

NDIA 18<sup>th</sup> Annual Systems Engineering Conference

October 27-30, 2015

***PROPOSED***

ISO 45001 OCCUPATIONAL HEALTH AND SAFETY  
MANAGEMENT SYSTEM STANDARD

---

DEVELOPMENT STATUS UPDATE AND  
POTENTIAL IMPACTS TO DOD OHS  
MANAGEMENT PROGRAMS

**Kenneth A. (Ken) Clayman**

**Booz Allen Hamilton**

**October 29, 2015**

*“At the end of the day, the goals are simple:  
safety and security.”*



*Jodi Rell*



# Agenda

- The Path to ISO 45001 – Past, Present and (*near*) Future
- ISO 45001 – Development Status
- ISO 45001 Committee Draft 2 (CD2) Highlights
- DOD OHS Programs and ISO 45001
- ISO 45001 CD2 Review
- DoD OHS Management Systems and ISO 45001
- Final Thoughts...
- Q&A

# The Path to ISO 45001 – Past, Present and (near) Future

- World War II and Military Standardization
- Dr. Deming
- U.S. OSH Act – 1970
  - Voluntary Protection Program (VPP) – 1980's
- Total Quality Management and ISO 9001 – 1980's to 2015
- ISO 14001 – 1997  2004  2015
- OHSAS 18001, ANSI Z10 and other OHS MS Standards – 1990's
- Sustainability “movement”/ISO 26000 (CSR; 2000's) – 1990's to 2000's
- *Bangladesh clothing factory incident* – 2011
- BSI Proposal – 2013
- ISO Project Committee (PC) 283 and proposed ISO 45001 - **NOW**

# ISO 45001 – Development Status

Activities, *so far...*

- Late 2013 – Proposal and working draft (WD)
- 2014
  - Working draft – Review and comments
  - Resolution, generated the first Committee Draft (CD1)
  - CD1 Review and comments – vote to create a CD2
  - CD2 – Late 2014 – Review and comments, work into 2015

# ISO 45001 – Development Status

## Activities, so far...

- 2015

- First half of the year involved reviewing, commenting and resolving issues raised over the CD2 language within the U.S. Technical Advisory Group (TAG)
  - ❑ May – TAG meeting – U.S. voted to draft a CD3
- June – Dublin Meeting – PC283 voted to elevate to Draft International Standard (DIS), but did not complete work of resolving comments
- September – Geneva Meeting – PC283 resolved final group of comments on CD2
- DIS publication – **not released as of 10/19/2015 - substantial milestone** – document becomes available to the public and ISO members other than the PC

# ISO 45001 – Development Status

Activities, *to come*...

- 2016

- To start, developing, reviewing and resolving DIS comments
- DIS – Subsequent steps can include:
  - ❑ DIS2 – PC283 members do not feel the standard is ready for next level; requires more work
  - ❑ Final DIS – PC283 votes to move document to near-final stage; at this point remaining comments tend to be mostly administrative
  - ❑ Final International Standard – PC283 may vote to approve as the FIS immediately from the DIS (75% of voting members)
- PC283 Leadership – committed to FIS release in Fall 2016 – but, we'll see...

# ISO 45001 CD2 Highlights

## ISO/PC283 Mandate

- Objective:

*Develop specifications and requirements to establish a risk-based, OHS MS Standard (MSS) that provides the basis for ongoing, worldwide safety and health management performance improvements, and remains consistent with other, similar and/or related MSS's.*

- Mandate:

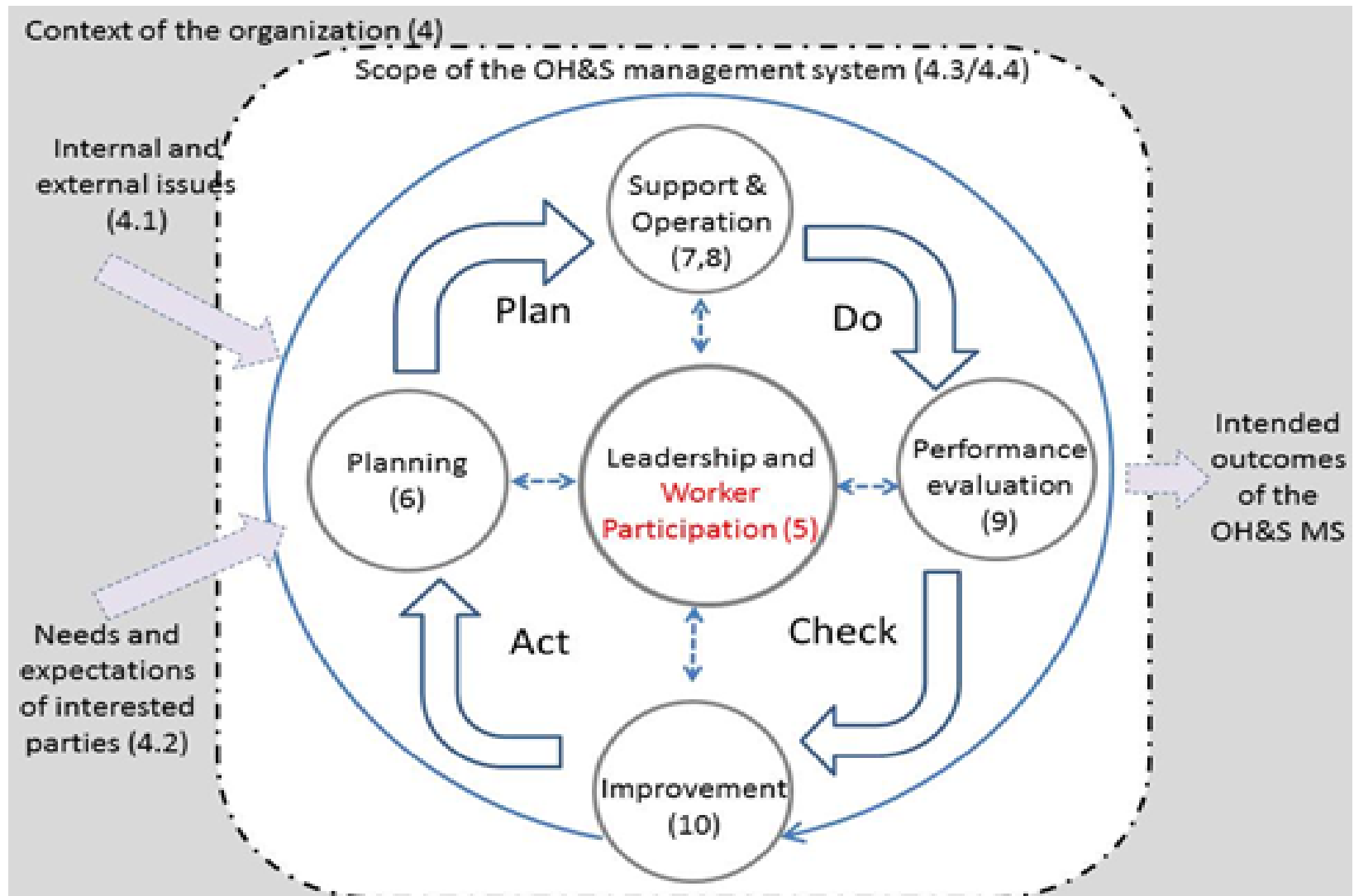
- **Apply ISO Annex SL:** a common management system structure, requirements, common text, common terms, and core definitions
- Consider global experiences with other OHS consensus standards (e.g., OHSAS 18001, ILO 2000, ANSI Z10, AS/NZ 4801)
- Ensure consistency with other ISO MSS's (ISO 9001, ISO 14001, ISO 50001)



# ISO 45001 CD2 Highlights

- All ISO MSSs must be molded to and modeled after a common template and format, commonly called “**Annex SL**” from its designation within another ISO document
- Annex SL dictates all MSSs include the following 10 major Clauses:
  1. Scope
  2. Normative References
  3. Terms and Definitions
  4. Context of the Organization
  5. Leadership
  6. Planning
  7. Support
  8. Operations
  9. Performance Evaluation
  10. Improvement

# ISO 45001 CD2 Highlights – Proposed OHS MS Model/Framework



# ISO 45001 CD2 Highlights – Major Clauses/Sections in the CD2

1. **Scope**
  2. **Normative references**
  3. **Terms and definitions**
  4. **Context of the organization**
  5. **Leadership, Worker Participation and Consultation**
  6. **Planning**
  7. **Support**
  8. **Operation**
  9. **Performance evaluation**
  10. **Improvement**
- Annex A**

