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# Delivering Business Value by Linking Behavioral EHS Competencies to Corporate Core Competencies

James E. Leemann, Ph.D.

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Environmental, health and safety professionals are being pressured to define and justify their value to the corporation or face the prospect of being outsourced. At the same time, they are expanding their responsibilities into related and non-related arenas, such as sustainable development, social responsibility and security. Research has revealed that there are specific competencies an EHS professional must master in order to fully demonstrate value to the corporation. This article describes the various roles, functions and competencies that EHS professionals can use to demonstrate the value-added contribution they can make to the corporation and, thus, significantly improve the odds for achieving superior individual performance.

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## Introduction

Although we all strive to be superior environmental, health and safety (EHS) performers, achieving it at times is often an elusive and daunting task. Achieving superior performance is more about mastering certain behavioral competencies than being a naturally gifted performer.

In David C. McClelland's controversial 1973 paper "Testing for Competence Rather than for Intelligence," he challenged the assumption that aptitude and knowledge tests, along with good grades and credentials, serve as good surrogates for predicting job performance or success in life.<sup>1</sup> In fact, his research demonstrated just the opposite. McClelland developed his own competency-based model approach, which focused on determining the "variables" that distinguished superior versus

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<sup>1</sup> David C. McClelland, "Testing for competence rather than intelligence," in *Am. Psychologists* 28: 1-14 (1973).

average performance. His methodology to identify competency “variables,” which could predict job performance, has been used to evaluate thousands of occupations. Little has been written on the use of McClelland’s methodology to identify the competencies that distinguish superior performance among EHS professionals.<sup>2</sup> Other competency studies directed primarily at safety professionals<sup>3, 4, 5</sup> and public health professionals<sup>6</sup> have used survey methods, focus groups, competency sessions at conferences and websites, such as the Council on Linkages Between Academia and Public Health Practice.<sup>6</sup>

This article provides an overview of the research used to identify the roles and functions of EHS professionals and the attendant competencies which must be mastered for superior individual performance and to demonstrate value.

### Applications

Competencies are the underlying attributes and behaviors EHS professionals need to master in order to do their job in a superior fashion. The core competencies of a corporation materialize through the array of products produced by the corporation. Indeed, it is the core competencies of the corporation that lead to its competitive advantage over rivals.

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<sup>2</sup> Richard MacLean, “Core SHE Competencies,” in *Env. Protection* 14-5: 26-28. June 2003.

<sup>3</sup> Robert M. Weimer, “Identification of the Essential Non-Technical Skills Needed by the Safety Professional to Ensure Program Effectiveness,” Thesis U. of Wisconsin – Whitewater. Dec. 1995.

<sup>4</sup> Earl H. Blair, “Which Competencies Are Most Important for Safety Managers?” *Professional Safety* 44(1): 28-32. Jan. 1999.

<sup>5</sup> Earl H. Blair, “Critical Competencies for SH&E Managers – Implications for Educators,” *Journal of Safety, Health & Environmental Research* 1(1): 1-16. Feb. 2004.

<sup>6</sup> Council on Linkages, “Competencies Project” was a project designed to link academia with the U.S. Public Health Service to identify a list of core competencies for public health professionals found at <http://www.trainingfinder.org/competencies/index.htm>.

Linking the EHS professionals’ behavioral competencies to the corporation’s core competencies is the first step in understanding the business’ strategies and goals. Knowing which EHS competencies apply to a given situation, an EHS professional will know how to present EHS programs and projects in a way that gains managerial support for financing, resourcing and implementation. It also will raise the EHS professionals’ understanding of why a particular EHS program or project cannot be supported or implemented and what it will take to gain support at a future date.

Competencies can be used to establish standards for evaluating performance and identifying areas where EHS professionals need additional training and development. Competencies can serve in the selection process to identify candidates for future positions in the organization. Mastering the competencies discussed here can significantly improve the overall performance of the EHS professionals, help them cope with rapid change and become fully integrated into the day-to-day business decision-making processes involving environmental, health and safety issues.

Although EHS professionals, in all likelihood, will continue to be individual contributors, learning how to apply these competencies will allow them to realize a much more rewarding career that is better linked to the goals and objectives of the organization and to fulfilling their personal career aspirations.

