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Management System Benefits, Risk Ranking and Change Management

Introduction

During the past few years, companies have been moving toward developing environmental, health and safety management systems in order to organize their regulatory and internal company requirements and information. It is necessary for safety and environmental resources to understand the benefits in developing a management system that will meet their company's specific needs.

Management System Benefits

These benefits may include the following: reduction in violations/fines and injuries/illnesses, enhancing employee morale, external stakeholder confidence, direct link to sustainability, and corporate sustainability report (CSR). Additional benefits may include actions within EMS coinciding with GHG reduction, energy reduction, natural resource use reduction, and sustaining compliance programs. The efforts from sharing EH&S responsibilities with management and internal stakeholders result in engagement for success.

Risk Ranking

Risk ranking is a critical component of environmental, health and safety management systems. Most experts use risk ranking to manage environmental aspects and impacts. In order to define and categorize risks to be ranked, these experts:
(a) receive inputs from community/company representatives;
(b) determine the attributes of those risks;
(c) describe risks on summarized forms;
(d) rank the risk by laypeople and
(e) report progress and results.

Identifying the Attributes

There are several attributes that affect risk-ranking outcomes in environmental, health and safety management systems. Literature suggests that there are as many as thirty-nine (39) attributes identified by researchers affecting risks. Most research studies incorporate human health and safety attributes, environmental attributes, economic attributes, and aspects into the risk-ranking studies. On the basis of these research studies, human health safety attributes may include risk of death and injuries/illnesses. Environmental attributes may consist of ecological effects, aesthetic effects and other factors. Economic attributes consist of stakeholder values, as well as customer requirements and global reporting initiatives. Lastly, aspects are activities, products, or services that interact with the environment. These environmental, health, and safety aspects range from regulatory or legal exposures to concerns for the environment, natural resources, business, or mission.

In order to identify environmental, health and safety aspects, organizations need to reflect how their activities, products, and services interact with internal and external stakeholders. Most often, environmental, health and safety aspects are linked to activities, products or service types unique to the business model. Since aspects are organizational specific, EHS professionals only need to focus on those aspects that are controllable.

Distinguishing Hazards

Hazard distinguishing is the next key component of the risk-ranking process. Many variables influence the way participants perform judgments on what is perceived to cause impacts to human health and safety, the environment, or the economy. It appears that the ways in which we distinguish these hazards are shaped by our perception of riskiness. When distinguishing risks, individuals associate greater environmental, health, and safety riskiness with negative aesthetic impacts. For example, someone working without fall protection when performing a roofing repair may be considered a greater risk than working without fall protection at a loading dock. Another example to reflect riskiness may involve transporting hazardous chemicals by truck via interstate commerce rather than transporting those same hazardous chemicals via a pipeline.

Environmental, health and safety impacts generally are recognized as negative inputs to an organizational system. Such inputs can be positive or negative; with negative impacts contributing to detrimental effects to the bottom line. These environmental, health and safety impacts also influence environmental, health, and safety aspects. These environmental, health and safety aspects may have direct and decisive impacts on the organizational system or contribute indirectly to the larger environment.

Tools for Risk Ranking

Tools for risk ranking may include:
(a) processes for selecting the correct tools,
(b) developing a risk scale,
(c) weighting the scale, and
(d) developing processes for decision-making based upon the scale.

If you wanted to assess and rank the potential impact of chemicals, you may want to use the risk-screening environmental indicators (RSEI). This tool enables EHS professionals to review chemical ranking and indexing effort both by the Environmental Protection Agency (EPA) and by outside agencies. There is no need to reinvent these tools since access to the data is in the public domain.

Existing Resources

What are existing resources readily available to an environmental, health, safety, and sustainability professional to assist in risk ranking? This list is not all-inclusive; however these four (4) resources are utilized for this topic.
Resources include the EPA Risk Screening Environmental Indicators (RSEI),
ANSI 31000, ASSE Safety Body of Knowledge, and ASSE Risk Assessment Institute"

- The EPA Risk Screening Environmental Indicator (RSEI) is a computer-based screening program that puts chronic health data in the hands of government agencies, regulators, researchers, and professionals. The purpose of the RSEI is support community projects, reflect data trends, identify the need for emissions follow-up and indicate emissions impacts.

- ISO 31000:2009 is a standard that defines risk-management-related terms focused on mutual and consistent understanding of approaches, activities, and terminology for the risk management process. Individuals engaged in managing risk, ISO activities, developing consensus standards, practicing risk management or seeking guidelines should consult this standard.

- ASSE Safety Body of Knowledge is a collection of vetted information for environmental, health, safety and sustainability professionals. As an ASSE member, you can access checklists, presentations, articles, guidance documents, and training materials in 23 topic areas. Environmental and risk management/insurance topic areas can provide useful guidance during the risk-ranking process of your environmental, health, and safety management system.

