Sustainability
The Role of SH&E Professionals
By Michael G. Knott, Joseph Rosenbeck and Michael Burnham

Publication of ISO 26000 has led U.S. corporations to attempt to define roles and responsibilities for safety and health professionals in various functional units. In November 2010, ISO 26000:2010, Guidance on Social Responsibility, became an official standard from International Organization on Standardization (ISO), culminating years of work by people across the globe looking to raise the level of awareness for social responsibility (SR). This standard is not a compliance standard, rather it is a guidance standard, and the concept is still evolving. As a result, many professionals are unclear about their role or that of fellow employees regarding corporate social responsibility (CSR) and environmental sustainability (ES).

This guidance standard provides an opportunity for safety and health professionals to play major and supporting roles in CSR and ES. They can increase the emphasis on safety and health within these topic areas, as well as embrace the convergence of many disciplines that are involved in the application of the standard. For the purpose of this article, sustainability is considered to be the combination of SR as defined in ISO 26000:2010, and environmental sustainability as defined by John Morelli, a professor at Rochester Institute of Technology.

ISO (2010) defines social responsibility as:

> Responsibility of an organization for the impacts of its decisions and activities on society and the environment through transparent and ethical behavior that:
> - contributes to sustainable development including health and welfare of society;
> - takes into account the expectations of stakeholders;
> - is in compliance with applicable law and consistent with internal norms of behavior;
> - is integrated throughout the organization and practiced in its relationships.

Morelli (2011a) defines environmental sustainability as:

> [A] combination of balance, resilience and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs nor by our actions diminishing biological diversity.

This article examines the roles and responsibilities that safety and health professionals believe they are prepared and positioned to take in their organization's sustainability efforts. In addition, it examines how other professionals within an organization perceive the sustainability roles of safety and health professionals.

IN BRIEF
- With the publication of ISO 26000, U.S. corporations are examining corporate social responsibility as never before. However, roles and responsibilities for professionals in various functional units have not yet been defined.
- Two surveys were conducted in 2010 and 2011 to gain insight about perceived responsibilities for corporate social responsibility and environmental sustainability. This article presents the extent to which safety and health professionals believed they could play a role in sustainability as well as what other professionals believed that role should be.
- Three suggested implications are identified: 1) the lack of understanding about sustainability, especially regarding clearly defined roles and responsibilities within an organization; 2) the convergence of once clearly separate functions under the umbrella of sustainability; 3) an opportunity for safety and health professionals to play a prominent role in an organization's sustainability efforts.

Michael G. Knott, CSP, is manager of environmental, health, safety and security at Liberty Utilities in Londonderry, NH. He holds an M.S. in Environmental Health and Safety Management from Rochester Institute of Technology. Knott is a member of ASSE's Granite State Chapter and Utilities Practice Specialty. He was a member of the U.S. Technical Advisory Group involved in the development of ISO 26000:2010, Guidance on Social Responsibility.

Joseph Rosenbeck, CSP, is a professor at Rochester Institute of Technology. He holds an M.S. in Industrial Safety and has more than 30 years' experience in environmental health and safety management, and education. He is a professional member of ASSE's Genesee Valley Chapter, and a member of the Society's Academics Practice Specialty.

Michael Burnham, CSP, is safety director at Riggs Distler & Co., a mechanical, electrical and utility contractor based in Cherry Hill, NJ. He holds a B.A. from Saint Anselm College and an M.S. from Fordham University. Burnham is a professional member of ASSE's Connecticut Valley Chapter, a member of the Society's Construction Practice Specialty and a member of the Inter-Utility Overhead Training Association.

Major Role

Sustainable action items for which safety and health professionals are prepared and positioned to take a major role (providing leadership).