### What is a Competency, Anyway?

When we think of competencies, we often are drawn to the concept of “core competencies” which was developed and promoted by Prahalad and Hamel in their seminal *Harvard Business Review* article “The Core Competence of the Corporation.”<sup>7</sup>

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<sup>7</sup> C.K. Prahalad and Gary Hamel, “The Core Competence of the Corporation,” *Harvard Business Review* 68: 79-91 (1990).

Core competencies are the collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technologies...Core competence does not diminish with use. Unlike physical assets, which do deteriorate over time, competencies are enhanced as they are applied and shared.<sup>8</sup>

Prahalad and Hamel contend that core competencies lead to the development of core products, which, in turn, are used to create a variety of end-user products. For example, one of Sony's core competencies is their ability to miniaturize electronics, which then is used to develop everything from digital cameras to ultra-light laptops. Knowing the core competencies and core products of the business will enhance the EHS professionals' ability to tailor EHS programs that will fulfill the EHS professionals' roles and functions while delivering value to the business. Drawing upon the behavioral competencies, EHS professionals will be better prepared to sell their programs and projects to the business.

Although personal competencies can be viewed as being somewhat analogous to corporate core competencies, there are unique aspects of personal competencies that should be considered. Richard Boyatzis' research into defining why successful managers were doing so well and identifying the attributes of their success led Boyatzis to adopt the term *competency* and its plural *competencies*, which he described as follows:

A job competency is an underlying characteristic of a person that is causally related to criterion-referenced effective and/or superior performance in a job.<sup>9, 10</sup>

Boyatzis and his colleagues Lyle and Signe Spencer further expanded the definition by

explaining the various elements of the definition. The *underlying characteristics* include motives, traits, self-concept, knowledge and skill. The *causally related* component relates to the notion that all competencies involve an intent, which causes action to result in some outcome. The *criterion-referenced* aspect of a competency refers to being able to predict something meaningful in the real world. *Superior performance* is considered as being one standard deviation above average performance or roughly the level of performance achieved by the top ten percent of the workforce in a given work situation. *Effective performance* represents a minimally acceptable level of work, below which an employee would not be considered competent to do the job.<sup>10</sup>

Competencies are categorized into two types – *threshold competencies* and *differentiating competencies*.

- Threshold competencies are the essential characteristics that everyone in a job must possess in order to perform the job at a minimally effective level; however, they do not distinguish superior from average performance.<sup>10</sup> A threshold competency for an EHS professional is technical expertise.
- Differentiating competencies are the characteristics—a motive, trait and/or pattern of behavior—that distinguish superior from average performers.<sup>11</sup> A differentiating competency for an EHS professional is translation capability.

Note: For the purpose of this paper, the term “competencies” has been substituted for “differentiating competencies.”

<sup>8</sup> Ibid., 82.

<sup>9</sup> Richard E. Boyatzis, *The Competent Manager – A Model for Effective Performance* (New York, NY: John Wiley & Sons, Inc., 1982).

<sup>10</sup> Lyle M. and Signe M. Spencer *Competence at Work – Models for Superior Performance* (New York, NY: John Wiley & Sons, Inc., 1993).

<sup>11</sup> Spencer, op. cit., 15.

## Linking Behavioral EHS Competencies to Corporate Competencies

Prior to undertaking the development of a competency model for EHS professionals, it is critically important to understand the core competencies of the business and/or corporation. Once the core competencies are understood, it is easier for the EHS professional to define his or her roles and functions in the context of delivering value to the corporation.

### EHS Roles and Functions

With the advent of downsizing and retirements increasing over the past years, many professionals are expected to expand their responsibilities to include all three EHS arenas, not to mention others such as quality, security, etc. Recognizing that even though a single individual might be responsible for all three arenas, his or her roles and functions will be different when performing work in one versus the other arena. For example, in the DuPont case, the corporate competence centered on “being safe,” not only from an employee/contractor perspective, but also from a community and environmental perspective. The roles, functions and competencies that surfaced in this research resulted in the company’s first competency model for EHS professionals. More detail on the EHS roles and functions is presented in the sidebars noted in the following subsections.

### Safety Professionals’ Roles

The research revealed five roles safety professionals must perform in order to achieve superior individual performance and deliver business value. Each of these roles had attendant functions to further define the roles. For the safety professional, the roles included: ensuring compliance with laws and regulations; achieving no incidents; providing factual and effective communications; influencing legislation, regulations and industry standards; and providing cost-effective alternatives. See sidebar on page 12.

