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Strategies, Methodologies and Challenges: How Two Companies Have Implemented ANSI Z10 and OHSAS 18001

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Introduction

Organizations of all types are increasingly concerned with achieving and demonstrating sound, proactive management of their risks related to occupational health, safety and the environment. Customer expectations, stringent legislation, and the need to assure consistency across an enterprise are primary drivers for companies to consider implementing a management system approach.

There is general agreement that the use of management systems can improve organizational performance, including that in the occupational health and safety areas. Some organizations design and operate an internal occupational health and safety management system (OHSMS), while others subscribe to the use of an externally published standard that can be audited against.

This paper is designed to compare the experiences of two corporations in the implementation of external OHSMS standards. The practical aspects of deployment, oversight and certification will be explored related to the American National Standard Institute (ANSI) Standard Z10-2005, *Occupational Health and Safety Management Systems* and the Occupational Health and Safety Assessment Series (OHSAS) Standard 18001, *Occupational Health and safety management systems—Requirements*.

Both the ANSI Z10 and the OHSAS 18001 standards are based on the principle of continuous improvement and the Plan-Do-Check-Act (PDCA) model, popularized by Dr. W. Edwards Deming. The expectation is that organizations will first commit to a quality approach to managing health and safety, assess areas of risk, take organizational steps to reduce and control that risk, and then monitor and further reduce employee risk over time (see Exhibit 1).

The level of detail and complexity of an OH&S management system, the extent of documentation and the resources devoted to it depend on a number of factors, such as the scope of the system, the size of an organization and the nature of its activities, products and services, and the organizational culture.

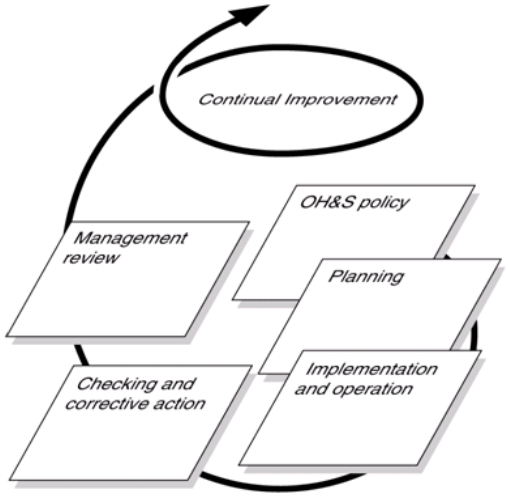

Exhibit 1. Principle of Continuous Improvement

ANSI Z10

In 1999, the American National Standards Institute (ANSI) officially approved the ANSI Accredited Standards Committee Z10, with the American Industrial Hygiene Association (AIHA) as its Secretariat, to begin work on a U.S. standard. A committee was formed with broad representation of members from industry, labor, government, professional organizations, and general interest participants. The initial version of ANSI Z10 was published in 2005, and was designed as a tool to provide companies with a standard for continuous improvement to minimize risk in the workplace.

ANSI Z10 is a voluntary consensus standard on occupational health and safety management systems. It uses recognized management system principles in order to be compatible with quality and environmental management system standards, such as the ISO 9000 and ISO 14000 series. The standard also draws from approaches used by the International Labor Organization's (ILO) guidelines on Occupational Health and Safety Management Systems and from systems in use in organizations in the United States. This compatibility encourages integration of the standard's requirements into other business management systems in order to enhance overall organizational performance. Additionally, ANSI Z10 integrates well with the Occupational Safety and Health Administration's (OSHA's) Voluntary Protection Programs (VPP) and Safety & Health Achievement Recognition Program (SHARP).

The purpose of the standard is to provide organizations with an effective tool for continual improvement of their occupational health and safety performance. An OHSMS implemented in conformance with this standard can help organizations minimize workplace risks and reduce the occurrence and cost of occupational injuries, illnesses, and fatalities. Some organizations already have developed an effective OHSMS appropriate to their needs but that may not conform precisely to this standard. In those instances, the standard may serve as a voluntary tool to identify possible opportunities to improve their systems. Finally, ANSI Z10 places emphasis on employee involvement in appropriate areas of the OHSMS.

OHSAS 18001

OHSAS 18000 series is an international occupational health and safety management system specification. It was first published in 2000, and is comprised of two parts: 18001 (the requirements) and 18002 (the

guidance). It incorporates a number of previously published guidance documents, including BS8800 (BS8800:1996, *Guide to Occupational Health and Safety Management Systems*), and a number of other publications. OHSAS 18001 was created via a concerted effort from a number of the world's leading national standards bodies, certification bodies, and specialist consultancies. OHSAS is structured in parallel with ISO 14001 (*Environmental Management Systems Standard*) and ISO 9001 (*Quality Management System Standard*), with the following elements in common: management review, document control, corrective action, and the requirement for trained personnel.