Category	Sustainability action item	Self-identified major role	Responsible departments identified by majority of respondents
Environmental, safety and health	12) Apply principles of safety and health management, and provide safety and health protection for all workers.	•Safety and health (87%) •Environmental management (92.6%) •Human resources (60.4%) •Operations/production (59.9%)	•Safety and health •Operations/production •Human resources
	13) Analyze, control and communicate the safety and health risks involved in the organization's activities, and ensure that all workers follow safe practices and procedures.	•Safety and health (91.7%) •Environmental management (89.1%) •Operations/production (56.7%) •Human resources (56.5%)	•Safety and health •Operations/production •Human resources
	14) Ensure that the organization measures, records, reports, and publicly discloses the amounts and types of toxic/hazardous materials used and released, and makes known the associated risks to human health and the environment.	•Safety and health (70.8%) •Environmental management (88.7%)	•Safety and health
	15) Implement measures to minimize waste, prevent pollution and properly manage that which is unavoidable.	•Safety and health (59.8%) •Environmental management (90.6%) •Facility management (53.6%) •Operations/production (53.5%)	•Operations/production

Objective & Methodology

The findings reported in this article are part of a broader study to define the sustainability roles and responsibilities of various professionals from different departments or functional areas within an organization (Morelli, 2011b). That broader study consisted of two electronic surveys created by Morelli, and administered and data-mined by graduate students at Rochester Institute of Technology. The surveys were conducted in 2010 and 2011. Morelli (2011b) explains the objective of the broader study:

> Since the concept of sustainability is so broad as to transcend any one profession, and not knowing who should be doing what becomes an obstacle to progress in this direction, the objective of this work is to help identify to what extent various professions may be prepared and well-positioned to contribute toward a more sustainable future.

The electronic surveys were administered to professionals who identified themselves as being from several different departments. For purposes of the surveys, all respondents were grouped into one of the following departments or functional areas:
- environmental management;
- occupational safety and health;
- legal affairs;
- product and process designers/engineers;
- purchasing;
- operations/production;
- facility management;
- marketing/sales;
- human resources;
- manufacturing.

The premise of the surveys was that the leadership of the organization announced the company's intention to move the organization toward becoming more environmentally sustainable and socially responsible. Respondents were asked to review a list of 43 sustainability action items in the first survey and 35 in the second. Sustainability action items were created by consolidating and in a few instances expanding upon the 220 action items included in ISO 26000. Respondents then rated each item to the extent that they, as professionals in their respective fields, believed they were prepared and positioned to contribute to this effort. They were also asked to identify other professions and/or functional units in the organization that they would expect to play a major role for each action item. According to Morelli (2011c):

> The first survey was sent to 7,412 contacts provided by a direct marketing mail list provider and randomly selected from its contacts database; 526 responded for an approximate 7% overall response rate. . . . The second survey was sent to 11,256 contacts; 1,473 responded for an approximate 13% overall response rate. . . . After the data from both surveys were combined, the precision of the data from occupational health and safety respondents was determined to be ±8.7% with a confidence level of 95%.

The broader study had some limitations. First, the sample population was not totally random. A direct marketing e-mail list provider was used as a feasible way to obtain large sample populations to survey by profession. Next, "data from the first survey [were] synthesized to match the data of the second survey to maintain congruence" (Morelli, 2011c).

Data Analysis & Results

Survey responses were evaluated for each action item and categorized into seven core subject areas derived from the draft ISO 26000 standard (Draft ISO 26000 WD4.2, 2008). The seven core subject areas were organizational governance, human rights, labor practices, EHS, fair operating practices,

Supporting Role

Sustainable action items for which safety and health professionals are prepared and positioned to take a supporting role (taking action).

Category	Sustainability action item	Self-identified role	Responsible departments identified by majority of respondents
Labor practices	6) Ensure the protection of employee personal data and privacy.	•Major •Human resources (88.6%) •Supporting •Safety and health (54.6%) •Manufacturing (53.8%)	•Human resources
	7) Provide all workers at all stages of their work experience with access to skills development, training and opportunities for career advancement.	•Major •Human resources (82.4%) •Supporting •Product and process •Designers/engineers (57.1%) •Facility management (56.8%) •Manufacturing (51.7%) •Safety and health (50.4%)	•Human resources
Environmental, safety and health	19) Consider environmentally and socially responsible performance when evaluating and selecting suppliers and contractors.	•Major •None •Supporting •Facility management (54.2%) •Safety and health (53.3%)	•Purchasing
Consumer issues	23) Ensure that the organization does not engage in any deceptive, misleading, fraudulent or unfair practices, including omission of critical information.	•Major •None •Supporting •Human resources (54.1%) •Safety and health (50.9%) •Legal (50.5 %)	•Legal
	24) Ensure that the organization provides products and services that, under normal and reasonably foreseeable conditions of use, are safe for users and other persons, their property and the environment.	•Major •None •Supporting •Safety and health (54.2%) •Purchasing (50.9%)	•Operations/production
	26) Ensure that the organization offers consumers socially and environmentally beneficial products.	•Major •None •Supporting •Safety and health (52.8%)	•Marketing
	27) Provide consumers with accurate information about environmental and social factors related to its products and services.	•Major •None •Supporting •Safety and health (52.8%)	•Marketing

