A March 2014 study of board oversight of sustainability issues among S&P 500 companies commissioned by the IRRC Institute and authored by the Sustainable Investments Institute found that just a little over 30% of the companies had implemented board oversight of environmental issues and that 21% of the companies had implemented some form of board oversight of health and safety issues with most of them emphasizing aspects of the environment, health and safety (“EH&S) management systems established by the companies including compliance with company policies and related legislation and regulations. In many cases, companies described environmental oversight broadly and refrained from mentioned specific issues such as climate change or water use. However, some companies were very specific about ensuring that their board level EH&S committee focused on policies and management systems; performance and disclosure; related administrative, regulatory and judicial proceedings; public policy strategies; product stewardship; and effects on and relations with communities.

Companies often include “macro” issues relating to the environment, such as climate change, waste management and the impact of a company’s operational activities on natural resources, under the general umbrella of EH&S. In addition, EH&S typically refers to compliance with laws and regulations, as well as emerging voluntary standards, relating to environmental protection, health and safety in the workplace, particularly the wellbeing of employees and members of the communities in which the company physically operates. EH&S laws and regulations vary in scope and complexity across jurisdictions and companies operating in the US for example must contend with regulations promulgated at the federal, state and local levels. The major regulatory players at the federal level in the US included the Occupational Safety and Health Administration, the Environmental Protection Agency (“EPA”), the Nuclear Regulatory Commission and the Mining Safety and Health Administration. States often have parallel regulatory bodies and often have laws and regulations pertaining to environmental and safety issues that are more stringent than those that have been implemented at the federal level. Companies operating in global markets will need to comply with local laws, such as the sweeping regulations that have been adopted in the European Union.

US regulatory agencies relating to environmental management, such as the EPA, began to emerge in the 1970s, which was the same time that workplace safety and occupational health was growing in importance following the passage of the federal Occupational Safety and Health Act in 1970, and by the 1990s companies were responding by creating new departments to address compliance issues relating to EH&S laws and regulations.

2 Only three percent (3%) of the companies with sustainability oversight even mentioned climate change or directly related topics in their board committee charters and water use was not mentioned specifically even though it is clearly an emerging topic for sustainable and responsible investors.. Id. at 12-13.
At the same time, companies were making investments in equipment and personnel to modify existing facilities and manufacturing processes to comply with EH&S regulations and to ensure that new facilities and processes would also be compliant. New technologies allowed companies to establish systems for monitoring and measuring performance against EH&S metrics. At the same time, new EH&S management roles within organizations developed and EH&S management became a recognized professional discipline with its own unique career paths, typically starting in one of the three sub-disciplines, and education and training criterion. While EH&S began as a compliance-focused area, increased interest in sustainability after the turn of the century led to the extension of the portfolio of EH&S leaders beyond compliance into environmental and social responsibility including climate change, energy and water conservation, recycling, wellness, public health, supply chain management and stakeholder engagement.

Environmentally-related activities under the rubric of EH&S typically focus on compliance with environmental regulations and contributing to environmental sustainability through efforts to reduce the company’s “carbon footprint”. Specific commitments and programs touch on subjects such as air emissions and ambient air quality, energy conservation, wastewater and ambient water quality, water conservation, hazardous materials management, waste management, noise and contaminated land. Health and safety activities focus on identification of workplace and community hazards (i.e., physical, chemical, biological and radiological hazards) and reducing accidents and exposure to harmful situations and substances through communication and training regarding accident prevention and response, emergency preparedness, use of protective clothing and equipment, monitoring and general facility design and operations. Other areas of concern with respect to EH&S include structural safety of company facilities, fire and traffic safety, transport of hazardous materials, ergonomics and the any other activity that might adversely impact the health and wellbeing of employees and community members. While EH&S policies and programs are obviously focused on a company’s own activities, it is also common to impose EH&S obligations on supply chain partners.

Environmental, Health and Safety Governance and Management

EH&S concerns, principles and procedures should be integrated into the way that companies are governed and the management systems that are used to control and track day-to-day activities. The board of directors, either directly or through the EH&S committee of the board, should work with senior management to ensure that the company has properly designed and effectively implemented management systems that can support identification of EH&S issues and management of the risks and opportunities associated with those issues. In the environmental area, for example, companies often put in place an environmental management system (“EMS”) based on ISO 14001, an internationally agreed standard discussed in more detail below which has been praised for its utility in helping companies manage and minimize their environmental impacts, conform to applicable legal requirements and improve their environmental performance through more efficient use of resources and reduction of waste. Key aspects of EH&S
governance and management include formulation of EH&S strategy and objectives; adoption, implementation and distribution of an EH&S policy and accompanying EH&S standards; EH&S planning and procedures; creation of an effective EH&S management responsibility framework; EH&S oversight groups at all levels of the organization structure; and audits and site certification.

**Environmental, Health and Safety Strategy and Objectives**

The board of directors should establish a specific EH&S strategy for the company including appropriate goals and commitments. Development of the strategy should take into account the opinions, concerns and expectations of key stakeholders, particularly the company’s employees, and the legal and regulatory requirements that have been imposed on the company as a result of the decisions made with respect to operational activities. As with other strategies, an EH&S strategy should emerge from an analysis of strengths, weaknesses, opportunities and risks, and the board will need to establish priorities among competing demands to ensure that the most important areas are addressed quick and effectively. Each business unit and department should have its own strategy and procedures to contribute to the attainment of the company’s overall EH&S goals. The strategy should be directed at clear EH&S objectives and targets what are measurable, where practicable, and consistent with the company’s EH&S policy, which is discussed below. When setting and reviewing EH&S goals and objectives consideration should be given to legal and other requirements to which the company subscribes; significant environment, health and safety aspects/risks; technological options; financial, operational and business requirements; and the views of relevant interested parties.

**Environmental, Health and Safety Policy**

It is essential for top management of the company to define the company’s EH&S policy in a manner that is appropriate to the nature, scale and environmental impacts of the company’s operational activities. Among other things, the policy should include a commitment to continual improvement and prevention of pollution and creating and maintaining a safe and healthy workplaces and facilities for employees and customers; a commitment to comply with applicable legal and other requirements to which the company subscribes and which relate to its EH&S aspects; and a framework for setting and reviewing EH&S objectives and targets. The policy should include an explicit commitment by the company to promote a safe and healthy environment for employees, contractors, agents, customers and other visitors to the company’s facilities; to comply with state and federal laws and regulations relating to workplace and environmental health and safety; to operate an EH&S management system aligned with the requirements of a recognized standard that ensures continuous improvement through risk assessment, risk minimization and performance reporting; and assuring that managers and employees are trained and accountable for preventing work related injuries and illness and that appropriate wellness programs are available to contribute to the productivity, health and well-being of employees. The policy should include a list of the steps that the company intends to take in order to further its stated EH&S goals and objectives such as creating safety committees, which are discussed below; promulgation and enforcement of work
rules to promote best environmental health and safety practices; compliance with laws, regulations, policies, and the company’s own EH&S procedures and rules; and supporting an EH&S culture throughout the organization. The policy should be documented, implemented and maintained; communicated to all persons working for or on behalf of the company; readily available to the public; and subject to periodic review to ensure that it remains relevant and appropriate to the company.

