AHMP 2013 National Conference

The Process Operator and EMS - Fred Should Know!

Phil Wood - AECOM

September 18th 2013

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AGENDA

- ISO 14001: **2015** – Overview

- Management System Introduction:
  - ISO 14001:2004
  - OHSAS 18001:2007
  - ISO 50001:2011

- Introducing Fred

- EEnHS MS – How to collect and use the data

- EEnHS MS – How to train

- EEnHS MS – How to Audit

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ISO/TC 207/SC 1/WG 5
Revision of ISO 14001

- **Goal:**
  - *Incorporate new approaches in the field of Environmental Management, and meet stakeholder expectations that have evolved since 1996, so that ISO 14001 remains relevant over the next 20 years.*
- **Mandate:**
  - Base the revision on ISO Annex SL: - common management system structure, requirements, identical text, common terms, and core definitions
  - Maintain and improve the basic principles and existing requirements

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Annex SL

- Annex SL, formally known as the *JTCG High Level Structure* and *Draft Guide 83*, has been published in *ISO/IEC Directives, Part 1, Consolidated ISO Supplement-Procedures specific to ISO, third edition, 2012*, and can be found at: www.iso.org/iso/iso_iec_directives_and_iso_supplement

- Goal is to standardize MS standards to facilitate the integration of multiple MS standards into an organization's management system.

- Technical Committees can add discipline specific requirements, but cannot delete any of the generic requirements without justification

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ISO 14001:2004 - 18 Elements

- 4.1 Scope
- 4.2 **Environmental** Policy
- 4.3.1 **Environmental** Aspects
- 4.3.2 Legal and Other Requirements
- 4.3.3 Objectives, Targets and Programs
- 4.4.1 Resources, Roles, Responsibility and Authority
- 4.4.2 Competence, Awareness and Training
- 4.4.3 Communication
- 4.4.4 Documentation

- 4.4.5 Control of Documents
- 4.4.6 Operational Control
- 4.4.7 Emergency Preparedness and Response
- 4.5.1 Monitoring and Measurement
- 4.5.2 Evaluation of Compliance
- 4.5.3 Nonconformity, Corrective Action and Preventive Action
- 4.5.4 Control of Records
- 4.5.5 Internal Audit
- 4.6 Management Review

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OHSAS 18001:2007

OHSAS 18001 provides what has been determined to be the minimum requirements for an occupational health and safety (OH&S) management system that could enable an organization to effectively control its OH&S risks and improve its performance.

ANSI/AIHA Z10-2012 Occupational Health and Safety Management Systems

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Occupational Health and Safety
OHSAS 18001 Elements

- 4.1 Scope
- **4.2 OHS** Policy
- 4.3.1 Hazard identification, risk assessment and determining controls
- 4.3.2 Legal and Other Requirements
- 4.3.3 Objectives **and Programs**
- 4.4.1 Resources, Roles, Responsibility **Accountability and** Authority
- 4.4.2 Competence, Awareness and Training
- 4.4.3 Communication, participation and consultation
- 4.4.4 Documentation

- 4.4.5 Control of Documents
- 4.4.6 Operational Control
- 4.4.7 Emergency Preparedness and Response
- 4.5.1 **Performance measurement and monitoring**
- 4.5.2 Evaluation of Compliance
- 4.5.3 **Incident investigation, nonconformity, corrective action and preventive action**
- 4.5.4 Control of Records
- 4.5.5 Internal Audit
- 4.6 Management Review

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ISO 50001:2011

- Can be used as basis for auditing energy management systems
- Specifies requirements for establishing, implementing, maintaining and improving an energy management system, whose purpose is to enable an organization to follow a systematic approach in achieving continual improvement of energy performance, including energy efficiency, energy use and consumption
- Designed to be used independently, but it can be aligned or integrated with other management systems
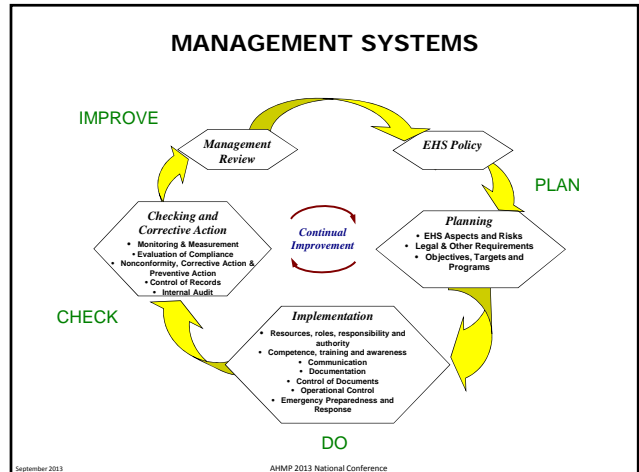
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ISO 50001 Elements

- 4.1 General requirements
- **4.2 Management responsibility**
- **4.2.1 Top management**
- 4.2.2 Management representative
- 4.3 **Energy policy**
- 4.4 **Energy** planning
- 4.4.1 General
- 4.4.2 Legal requirements and other requirements
- 4.4.3 **Energy review**
- **4.4.4 Energy baseline**
- **4.4.5 Energy performance indicators**
- **4.4.6 Energy** objectives, energy targets and **energy management** action plans