# DoD OHS Programs and ISO 45001

- DoDD 4715.01 – ESOH management systems must be used “*in mission planning and execution across all military operations and activities, ...*” (Section 4.1)
- DoD Instruction (DoDI) 6055.01 establishes:
  - Risk management strategies are applied to eliminate occupational injury, illness and loss of mission capability and resources, and
  - SOH management systems (SOH MSs) will be used across all military operations and activities ...
- Requirement to implement SOH MSs is cascaded to the “components” in several parts of DoDI 6055.01
- Many proposed ISO 45001 requirements are already reflected in DoDI 6055.01

# DoD OHS Programs and ISO 45001

- ISO 45001 may provide the foundation for development and implementation of SOH MSs, similar to ISO 14001 and environmental management systems (EMSs)
- ISO 45001 will be the international standard for OHS MSs
  - The U.S. likely will revise ANSI Z10 to provide greater alignment with ISO 45001, but will maintain Z10
- DoD will then have options for making decisions regarding future directions for SOH MSs

# ISO 45001 CD2 Review – Terms and Definitions

## ISO 45001 CD2, Proposed

- **Risk (Annex SL): Effect of uncertainty on objectives**
- **OH&S Risk:** combination of the likelihood of an occurrence of a work-related hazardous event or exposure(s), and the severity of injury or ill health that can be caused by the event or exposures
- **Hazard:** source or situation with a potential to cause human injury or ill health
- **Incident:** occurrence arising out of or in the course of work that could or does result in death, injury or ill health

## DOD Equivalentents

- **Risk:** Chance of adverse outcome or bad consequence, such as injury, illness, or loss. Risk level is expressed in terms of hazard probability and severity. (*DoDI 6055.01*)
- **Hazard:** Any real or potential condition that can cause injury, illness, or death to personnel or damage to or loss of equipment or property, mission degradation. (*DoDI 6055.01*)
- **DoD Mishap:** An unplanned event or series of events that results in damage to DoD property; occupational illness to DoD personnel; injury to on- or off-duty DoD military personnel; injury to on-duty DoD civilian personnel; or damage to public or private property, or injury or illness to non-DoD personnel, caused by DoD activities (*DoDI 6055.07*)

# ISO 45001 CD2 Review – Terms and Definitions

## ISO 45001 CD2, Proposed

- **Worker:** person performing work or work-related activities, regularly or temporarily, under the direct or indirect control of the organization
- **Workplace:** place under the direct or indirect control of the organization where a person(s) needs to be or to go by reason of their work

## DOD Equivalents

- **DoD Personnel:** Defined for “civilian” and “military” sub-categories (*DoDI 6055.01*)
- **Workplaces:** Defined for “nonmilitary-unique DoD operations and workplaces,” “uniquely military equipment, systems, and operations” sub-categories (*DoDI 6055.01, by way of 29 CFR 1960.2(i)*)

# ISO 45001 CD2 Review – Terms and Definitions

## ISO 45001 CD2, Proposed

- **Performance (Annex SL):  
Measurable result**
- **OH&S Performance:**  
*Performance* related to the effectiveness of the prevention of injury and ill health to workers

## DOD Equivalents

- **No equivalent definitions for OH&S Performance**



# ISO 45001 CD2 Review – Terms and Definitions

## ISO 45001 CD2, Proposed

- **Management System (Annex SL):** Set of interrelated or interacting elements of an organization to establish policies and objectives and processes to achieve those objectives
- **OH&S Management System:** Management system or part of a management system used to achieve the OH&S policy

## DOD Equivalents

- **SOH Management System:** A set of interrelated or interacting elements that organizations use to direct and control how SOH policies are implemented and SOH objectives are achieved (*DoDI 6055.01*)

# ISO 45001 CD2 Review – General Requirements

- **Clause 4 Context of the Organization**

- Organizations will be required to determine and define the “context” within which their OHS MS will be developed, implemented, maintained and continually improved
- “Context” includes both internal and external factors, conditions, issues within which the organization is working to achieve its objectives (SOH and otherwise)
- The OHS MS Scope is influenced and informed by the organization’s context, along with needs and expectations of its workers and other interested parties, its relevant legal and other requirements, and work activities performed at the organization’s workplace(s)