One useful illustration of an EH&S policy began with a simple statement that the organization embraced EH&S objectives as core business values and that providing a safe and healthy workplace for employees and caring for and protecting the environment and the communities in which the organization operated were fundamental beliefs of the organization. The policy went on to assert that the organization was committed to developing and implementing management systems that protected the environment and safeguarded the health of employees while allowing the organization to provide for employee livelihood, customer needs and shareholder returns. The policy then listed specific commitments including the following:

- Demonstrating visible and active leadership in all of the organization’s business activities by providing resources necessary to manage and communicate EH&S commitment, expectations, and accountability in the same manner as any other critical business function
- Establishing and enforcing appropriate systems and procedures to ensure compliance with the policy and the principles described in the policy
- Educating employees on safe work behaviors
- Implementing proactive hazard identification and following through with elimination and control of identified hazards
- Implementing and auditing continuous EH&S improvement processes
- Promoting a positive “Safety Culture” lifestyle both on and off the job
- Complying with applicable laws, regulations, and statutory obligations
- Ensuring open lines of communication to employees, subcontractors, and visitors to our work sites regarding the organization’s workplace health and safety arrangements
- Developing processes that facilitate continual improvement in the health and safety management system and the organization’s health and safety performance
- Including measurable EH&S targets in the organization’s business plans so that everyone who performs work for the organization is responsible and held accountable to help achieve these targets

**EH&S Planning and Procedures**

In order to properly address EH&S issues associated with the company’s operations, appropriate plans and procedures need to be developed under the leadership of senior management with input from all parts of the organization and external stakeholders that

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may be impacted. In general, implementation and maintenance of EH&S procedures should address EH&S aspects/impacts, hazards, risks, controls and operational changes taking into account the company’s current operations and activities and applicable legal obligations. Other factors that need to be considered include the resources that the company can control, aspects that have or can have significant impacts on the company, planned or new developments, new or modified products and services, human behavior, hazards originating outside the workplace, infrastructure and equipment in the workplace and the design of work area processes. Planning and procedures should be conducted based on prioritization of risks and communications with applicable stakeholders. For example, plans and procedures that are developed and implemented relating to environmental issues should address the following:

- Procedures should be established, implemented and maintained to identify the environmental aspects of the company’s activities, products and services within the defined scope of the environmental management system (“EMS”) that it can control and those that it can influence taking into account planned or new developments, or new or modified activities, products and services.
- Procedures should be established, implemented and maintained to determine those aspects that have or can have significant impact on the environment program (i.e., significant environmental aspects).
- Procedures should be established to document the information on the environmental aspects of the company’s activities, products and services and keep it up date.
- Significant environmental aspects of the company’s activities, products and services should be taken into account in establishing implementing and maintaining its EMS.
- A procedure should be established to identify and have access to the applicable legal requirements and other requirements to which the company subscribes related to its environmental aspects; and determine how these requirements apply to its environmental aspects.
- A procedure should be established to ensure that applicable legal requirements and other requirements to which the company subscribes are taking into account in establishing, implementing and maintaining its EMS.
- Documented environmental objectives and targets should be established for relevant functions and levels within the company, and such objectives and targets, where practicable, should be measurable and should also be consistent with the environmental policy and legislative requirements.
- Programs should be established that address the means and time-frame to achieve the environmental objectives and targets.

**Structures and Staffing for EH&S**

In 2012 the National Association for Environmental Management (“NAEM”) (www.naem.org) issued a report on the results of a survey of the organizational structure, staffing levels and responsibilities of the function that supported a company’s EH&S and
The survey consisted of online questionnaires to full time, “in house” corporate EH&S and sustainability professionals and qualitative interviews with senior EH&S and sustainability leaders across different industries. The results reflect the views of 199 senior leaders (i.e., managers, directors and vice presidents) working within combined EHS and sustainability functions at U.S.-based companies with revenues ranging from $250 million to $50 billion. Among the key findings described in the executive summary to the report were the following:

- Most of the respondents managed EH&S through a single consolidated, centralized function. Two-thirds of respondents reported a governance structure that centralized authority and policies, and one-third also incorporated a centralized budget process.
- The function generally reported into one of several core areas: legal, operations, human resources or the C-Suite.
- While there were multiple approaches to organizing the EH&S function, the most common department structure tended to be one that integrated EH&S at the corporate and facility levels.
- Staff levels were driven largely by perceived EH&S risk, industry and structure. Companies that identified as operating under a high degree of EH&S risk (e.g., companies in the utilities, extractives and chemicals industries) tended to have larger staff sizes. Decentralized structures tended to require higher staff levels per total employees, as did small and mid-sized companies; however, companies with higher revenues reported fewer EH&S staff per total employees.
- EH&S budgets (normalized by total employees) were largely driven by employee needs such as salaries, benefits, expenses and travel. Because of this interdependence, the same factors that influence staff levels also influenced budgeting. In other words, high-risk companies, or those with decentralized EH&S structures, tended to have more staff and therefore, larger budgets.
- EH&S and sustainability professionals were highly credentialed, seasoned leaders with 79% of the respondents having worked in the field more than 15 years and strong backgrounds in science or engineering.
- The EH&S function generally took the lead in regulatory compliance, auditing and information management and was primarily responsible for setting environmental goals, waste management, pollution prevention, regulatory tracking/compliance/disclosure and due diligence. Data management and EH&S management information systems were also key areas of responsibility, likely driven by the growth in external reporting of environmental metrics.
- EH&S professionals also played a key role in sustainability and respondents indicated that the EH&S function either led, or shared responsibility for, the majority of activities including establishing sustainability strategy and tracking and reporting the sustainability metrics.

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5 Specific environmental management areas mentioned in the survey included EPA compliance, hazardous materials, waste disposal, spill prevention/control, permitting, air pollution, storm water, waste recycling, chemical management, carbon foot printing, site remediation and industrial emissions reductions.
Most of respondents reported they were managing sustainability through a cross-functional team with members drawn from corporate communications, operations, legal sales and marketing and EH&S. These teams were most often led by the EH&S function or a combined EH&S and sustainability function. When sustainability was assigned to a stand-alone department, EH&S was most often in the lead, followed by stand-alone sustainability department.

In the summer of 2014 NAEM conducted an online survey to identify the skills, knowledge areas and attributes for members of the EH&S and sustainability profession. NAEM collected information from 345 respondents at 197 different companies. Most of the companies were operating globally and the three most represented industry sectors were manufacturing, pharmaceutical/medical products and chemical. A majority of the respondents had at least 15 years of professional and EH&S experience and respondents tended to be at the leadership level (7% were executive leaders at the vice president level, 22% were at the senior director/director level and 13% were senior managers). EH&S professionals generally were placed in the corporate function as opposed to acting from a site/facility or business unit and most of the respondents worked in a combined EH&S or EH&S/Sustainability function as opposed to working in an organizational structure in which environmental, safety and/or sustainability issues and activities were treated as stand-alone functions. Use of a combined function was notable in that illustrated that companies were concerned that stand-alone groups might compete with one another for resources and/or promote conflicting policies.

NAEM found that compliance was a core focus for EH&S leaders at all levels, regardless of the size of the company. The list of the top responsibilities of the respondents, including areas where they took the lead and areas in which they played a role as a strong collaborator, including the following:

- Reporting to meet internal and external requirements: 91%
- Environmental compliance: 88%
- EH&S management information systems: 86%
- Regulatory tracking: 86%
- Auditing: 84%
- Setting EH&S goals: 84%
- Waste disposal: 81%
- Chemical management: 81%
- Hazardous materials: 80%
- Waste recycling: 79%
- Information management: 79%

The survey asked EH&S leaders to identify the activities in which they generally acted as leaders and assumed direct and/or shared responsibility and other activities in which they

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6 The discussion of the results of the survey included herein is adapted from Key Competencies for the EHS & Sustainability Profession: Benchmark Report (NAEM, February 12, 2015).
were involved without having responsibility. The results indicated that while EH&S leaders were accountable for a set of core compliance and pollution prevention programs (e.g., reporting to meet internal and external requirements; EH&S management information systems; environmental compliance; regulatory tracking and setting EH&S goals), they were also involved with, collaborated on, or influenced the management of a broad range of activities within their organizations including employee engagement, emergency management preparedness, corporate annual reports, risk management, supply chain engagement and building energy efficiency.