The OHSAS Standard specifies requirements for an OH&S management system to enable an organization to develop and implement a policy and objectives which take into account legal requirements and information about OH&S risks. It is intended to apply to all types and sizes of organizations and to accommodate diverse geographical, cultural and social conditions.

Comparison of Standards Organization

The organizational structure of the two standards is compared in the following table:

	ANSI/AIHA Z10-2005	OHSAS 18001:2007
Scope	1	1
Purpose	1.2	
Application	1.3	
References		2
Terms and definitions	2	3
General requirements	3.1.1	4.1
Policy	3.1.2	4.2
Planning (initial and ongoing)	4.1.1	4.3.1
Risk assessment and prioritization	4.2	4.3.1
Legal and other requirements		4.3.2; 4.5.2.1
Objectives, targets, and program(s)	4.0.C 4.3	4.3.3
Implementation and operation	4.0.D 4.4	4.4
Resources, roles, responsibility, accountability, and authority	3.1.1 3.1.3	4.4.1
Education, training, and awareness	5.2	4.4.2
Employee participation	3.2	4.4.3.2
Communication	5.3	4.4.3

	ANSI/AIHA Z10-2005	OHSAS 18001:2007
Documentation	5.4	4.4.4
Control of documents	5.4	4.4.5
Operational control	5.1.1	4.4.6
Hierarchy of control	5.1.1	4.3.1
Design review and management of change	5.1.2	
Procurement	5.1.3	4.4.6 b
Contractors	5.1.4	4.4.6 c
Emergency preparedness and response	5.1.5	4.4.7
Monitoring and measurement	6.1	4.5.1
Evaluation of compliance	4.1	4.5.2
Initial review of compliance	4.1.1	4.5.2.1
Hazard identification and risk assessment, hazard analysis of routine jobs, tasks, and processes		4.3.1
Ongoing review	4.1.2 6.5	4.5.2.2
Assessment and prioritization	4.2	
Incident investigation	6.2	4.5.3.1
Nonconformity, corrective action, and preventive action (CAPA)	6.4	4.5.3; 4.5.3.2
Control of records		4.5.4
Internal audit	6.3	4.5.5
Management review	6.5 7.1 7.2	4.6
Employee access	3.2	

Organization Deployment

The experiences of two corporations with OHSMS deployment, one U.S.-based and one globally based will be presented.

ANSI Z10 Deployment–Nucor Corporation

With a production capacity of that exceeds 26 million tons, Nucor Corporation is the largest and most diversified producer of steel and steel products in the United States. More than a steel maker, Nucor is the world's foremost steel recycler, and one of the largest recyclers of any kind. With highly empowered workforce and egalitarian benefits, Nucor's over 20,000 team members' goal is to "Take Care of Our Customers." Nucor places a tremendous value on safety and environmental stewardship, with over 16 OSHA VPP sites, 12 OSHA SHARP sites, and 7 divisions registered to ANSI Z10 and OHSAS 18001. Additionally, Nucor is consistently ranked as one of America's Most Admired Companies.

Nucor Steel Marion, Inc., is a division of Nucor Corporation, primarily producing steel reinforcing bar (REBAR) and sign posts for the highway safety industry. Nucor Steel Marion, Inc., has 270 team members located in Marion, Ohio, and is an OSHA VPP Star Worksite, registered with ANSI Z10, OHSAS 18001, ISO 9001, and ISO 14001. Additionally, General Recycling of Ohio, LLC, a wholly owned subsidiary of Nucor Steel Marion, Inc., is an OSHA SHARP Worksite.

OHSAS 18001 Deployment–Baxter Healthcare Corporation

Baxter Healthcare Baxter International Inc. develops, manufactures and markets products that save and sustain the lives of people with hemophilia, immune disorders, infectious diseases, kidney disease, trauma, and other chronic and acute medical conditions. As a global, diversified healthcare company, Baxter applies a unique combination of expertise in medical devices, pharmaceuticals and biotechnology to create products that advance patient care worldwide. Baxter has more than 50 manufacturing facilities in 27 countries, with approximately 48,000 employees. Manufacturing is conducted in all major regions of the world. Baxter has a long-standing commitment to environment, health and safety management systems. Baxter is unique in that it holds global certificates in both ISO 14001 and OHSAS 18001, with external verification provided by ERM Certification Verification Services. Currently, 50 locations hold OHSAS certification.

References

American National Standards Institute/American Hygiene Association (ANSI/AIHA) Standard Z10-2005, *Occupational Health and Safety Management Systems*. Falls Church, VA: AIHA

British Standards Institute (BSI). 2007. Occupational Health and Safety Assessment Series (OHSAS) Standards 18001:2007, *Occupational health and safety management systems—Requirements*. London: BSI