ISO 55000 Overview & AM Professional Development

October 12th 2016

Iain Cranston, Asset Management Consultant & Training Coordinator
iain.cranston@ch2m.com
Agenda

• ISO 55000 Overview
  – Overview of standard components
  – Certifying the Organization vs People?

• AM Professional Development
  – Institute of Asset Management Certificate & Diploma Exams
  – CH2M’s AM Training Course

• Questions and Answers
ISO 55000
So what is ISO 55000?

- The International Standards Organization built on PAS55
  - Applicable to all infrastructure/asset organizations and all industries
  - Intended primarily for physical assets but was written to apply to other asset types e.g. a brand
  - Globally recognized ISO standard as opposed to British PAS
- ISO 5500X officially published in early 2014 with three parts
  - ISO55000: Overview, Principles and Terminology
  - ISO55001: Management Systems – Requirements
  - ISO55002: Management Systems – Guidelines for application
- CH2M were represented on the Standards Committee for development of ISO 55000
Potential Benefits of adopting ISO 55000

- Structured Documentation
  - Locking in best practice – continual improvement
- Alignment between strategy, policy & plans
- Better understanding of risk
  - “Common Currency of Risk”
- More thorough budgeting and prioritization
- Confidence in Organization/Improved Reputation
  - Potentially lower interest rates
  - Potentially lower insurance premiums
  - Improved relationship with Regulators
  - More credibility with ratings agencies
  - Easier audits
  - More confidence at shareholder level
- Due diligence approach/defense with respect to asset failures

Robust, Repeatable and Transparent Processes
Management Systems and The Asset Management System

• ISO 55001 sets out the requirements for a Management System for Asset Management
  – Effectively this defines the key requirements for the Asset Management System
  – Management System for Asset Management = “Asset Management System”
  – 24 clauses with 71 “shall” statements
  – Good practice based upon collective views from multi sector working group
  – The (Asset) Management System controls the ways that the discipline of Asset Management is applied

• Organizations typically have many of the elements of a management system but perhaps don’t formally subscribe to a management systems approach

• Knowledge of ISO 5500X is therefore essential but does not address all technical requirements of the discipline of Asset Management
ISO 55000 Alignment vs Certification for organizations

• As with other ISO/PAS standards, the organization decides on how best to utilize the standard to suit their own organizational objectives

• Heavily regulated industries can make it a requirement (e.g. UK Energy Regulator (OFGEM))

• For many organizations, aligning with the good practices detailed in ISO 55000 will provide most of the benefit

• Every infrastructure organization should at least be aware of the new standards
ISO Certification - Organization vs People?

• Organizations get certified against ISO 55001, not people…

• But…there are opportunities for people to get professional development certificates and credentials in Asset Management.
Asset Management Professional Development

...for people!
Who are the IAM?

• The Institute of Asset Management (IAM) is a globally recognized authority in Asset Management.

• Not for profit membership organization that exists to advance Asset Management for the public benefit.

• They have developed many useful AM documents and tools;
  – Key player in ISO 55000 and PAS 55
  – The IAM Asset Management Competency Framework
  – The IAM Asset Management Anatomy

• Established Certificate & Diploma Qualifications for people

• More information available at www.theiam.org
IAM Certificate Exam Information

• Multiple choice exam sat through an internet browser – need a laptop!
• 60 question exam across a 2 hour period
  – Around ~2 minutes per question
• Closed Book
  – No reference materials of any kind are allowed to be used, including the internet.
• Pass requirements
  – Score at least 50% in each topic AND Score at least 65% in the overall exam

<table>
<thead>
<tr>
<th>Certificate Topic</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of Asset Management</td>
<td>20</td>
</tr>
<tr>
<td>Asset Mgmt Policy, Strategy and Planning</td>
<td>10</td>
</tr>
<tr>
<td>Asset Life Cycle Decisions &amp; Activities</td>
<td>10</td>
</tr>
<tr>
<td>Assessing and Managing Risks</td>
<td>10</td>
</tr>
<tr>
<td>Financial &amp; Business Impacts</td>
<td>10</td>
</tr>
</tbody>
</table>

IAM Certificate Exam Questions

• Take the practice exam and read the AM Landscape and Anatomy!
• Read the questions carefully
• A lot of questions similar to this example
  – What is the LEAST / MOST important
  – Take time to eliminate
• Starting to introduce short case study type questions
• Ensure you answer ALL questions
  – Exam not negatively marked
  – Take your best guess
IAM Diploma Advanced Exam