One of the interesting outputs of the survey was a set of descriptions of the roles and responsibilities of EH&S professionals at various levels of their career progression. In general, the information confirmed that as EH&S professional advanced their roles became more strategic:

<table>
<thead>
<tr>
<th>Level</th>
<th>Top Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialist</td>
<td>Environmental compliance, Reporting, EH&amp;S management information systems, Information management, Regulatory tracking</td>
</tr>
<tr>
<td>Technical Expert</td>
<td>Reporting, Environmental compliance, Regulatory tracking, EH&amp;S management information systems, Auditing</td>
</tr>
<tr>
<td>Manager</td>
<td>Reporting, Environmental compliance, EH&amp;S management information systems, Auditing, Setting goals, Identifying KPIs, Regulatory tracking</td>
</tr>
<tr>
<td>Sr. Technical Expert</td>
<td>Reporting, Regulatory tracking, Auditing, Environmental Compliance, EH&amp;S management information systems, Permitting</td>
</tr>
<tr>
<td>Sr. Manager</td>
<td>Setting goals, EH&amp;S management information systems, Reporting, Regulatory tracking, Identifying KPIs, EH&amp;S audit training, Auditing</td>
</tr>
<tr>
<td>Director</td>
<td>Setting goals, Identifying KPIs, EH&amp;S management information systems, Regulatory tracking, Auditing Reporting</td>
</tr>
<tr>
<td>Executive Leader</td>
<td>Identifying KPIs, EH&amp;S management information systems, Setting goals, Due diligence</td>
</tr>
</tbody>
</table>

The survey was also an opportunity to explore the skills, knowledge and other competencies that EH&S professionals should expect to have to develop in order to be successful and advance. EH&S professionals must not only be knowledgeable about business operations but must also have the interpersonal skills necessary for managing people and processes and being successful as an integrator and influencer including the ability to team build, motivate others and manage without authority. Other important business skills included written communications, interpreting regulatory requirements, oral communications, decision making, program and project management and training. The most important areas of general and technical knowledge for EH&S professional included EH&S risks, regulatory compliance systems, waste management, training, environmental science, communications, management systems and budgeting. As for business acumen, EH&S professionals needed to demonstrate knowledge across a number of areas including training, communications, budgeting and business operations and the presenters of the survey results noted that these skills were consistent with the core EH&S responsibilities associated with creating a strong EH&S culture,
communicating its value across silos and collaborating across functions to embed EH&S principles into business operations.

Another important issue with respect to the competencies and roles of EH&S responsibilities is how they were integrated into the organization’s overall strategies and processes with respect to risk management. Traditionally organizations have created and maintained separate departments for EH&S and risk management and while professionals in each of the departments share many of the same goals there have often been breakdowns in their ability to work together. For example, risk managers typically see EH&S professionals as being a subdivision of the risk management department whose job is limited to compliance (i.e., doing inspections/audits, accident investigations and focused on employee safety) while EH&S professionals downplay the role of risk managers as simply being the purchasers and administrators of insurance. The problem with this situation is that the organization needs to maintain two different budgets and personnel groups, which is inefficient and expensive, and management is confused about the value and purpose of each of the departments.

The solution to the dilemma posited above lies in the transition from the traditional roles of EH&S and risk management to a more comprehensive solution referred to as enterprise risk management (“ERM”). The scope of ERM is enabling all strategic, management and operational tasks of an organization throughout projects, functions, and processes to be aligned to a common set of risk management objectives. EH&S professionals can contribute to this process through their skills with respect to the recognition, evaluation and control of environmental factors or stresses, arising in and from the workplace, which may cause sickness, impaired health and wellbeing or significant discomfort and inefficiency among workers and/or citizens of the community. At the same time, risk managers can provide their expertise in making and implementing decisions that will minimize the adverse effects of accidental and business losses on an organization. However, in order for the collaboration to be effective, EH&S professionals need to have a new job description that not only includes providing professional knowledge and expertise in the administration, integration, and support of environmental health and safety programs at all levels of the organization, but also working in coordination with risk managers to develop environmental health and safety programs that reduce hazard, financial, operational, strategic, reputational, and compliance risks in support of the strategic objectives and mission of the organization.

Management Responsibility for EH&S

Specific management representative(s) should be appointed with the role, responsibilities and authority for ensuring that the company’s EH&S policies, programs and procedures are implemented and maintained and reporting on their performance to the board of
directors, the EH&S committee and senior executives, including recommendations for improvement whenever necessary. General EH&S responsibilities of the management team include developing the EH&S policy for approval by the board of directors; recommending objectives and targets for EH&S performance and improvement to the board of directors; assigning responsibility and authority for implementation activities; providing the adequate resources needed to implement the policy; ensuring knowledge and skills are developed to effectively apply the EH&S systems and standards; reviewing the EH&S system to ensure its continuing suitability, adequacy, effectiveness; and actively communicating leadership and commitment that is visible to the organization.

Many companies have decided to place senior leadership responsibility for sustainability under the authority of the executive responsible for EH&S. The EH&S executive would be responsible for developing the company’s EH&S strategy for consideration and approval by the board of directors and, once the strategy has been approved, ensuring that it is effectively implemented. While a significant portion of the issues that must be considered by the EH&S executive pertain to compliance, more and more companies are looking to EH&S leaders to design and implement strategies that go beyond compliance to include a comprehensive sustainability program. In fact, EH&S leaders are often referred to as the “chief sustainability officer” (“CSO”), a position that first emerged in larger companies as the role of a company’s chief EH&S leader transformed from focusing on handling audit and compliance matters and interacting mainly with permit writers, safety inspectors and low-level compliance staff at regulatory agencies to being recognized as the leader of a key element of overall company performance. Companies recognized that EH&S could no longer be treated as a cost center, but instead should be regarded as an important strategic asset that could easily become a significant liability if not properly managed. As such, companies changed their organizational structures to move away from the traditional practice of having the CSO report into Legal or Human Resources toward a new alignment in which the CSO reported directly to the CEO, communicated with board members and interacted regularly with other members of the senior executive team as a peer.  

Heidrick & Struggles created a list of necessary competencies for an effective CSO, beginning with the ability to think strategically, which was described as the ability to look toward the horizon, identify an opportunity or challenge before it affects the company, and develop and implement a strategy to either take advantage of the opportunity or manage the challenge. Particular attention was given to the creation of business opportunities by the CSO, a marked shift from focusing primarily on prevention, mitigation and compliance. For example, the CSO can proactively seek out technological solutions to environmental problems that simultaneously reduce costs and improve productivity, a true “shared value” proposition. A second key competency for the CSO identified by Heidrick & Struggles was the ability to communicate effectively and

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10 A. Luijkenaar and K. Spinley, The Emergence of the Chief Sustainability Officer: From Compliance Manager to Business Partner (Heidrick & Struggles International, 2007). Heidrick & Struggles found that many companies were expanding EHS, areas which had already been combined for a number of years, to include sustainability and corporate social responsibility and referring to the leader of activities in the expanded area as the CSO. Id. at 3.
translate complex technical concepts and strategies into terms that resonated with the company’s top leadership and key constituencies (i.e., employees, investors, lenders, insurers, rating agencies, customers, suppliers, the media and the public). When communicating the CSO needed to be able to adapt his or her tone and approach to a wide range of audiences ranging from the CEO, directors and regulators to each of the employees who would be called upon to change their skills and behaviors in order to execute the sustainability strategy.  