### Industrial Hygiene Professionals’ Roles and Functions

**Role: To provide proactive leadership and innovation** – Identify problems; generate options; innovate; and recommend and monitor solutions.

**Role: To be the health conscience** – Provide direction; monitor effectiveness; restore health risk management; conduct, direct, and contract research; review data; approve and implement procedures.

**Functions:**

**Identifying stakeholders and their needs** – Influencing stakeholders to do what is required to solve problems.

**Identification and appropriate interpretation of technical elements and information needed** – Provide the identified elements.

**Identifying the multiple problems and root causes** – Generating, evaluating, and recommending solutions.

**Validate** – Did the solution work? If the solution was successful, establish on-going monitoring and validation of continued problem avoidance (Are we doing what we say we are doing?). Continually strive for better solutions – more efficient, faster, effective, cheaper, etc.

*Note: Both of the above roles had the same functions.*

**Role: To be a source of health information** – Give advice and counsel; act as a mentor or coach; act as a liaison; identify and provide expertise; and be an instructor, trainer, designer, writer, presenter and communicator of health information.

**Functions:**

**Serve as advisor, mentor or coach to wide range of stakeholders**

**Training** – Identifying and interpreting needs; designing and delivering training to meet the needs of target audiences; and evaluating success.

**Liaison (Networking)** – Planning, organizing, and facilitating links between groups/individuals, both internally and externally.

**Expertise** – Staying abreast/ahead of information. Being current and informed about relevant health literature, research, trends and events.

### Industrial Hygiene Professionals’ Roles

Three roles were identified for industrial hygiene professionals that needed to be per-

formed to achieve superior performance and deliver business value. Each of these roles had attendant functions to further define the roles. For the industrial hygiene professional, the roles included: providing proactive leadership and innovation; being the health conscience of the business; and being the source of health information. See sidebar on previous page.

### **Environmental Professionals' Roles**

For environmental professionals to be superior performers and deliver business value, three roles were identified. Each of these roles had attendant functions to further define the roles. The roles for the environmental professional included: being a catalyst for aligned environmental goals; fostering environmental responsibility at all levels of the business; and maximizing business value.

Although these EHS roles and functions may not apply to all business settings with differing corporate core competencies, these roles and functions provide an excellent framework from which roles and functions in other organizations can be developed and/or validated. See sidebar on page 13.

### **EHS Competencies and Threshold Competencies**

Once the EHS roles and functions were formulated, the next step of the research led to identifying the competencies and threshold competencies that EHS professionals need to master in order to become superior performers and deliver business value to the organization. Following the McClelland methodology, superior and average performers were identified and underwent Behavioral Event Interviews that resulted in identifying the competencies needed to do the job. Once this was accomplished, the competencies and threshold competencies were validated and a competency model was created.

The following competencies and threshold competencies were validated for the safety, health and environmental professions from

the research, which has led to the first published competency model for these professions.

### **Safety Profession**

The safety profession requires the mastering of eleven competencies and three threshold competencies. The research revealed that one competency (i.e., translation capability) was both a competency and threshold competency depending upon the job situation. The important note to make regarding the safety profession was the flexibility that safety professionals employ in their work. Indeed, the job requires a significant number of competencies and threshold competencies to be successful, but in any one given situation only three or four were necessary to be successful. Table 1 provides a summary of the safety roles and functions and the attendant competencies and threshold competencies for this profession.

### **Industrial Hygiene Profession**

In the industrial hygiene profession nine competencies and three threshold competencies must be mastered. In this particular profession, one competency (i.e., technical expertise) was both a competency and threshold competency when the individual was the source of health information and the source providing expertise. Table 2 illustrates the health roles and functions along with the applicable competencies and threshold competencies for each of these roles and functions.

### **Environmental Profession**

For the three roles and eleven functions identified in the environmental profession, there were eight competencies and four threshold competencies. Table 3 provides an overview of all competencies and threshold competencies that need to be mastered to deliver business value and demonstrate superior performance.