- After completing the Certificate Exam, the IAM offer a more advanced qualification
- IAM Diploma is a more advanced qualification whose focus is on breadth and depth of knowledge and understanding, together with the application of professional judgment in practice
- 3-hour examination comprising 70 questions in 7 compulsory modules

<table>
<thead>
<tr>
<th>Diploma Topic</th>
<th>10 questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice of Asset Management</td>
<td></td>
</tr>
<tr>
<td>Asset Management Information &amp; Knowledge</td>
<td></td>
</tr>
<tr>
<td>Sustainable Asset Care &amp; Performance</td>
<td></td>
</tr>
<tr>
<td>Managing Change in Asset Management Systems and Capabilities</td>
<td></td>
</tr>
<tr>
<td>Contractor and Supplier Management</td>
<td></td>
</tr>
<tr>
<td>Demand Forecasting and Capital Expenditure Planning</td>
<td></td>
</tr>
<tr>
<td>Methods for Realising Whole Life Value from Assets</td>
<td></td>
</tr>
</tbody>
</table>

https://theiam.org/products-and-services/iam-qualifications/IAM-Diploma
CH2M’s 3-day Asset Management Training Course with IAM Certificate Exam
CH2M’s Asset Management Training Course

• 3 day course including IAM Certificate Exam
  – Up to 25 people per course
• Aimed at people with some AM experience
• CH2M are recognized by the IAM as an Endorsed Trainer

• CH2M launched course at the end of 2015, and have trained and certified over 150 people to date
  – Covering over 25 municipalities and public sector organizations in Canada
  – Training HQ in Canada, running these courses globally

• $1,950 per person plus taxes
  – Includes IAM Exam, Lunch, Materials, etc.
# CH2M’s AM Training Course Agenda

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Introduction to Asset Management</em></td>
<td><em>Asset Management Life Cycle</em></td>
<td><em>Course Recap</em></td>
</tr>
<tr>
<td>- What is AM?</td>
<td>- Creating and Acquiring Assets</td>
<td>- IAM Certification Exam</td>
</tr>
<tr>
<td>- AM Policy, Strategy and Plans</td>
<td>- Operating &amp; Maintaining Assets</td>
<td>- Course Close</td>
</tr>
<tr>
<td>- ISO55000 and PAS55</td>
<td>- Disposal of Assets</td>
<td></td>
</tr>
<tr>
<td>- The Asset Management System</td>
<td>- Life Cycle Analysis</td>
<td></td>
</tr>
<tr>
<td><em>Asset Information</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Asset Information Strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Standards and Systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Data and Info Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lunch</td>
<td>Lunch</td>
<td>Home Travel</td>
</tr>
<tr>
<td><em>Asset Related Risk</em></td>
<td><em>Financial and Business Impacts</em></td>
<td></td>
</tr>
<tr>
<td>- Identifying and Assessing Risk</td>
<td>- Strategic Alignment</td>
<td></td>
</tr>
<tr>
<td>- Managing Risk</td>
<td>- Investment Decision Making</td>
<td></td>
</tr>
<tr>
<td>- Contingency Planning</td>
<td>- Asset Management Plans (AMP)</td>
<td></td>
</tr>
<tr>
<td>- AM Review</td>
<td>- AM People and Organization</td>
<td></td>
</tr>
<tr>
<td>Read IAM Anatomy and Competency Framework</td>
<td>Reading and Revision</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Take the IAM Practice Exam</td>
<td></td>
</tr>
</tbody>
</table>

*Reading and Revision*  
*Take the IAM Practice Exam*
Courses already successfully delivered in Canada
Courses already successfully delivered in Canada
Courses already successfully delivered in Canada
Next steps for you?

• Could setup a Certificate / Diploma Exam Session for 2017…
  – An “Exam Only” option

• Can sign up for CH2M’s Asset Management Training & IAM Certificate Course…
  – [www.ch2m.com/AMTraining](http://www.ch2m.com/AMTraining) for more info, email AMTraining@ch2m.com
  – Next course in Ottawa, Nov 29-Dec 1 2016
  – Calgary course in the planning for Q2 2017
  – Can run courses wherever there is sufficient demand
Any questions?

Iain Cranston, Asset Management Consultant & Training Coordinator

iain.cranston@ch2m.com