While strategic and communication skills were at the top of the competency list, Heidrick & Struggles pointed out that the CSO must also have or quickly develop a wide range of interdisciplinary and cross-functional competencies, including the following:

- Ability to hire, lead, develop, and inspire a diverse staff and to develop trusting relationships with a variety of company constituents before an issue becomes a problem.
- A solid grounding in a wide range of EH&S requirements, processes, procedures, technologies, and, depending upon the scope of the operation, familiarity with these issues at the local, state, federal, regional, and international levels.
- A knowledge of financial operations that extends beyond budgeting to include project financing, corporate finance, an understanding of how finance intersects with EH&S and sustainability, and the ability to make a business case for a new direction.
- Knowledge of the company’s processes, products, technologies and business processes coupled with the ability to manage EH&S systems within the company and the ability to assess and audit those systems with vendors, suppliers, and distributors.
- Familiarity with technological and process advances and an understanding of the trends in EH&S and the influences on the company and the industry segment.
- Ability to communicate with community leaders and activists and to communicate with the media in a crisis.
- Ability to develop and manage a marketing campaign related to the EH&S and sustainability aspects of the company’s performance, products, or liability.

Regardless of title, the person occupying the position should expect to be responsible for:

- Establishing all necessary EH&S programs and procedures to be followed throughout the organization;
- Ensuring that an EH&S management system is established, implemented and maintained in accordance with the requirements of applicable standards, as discussed below;

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11 Id. at 9.
12 Id. at 10.
• Defining, documenting and communicating roles, allocating responsibilities and accountabilities, and delegating authorities to facilitate an effective and efficient EH&S management system;
• Creating successful internal partnerships to integrate EH&S values and practices across the business;
• Communicating enterprise risks associated with EH&S failures;
• Publicly reporting progress on EH&S and sustainability initiatives;
• Engaging with stakeholders and responding to stakeholder inquiries about the company’s EH&S and sustainability performance;
• Working with participants in the company’s supply chain to ensure they are following appropriate EH&S standards in carrying out their obligations to the company;
• Auditing the company’s EH&S initiatives and programs; and
• Reporting regularly to the EH&S committee of the board and other members of the senior management team on the company’s EH&S performance and participating in the preparation and dissemination of public reports on the company’s EH&S policies, procedures and performance.

The efforts of the EH&S executive should be supported by a formal group or department dedicated to oversight of the company’s EH&S programs. The EH&S department should have the authority to issue procedures and rules, and to suspend activities and close facilities or other work areas it deems to be unsafe to people or the environment, or in violation of the company’s policies or applicable laws. The EH&S department should be responsible for providing overall guidance on applicable laws and regulations, and working with the departmental safety committees described below to support and maintain an effective EH&S program. The EH&S department also takes the leadership role in preparing implementing the company’s EH&S management systems and continuously assessing the effectiveness of those systems. Other typical duties of an EH&S department include evaluating EH&S risks and developing mitigation strategies; coordinating responses to incidents, investigations, audits, and regulatory reviews, as well as managing related filings, reports and licenses; convening safety committees in specific areas where required by law or in keeping with best management practices to develop, implement and enforce health, safety and environmental plans; and ensuring that employees and other stakeholders are engaged in the company’s EH&S activities.

While every organization is different, specialist managers may be designed to oversee groups responsible for issues and activities in areas such as hazardous materials, environmental programs, safety programs, biodiversity, health and wellness, industrial hygiene, fire and training. EH&S managers may have different titles, such as occupational health and safety specialists, corporate safety directors, environmental protection officers or safety consultants. Regardless of their title, their responsibilities include inspecting and evaluating the environment, equipment and processes in working areas to ensure compliance with laws, regulations and industry standards. EH&S managers recommend changes in rules and processes relating to EH&S and investigate incidents and prepare reports on their findings. Specialists often have a master’s degree.
in relevant subjects and require a substantial amount of on-the-job training before assuming managerial responsibilities.

**EH&S Oversight Committees and Departmental EH&S Committees**

While the board of directors and the EH&S committee of the board is responsible for setting the company’s overall EH&S strategies and priorities, responsibility for overseeing the implementation of specific EH&S compliance programs will be delegated to one or more EH&S program committees composed of members appointed by senior management with appropriate expertise as indicated by applicable standards and regulations. These committees should include representatives from departments or units that must implement the specific program, as well as a representative from the EH&S department and senior management that have specific education, expertise and professional training in the area being overseen by the particular committee. One of the primary roles of these committees is to review operational programs identify or develop procedures that meet regulatory compliance and support best EH&S practices. EH&S committees should also establish a means of communication within the company with respect to matters under their oversight, particularly procedures for employees to provide their input and raise their concerns; advise and make recommendations to the EH&S departmental leadership; promote awareness of EH&S issues and ensure that appropriate training and education programs have been implemented; and conduct audits of EH&S compliance and report on the results of such audits to the board of directors, the EH&S committee of the board and senior management.

In larger organizations, departmental safety officers will be designated to oversee departmental safety committees that will be responsible for monitoring and assessing EH&S hazards or unsafe conditions within a particular department and coordinating with the EH&S department to implement safety and training programs within the department. Departmental safety officers report to both the head of the department in which they work and the leadership team in the company-wide EH&S department. Departmental safety committees should include employees working on different tasks and activities within the department who can provide insights on how their jobs are carried out and serve as ambassadors to their co-workers with respect to supporting adherence to EH&S rules and procedures and promoting a safe working environment. Departmental safety committees are the “front line” of the company’s EH&S initiatives and are best positioned to ensure that employees comply with the company’s requirements and standards, take responsibility for their own actions and carry out their work activities in a manner that does not present a risk to themselves, others and the environment. Departmental safety committees also provide the best means for employees to ask questions and make suggestions and to carry out regular education and training programs that are customized to the specific activities and EH&S issues associated with the department.

**Charter and Activities of Environment, Health and Safety Committee**

The EH&S committee should have a charter that specifies the direct responsibilities of the committee including the review of EH&S regulations; review and approval of
company EH&S policies and emergency response plans; and administration of the policies and activities of the company as they relate to the environmental impact of the company’s operations and the health, safety and occupational work standards in the workplace in which the company carries on business. The charter should specify the specific duties and powers of the committee and describe the organizational structure of the committee. As with other board committees, the EH&S committee should have the right to appoint independent counsel and should also be obligated to make regular reports to the full board of directors.¹⁴

**Statement of Purpose**

The EH&S charter typically begins with a statement of the purpose and role of the EH&S committee. For example, the charter may provide that that the committee has been established to assist the board in discharging the board’s responsibilities relating to the company’s EH&S policy, procedures, and performance. The purpose provision may go on to include various direct duties and responsibilities of the EH&S committee such as reviewing EH&S regulations; reviewing and monitoring environmental policies and obligations that might arise as a result of the business and operations of the company; reviewing and monitoring the policies and activities of the company as they relate to health, safety and occupational work standards in the workplace in which the company carries on business; reviewing and approving the company’s EH&S policies and emergency response plans; reviewing EH&S risks and ensuring proper management of those risks; reviewing company compliance, performance and metrics regarding EH&S regulations and matters, and driving continuous improvement and corrective actions to improve performance and compliance; and reviewing the committee charter and make changes as necessary. As a general matter, the EH&S committee charter should make it clear that the committee’s overall purpose is to ensure that the company’s policies and procedures meet the obligations of the board to achieve regulatory compliance and meet or exceed acceptable industry standards with respect to EH&S matters.

**Composition, Meetings and Procedures**

The EH&S committee charter should address composition, frequency of meetings, powers and authority of the committee and other procedures. In general, while the same “independence” requirements that apply to audit, governance and compensation committees are not explicitly imposed on EH&S committee members, it is important that the members of the committee be generally familiar with EH&S issues applicable to the company’s specific line of business and operational activities. The charter should provide that in addition to the powers and responsibilities expressly delegated to the committee in the charter, the committee should have the authority to exercise any other powers and carry out any other responsibilities from time to time delegated to it by the board.