**Table 1**  
**Safety Professional Roles, Functions and Competencies**  
 ("C" denotes Competency; "TC" denotes Threshold Competency)

Roles	Ensure Compliance			No Incidents			Communications				Influence				Cost-Effective		
Functions	Audit	Training	Compliance Requirements	Educate/Train	Audit	Communicate	Communication	Risk Analysis	Impact Analysis	Audit	Awareness	Analysis	Influence	Audit	Analysis	Interpretation	Communication
Competencies																	
Impact and Influence	C	C		C			C	C	C	C	C	C	C	C			
Order, Accuracy, & Clarity	C		C														
Technical Expertise	TC	TC	TC	TC	TC	TC									TC	TC	TC
Translation Capability	TC		TC		C	C	C	C	C	C	C	C	C	C	C	C	C
Conceptual Thinking		C		C	C	C	C	C	C	C	C	C	C	C			
Information Seeking			C		C	C	C	C	C	C	C	C	C	C			
Negotiating Skills					C	C	C	C	C	C	C	C	C	C			
Involving Others					C	C	C	C	C	C	C	C	C	C			
Perceptual Objectivity					C	C	C	C	C	C	C	C	C	C			
Relationship Building					TC	TC	TC	TC	TC	TC	TC	TC	TC	TC			
Planning															C	C	C
Analytical Thinking															C	C	C
Achievement Orientation															C	C	C
Perseverance							TC	TC	TC	TC	TC	TC	TC	TC			

**Table 2**  
**Industrial Hygiene Professional Roles, Functions and Competencies**  
 ("C" denotes Competency; "TC" denotes Threshold Competency)

Roles	Leadership				Health Science				Source of Health Information			
Functions	Identify Stakeholders	Interpret Technical Information	Identify Problems and Root Causes	Validate	Identify Stakeholders	Interpret Technical Information	Identify Problems and Root Causes	Validate	Advisor, Mentor, Coach	Training	Liaison	Expertise
Competencies												
Perceptual Objectivity	C	C	C	C	C	C	C	C	C		C	
Self-Control	C	C	C	C	C	C	C	C	C		C	
Translation Capability	C	C	C	C	C	C	C	C	C		C	
Involving Others	C	C	C	C	C	C	C	C	C		C	
Analytical Thinking	C	C	C	C	C	C	C	C	C			
Perseverance	TC	TC	TC	TC	TC	TC	TC	TC	TC		TC	TC
Technical Expertise	TC	TC	TC	TC	TC	TC	TC	TC	TC	TC		C
Impact and Influence											C	
Conceptual Thinking											C	
Relationship Building											C	
Concern for Close Relationships											TC	

Definitions for all the EHS competencies and threshold competencies are presented in Table 4 (see pages 14 and 15).

**Observations**

EHS professionals, for the most part, work on their own as individual contributors, yet they are responsible for interacting with and influencing a wide variety of constituencies to achieve success in their roles. These multi-

layered job requirements mean that the jobs themselves are complex and demanding. For example, Table 5 (page 10) compares the EHS professions to two previously researched technical jobs revealing far fewer competencies are needed to achieve success.<sup>12</sup> Indeed, the research chemist or the process design

<sup>12</sup> David H. Burnham, Private client personal communication.

**Table 3**  
**Environmental Professional Roles, Functions and Competencies**  
 ("C" denotes Competency; "TC" denotes Threshold Competency)

Roles  Functions  Competencies	Aligned Goals			Environmental Responsibility			Business Value					
	Processing/ Planning	Educating/ Communication	Influencing/ Leading	Communication	Technology	Influencing/ Leading	Established Business Value	Provide Information/ Communication	Technology	Excellence	Influencing/ Leadership	
Visioning	C											
Planning	TC											
Achievement Orientation							C	C	C	C	C	C
Perceptual Objectivity	C	C	C	C	C	C	C	C	C	C	C	C
Self Control	C	C	C	C	C	C	C	C	C	C	C	C
Translation Capability	C	C	C	C	C	C	C	C	C	C	C	C
Involving Others	C	C	C	C	C	C	C	C	C	C	C	C
Conceptual Thinking	C	C	C	C	C	C	C	C	C	C	C	C
Relationship Building	C	C	C	C	C	C	C	C	C	C	C	C
Analytical Thinking	TC	TC	TC	TC	TC	TC	TC	TC	TC	TC	TC	TC
Perseverance	TC	TC	TC	TC	TC	TC	TC	TC	TC	TC	TC	TC
Technical Expertise	TC	TC	TC	TC	TC	TC	TC	TC	TC	TC	TC	TC

engineer may possess the competencies found in the EHS professions, but they were not found to distinguish superior performance among chemists and engineers. Just as important, competencies in other technical professions tend to be more closely related to one another, falling in fewer “clusters” of related competencies.

