

ISO 55000 Overview & AM Professional Development

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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

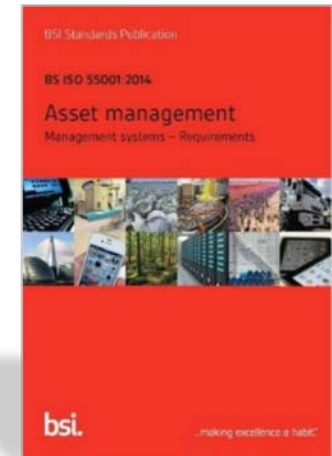
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So what is ISO 55000?



International
Organization for
Standardization

- 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 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

Certificate Topic	
Principles of Asset Management	20 questions
Asset Mgmt Policy, Strategy and Planning	10 questions
Asset Life Cycle Decisions & Activities	10 questions
Assessing and Managing Risks	10 questions
Financial & Business Impacts	10 questions

<https://theiam.org/products-and-services/iam-qualifications/Certificate-1-July-2015>

IAM Certificate Exam Questions

Question	
Which of the following is LEAST important when considering end-of-life options for an asset?	
A Design life of the asset	
B Changes to legislation	
C Cost of ownership	
D Low availability of spares and maintenance engineering skills	
E Demand analysis	
Score 1	 Back Next 

- 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

Diploma Topic	
Practice of Asset Management	10 questions
Asset Management Information & Knowledge	10 questions
Sustainable Asset Care & Performance	10 questions
Managing Change in Asset Management Systems and Capabilities	10 questions
Contractor and Supplier Management	10 questions
Demand Forecasting and Capital Expenditure Planning	10 questions
Methods for Realising Whole Life Value from Assets	10 questions

<https://theiam.org/products-and-services/iam-qualifications/IAM-Diploma>

CH2M's 3-day

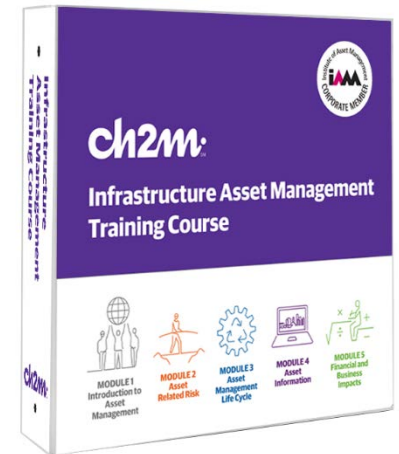
Asset Management Training Course

with IAM Certificate Exam



CH2M's Asset Management Training Course

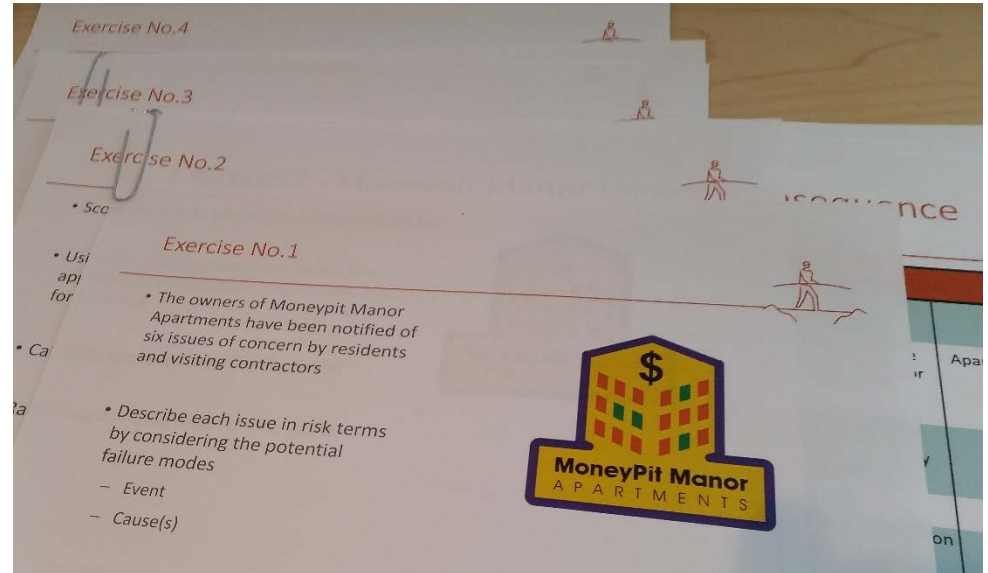
- **3 day course including IAM Certificate Exam**
 - Up to 25 people per course
- Aimed at people with some AM experience
- CH2M are recognized by the IAM as an Endorsed Trainer
- CH2M launched course at the end of 2015, and have trained and certified over 150 people to date
 - Covering over 25 municipalities 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.