¹⁴ For examples of EH&S committee charters and additional commentary on preparation of such charters, see “Board Committee Charters” in the management tools available as part of “Governance: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).
board. The committee should also be able to conduct or authorize investigations into any matter within the scope of the duties and responsibilities delegated to the committee and have the authority to retain and compensate independent counsel, consultants and other experts and advisors. The board should make it clear in the charter that the company will provide appropriate funding, as determined by the committee, for payment of compensation to any experts or advisors retained by the committee and for payment of ordinary administrative expenses of the committee.

**Scope of Duties and Responsibilities**

A detailed list of responsibilities for a board committee overseeing EH&S matters might include review and advice to the entire board, other board committees and management with respect to each of the following issues and activities:

- Reviewing reports from management regarding significant events and trends relating to EH&S including significant legislation or regulations, judicial decisions, treaties, protocols, conventions or other agreements, public policies or scientific or technical developments involving EH&S matters that will or may have a material impact on the company’s business
- Reviewing reports from management regarding significant risks or exposures faced by the company in the EH&S area, including risks relating to the security of the company’s assets and personnel, and steps taken by management to address such risks, and company strategy and initiatives with respect in the area of EH&S
- Monitoring the overall adequacy of the company’s EH&S objectives, policies and performance, consistent with prudent industry practices, including processes to ensure compliance with applicable laws and regulations
- Participating in and assessing efforts to advance the company’s progress on sustainable development (e.g., for a company engaged in mining operations, the integration of social, environmental, and economic principles into the company’s operations from exploration through development, operation, reclamation, closure and post closure activities)
- Measuring the effectiveness of internal systems, policies, and processes that support achieving the company’s EH&S goals, commitments and compliance obligations
- Conducting an annual EH&S management system review that includes a discussion of significant policies and programs, the scope and plans for conducting EH&S and a review of the company’s procedures for the handling of EH&S-related complaints and confidential, anonymous employee concerns
- Reviewing and discussing with management material noncompliance by the company with EH&S laws and regulations; and pending or threatened EH&S administrative, regulatory, or judicial proceedings that are material to the company, and management’s response to such noncompliance and/or proceedings
- Reviewing and evaluating management’s responses to significant emerging EH&S issues including public policy, advocacy and stakeholder engagement strategies
• Reviewing the disclosures in the company’s required reports to regulators relating to EH&S matters, and periodically reviewing other material public disclosures by the company relating to corporate social responsibility and sustainable development
• Monitoring significant EH&S public policy, legislative, political and social issues or trends that may materially affect the business operations, financial performance, or public image of the company or industry, and management’s response to such matters
• Creating incentive compensation metrics related to EH&S, which would be discussed in the context of providing advice to the compensation committee of the board
• Reviewing product sustainability issues including product stewardship
• Overseeing the management of EH&S risks and the company’s interactions relating to EH&S matters with communities, customers and other key stakeholders

EH&S committees may also be asked to meet regularly with management to assess the company’s safety and operational compliance practices generally, including assessing the adequacy of the resources, training, communications, risk assessments, and auditing of operational processes directed towards supporting safety and operational compliance; assess whether the company’s safety and operational compliance practices support the company’s ethics codes and policies; and prepare and deliver reports to the full board and management regarding the adequacy and effectiveness of the company’s safety and operational compliance programs including recommendations on the substance of such programs and related compliance practices.15

Compliance with Laws, Regulations and Standards

Procedures and internal controls need to be developed to evaluate compliance with applicable laws and regulations and other requirements, particularly voluntary standards, to which the company subscribes. Specifically, the EH&S committee of the board should ensure that the company establishes a policy which includes a commitment to compliance with applicable legal and other requirements; establishes, implements and maintains a procedure to identify applicable legal and other requirements; ensures that applicable legal and other requirements are taken into account in the management system; and periodically evaluates the organization's compliance with the applicable legal and other requirements and reports to management on the results of such evaluation.

Supply Chain Management

The company’s policies and procedures relating to EH&S should include commitments to inform suppliers, including contractors, of the company’s EH&S principles and require them to adopt practices aligned with the company’s expectations. Many companies have adopted specific policies and requirements that must be adhered to by contractors when they respond to requests for proposals by the company. For example, a company might require that its contractors:

Conduct its activities so that equipment, supplies and work practices are safe for workers and can be understood by all workers and others present at the work location.

Provide a safe work area free from recognized hazards, use due care to prevent damage to property materials and equipment, and comply with all applicable federal, state, and local EH&S laws, regulations and standards.

Restore to original condition any damaged property, materials and equipment in the company’s workplace.

Ensure that all items furnished and all work performed by the contractor comply with the most current applicable requirements of all relevant regulations and standards in the jurisdiction where the work is being performed.

Education and Training

Training and awareness are essential to the effective of EH&S programs and procedures. In order to achieve success with respect to their EH&S programs, organizations must ensure that employees are knowledgeable and possess all of the skills, competencies, awareness and behavior necessary to complete their work. The EH&S committee of the board should monitor the efforts of the company to ensure that all persons performing tasks and activities that are under control of the company are competent based on appropriate EH&S education, training or experience. In order for a company to effectively address EH&S issues and ensure that policies and procedures are implemented and followed it is necessary to provide education, information and training to everyone in the organization as well as outside contractors and supply chain partners. It is essential for the EH&S committee of the board to monitor education and training programs and do their best to make sure that all employees are aware of EH&S policies, procedures and requirements and understand their specific roles and responsibilities in achieving conforming with EH&S requirements and the potential consequences of not following procedures.

Education and training begins with the members of the board of directors and senior executives so that they are able to identify EH&S issues and understand proposed solutions upon which they deliberate before making decisions about the allocation of resources. Ideally each member of EH&S committee will have appropriate education, training and experience on one or more of the important EH&S areas that are most relevant to the company operations. Beyond that, the committee should work closely with the executive responsible for EH&S and the human resources and training department to identify training needs for various groups throughout the organization and create a system for monitoring the delivery of training and the effectiveness of training programs. In order to achieve the requisite level of competence, provision must be made suitable training programs that make persons working on behalf of the company or under its control aware of the adverse EH&S consequences, actual or potential, of work activities, behavior, and/or departure from the company’s procedures; the benefits of improved EH&S personal performance; the roles and responsibilities and the importance of conformity with the company’s EH&S policy, procedures, and requirements of its EH&S management system; and the significant EH&S aspects/risks and related actual or
potential impacts associated with work. Training should be based on experience, skill levels and capabilities, regulatory requirements and the individual career expectations of employees and training needs should be documented and records that required training or action has been taken should be created and maintained.

Stakeholder Engagement

Stakeholder engagement requires implementation of procedures for internal communication among the various levels and functions of the company; communication with contractors and other visitors to the workplace; receiving, documenting and responding to relevant communication from external interested parties; and, as appropriate, external communications regarding the company’s significant EH&S aspects and hazards. Engagement with employees is essential for the effectiveness of any EH&S strategy and policy and the EH&S committee of the board should require that senior management establish, implement and maintain procedure for the participation of workers by their involvement in environment, health and safety aspect/hazard identification, risk assessments and determination of controls, incident investigation, and development and review of the company’s EH&S policies and objectives; consultation (including contractors, as applicable) where there are any changes that affect EH&S and objectives; and representation on EH&S matters. In addition, relevant external interested parties, such as representatives of the local communities in which the company operates, should be consulted with respect to aspects of the company’s activities that might have an adverse EH&S impact on such parties.