Another key difference between success in the EHS professionals’ role and the success in other technically-oriented professions relates to technical expertise. Often, technical expertise makes the difference between average and superior performers. In fact, most technical professionals will tend to seek out opportunities that improve their technical expertise when asked to identify training and development opportunities. For example, in manufacturing a mechanical engineer performing as a process design engineer needs to be up-to-date on technology, process engineering, etc.; therefore, his or her technical expertise competency is crucial to success.

Unlike most technical professions, the EHS professionals’ technical expertise competency was found to be a threshold competency. The EHS professional is expected to have a deep and thorough knowledge of the fields of

safety, health and the environment. For example, he or she must understand the legislation and regulations and how they apply to specific situations. The difference between the EHS professions and other technical professions lies in their understanding of the importance of this knowledge in order to achieve success. In the case of the EHS professionals, the technical expertise competency was required for minimal performance; even average performance cannot be achieved without it. Yet, once present, technical expertise did not differentiate average from superior performers.

So, what accounts for success? Success in the EHS professionals’ roles is not technical expertise per se, but how the EHS professional communicates his or her technical expertise to others, how the information is framed and the strategies the EHS professionals employ to gain and retain professional credibility with their various constituencies.

The EHS professionals’ roles and functions were largely related to three competency clusters: 1) Cognitive competencies—determining what is causing a problem and then what to do about it; 2) Interpersonal competencies—using these competencies to deal with a wide

**Table 5**  
**Comparing EHS Professional Competencies to Other Technical Jobs**

<i>Competency Cluster</i>	<b>Safety Professional</b>	<b>Industrial Hygiene Professional</b>	<b>Environmental Professional</b>	<b>Research Chemist</b>	<b>Process Design Engineer</b>
<b>Cognitive Competencies</b>	<b>Competencies:</b> <ul style="list-style-type: none"> <li>Analytical Thinking</li> <li>Conceptual Thinking</li> <li>Information Seeking</li> <li>Planning</li> </ul> <b>Threshold Competency:</b> <ul style="list-style-type: none"> <li>Technical Expertise</li> </ul>	<b>Competencies:</b> <ul style="list-style-type: none"> <li>Analytical Thinking</li> <li>Conceptual Thinking</li> <li>Technical Expertise</li> </ul> <b>Threshold Competency:</b> <ul style="list-style-type: none"> <li>Technical Expertise</li> </ul>	<b>Competency:</b> <ul style="list-style-type: none"> <li>Conceptual Thinking</li> </ul> <b>Threshold Competencies:</b> <ul style="list-style-type: none"> <li>Analytical Thinking</li> <li>Technical Expertise</li> <li>Planning</li> </ul>	<b>Competencies:</b> <ul style="list-style-type: none"> <li>Analytical Thinking</li> <li>Technical Expertise</li> </ul>	<b>Competencies:</b> <ul style="list-style-type: none"> <li>Analytical Thinking</li> <li>Planning</li> <li>Technical Expertise</li> </ul>
<b>Interpersonal Competencies</b>	<b>Competencies:</b> <ul style="list-style-type: none"> <li>Impact and Influence</li> <li>Involving Others</li> <li>Negotiating Skills</li> <li>Translation Capability</li> </ul> <b>Threshold Competencies:</b> <ul style="list-style-type: none"> <li>Relationship Building</li> <li>Translation Capability</li> </ul>	<b>Competencies:</b> <ul style="list-style-type: none"> <li>Impact &amp; Influence</li> <li>Involving Others</li> <li>Relationship Building</li> <li>Translation Capability</li> </ul> <b>Threshold Competency:</b> <ul style="list-style-type: none"> <li>Concern with Close Relationships</li> </ul>	<b>Competencies:</b> <ul style="list-style-type: none"> <li>Visioning</li> <li>Involving Others</li> <li>Relationship Building</li> <li>Translation Capability</li> </ul>	None	None
<b>Intrapersonal Competencies</b>	<b>Competencies:</b> <ul style="list-style-type: none"> <li>Achievement Orientation</li> <li>Order, Accuracy and Clarity</li> <li>Perceptual Objectivity</li> </ul> <b>Threshold Competency:</b> <ul style="list-style-type: none"> <li>Perseverance</li> </ul>	<b>Competencies:</b> <ul style="list-style-type: none"> <li>Perceptual Objectivity</li> <li>Self-Control</li> </ul> <b>Threshold Competency:</b> <ul style="list-style-type: none"> <li>Perseverance</li> </ul>	<b>Competencies:</b> <ul style="list-style-type: none"> <li>Achievement Orientation</li> <li>Perceptual Objectivity</li> <li>Self Control</li> </ul> <b>Threshold Competency:</b> <ul style="list-style-type: none"> <li>Perseverance</li> </ul>	<b>Competency:</b> <ul style="list-style-type: none"> <li>Achievement Motivation</li> </ul> <b>Threshold Competency:</b> <ul style="list-style-type: none"> <li>Perseverance</li> </ul>	<b>Competency:</b> <ul style="list-style-type: none"> <li>Achievement Motivation</li> </ul> <b>Threshold Competency:</b> <ul style="list-style-type: none"> <li>Order, Accuracy and Clarity</li> </ul>
<b>Number of Key Competencies and Threshold Competencies</b>	14	11	12	4	5