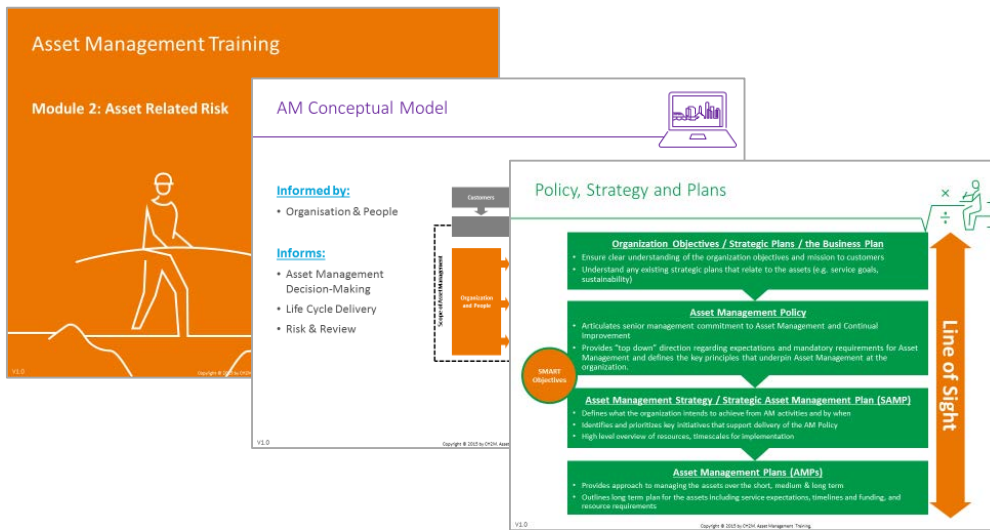
CH2M's AM Training Course Agenda

Day 1	Day 2	Day 3
<ul style="list-style-type: none"> • Introduction to Asset Management <ul style="list-style-type: none"> ○ What is AM? ○ AM Policy, Strategy and Plans ○ ISO55000 and PAS55 ○ The Asset Management System 	<ul style="list-style-type: none"> • Asset Management Life Cycle <ul style="list-style-type: none"> ○ Creating and Acquiring Assets ○ Operating & Maintaining Assets ○ Disposal of Assets ○ Life Cycle Analysis • Asset Information <ul style="list-style-type: none"> ○ Asset Information Strategy ○ Standards and Systems ○ Data and Info Management 	<ul style="list-style-type: none"> • Course Recap • IAM Certification Exam • Course Close
Lunch	Lunch	Home Travel
<ul style="list-style-type: none"> • Asset Related Risk <ul style="list-style-type: none"> ○ Identifying and Assessing Risk ○ Managing Risk ○ Contingency Planning ○ AM Review 	<ul style="list-style-type: none"> • Financial and Business Impacts <ul style="list-style-type: none"> ○ Strategic Alignment ○ Investment Decision Making ○ Asset Management Plans (AMP) ○ AM People and Organization 	
Read IAM Anatomy and Competency Framework	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 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?

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