community involvement and development, and consumer issues. Respondents selected the role or responsibility level that they considered most appropriate for their own department or functional area:
- major role (providing leadership);
- supporting role (taking action);
- minor role (limited or no action).

The analysis identified those sustainability action items where 50% or more of the safety and health professionals believed they could be involved by having either a major or supporting role. For 16 of the action items, responses were split between major and supporting roles, so a new "involved role" category was created to identify those action items about which the combined number of safety and health respondents indicating either a major or supporting role totaled more than 50%.

Major Role
Of the 35 sustainability action items from the consolidated surveys, the majority of safety and health professionals indicated they would play a major role in just four, all from the environmental, safety and health core subject area, and they recognized the importance of having operations

joining with them to take responsibility for three of the four action items (Table 1). Even before the sustainability movement emerged, the goal of the safety and health professional has been to integrate safety and health into operations (Brown & Larson, 1998). With tight budgets and competition for scarce resources, it is more important than ever that safety and health professionals provide education and guidance to operations, thus ensuring that everyone understands their roles and duties regarding safety, health and CSR.

> For EHS managers, business integration involves the challenge of integrating environment safety and health awareness responsibility and action into multiple jobs and business processes leveraging scarce resources to maximize value and minimize costs . . . the goal is to make EHS part of every employee's job. (Brown & Larson, 1998)

Although it is the aim of safety and health professionals to integrate their efforts into operations, working with counterparts in environmental management also is imperative. Businesses that thrive do so because they have efficient processes. The overlap of perceived ownership between environment, human resources, and safety and health professionals

could result in costly inefficiencies and communication barriers. Because of the vague nature of sustainability in most companies, various organizational functions may be involved in the establishment and implementation of policy (Cheney, 2010).

In this entire survey, for only one action item did respondents overall assign responsibility exclusively to safety and health: Ensure that the organization measures, records, reports and publicly discloses the amounts and types of toxic and hazardous materials used, and make known the associated risks to human health and the environment. Safety and health professionals agreed by accepting a major role in this action.

Supporting Role

Safety and health professionals self-identified seven action items as taking a supporting role (Table 2, p. 37). Four of those items were in the consumer issues core subject area, two in the labor practices core subject area and one in the EHS core subject area. Of those seven action items, only two had a functional unit self-identify as playing a major role, both in labor practices and both with human resources indicating the major role. For the other five action items, no functional unit self-identified as playing a major role, and in three of the action items no functional unit self-identified as either major or supporting, underscoring the need for organizations to assign roles to functional units. These voids present opportunities for safety and health professionals to assume greater roles in their organizations' overall sustainability efforts by collaborating with other functional units.

Involved Role

For 16 sustainability action items, more than 50% of safety and health professionals believed that they could be involved by having either a major or supporting role in their organizations' sustainability efforts (Table 3). These action items came from five different core subject areas, and present more opportunities for collaboration between safety and health professionals and other functional groups within an organization.

Minor Role

Safety and health professionals identified eight action items as being a minor or no role, six in the community involvement and development core subject area, and two in the fair operating practices core subject area (Table 4, p. 40). Considering the scope of sustainability, it is expected that safety and health professionals would play either a minor or no role in some areas. However, this does not diminish the need for organizations to establish roles and responsibilities for these action items.

Discussion

If safety and health professionals integrate sustainability with their safety and health initiatives, they can establish their role in their organization's sustainability efforts. Camplin (2011) believes that safety, health and sustainability can be considered as value-added and can be championed by the safety and health professional. He expresses how the safety and health profession is evolving and how embracing sustainability can increase the profession's value to the organization.