range of stakeholders to gain agreement on the problem and to gain commitment to identify and pursue solutions; and 3) Intrapersonal competencies—traits which enable the EHS professional to be successful.

It is important to note that the cluster of interpersonal competencies (Table 5) occurred in all three EHS professions. By and large, interpersonal competencies are not present in most other technical professional jobs as are key differentiating competencies. Similarly, while management and supervisory jobs require interpersonal competencies for success, these are a different set of interpersonal competencies.<sup>13</sup> This, too, relates to the uniqueness of the demands in these jobs in order to achieve success.

In all three EHS professions, the research revealed that three categories of failure behaviors were found consistently in nonsuccess or failure incidents during the Behavioral Event Interviews. Although the competencies attributed to success were present in these incidents, the interviews made it clear that one or more of these failure behaviors canceled the competencies. These failure behaviors included:

- **Avoidance of Conflict** – Involved situations where individuals did not put the issues directly on the table; attempted to downplay, skirt, or minimize the issues.
- **Using the Moral High Ground** – Involved situations where individuals took a “moral” stand and, by implication or directly, ascribed a lack of morality to the other stakeholders, which frequently was accompanied by anger toward others.

<sup>13</sup> Boyatzis, op. cit., 60 – 190.

- **Inflexibility** – Involved situations where individuals only offered one solution to a problem as being the only solution and sticking to it regardless of the stakeholder's response.

## Conclusions

Understanding the roles and functions of the EHS professions and mastering the attendant competencies and threshold competencies will significantly enhance the EHS professionals' ability to win support from the businesses paying for proposed EHS programs and projects. Indeed, mastering these competencies takes practice, but, up until now, EHS professionals did not have a list of the competencies that distinguished superior performance and often only succeeded through trial and error. For the first time, the EHS professionals interviewed for this research were astonished at the number of competencies they needed to master. In addition, they began to understand why these professions are so complex. But the true reward came when using these competencies actually resulted in gaining financial support for programs and projects and the businesses began to realize the value EHS professionals bring to their operations.



**Safety Professionals' Roles and Functions**

**Role: To ensure compliance with laws and regulations** – To interpret and train people to understand them and establish standards to meet them.

**Functions:**

**Auditing** – Knowing, interpreting and auditing the regulations and providing guidance to meet them. Auditors understand the audit process and protocols and follow them.

**Training** – Training all affected individuals.

**Meet Compliance Requirements** – Identifying compliance requirements and establishing standards of conduct to comply with requirements.

**Role: To achieve no incidents** – To recognize trends and patterns and to take actions to avert potential risks before they create an incident.

**Functions:**

**Educate and Train** – Design and deliver training to target audience focused on eliminating the risk of incidents.

**Auditing** – Develop procedures, controls and standards that are focused on reducing the safety risks with the goal of experiencing no incidents.

**Communicate** – Communicate actions that need to be taken to reduce risk of incidents. Negotiate win-win agreements with individuals/groups that need to change.

**Role: To provide factual and effective communications** – To present factual, understandable information to a variety of constituencies (both internal and external) to ensure public and employee confidence.