Crisis Management and Remediation

Many companies have suffered sudden and often irreversible damage to their reputation, as well as financial losses and tragic injuries to their workers and customers, as a result of environmental and safety-related mishaps. As such, an essential role of the EH&S committee with respect to risk management is working closely and continuously with senior management to ensure that the company has procedures in place to monitor and measure key operations of the company that can have a significant environmental and/or safety impact. The EH&S committee must assume responsibility for reviewing procedures that have been developed to identify potential emergency situations or accidents that can have an impact on the environment and address how to respond to them. When reviewing such procedures, the committee should ensure that they take into account the needs of all relevant interested parties including emergency service providers and neighbors. In addition, the committee should receive and critically review reports from senior management on steps that have been taken to identify and correct potential problems and mitigate adverse EH&S impacts. Periodic testing and assessment should be required and the committee should be briefed on test and assessment results and the implementation and results and effectiveness of any corrective and preventive action taken. Finally, if the company does find itself involved in an EH&S emergency the EH&S committee should be the board’s front line in engaging with senior executives on addressing the situation including ensuring that the company is proactively communicating with stakeholders impacted by the emergency.
Transparency and Disclosure

As interest in CSR and corporate sustainability has grown, companies have found that they are subject to heightened scrutiny and that the traditional disclosure practices that focused primarily, if not exclusively, on financial information and performance and related risks are no longer adequate. Companies must now be prepared to provide disclosures that address the specific concerns and expectations of multiple stakeholders beyond investors including customers, employees, business partners, regulators and activists. This means that the board of directors as a whole, and particularly the members of the EH&S committee, must understand existing and emerging disclosure requirements and ensure that the company has the necessary resources to collect and analyze the required information and present it in a manner that is clear and understandable.  

While certain EH&S disclosures have now become minimum legal requirements in some jurisdictions, in general such disclosures are still a voluntary matter and directors have some leeway as to the scope of the disclosure made by their companies and how they are presented to investors and other stakeholders. When establishing a framework for EH&S reporting reference should be made to the topics suggested by the Global Reporting Initiative ("GRI"). In the environmental area, the potential topics include materials, energy, water, biodiversity, emissions, effluents and waste, environment compliance and supplier environmental assessment. With regard to occupational health and safety, disclosures should be made on workers representation in formal joint management–worker health and safety committees; types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities; workers with high incidence or high risk of diseases related to their occupation; and

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16 For detailed discussion of transparency and disclosure, see “Corporate Governance and Sustainability” in “Governance: A Library of Resources for Sustainable Entrepreneurs” and “Sustainability Reporting and Auditing” in “Corporate Social Responsibility: A Library of Resources for Sustainable Entrepreneurs”, both prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

17 Williams noted that to the extent that governments have regulated corporate responsibility per se, such regulation has focused on disclosure and during the period 2000-2015 over 20 countries enacted legislation to require public companies to issue reports including environmental and/or social information. Many of these countries are in Europe and the EU has implemented a directive that requires approximately 6,000 large companies and “public interest organizations,” such as banks and insurance companies, to “prepare a nonfinancial statement containing information relating to at least environmental matters, social and employee-related matters, respect for human rights, anti-corruption and bribery matters.” In addition, several stock exchanges around the world require social and/or environmental disclosure as part of their listing requirements and pension funds in a number of developed countries are required to disclose the extent to which the fund incorporates social and environmental information into their investment decisions. All things considered, surveys show that more and more jurisdictions are implementing mandatory ESG disclosure requirements and that “there is a clear trend towards an increasing number of environmental and social disclosure requirements around the world”. See C. Williams, “Corporate Social Responsibility and Corporate Governance” in J. Gordon and G. Ringe (Eds.), Oxford Handbook of Corporate Law and Governance (Oxford: Oxford University Press, 2016), 15-16, 19, available at http://digitalcommons.osgoode.yorku.ca/scholarly_works/1784.

18 For detailed discussion of disclosures and the GRI, see “Sustainability Reporting and Auditing” in “Corporate Social Responsibility: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).
Monitoring and Measuring the Effectiveness of EH&S Procedures

One of the primary responsibilities of the EH&S committee is to monitor and measure the effectiveness of the company EH&S policies, programs and procedures. This begins with requiring and receiving regular reports from senior management, as well as other key personnel throughout the company overseeing specific aspects of the company’s EH&S programs, and asking tough questions to verify the accuracy of the reports. The reports should be accompanyed by data and metrics that have been agreed upon in advance that can be used to quickly identify areas of ongoing concern and progress toward clearly defined goals and objectives. Particular areas of interest include compliance with applicable regulatory and legal requirements and the requirements of any other standards that have been adopted by the company (e.g., ISO 14001 or other management systems schemes), incident investigation, actual and potential nonconformities and corrective/preventive actions. In those instances where the company relies on outside contractors to assist in implementing EH&S programs and procedures, the committee should meet regularly with representatives of those contractors to ascertain contractor performance and, as appropriate, seek and obtain input on the performance of the company’s own managers and employees. The committee should ensure that internal audits to be scheduled at defined intervals to measure the effectiveness of the company’s EH&S programs and procedures including, for example, conformance of the company’s EMS to the requirements of ISO 14001 discussed below. Finally, the committee should work with senior management to develop procedures to establish and maintain records as necessary to monitor performance and determine conformity to the requirements of its EMS and overall EH&S objectives and targets and the results that have been achieved.

The EH&S committee of the board should ensure that a documented process is implemented for regular review of the company’s EH&S strategies, policies, procedures and management system by the committee and the company’s senior management. Inputs to these reviews should include the following:

19 Companies generally have specific standards that should be addressed in reporting such as, in the case of Pfizer, the following: ergonomics, safe storage of materials and substances, high hazard work activities, EH&S risk management in providing and assessing work equipment, safe workplace, fire and life safety, process safety, occupational hygiene, fire and life safety, process safety, occupational hygiene, biological safety, management of EH&S risk from suppliers of materials and services, office EH&S, fleet safety, contractor safety, laboratory EH&S, transportation of dangerous goods, controlled substances and business continuity and management programs. See https://www.pfizer.com/files/responsibility/protecting_environment/EHS_Standards_2017.pdf
Results of internal audits and evaluations of compliance with applicable legal and other requirements to which the company subscribes

Results of relevant participation and consultation

Relevant communication(s) from external interested parties, including complaints

EH&S performance of the company

The extent to which EH&S strategic and tactical objectives and targets have been met

Status of significant incident investigations and corrective/preventive actions

Follow-up actions from previous management reviews

Changing circumstances, including developments in legal and other requirements related to the company’s EH&S aspects/ hazards

Technical knowledge and expertise from site-level EH&S professionals

Recommendations for improvement

The outputs of these reviews should be expected to include possible changes to the company’s EH&S policy, objectives, targets, resources and management system. Reviews and audits should provide added value in the form of providing a comprehensive assessment of the adequacy of site risk management, including EH&S and business continuity risks; identifying site management strengths and areas for improvement; identifying “best practices and model programs” that can be disseminated across the organization so that other sites can replicate; and proposing solutions to close gaps identified during the audit process.