To supply a value-added service, safety and health professionals can look at both the financial and nonfinancial positive effects of sustainability. When the causal effect of corporate governance on sustainability is examined, results show that sustainability engagement positively influences corporate financial performance (Jo & Harjoto, 2012). Moreover, a firm's CSR engagement in community, environment, diversity and employees positively enhances corporate financial performance (Jo & Harjoto, 2012).

In its white paper, "The Convergence of Environmental, Safety and Health, and Quality Management Systems," Excellence Through Quality (2012) suggests the systems of these disciplines are converging over time, meaning safety and health professionals need to understand the effects of this convergence. These departments have traditionally addressed many aspects of CSR separately via systems like quality management systems (ISO 9001), environmental management safety systems (ISO 14001), and occupational safety and health systems (OHSAS 18001). These systems often drive organizational governance, and the literature that recognizes a convergence or overlap of the areas covered by these systems is more evidence of the need for an evolution to the next level. Phyper and Leavoy (2010) state, "The principle benefits of integrated [environment, health, safety and quality] EHSQ management include both cost-effectiveness and collaboration between intrinsically related EHSQ concerns." A unified management system can bring value to the company.

The same theme is addressed in the EPA (2004) publication, "Integration of Environmental Management Systems and Quality Management Systems." EPA points out that a safety and health system can be integrated into an environmental system as well as a quality system. This provides additional evidence that safety and health professionals can adopt the many facets of CSR to evolve with organizations. Cahill and Kane (2011) further illustrate this convergence, stating:

> The goal of ANSI Z10 [American National Standard for Occupational Health and Safety Management Systems] is to use recognized management system principles, compatible with quality and environmental management system standards such as the ISO 9000 and ISO 14000 series, as well as with principles adopted by the International Labor Organization, to encourage integration of safety into other business management systems. In 2002, a new consolidated guideline document was published by ISO and renamed ISO 19011. This current document addresses fundamental principles of both quality systems auditing and EMS auditing.

Although further examination and research would be required to completely understand the

Table 3

Involved Role

Sustainable action items for which safety and health professionals are prepared and positioned to be involved (combined self-identified major and supporting role greater than 50%).

Category	Sustainability action item	Responsible departments identified by majority of respondents
Environmental, safety and health	16) Implement programs and practices for sustainable material, energy and environmental resources to reduce the environmental burden resulting from the organization's activities, products and services. (Major: 38.3%; Supporting: 48.6%; Total: 86.9%)	Operations/production
Fair operating practices	11) Ensure that the organization participates in raising the environmental and social responsibility awareness of those organizations with which it has relationships. (Major: 34.3%; Supporting: 50.0%; Total: 84.3%)	Purchasing Human resources
Environmental, safety and health	17) Identify potential adverse impacts on ecosystems and biodiversity, and implement planning, design and operating practices to eliminate or minimize them. (Major: 31.5%; Supporting: 43.5%; Total: 75.0%)	Operations/production
Labor practices	5) Ensure that the working conditions comply with national laws and regulations and are consistent with relevant international labor standards. (Major: 36.9%; Supporting: 36.9%; Total: 73.8%)	Human resources
Consumer issues	25) Instruct consumers in the proper use of products and convey appropriate safety information. (Major: 25.7%; Supporting: 45.7%; Total: 71.4%)	Marketing
Organizational governance	1) Ensure that the organization is governed in a manner that balances the needs of the organization and its stakeholders, including immediate needs and those of future generations. (Major: 15.5%; Supporting: 49.1%; Total: 64.6%)	Operations/production
Environmental, safety and health	18) Consider market mechanisms, such as carbon emissions trading, to internalize the cost of environmental burdens resulting from the organization's activities, products and services. (Major: 20.6%; Supporting: 43%; Total: 63.6%)	No group identified
Consumer issues	22) Ensure that the organization does not engage in any deceptive, misleading, fraudulent or unfair practices, including omission of critical information. (Major: 13.9%; Supporting: 47.2%: Total: 61.1%)	Legal Human resources
Community involvement and development	34) Promote good health by supporting community access to essential healthcare services, clean water and appropriate sanitation. (Major: 18.1%; Supporting: 41.9%; Total: 60.0%)	Human resources
Consumer issues	21) Limit the collection of personal data to information that is essential for the provision of products and services. (Major: 12.1%; Supporting: 47.7%; Total: 59.8%)	Human resources
Human rights	3) Ensure that the organization's policies and practices are free from bias or discrimination based on race, color, gender, age, nationality or national origin, ethnic or social origin, caste, marital status, sexual orientation, disability or health. (Major: 9.2%; Supporting: 49.5%; Total: 58.7%)	Human resources
Fair operating practices	8) Ensure that the organization conducts its activities in a manner consistent with competition laws and regulations, and does not take advantage of social conditions, such as poverty, to achieve unfair competitive advantages. (Major: 14.4%; Supporting: 44.1%; Total: 58.5%)	Human resources Operations/production
Environmental, safety and health	20) Incorporate the protection of natural habitat, wetlands, forest, wildlife corridors, protected areas and agricultural lands into land development projects. (Major: 28.7%; Supporting: 29.6%; Total: 58.3%)	Environmental management
Labor practices	4) Ensure that work done for or on behalf of the organization is performed by legally employed persons. (Major: 19.8%; Supporting: 35.1%; Total: 54.9%)	Human resources
Community involvement and development	33) Give preference to local suppliers of products and services, and contribute to local supplier development where possible and practicable. (Major: 6.7%; Supporting: 47.6%; Total: 54.3%)	Purchasing
Human rights	2) Create and effectively implement the human rights policy throughout the organization, including mechanisms to identify and address human rights abuses. (Major: 8.9%; Supporting: 42.0%; Total: 50.9%)	Human resources