**Functions:**

**Communications** – Create employee and public understanding of safety performance and risk-management programs.

**Risk Analysis** – Analyze and present risks to create employee and public confidence.

**Impact Analysis** – Identify environmental and work environment impact of operations from a safety perspective and make cost-effective recommendations to reduce impact.

**Auditing** – Develop standards, procedures and control mechanisms.

**Role: To influence legislation, regulations and industry standards** – Advocate for effective legislation, regulations and industry standards that will provide safety protection for employees and the general public while avoiding ineffective or inefficient solutions.

**Functions:**

**Awareness** – Provide proposals with associated costs and benefits to legislators, regulators and industry groups.

**Analysis** – Provide impact analysis studies to legislators, regulators and industry groups.

**Influence** – Influence legislators, regulators and industry groups to achieve consensus and accept proposals.

**Auditing** – Develop standards, procedures and control mechanisms.

**Role: To provide cost-effective alternatives** – Analyze all major options; identify and interpret standards and regulations; prepare risk analyses with costs and benefits; and create win-win agreements with all involved stakeholders to achieve the cost-effective options.

**Functions:**

**Analysis** – Identify and analyze all major options for costs/benefits and recommend options with the greatest benefit(s).

**Interpretation** – Interpret and analyze all major options for costs/benefits and recommend options with the greatest benefit(s).

**Communication** – Communicate the options and interpretations to stakeholders and make win-win agreements to achieve the most cost-effective solutions.

**Environmental Professionals' Roles and Functions**

**Role: To be a catalyst for aligned environmental goals** – Create alignment between business and corporate leaders for future environmental direction that achieves and maintains balance between business and environmental needs.

**Functions:**

**Processing and planning** – Achieving agreement on baseline environmental performance; developing and implementing processes to achieve consensus both for the baseline and to coordinate a comprehensive environmental plan; and developing a common vision for future direction.

**Educating and communicating** – Identifying key environmental issues; creating a clear understanding of environmental and business needs; and developing knowledgeable multi-discipline decision makers.

**Influencing and leading** – Gaining commitment within business for providing adequate resources to act upon environmental issues; developing knowledgeable multi-discipline decision makers; and creating acceptance for unconventional, cost-effective solutions to environmental problems.

**Role: Environmental responsibility** – Fostering environmental responsibility at all levels so that the manufacturing, transporting and disposing of products is undertaken in an environmentally-responsible way by creating an atmosphere that is open, forthright, accessible, future-oriented, credible and involved with external constituents.

**Functions:**

**Communicating** – Communicating the tenets of environmental responsibility; communicating corporate, business, and site goals and policies; and communicating with all internal and external constituencies fostering two-way dialogue.

**Technology** – Staying at the leading edge of technology and at the forefront of regulations.

**Influencing and leading** – Gaining commitment for environmental responsibility by identifying cost-effective control solutions and supporting implementation through procurement of the necessary resources to achieve environmental excellence.

**Role: To maximize the business value** – Maximizing the business value of responsible product stewardship and environmental activities through creation of an organization-wide commitment. Establishing a strategic planning process that leads to cost-effective and flexible operations; having the necessary environmental permits and resources in place to allow them to be fully utilized with room for expansion and/or attracting new business.

**Functions:**

**Establishing business value** – Developing the knowledge to properly determine the business value of environmental activities.

**Providing information and communicating** – Supplying the proper information to business leaders and decision makers on the business value and risks associated with environmental activities.

**Staying at the leading edge of technology and at the forefront of regulations** – Developing the proper networks to obtain the most up-to-date information on innovative technology and applicable regulations.

**Establishing manufacturing excellence** – Working with the appropriate engineering, research and development, and business groups to determine the most effective and efficient operations that will have the least impact on the environment.

**Influencing and leading** – Gaining commitment for the business value of environmental activities by providing the best information available and supporting them in business terms.

