The revised ISO 14001:2015 Standard presents an opportunity for organizations to fundamentally rethink their approach to EMSs.
Forward-thinking companies have long embraced the concept of adopting an environmental management system (EMS) as a means to drive sustainability, promote regulatory compliance, and foster continual improvement. The ISO 14001 International Standard is the most widely recognized framework for establishing an EMS. Core components include:

- Developing an environmental policy;
- Identifying environmental aspects;
- Defining applicable compliance obligations;
- Setting environmental objectives;
- Controlling significant impacts;
- Planning for emergency situations; and
- Monitoring/measuring performance.

While there are many other elements to an ISO 14001-conforming EMS, all center on the principle of PLAN-DO-CHECK-ACT. Originally published in 1996, the standard was most recently updated in 2015. Organizations with an EMS certified to the ISO 14001 Standard must upgrade their systems prior to September 15, 2018. The 2015 version brought with it a number of new requirements, as well as a complete reorganization of the structure. The changes needed to conform to the new standard present an opportunity for organizations to fundamentally rethink their approach to EMSs. Specifically, one should consider the “process approach.”

Historically, organizations have structured their EMSs to align with the elements or clauses of the ISO 14001 Standard. In other words, each section or requirement of the standard carried with it a corresponding procedure to describe how a company planned to accomplish that item. These procedures were often compiled in a voluminous manual that defined the EMS. While usually thorough and detailed, these manuals were often only understood by a handful of personnel.

It was frequently the case that the EMS manager or similar role was well versed in the system, but understanding throughout the rest of the organization was inconsistent at best. A different strategy was needed to support the goal of continual improvement.

Since the early 2000s, quality management systems (QMSs) adopted in the automotive industry have embraced what is known as the “process approach”. Rather than structuring the management system to simply mirror each clause of the standard, the process approach more closely aligns with the way a company does business. Although written procedures are still needed in many cases, they do not form the core of the system.

Recent versions of International Standards for Quality Management, including ISO 9001:2015, provide explicit direction for entities seeking certification to employ the process approach. While ISO 14001:2015 does not contain a parallel mandate, multiple cues can be found that could be interpreted as strongly suggesting that a process approach strategy should be used or at least acknowledged. Probably the most obvious is the replacement of the term “procedure” with the term “process” throughout the standard.

Implementing the Process Approach

How does one go about employing the process approach in an environmental management system? Key steps include: identifying the processes, defining EMS requirements for each process, and implementing EMS requirements for each process.

Identify the Processes

What are the high-level steps needed for an organization to achieve product or service realization? These often correspond to departments or functions within a company that are well understood. Main processes are typically identified as having inputs and outputs that connect to other upstream or downstream processes. For example, Sales -> Purchasing.
Define EMS Requirements for Each Process

Once the processes employed by the organization are understood, each can then be mapped to identify the applicable EMS requirements. With respect to an EMS, key requirements to be identified for each process might include:

- Environmental aspects/impacts (inputs and outputs);
- Compliance obligations;
- Process owners and other roles and responsibilities;
- Training requirements;
- Applicable work instructions/procedures;
- Monitoring/measuring, including any associated records; and
- Responsibilities for achieving defined objectives.

Implement EMS Requirements for Each Process

While mapping out each defined process, it is recommended to identify an “owner”. This would typically be a manager or supervisor of the area who would be both competent enough to understand the EMS requirements and have authority to support the achievement of such requirements in their area. Ideally, this owner would even participate in the development of the process map.

Training would then be provided to owners and others who work within the process to the EMS expectations and obligations affecting their jobs. Finally, internal audits would be performed against the EMS requirements in each process to gauge the effectiveness of implementing both the internal procedures and ISO 14001 requirements in each process.

Benefits of the Process Approach

Admittedly, some work is involved with transitioning an EMS to the process approach. One may ask, what are the benefits? The perceived value or benefits will vary from organization to organization, but in general you can expect to experience the following if done correctly:

1. EMS requirements are selectively identified for each process. Historically, it was difficult for those working in a given area to understand which parts of the EMS applied to them. Using the process approach clearly defines what is expected in each area.

2. Decentralized EMS accountability. A common weakness in environmental management systems is when all activities and knowledge flow through the EMS manager. By assigning and empowering process owners, EMS knowledge and accountability is pushed out to those most familiar and routinely involved in the process.

3. Broader involvement. By identifying the processes employed by the entire organization, “new” areas of a company’s operations are inherently brought into the EMS. EMS requirements for more administrative functions, such as design, sales, and purchasing, are now considered. Coincidentally, this also helps satisfy new ISO 14001:2015 requirements for life-cycle consideration.

4. Internal audits are more effective. Rather than trying to audit a given procedure or element site-wide, adopting the process approach results in auditing a specific area against all applicable ISO requirements.

5. Alignment with other management systems. Organizations that are certified to current versions of quality management system standards should already have incorporated process approach concepts. This may present new opportunities to integrate environmental management into existing business processes.

Conclusion

Although not explicitly required, organizations upgrading to the ISO 14001:2015 Standard should consider the benefits of embracing the process approach in their environmental management systems. Given the general trend in management systems over the past 15 years, one can easily see a future where ISO 14001 implementation will require a process-based system.

Robert Basl is a Vice President and founder of EHS Technology Group, LLC in Dayton, OH. For more than 25 years, Basl has provided regulatory compliance and management system consulting services to industry. He is a certified lead auditor for multiple management system standards, including those for environment, health, safety and quality, and is also a member of EHS Editorial Advisory Committee. E-mail: rbasl@ehstech.com.