information, the organization can potentially prevent or mitigate adverse environmental impacts during these life cycle stages. The life cycle perspective can be applied in choosing, for example:

- ✓Raw materials (environmental impacts of their production, distance transported and mode of transport)
- ✓Products to manufacture and offer for sale (same considerations as well as disposal or recycling options at end-of-life)
- ✓Services used by the organization (environmental credentials, chemicals used, waste generated)
- ✓Equipment purchases (distance transported, options for recycling at end-of-life, waste generated in their use).

8.2 EMERGENCY PREPAREDNESS AND RESPONSE

The organization shall establish, implement and maintain the processes needed to prepare for and respond to potential emergency situations identified in clause 6.1.1. The organization must be prepared to respond by planning actions to prevent or mitigate adverse environmental impacts from emergency situations.

The organization must respond to actual emergency situations and take action to prevent or mitigate the consequences of emergency situations, appropriate to the magnitude of the emergency and the potential environmental impact. It must periodically test the planned response actions, where practicable. It must periodically review and revise the processes and planned response actions, in particular after the occurrence of emergency situations or tests.

It must provide relevant information and training related to emergency preparedness and response, as appropriate, to relevant interested parties, including persons working under its control. The organization should maintain documented information to the extent necessary to have confidence that the processes are carried out as planned.

8.2 EMERGENCY PREPAREDNESS AND RESPONSE +

Despite an organization's best efforts, the possibility of accidents and other emergency situations still exists. Effective planning and preparation can reduce injuries, protect employees and neighbors, reduce asset losses and minimize production downtime. An effective emergency preparedness and response program should include provisions for assessing the potential for accidents and emergencies, preventing incidents and their associated environmental impacts, plans/processes for responding to incidents, periodic testing of emergency plans/processes and, mitigating impacts associated with these incidents. Consistent with your organization's focus on continual improvement, it also is a good idea to review emergency response performance after an incident has occurred.

This review can help determine if more training is needed or if emergency plans/processes should be revised. In the new standard Procedures are replaced by the phrase 'processes needed to prepare for and respond to potential emergencies.'

STEPS TO SET UP EMERGENCY PLAN

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graph TD; S1[Step 1: Identification of potential accidents] --> S2[Step 2: Prevention measures]; S2 --> S3[Step 3: Emergency plan]; S3 --> S4[Step 4: Training and drills]; S4 --> S5[Step 5: Evaluation and improvements]; S5 --> S2; S5 --> IMP[Improvements]; IMP --> S2;
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Step 1: Identification. You have to identify the specific potential accident related to your circumstances and type of activity.

Step 2: Prevention. You have to brainstorm with your personnel for preventive measures related to every type of accident.

Step 3: Emergency plan. Depending on complexity and needs, the organization should establish one or more emergency plans.

Step 4: Training and drills (testing for training effectiveness). You have to train your employees about preventive measures and your emergency plan, and you should include in the training plan all necessary background information.

Step 5: Evaluation and improvement. Drill reports have to take into consideration the gaps between the emergency plan and the drill result.