**Table 4**  
**Competencies and Threshold Competencies for EHS Professions**

- **Achievement Orientation** – Accomplishing goals in an improved, better and faster or more cost/effective way; measuring or quantifying results or potential results in cost/benefit and business terms; optimizing actions taken by weighing both business and environmental health tasks and searching for a moderate-risk course of action to achieve goals; and proactively pursuing return-on-investment and often assuming direct leadership of the return-on-investment.
- **Analytical Thinking** – Identifying causal relationships, often through use of a chain of inferences (similar to inductive reasoning); breaking apart a large problem into manageable pieces in a systematic manner versus trying to “fit” a previous experience into a situation (often referred to as deductive reasoning).
- **Conceptual Thinking** – Solving problems or identifying solutions by recognizing and organizing the information into either an existing concept or an invented concept (this is sometimes labeled deductive reasoning).
- **Impact and Influence** – Persuading, influencing or convincing others in order to elicit their support for the “influencer’s” point of view and/or wishes resulting in a specific impact upon the thoughts, feelings or behaviors of others. Two main dimensions apply to this competency. One dimension is the ability to command a range and variety of actions to influence others by understanding what others want, need and feel. The second dimension includes assessing the breadth of impact – which actions are necessary in order to influence one other person, a small group or an entire system, (e.g., an organization).
- **Information Seeking** – Desiring to know more, seek out and discover all the information. Asking many questions, probing for satisfactory answers and tending to explore not only an individual’s thoughts, opinions and information, but also his or her feelings about the information. Involving others in seeking information.
- **Involving Others** – Involving others in problem identification, solution generation and implementation by identifying the “right” stakeholders to involve and then involving them actively in the process. Demonstrating a high regard for the opinions of others as well as a positive belief in the capacity/ability of others to make the right choices and the necessity of allowing them to do so. This is similar to the skills required for effective facilitation with two key differences: 1) providing those involved with the necessary information for the stakeholders to make informed choices; and 2) being actively involved also as a stakeholder in the outcome and throughout the process.
- **Negotiating Skills** – Identifying and meeting the basic needs of others, as opposed to dealing only with the presented or stated need. Exhibiting a great deal of flexibility around the means by which other people’s needs are met (i.e., through offering and/or seeking creative solutions).
- **Order, Accuracy and Clarity** – Driving to reduce uncertainty; keeping clear and careful records; developing and using systems to organize and keep track of information; monitoring others’ work to ensure established procedures are followed.

Table 4 (continued)

- **Perceptual Objectivity** – Being objective without being limited in personal views by subjectivity or personal biases, prejudices or perspectives. Is disposed to view an event from multiple perspectives simultaneously while remaining relatively free of emotional involvement and, therefore, relatively free of emotional expression. Even when involved in conflict, can accurately describe (without evaluation) each party’s views and positions as well as the reasons for those positions.
- **Perseverance** – Avoiding the temptation to drop a goal because there are obstacles, opposition, difficulties or personal risks that seem high if one moves forward. It is not expressed as persevering with a doomed course of action, but sticking with the problem. The common theme is not abandoning the problem.
- **Planning** – Using a planning model or a systematic method (e.g., problem identification, brainstorming, root cause, mind-mapping, etc.) with the planning process to create an organized approach to planning; this will result in a clear plan of action where responsibilities are defined, benchmarks established and a recycling process is included.
- **Relationship Building** – Networking to build and maintain friendly relationships or contacts with people who are, or might someday be, helpful in achieving work-related goals. Building rapport with others as well as actively pursuing and maintaining a wide breadth of contacts to deepen effectiveness within his or her network, both through work-related chats and friendly social relationships. Utilizing a network for needed information, advice or assistance of help; utilizing an individual within a network to influence someone else; or bringing people in a network together to accomplish a task, find a better solution or identify a problem.
- **Self-Control** – Inhibiting personal needs or desires in service of organizational needs by weighing the cost and benefits to the group, organization or system before expressing or advancing personal needs or desires. Remaining cool under stress. Seeing justice and equity as important and shifting or changing to be just and fair. Being self-disciplined; changing an approach to problem-solving, or priorities of work assignments; implementing a solution in order to meet organizational needs (even if personal needs are subordinated).
- **Technical Expertise** – Possessing up-to-date technical information and/or the ability to take the related actions to find, or to organize a process to find, the relevant technical information needed to address a problem and/or solution.
- **Translation Capability** – Translating the problem and/or solutions directly into the others’ frame of reference.
- **Visioning** – Visually painting a vivid, dramatic picture using words that describe a desirable future, powerfully dramatizing for another or others what can be accomplished or expected. An important component of effective visioning is establishing common ground between the person who is creating and/or communicating the vision to the target audience.

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