# ISO 45001 CD2 Review – Leadership

- **Clause 5 Leadership, Worker Participation and Consultation**
  - ISO 45001 CD2, in alignment with proposed updates to ISO 14001 and ISO 9001, includes requirements for an organization's leadership to demonstrate commitment to the OHS MS and engage directly with relevant activities and elements during development, implementation, maintenance and continual improvement
  - Worker participation requirements are continued from existing baseline standards (OHSAS 18001, ANSI Z10, ILO 2000, etc.) – ensuring worker considerations and engagement with OHS issues management is an integral aspect of the management system
  - Organization leadership is required to establish the OH&S policy and include specific commitments to compliance w/LORs, prevention of injuries and illnesses, control of OHS risks, and to continual OHS MS improvement

# ISO 45001 CD2 Review – Plan

- **Clause 6 Planning**

- 6.1 Actions to Address OH&S Risks and Opportunities
  - 6.1.1 General
  - 6.1.2 Hazard Identification and Assessment of OH&S Risks
  - 6.1.3 Determination of Applicable Legal and Other Requirements
  - 6.1.4 Other Risks and Opportunities to the OH&S Management System
  - 6.1.5 Planning to Take Action
- 6.2 OH&S Objectives and Planning to Achieve Them
  - 6.2.1 OH&S Objectives
  - 6.2.2 Planning to Achieve OH&S Objectives
- DoDI 6055.01 includes requirements and related information that is equivalent to the ISO 45001 Clause 6 elements
- The hazard identification/risk assessment element in DoDI 6055.01 is a relatively mature process that could be used in an OHS/SOH MS with little to no change to fulfill ISO 45001 requirements

# ISO 45001 CD2 Review – Plan and Do

- **Clause 7 Support**

- 7.1 Resources
- 7.2 Competence
- 7.3 Awareness
- 7.4 Information and Communication
- 7.5 Documented Information
  - 7.5.1 General
  - 7.5.2 Creating and Updating
  - 7.5.3 Control of Documented Information

- **DoD Directives, Instructions and other documentation:**

- Include requirements to ensure personnel are trained and maintain qualifications to do their jobs safely and to minimize SOH risks
- Assign responsibilities and authorities regarding resources assignment to support SOH management in all Departments
- Define communications and documentation control/management requirements

# ISO 45001 CD2 Review – Operations/Implementation (“Do”)

- **Clause 8 Operations**

- 8.1 Operational Planning and Control
    - 8.1.1 General
    - 8.1.2 Hierarchy of Controls
  - 8.2 Management of Change
  - 8.3 Outsourcing
  - 8.4 Procurement
  - 8.5 Contractors
  - 8.6 Emergency Preparedness and Response
- DoD documentation (e.g., DoDI 6055.16 Explosives Safety Management Program) defines some of the operational control requirements for all military components
  - Departments and other components are expected to address other “Do” requirements on their own, but within guidance provided in DoDDs, DoDIs and DoD Manuals.

# ISO 45001 CD2 Review – “Check” and “Act”

- **Clause 9 Performance Evaluation**

- Includes commonly known elements to establish monitoring requirements for OHS MS components, to ensure conformance with MS requirements and compliance with legal requirements
- Includes requirement for periodic OHS MS audits
- Clause 9.3 defines management review requirements
- DoDI 6055.01 includes requirements pertaining to evaluation of SOH MSs and their adequacy and effectiveness at the different levels within DoD
- There is not a specific “internal audit” requirement, but some of the language in the documents may be interpreted as requiring systems-like audits

# ISO 45001 CD2 Review – Continual Improvement

- **Clause 10 Improvement**

- Includes requirements to establish a corrective actions process
  - There is no longer a specific requirement for “preventive” action – MS standards define and resultant systems embody prevention and preventive actions as an inherent characteristic
  - For the first time, includes explicit requirements regarding continual improvement and its demonstration as an output of the management systems approach
- In the DoDDs, DoDIs, etc., continual improvement appears to be focused on specific processes (e.g., risk management) rather than system-wide application, as in ISO 45001



# DoD OHS Management Systems and ISO 45001

- DoD includes several statements within DoDDs and DoDIs requiring development and implementation of OHS/SOH MSs
- Some documentation includes requirements that are close and/or equivalent to those under consideration for the ISO 45001 standard
- ISO 45001 may help DoD to provide more consistent information regarding SOH MSs, especially pertaining to a framework (in re: VPP, OHSAS, ANSI, etc.)

# Final Thoughts...

- **Remember** – all of the ISO 45001 information provided today is still in the proposal stages of development – the final standard likely will be different, but how substantially different is still very much up in the air
- **BEWARE!** Since ISO 45001 is still at an early development stage – it is not encouraged to use the CD or DIS versions as a basis to develop a SOH management system

# Thank You!