Evaluation of Committee Performance

The committee should conduct an annual evaluation of its performance and effectiveness, which may be a self-evaluation or an evaluation employing such other resources or procedures as the committee may deem appropriate. The committee should also review and reassess its charter on a periodic basis and submit any recommended changes to the board for its consideration. Companies will find that there are a number of outside consultants available to assist in evaluating their EH&S programs and performance and make recommendations regarding changes to governance and management processes. In conducting the evaluation, the EH&S committee should focus on ensuring that the committee has been kept aware of the significant EH&S-related issues that are relevant to the company’s business and the industries in which the company operates; the company has an adequate formal framework for conducting its oversight of EH&S activities; and the board regularly reviews progress on the company’s performance with respect to EH&S goals, objectives and targets. The evaluation process with respect to EH&S issues

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20 For detailed discussion of evaluation of board and committee performance, see “Board Oversight of Sustainability” in “Governance: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

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and performance should be coordinated with similar reviews undertaken by the compliance and risk management committee of the board.\footnote{For detailed discussion of compliance and risk management committees, see “Compliance and Risk Management Committee” in “Governance: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).}

### ISO 14001 and Environmental Management Systems

ISO 14001 is an internationally agreed standard that sets out the requirements for a structure (i.e., an environmental management system (“EMS”)) to help organizations manage and minimize their environmental impacts, conform to applicable legal requirements and improve their environmental performance through more efficient use of resources and reduction of waste, thereby gaining a competitive advantage and the trust of stakeholders.\footnote{The summary discussion of ISO 14001 herein is adapted from “Introduction to ISO 14001: 2015” prepared and distributed by the International Organization for Standardization in 2015.} An EMS helps organizations identify, manage, monitor and control their environmental issues in a holistic manner and also includes the need for continual improvement of an organization’s systems and approach to environmental concerns. ISO 14001, which was recently revised effective in 2015, is suitable for organizations of all types and sizes, be they private, not-for-profit or governmental, and requires that an organization consider all environmental issues relevant to its operations, such as air pollution, water and sewage issues, waste management, soil contamination, climate change mitigation and adaptation, and resource use and efficiency. While an EMS may be adopted as a standalone system, it is often added to an existing management system (e.g., a system based on quality, such as ISO 9001). Having an EMS does not mean that an organization will be immune from all environmental challenges; however, the procedures implemented as part of an EMS should allow the organization to manage events and operational activities that will have a significant impact on the environment. ISO 14001 gives the requirements for what the organization must do to manage processes affecting the impact of its activities on the environment; however, ISO 14001 is not a product or service standard.\footnote{For detailed discussion of environmental management systems, see “Management Systems” in “Management: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org). See also the additional resources available in the Library that include book chapters and other publications relating to EH&S management systems such as the materials available from the National Center for Biotechnology Information (https://www.ncbi.nlm.nih.gov/books/NBK55873/)}

There is no requirement that organizations seek and obtained accredited certification to ISO 14001 and there are many benefits from using the standard without going through the accredited certification process. However, third-party certification, which involves an audit of organizational practices against the requirements of ISO 14001 by an independent certification body (ISO does not perform certifications), has been found to be an excellent way for organizations to assure their stakeholders that the standards have been implemented correctly. Accredited certification may also be necessary for...
organizations to fulfill regulatory or contractual requirements. In general, an EMS that is to be based on ISO 14001 standards should include the following elements:

- Development and establishment of an appropriate environmental policy that is documented and communicated to employees and also made available to the public and which includes a commitment to continual improvement and pollution prevention, regulatory compliance and a framework for setting policy objectives;
- A planning phase that covers the identification of the environmental aspects of the organization’s activities, identification and access to legal requirements, establishment and documentation of objectives and targets consistent with the and establishment of a program for achieving said targets and objectives (including the designation of responsible individuals, necessary means and timelines);
- Implementation and operation of the EMS including the definition, documentation and communication of roles and responsibilities, provision of appropriate training, assurance of adequate internal and external communication, written management system documentation as well as appropriate document control procedures, documented procedures for operational controls, and documented and communicated emergency response procedures;
- Checking and corrective action procedures, including procedures for regular monitoring and measurement of key characteristics of the operations and activities, procedures for dealing with situations of non-conformity, specific record maintenance procedures and procedures for auditing the performance of the EDS; and
- Periodic management reviews of the overall EMS to ensure its suitability, adequacy and effectiveness in light of changing circumstances.

A report prepared by consultants from the Rand Corporation on the keys to successfully implementing environmental management found that it was important for organizations to integrate its environmental management program with the management system it uses to plan and execute its core missions and functions. In this way, managers would view environmental issues as being just one more relevant context in which they pursued the core values of the organization. The report suggested that insights gained from surveying the best commercial practices indicated that successful and effective integration could be achieved by taking the following steps:

- Identify how environmental issues affect its key stakeholders and how these issues relate to stakeholder goals;
- Develop and sustain senior leadership support for proactive treatment of environmental issues;

ISO 14001: Environmental Management System Self-Assessment Checklist (Washington DC: Global Environmental Management Initiative, November 2000), 2. While the guidelines in the text are based on a prior version of ISO 14001 they remain relevant as an overview of how organizations should approach the process of fulfilling the ISO 14001 standards.

• Identify champions who can take day-to-day responsibility for managing environmental issues to satisfy the specific stakeholder goals that the senior leadership has endorsed;
• Make environmental principals in the organization effective partners in coalitions in the organization to align environmental interests with other specialized interests;
• After identifying the organization's position in the value chains that it services, work with other elements of these value chains to achieve common goals;
• State specific environmental goals in simple terms that help individual decision makers relate them to broader corporate goals without much ambiguity;
• For specific decisions or projects, use teams that include representatives of all the relevant functions, including environmental representatives when appropriate;
• Promote routine use of databases and analytic tools that help decision makers see how environmental decisions affect all parts of the organization; and
• Balance centralization and decentralization to align environmental concerns with the most closely related core activities.

The report emphasized that while it was important to have champions and principals within the organization who could be held responsible for implementation of environmental policies in the context of the organization’s broader corporate goals and culture, they must be prepared to reach out to others throughout the organization and communicate with them using data and language that can be easily understood to demonstrate how their interests can be aligned with the environmental mission. The report also provided the following recommendations for implementing a proactive approach to environmental management:

• Motivate employees to be not only creative but also dogged in their determination to change the status quo for the better;
• Assign responsibilities clearly so that specific individuals or teams feel the effects of environmental decisions on the organization as a whole and can be held accountable for promoting the goals of the organization as a whole over the long term;
• Design metrics to encourage individuals and teams, constrained as they are in their particular locations in the organization, to make decisions compatible with the organization's broad goals;
• Back up these metrics with incentives that are compatible with the organization's broader norms about compensation and advancement;
• Expect individual failures to occur when employees push hard enough for real change and (1) limit the damage from such failures while (2) helping employees learn from these failures rather than punishing them for failing;
• Train employees to increase their environmental awareness and improve their ability to work collaboratively;
• Design training so that it occurs "just in time," when employees need it to execute specific tasks;

26 Id. at xiv-xv.
• Provide effective analytic tools and maintain a supportive organizational environment for their use;
• Communicate continuously, internally and with key stakeholders, to sustain trust and commitment; and
• Benchmark environmental performance against that of other organizations, report the results to the senior leadership and use the results to sustain senior-level support for continuing improvement in environmental performance.