- ASSE Risk Assessment Institute's purpose is to assist the EHS&S professional in implementing risk-based approaches to prioritizing resources and reducing or eliminating risk potential well in advance of catastrophic events. Valuable tools are available on the website to help you conduct a hazard and risk inventory, organize and prepare a risk assessment team, conduct risk assessments and provide sustainable continuous improvement to your risk assessment process.

Managing Change

Management of change is often viewed as an element of PSM. As environmental, health and safety professionals we must be disciplined to manage change.

Systems Approach

There are basic elements related to managing change. Initially you must be knowledgeable of your aspects related to the activity that you will be performing. Aspects must be identified and inventoried. This can be as simple as breaking out the aspects by environmental media and grouping similar activities. It is imperative to maintain this strategy in a clearly defined, controlled process so change can be managed. New businesses have to be aware of the environmental requirements to establish their baseline. Tools are available for determining their needs. The Internet has opened up several opportunities with the use of applications, training, and references.

Key Elements Impacting Change

We all have some concept of what change is. One of the most basic changes that occur in an organization is personnel change. It is important to identify the roles and define the requirements for regulatory responsibilities. Environmental professionals must have a process to ensure that new personnel in critical roles have been updated in the electronic reporting systems, procedures; emergency plans, and with all applicable agencies related to environmental management.
Larger-scale businesses are broken out into sectors that discuss their requirements, All business must be managing physical changes, process changes, location changes and input changes for a safety and environmental protection.

Defining the Impacts

Companies that have long been established may have systems in place that capture aspects and impacts under an environmental management system. These systems include risk prioritization from the chemical industry; Responsible Care is an example that provided tools for requiring a management of change process. Several other organizations have required managing change such as SOCMA, Synthetic Organic Chemical Manufacturer's Association; ISRS, International Safety Rating System; and ISO 14001, International Standard Organizations.

Whether a formal or informal management system is in place, any environmental inspector will ask how you manage change.

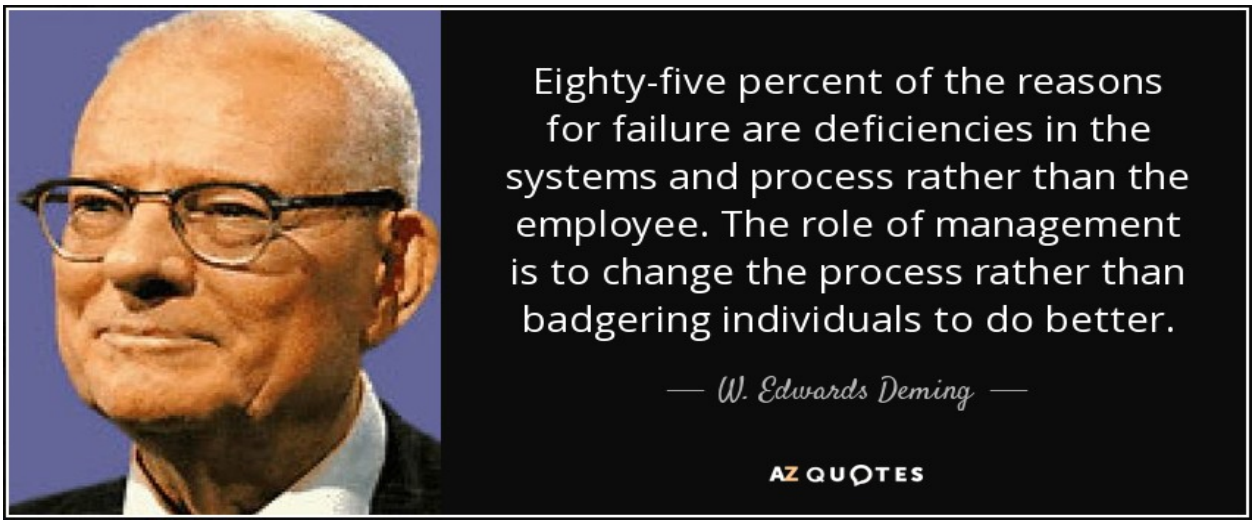
Managing Action Items

Once the aspects and impacts have been identified, management systems implemented, the next step is managing the action items created from managing change. Usually there is some type of committee to review changes. During this discussion, additional action items are assigned before the change can take place. The identification of action items is very important because they may require a significant time frame for completion. Construction permits, city council meetings, new procedures, training, calculations, registrations and other technical assessments may be required.

Tools for Managing Change

Existing regulatory obligations are the starting points for environmental change requirements. Engaging cross-functional teams is critical to the success of managing change. Environmental awareness and job specific training is extremely valuable when selecting your cross-functional team. EHS support staff, maintenance, engineers, and supply chain provide input in having a successful implementation.

Ensuring that change is effective has to be built into your system. Managing changes that impact environmental elements through self-inspections, random audits on your MOC systems and use of the PSSR concept will strengthen the safety and protection of property and people.



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