difference between the expressions of these three related occupations (i.e., environment, safety, health), it is apparent that education on sustainability is needed. The individual roles historically assigned to these departments are coming together under one umbrella. Although some differences would be expected, the fracture seen among these related occupations is cause for concern.

Other factors should prompt safety and health professionals to include aspects of CSR in their future. Ethical behavior is one of the seven principles outlined by ISO 26000 and, according to Sison (2000), ethics and safety are tied together. Beginning with the 1819 Supreme Court decision in *Dartmouth College v. Woodward, 17 U.S. 518 (1819)*, an evolution has occurred in America that has led corporations to be recognized as legal persons subject to rights and duties. In Sison's view, the corresponding evolution of business ethics has increasingly integrated risk management—a skill safety and health professionals already possess. Parboteeah and Kapp (2008) discuss various types

Table 4
Minor Role

Sustainable action items for which safety and health professionals are prepared to take a minor role (limited or no action).

Category	Sustainability action item
Community involvement and development	28) Systematically consult/participate in representative community groups for the purpose of contributing to the public good and the community's development objectives.
	29) Promote and support education in the community and engage in actions to improve the quality of and access to education.
	30) Promote cultural activities, respect and value local cultures and cultural traditions.
	31) Analyze the impacts of the organization's investment decisions on local employment.
	32) Consider the economic and social impact of entering or leaving a community, including impact on basic resources needed for the sustainable development of the community.
	35) Consider promotion of community development in planning social investment projects.
Fair operating practices	9) Ensure transparency regarding the organization's policies and activities related to lobbying and political involvement, and raise the awareness of employees and representatives regarding political involvement.
	10) Develop and apply anticorruption policies and practices.

of ethical climates in organizations and conclude, "Evidence is provided that ethics, through ethical climates, is indeed linked to safety behavior." Finally, Erickson (1997) makes associations between safety performance and:

• honest, open and understandable workplace communication;

• the level of respect with which employees are treated;

• positive feedback employees receive from management;

• level of encouragement employees receive to make suggestions.

Each of Erickson's items aligns with ethics and, taken together, provide additional justification for including prominent safety metrics in CSR and for increasing the level of advocacy for CSR among safety and health professionals.

One potentially effective tool currently being used in utility industry safety is the use of contractor prequalification systems. Systems promoted by ISNetworld, BROWZ and the Edison Electric Institute screen companies for safety programs and performance. Companies looking to hire contractors are called owner/clients; each owner/client selects from a list of parameters by which it wishes to evaluate contractors. A contractor submits its safety programs, performance records and other information, and the prequalification system issues the contractor both a cumulative safety grade and suggestions for improving programs or performance.