- **4.5** Implementation and operation
- 4.5.1 General
- 4.5.2 Competence, training and awareness
- 4.5.3 Communication
- 4.5.4 Documentation
- 4.5.5 Operational control
- **4.5.6 Design**
- **4.5.7 Procurement of energy services, products, equipment and energy**
- **4.6 Checking**
- 4.6.1 Monitoring, measurement **and analysis**
- 4.6.2 Evaluation of compliance with legal requirements and other requirements
- 4.6.3 Internal audit **of the EnMS**
- 4.6.4 Nonconformities, **correction,** corrective action and preventive action
- 4.6.5 Control of records
- 4.7 Management review
- **4.7.1 General**
- **4.7.2 Input to management review**
- **4.7.3 Output from management review**

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MANAGEMENT SYSTEMS

Data Collection

- Environmental Aspects
- H&S Hazards and Risks
- Energy Use
- Legal and Other Requirements
- Objectives and Targets – Programs

- **Who does this?**
- **How is this documented?**
- **How does the data get communicated?**

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What information do I have?

Compliance:
- – SWPPP
- – SPCC
- – Emergency Action Plans
- – H&S Programs
- – Other Plans
- Permit(s)
- Site Map/Plan
- Audit reports
- Other relevant information

EHS MS:
- **Aspect & Risks assessments**
- Legal and other
- Objectives and targets
- Management Procedures
  - – 4.3.1
  - – 4.5.2
  - – 4.5.5

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Communicating Requirements

- **Communicate** the requirements and expectations
- **And** methods for complying with them
- **And** tasks that need completing
- **To Fred**
- *Also to contractors, suppliers and other stakeholders*

- Know your stakeholders and what information they would like to hear (4.4.3)

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What information does Fred have?

- Policy
- Checklists
- Plans / SOPs
- Emergency Plans
- Knowledge:
  - Operational / Engineering controls
  - Emergency Plans (and equipment)
- Training information / certificates

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System Expectations?

1. Policy
2. Aspects / Risks
3. Objectives and Targets
4. Legal and Other
5. Roles and Responsibility
6. Competence, Awareness ,Training
7. Documentation
8. Doc. Control
9. Operational Control
10. Emergency Response

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Training Expectations?

1. Policy
2. Aspects / Risks
3. Objectives and Targets
4. Legal and Other
5. Roles and Responsibility
6. Competence, Awareness ,Training
7. Documentation
8. Doc. Control
9. Operational Control
10. Emergency Response

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Compliance Audits
Definition

- Evaluation of Compliance = An evaluation to assess that the organization is following the applicable regulations, policies or procedures.

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Management System Audits
Definition

A <u>systematic</u>, <u>documented</u> verification process of <u>objectively</u> obtaining and evaluating audit evidence to determine whether specified environmental activities, conditions, management systems, or information about these matters conform with <u>audit criteria</u>, and communicating the results of this process to the *<u>client</u>*.

ISO 19011: Environmental Auditing Guidelines - Definition

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Developing a Process/Fred Checklist

1. **EEnEHS Policy**

Process and FRED specific:
2. EHS aspects and risks
3. Legal and other
4. Objectives and targets
5. Roles and responsibilities
6. Required competence, awareness training
7. EHS Documentation
8. Where to find the documentation
9. EEnHS operational controls
10. Emergencies at process

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Know the answers...
Ask the Questions…

1. EEnEHS Policy

Process and FRED specific:
2. EHS issues
3. Legal and other
4. Objectives and targets
5. Roles and responsibilities
6. Required competence, awareness, training
7. EHS Documentation
8. Where to find the documentation
9. EEnHS controls
10. Emergencies at process

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COMMENTS, THOUGHTS

QUESTIONS?

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1	Are you aware of the EHS Policy?	
2	What does the Policy mean to you?	
3	Are you aware of the policy logo? Explain the logo.	
4	In what way does performing your job affect the environment and safety?	
5	What are the two biggest EHS issues at this location?	
6	What are the two biggest EHS issues plantwide?	
7	Are there any legal (regulatory, permit) and other EHS requirements associated with this process?	
8	Describe the legal (regulatory, permit) and other environmental requirements associated with this process?	
9	Are there any EHS objectives & targets associated with your job or this process?	
10	Describe the EHS objectives & targets.	
11	What are your specific EHS roles and responsibilities at this location?	
12	What kind of EHS training do you need for your job?	
13	How has the training helped you better perform your job?	
14	Please prove that you have had the EHS training.	
15	Is there any EHS documentation (Instructions, SOPs, spill plans, forms, checklists) associated with your job processes?	
16	What is the EHS documentation?	
17	Where is the EHS documentation? – Please show me.	
18	Are there any process/operational controls associated with your job/process? (Spill kits, containment, light switch, trash cans, recycle bins, etc)	
19	Describe the process/operational controls.	
20	Show me the process/operational controls.	
21	What would you do in the case of an EHS emergency such as a fire or large chemical spill?	
22	Have there been any chemical, HM, HW, or petroleum spills? When and where?	
23	What can the EHS Department do to help you better perform your job?	
Regulatory Compliance		
24	For ALL observed issues – Ask why the issue occurred.	
Results of Last Inspection		
25	Have issues identified during the last inspection been corrected and prevented?	
26	Is there proof of BOTH corrective actions and preventive actions?	