Companies often implement several different, but interrelated, environmental management programs as part of their overall environmental strategy. Common areas of focus include product design, which involves continuous efforts of design teams to locate new materials and technologies to ensure that future products are at the leading edge of commercial environmental product design and recognition of specific design considerations such as environmentally oriented materials selection, design to facilitate cleaner production, design for durability and extended product life, design for refurbishment and reuse and design for disassembly and recycling; supply chain management, which involves routine dialog with supply chain members about their efforts to create and maintain a sustainable production system and adhere to environmental requirements through continuous improvement actions; operations, including certification of the company’s EMS; product stewardship, including a robust and practical end-of-life management approach that maximizes environmental and economic value; and communications with internal and external stakeholders regarding sustainability.27

An additional tool for companies seeking to implement EH&S management systems was introduced by ISO in 2018 when the new ISO 45001 standard on occupational health and safety management systems was finalized and published. ISO 45001 is intended to help organizations reduce the burden of occupational accidents and illnesses by providing a framework to improve employee safety, reduce workplace risks and create better, safer working conditions, all over the world. ISO 45001 follows other generic management system approaches such as ISO 14001 and ISO 9001 and also takes into account other relevant internal standards such as OHSAS 18001 (an international standard that has provided a framework to identify, control and decrease the risks associated with health and safety within the workplace), the International Labour Organization's ILO-OSH Guidelines, various national standards and the ILO's comprehensive international labour standards and conventions.28

The ISO has explained that an occupational health and safety (“OH&S”) management system is intended to support organizations in meeting their responsibilities with respect to the occupational health and safety of workers and others who can be affected by its activities. An effective OH&S management system enables organizations to provide safe

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28 It is anticipated that ISO 45001 will replace OHSAS 18001 within three years of the March 2018 publication date of ISO 45001, thus organizations relying on external standards for creating their EH&S management systems should refer to the requirements and recommendations of ISO 45001 rather than OHSAS 18001.
and healthy workplaces, prevent work-related injury and ill health, and continually improve its OH&S performance. The ISO has made it clear that implementation of an OH&S management system is a strategic and operational decision for an organization, and that the implementation and maintenance of an OH&S management system, its effectiveness and its ability to achieve its intended outcomes are dependent on a number of key factors, which can include 29:

- Top management leadership, commitment, responsibilities and accountability;
- Top management developing, leading and promoting a culture in the organization that supports the intended outcomes of the OH&S management system;
- Communication;
- Consultation and participation of workers, and, where they exist, workers’ representatives;
- Allocation of the necessary resources to maintain it;
- OH&S policies, which are compatible with the overall strategic objectives and direction of the organization;
- Effective process(es) for identifying hazards, controlling OH&S risks and taking advantage of OH&S opportunities;
- Continual performance evaluation and monitoring of the OH&S management system to improve OH&S performance;
- Integration of the OH&S management system into the organization’s business processes;
- OH&S objectives that align with the OH&S policy and take into account the organization’s hazards, OH&S risks and OH&S opportunities; and
- Compliance with its legal requirements and other requirements.

EHS Support, which provides a wide array of EH&S services and support to clients across a broad spectrum of industries, has laid out the following list of essential elements for an effective HS&E management system 30:

- **Management Leadership, Commitment and Accountability:** The board of directors, the EH&S committee of the board and the senior management team must take responsibility for establishing policy, providing perspective, setting expectations and ensuring the provision of adequate resources for successful operations. Management leadership, commitment and action need to be visible to the organization, and clear accountabilities must be established at all levels.

- **Risk Planning, Assessment & Management:** Risk planning, assessment and management is a continuous process that includes the formal and informal identification, evaluation and control of EH&S business risks including business liabilities, regulatory compliance and customer requirements.

• **Facility/Site and Equipment/Tool Safety Management:** Safety can be enhanced and risk to health and the environment can be minimized by using effective standards, procedures and management systems for facility/site design, activities and services. Health and safety plans should be used to summarize health and safety hazard information for field activities.

• **EH&S Regulatory Management, Information and Documentation:** Accurate information about the configuration and capabilities of sites and facilities, properties of products and materials handled, potential hazards, and regulatory requirements is essential to assess and manage risk. All projects and services should comply with the organization’s regulatory compliance procedures and contractors should be required to have equivalent procedures in place and submit to audits of such procedures by the organization.

• **EH&S Planning and Procedures:** Safety and health policies and programs should be established and maintained to manage significant risks and comply with legal requirements. All such policies and programs should be written, communicated and followed and be accessible to personnel, contractors, and government entities as appropriate.

• **Personnel, Organization, Competence and Training:** Recognizing that people are at the core of every EH&S initiative, provision must be made for appropriate training, effective communication and assessment of employees and the implementation of appropriate programs.

• **Emergency Management and Community Awareness:** The organization must take a proactive rather than reactive approach to planning and preparing for a safe and effective emergency response to incidents that mitigate the consequences, prevents further harm and enables a safe efficient resumption of normal operations. In the event of an incident, plans must be in place to ensure that all necessary actions are taken for the protection of the public, the environment and organizational personnel and assets.

• **Incident Investigation, Analysis and Management:** While every effort should be made to prevent incidents, the reality is that problems will arise and the organization must be committed to effectively managing all incidents, including work-related injuries, accidents, regulatory violations, and near misses, immediately and thoroughly and communicating the results of investigations and following proper reporting practices.

• **Management of Change:** Changes in services, procedures, site standards, facilities, or personnel must be evaluated and managed to ensure that risks arising from these changes are properly assessed and managed.

• **Third Party Services:** Third parties (e.g., contractors and contracted personnel working directly with or for the organization and suppliers) impact the organization’s business and reputation and it is essential that they perform in a manner that is consistent and compatible with the EH&S policies, procedures and expectations of the organization.

• **EH&S Performance Monitoring, Measurement, Reporting & Improvement:** To ensure continuous improvement, EH&S performance must be accurately monitored, measured, recorded and analyzed, with the key tools being audits, review and self-
assessments with respect to achievement of EH&S plan and objectives; compliance with federal, state and local regulations; corrective actions closeout; and leading and lagging indicators. Provision should be made for continuous review of EH&S systems and continuous improvement implementation. In addition, systems should be implemented for, and adequate resources allocated to, reporting of EH&S performance to stakeholders.
About the Author

This chapter was written by Alan S. Gutterman, whose prolific output of practical guidance and tools for legal and financial professionals, managers, entrepreneurs and investors has made him one of the best-selling individual authors in the global legal publishing marketplace. His cornerstone work, *Business Transactions Solution*, is an online-only product available and featured on Thomson Reuters’ Westlaw, the world’s largest legal content platform, which includes almost 200 book-length modules covering the entire lifecycle of a business. Alan has also authored or edited over 90 books on sustainable entrepreneurship, leadership and management, business law and transactions, international law and business and technology management for a number of publishers including Thomson Reuters, Practical Law, Kluwer, Aspatore, Oxford, Quorum, ABA Press, Aspen, Sweet & Maxwell, Euromoney, Business Expert Press, Harvard Business Publishing, CCH and BNA. Alan is currently a partner of GCA Law Partners LLP in Mountain View CA (www.gcalaw.com) and has extensive experience as a partner and senior counsel with internationally recognized law firms counseling small and large business enterprises in the areas of general corporate and securities matters, venture capital, mergers and acquisitions, international law and transactions, strategic business alliances, technology transfers and intellectual property, and has also held senior management positions with several technology-based businesses including service as the chief legal officer of a leading international distributor of IT products headquartered in Silicon Valley and as the chief operating officer of an emerging broadband media company. He has been an adjunct faculty member at several colleges and universities, including Berkeley Law, Golden Gate University, Hastings College of Law, Santa Clara University and the University of San Francisco, teaching classes on corporate finance, venture capital, corporate governance, Japanese business law and law and economic development. He has also launched and oversees projects relating to sustainable entrepreneurship and ageism. He received his A.B., M.B.A., and J.D. from the University of California at Berkeley, a D.B.A. from Golden Gate University, and a Ph. D. from the University of Cambridge. For more information about Alan and his activities, and the services he provides through GCA Law Partners LLP, please contact him directly at alangutterman@gmail.com, follow him on LinkedIn (https://www.linkedin.com/in/alangutterman/) and visit his website at alangutterman.com.

About the Project

The Sustainable Entrepreneurship Project (www.seproject.org) was launched by Alan Gutterman to teach and support individuals and companies, both startups and mature firms, seeking to create and build sustainable businesses based on purpose, innovation, shared value and respect for people and planet. The Project is a California nonprofit public benefit corporation with tax exempt status under section 501(c)(3) of the Internal Revenue Code dedicated to furthering and promoting sustainable entrepreneurship through education and awareness and supporting entrepreneurs in their efforts to launch and scale innovative sustainable enterprises that will have a material positive environmental or social impact on society as a whole.

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