This concept also could work for CSR and ES. Owner/clients could work with these prequalification systems and develop parameters to screen potential contractors based on their sustainability efforts. With a satisfactory grade and the possibility of millions of dollars in new work projects as rewards, contractors could be induced to make at least a cursory gesture toward sustainability and, if handled well, these initial forays into sustainability could lead to more in-depth appreciation of CSR, ES and the safety and health professional's impact on both. The mere presence of sustainability efforts associated with an increase in safety metrics would help raise awareness among safety and health professionals; evaluating sustainability programs would initiate an important discussion about parts of a sustainability program that are effective and essential.

Conclusion

This article presents the extent to which safety and health professionals who were surveyed believe they can play a role in sustainability, as well as other professionals' opinions about that role (Tables 1-4). In addition, further analysis of the survey data suggests three potential important implications: 1) lack of understanding about sustainability (ES and CSR), especially regarding clearly defined roles and responsibilities within an organization; 2) the convergence of once clearly separate functions under the umbrella of sustainability within an organization; and 3) the opportunity for safety and health professionals to play a prominent role in an organization's sustainability efforts.

The first potential implication suggests a lack of understanding regarding sustainability, especially ownership of specific sustainability roles. This is evident based on the survey results depicted in Tables 1, 2 and 3, where discrepancies were noted in self-identified roles and those identified by the majority of respondents. Although there were areas where the results match in Table 1, there were many more examples in Tables 2 and 3 where the results did not match.

Future research is needed to determine conclusively whether the discrepancies in safety and health professionals' self-identified sustainability roles and their roles as identified by other professionals are due to a lack of understanding about sustainability. It is recommended that proponents of sustainability educate professionals as to their potential sustainability related roles. Once employees understand what they are supposed to do, they will be more likely to embrace it. In addition, increased communication from safety leadership improves safety performance (Kines, Andersen, Spangenberg, et al., 2010).

Additionally, better elucidating the roles of any one group in an organization can help other groups define their own related responsibilities. Moreover, how workers perceive organizational support for a cause impacts how well they support the cause, because social exchange theory affirms that "as one party acts in ways that benefit another party, an implicit obligation for future reciprocity is created" (Hofmann & Morgeson, 1999). In addition, orga-

nizations that embrace sustainability must clearly identify and communicate sustainability-related roles and responsibilities for all functional groups in their respective organizations.

The second potential implication is the idea of converging formerly separate functions under the umbrella of sustainability. The results of the surveys and the literature discussed in this article identify many opportunities for safety and health professionals to collaborate with other functional area professionals on various sustainability action items. This convergence, along with the identified need for more clearly defined roles and responsibilities related to sustainability, supports the need for further examination and involvement of all professionals in an organization's sustainability efforts.

The last potential implication represents an opportunity for safety and health professionals to play a more prominent role in their organization's sustainability efforts. ASSE has begun to address this. It has conducted symposia focused on sustainability and has partnered to create an organization that deals with the safety and health profession's involvement in sustainability. The Center for Safety and Health Sustainability (CSHS) is a collaborative effort between ASSE, AIHA and the Institution of Occupational Safety and Health (IOSH), a U.K.-based safety and health organization. Collectively, these organizations represent more than 95,000 occupational safety and health professionals.

CSHS has defined safety and health sustainability as "the responsibility to ensure that the protection of human life and the safety, health and well-being of workers, customers and neighboring communities are primary considerations in any business endeavor" (D. Hudson, personal communication, May 27, 2014). Dennis Hudson, ASSE's professional affairs director, has noted that the traditional understanding of sustainability is that it refers to efforts to preserve the environment, with little or no emphasis on efforts that preserve the safety and health of workers (D. Hudson, personal communication, May 27, 2014).

CSHS is working with sustainability reporting standards organizations such as the Global Reporting Initiative to advance the inclusion and use of meaningful metrics with regard to occupational safety and health. Keeping this in mind, there are two congruent aspects: Sustainability needs to include more safety and health metrics; and safety professionals must embrace the many related aspects of sustainability by playing a more prominent role in their organizations' sustainability efforts. **PS**

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