

The Aspect Identification and Prioritization Process

The aspects identification and significance determination process is fundamentally important to a successful EMS. But, there are many subtleties in the apparently simple requirements in ISO 14001; which is the model we are using for this discussion. Below is a description of each step, with suggestions and tips to further ensure success. This narrative is supplemented with the accompanying flow chart.

Note that this discussion is focused on aspects evaluation in the planning element of an ISO 14001-type EMS, and it is expected the reader will have other sources available for additional EMS information. Also, it is understood that the aspect management as discussed below is implemented throughout the organization via the remaining EMS elements, such as operational control and monitoring and measurement.

Identify Aspects

This step is a comprehensive inventory of the aspects. Recall that the intent is to identify the aspects for all activities, products, and services in order to determine those that have or can have significant impact on the environment. But this first step is simply to collect the information. Do not at this point start to restrict the list based on ability to address or degree of control; this first step is intended to be comprehensive.

The overall purpose of the EMS in regard to aspects is to provide a listing of prioritized aspects in order to help manage them in the spirit of continual improvement and prevention of pollution. So, how you set up the information is up to you; and should be a function of how you will manage your aspects. Some organizations sort by activity, then list the aspect, followed by the impact. Some sort by aspect, and list all activities related to that aspect, and so on. It does not really matter how one does it, or even if you start one way, but reorganize the information later on as you move further into system implementation. The key point is to make sure that you can relate how activities interact with the environment (aspects), and what the related impact(s) is for each.

Determination of Significance

The ISO 14001 model allows the organization to select its own criteria for significance. However, these criteria must be bounded somewhat by the requirement that a significant aspect is one that has, or can have, significant impact on the environment. So although there is much latitude on what the criteria can be, there is an overarching, scientific driver related to environment impact. Because regulated aspects are those that typically have the potential for impact and commitment to compliance is a requirement of an EMS, a typical significance criterion is whether or not an aspect is regulated.

It is possible that there will be environmental-type “aspects” not considered significant by the EMS, but that the organization may wish to control anyway for other reasons. So, it is possible one would find “operational control” –type procedures for aspects outside of the EMS. These may include “aspects” important for occupational health and safety or other reasons; for example, those where the impact would be related to occupational health and safety issues only (if the EMS is not an integrated EH&S system).

One must also note that it is the significant aspects that will carry through the EMS. Therefore, there are criteria that some organizations have used that can actually compromise the system. First is whether the aspect is under existing controls. Some organizations say that if so, the aspect is not significant. But the fact that it must be controlled implies the potential for impact, in line with the ISO definition. So an already-controlled aspect could still be considered significant (and arguably should be) and the existing controls can be adopted into the EMS as is.

The other troublesome criterion is whether or not the organization has the resources to address the aspect, where the organization would say it is not significant if they cannot afford to deal with it at the time. But recall the ISO definition of a significant aspect; and one that cannot be dealt with now can still have significant environmental impact. We wish those aspects to also carry into the system, so at least then there is an awareness that eventually it will need to be dealt with by the organization. There will be an opportunity later on to prioritize action based on available resources. But even these aspects, where action is ultimately needed, still need to be managed by the system in the interim, usually through some types of operational controls and/or monitoring and measurement (see below). These aspects are significant because of actual or potential impact, hence the organization must still do what it can to limit or eliminate the impact in the interim.

Objectives and Targets:

Once an aspect is considered significant, then the organization can ask “are we controlling the aspect currently, and if not what needs to be done?” Even if the aspect is being controlled there may still be the opportunity and desire to undertake other efforts towards the commitment to continual improvement. Those cases, where action needs to be taken to bring the aspect under control or where improvements are desired, are the ones that are considered for objectives and targets. For example, an objective could simply be to bring an aspect under control by developing and implementing new operational control procedures.

There will most likely be aspects that need action, but the organization cannot undertake such action due to financial or technological constraints. These aspects still need to be captured by the system, and at least monitored and controlled to avoid impact until a future time when improvements can be implemented.

Environmental Management Programs

For those objectives and targets that are developed and that will be pursued, the organization must explain specifically how each will be accomplished, describing responsibilities, specific steps, milestones, and relevant metrics that will be measured. These detailed descriptions of how objectives and targets will be met are called Environmental Management Programs (EMPs) in ISO 14001. EMP activities will be carried into the remainder of the system through operational controls, monitoring and measurement, and the other appropriate EMS elements. Even if the organization uses the term “Environmental Management Program” for anything else, they must still be able to

point to where one could find those components required in the ISO definition of an EMP.

Operational Control

Those aspects under control that do not need objectives as well as EMP specifics are still covered by the EMS. In other words, even those aspects that are already under control, and need no new further action, but have the potential for significant impact if not kept control, would be considered significant, and the control procedures would be uploaded into the EMS under Operational Control procedures. Also, the other elements of the EMS such as training and monitoring and measurement would apply to these aspects. In addition, there may also be a need for specific operational control procedures to support carrying out the objectives and targets.

When the term “operational control” is used in the ISO 14001 context, it usually refers to operating procedures, work instructions, or Standard Operating Procedures (SOP). However named, operational control refers to the way the aspect will be managed, in line with controlling the related impact. One must be aware however that there are acceptable cases where operation control does not require a documented procedure. In other words, there may be specific activities that although related to a significant aspect, in and by itself the activity does not pose an impact threat. The reason that aspect is significant may be due to impact potential from another site activity. For example, storage of a chemical may be significant due to spill potential but not resource consumption; therefore there would not be a need for operational control regarding purchasing the material, but there would be a need for storage operational control procedures.

Summary Points:

- Aspect identification must be comprehensive, but taking into consideration those aspects that the organization will be able to control and influence through the EMS.
- Determination of significance is a function of environmental impact only, not degree of current control, cost to address, or other non-environmental features.
- Degree of current control and other organizational concerns such as costs to address are considered when setting objectives and targets.
- Not all significant aspects need an objective; but all must be addressed by the EMS either through objectives and/or operational controls.
- All activities identified in the planning process as being necessary (such as operational controls or objectives and targets) get deployed in the remaining elements of the EMS.

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Aspects Planning Process as per ISO 14001

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