Implementing Sustainable Practices in Environmental Management Systems: the Cultural Change Game

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Training Objectives

- Create awareness of sustainability and its relationship to your organization’s mission and activities
- Create awareness of general content of training resource on *Integrating Sustainable Practices into Environmental Management Systems (EMSs)*
- Assist in identification of near term sustainable practices for your program
- Offer strategies for coordination and communication that can be used to expand relationships among EMS managers and site operations and activities managers
What does it mean to be a sustainable organization?

“Development that meets the needs of the present without compromising the ability of the future generations to meet their own needs.”
- United Nations Brundtland Commission

Sustainable organizations strive to balance and account for the triple bottom line
Sustainability in DOE Drivers and Requirements

- DOE implements Executive Order 13423, *Strengthening Federal Environmental, Energy and Transportation Management*, through two Orders:
  - DOE O 450.1A, *Environmental Protection Program*
  - DOE O 430.2B, *Departmental Energy, Renewable Energy and Transportation Management*

- Both Orders require use of EMSs to implement sustainable practices and achieve Department’s sustainable environmental, energy and transportation goals
Training Resource on Sustainable Practices

• The Office of Environmental Policy and Assistance developed a resource document to complement this training to assist DOE sites in
  – Understanding how their operations might impact the environment and the site’s carbon footprint, and
  – Involving “owners” of operations and activities in implementing sustainable practices necessary to achieve DOE sustainable goals

• Approach suggested by site contractor personnel
Organization of Training Resource

• Structured to engage a range of audiences including “owners” of site operations and activities that are typically found at DOE sites, including:

  – Building operations and maintenance
  – Design & construction
  – Fleet management
  – IT management
  – Procurement/purchasing
  – Production and processing
  – Security
  – Utility management
  – Waste management
Matrix

- Illustrates the cultural change DOE needs to make and potential interrelationship of:
  - site operations and activities,
  - sustainable practices, and
  - the Department’s sustainable environmental, energy, and transportation goals
# MATRIX (example)

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<td>(1) Install sustainable building materials and practices throughout the Department’s existing building assets.</td>
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<td>(2) Achieve LEED Gold certification for all new construction and major renovations in excess of $5 million.</td>
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<td>(4) Ensure 15% of the Department’s capital asset building inventory incorporates the sustainable practices of the Guiding Principles for energy and water related principles. (430.2B: goals)</td>
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<td>(5) Labs21. The Department must use programs such as the Labs21 partnership to encourage the development of sustainable, high performance, and low-energy laboratories. (430.2B at section 4 c(7))</td>
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**KEY:**

“solid” circle = direct role of specified operation/activity in implementing specified sustainable practices to achieve specified goal

“open” circle = supporting role in implementing specified sustainable practices to achieve specified goal
Where are your upcoming priorities?

- What are the top 3 to 5 sustainable practices you want to pursue over the next 12 months?
  - Identify the organizations you will need to involve.
  - Write down the name and/or specific position you will need to contact first to get started.

### High Performance and Sustainable Building:

1. Install sustainable building materials and practices throughout the Department's existing building assets.
2. Achieve LEED Gold certification for all new construction and major renovations in excess of $5 million.
4. Ensure that 15% of the Department's capital asset building inventory incorporates sustainable practices of the Guiding Principles for energy and water-related principles. (EHQ 7466)
5. Labs21. The Department must use programs such as the Labs21 partnership to encourage the development of sustainable, high performance, and low-energy laboratories. (EHQ 7428, section 4.9.1)
Sustainability Means Teamwork

• Bringing the team together and working effectively is critical to a successful EMS

• Include personnel who plan and do the work

• Assess benefits to operations
  – Energy efficiency
  – Life-cycle cost-effectiveness
  – Safer operations
  – Lower regulatory liability and compliance cost
7 Habits of Highly Effective EMSs

1. Form the “right” team
2. Engage leadership
3. Identify goals and action plans
4. Take action
5. Measure and communicate performance
6. Get feedback
7. Adapt goals, develop new actions and act again

Or should we say: Plan-Do-Check-Act?
Great idea + buy-in + action + communication + feedback = Success
The adoption of an innovation follows a **predictable pattern**:

It starts with a **small group**, even a **single person** who has an idea that is new to the system.

It spreads **slowly** at first through the work of change agents who **actively** promote it.

As more change agents and transformers adopt the innovation and **communicate** it to others, more early adopters join the process until the idea reaches critical mass and “takes-off.”
Stages of Adoption

Rate of Adoption of an Innovation Over Time

Source: Adopter Categorization on the Basis of Innovativeness
Adapted from: Rogers, 1995, pg. 262

Critical Mass

EARLY MAJORITY 34%
EARLY ADOPTERS 13.5%
INNOVATORS 2.5%

LATE MAJORITY 34%
LAGGARDS 16%
Cultural Change Game
Scenarios – Amoeba Game
Round 1

• Role play activity centered around sustainable practices
• Each person will be assigned a role
• Read your card and play the role as authentically as possible

• Two scenarios:
  – Green Housekeeping (GH)
  – Energy efficiency in data centers (DC)
Feedback

• How much progress did you make?

• What challenges did you encounter?

• Have you encountered a situation similar to this in real life?
Who was playing?

The ISIS Agreement: How Sustainability Can Improve Organizational Performance and Transform the World (Figure 8.5, page 181) By Alan AtKisson (2008, ISBN: 978-1-84407-415-0)
What can you do?

- **Innovator**
  - Express respect and appreciation
  - Pull out the important parts of their ideas

- **Change agent**
  - Use to produce a brochure, report or website
  - Test waters for possible collaboration opportunities

- **Transformer**
  - Busy, but interested, so need the elevator speech
  - Listen carefully to their priorities

- **Mainstreamer**
  - Approach after Transformer buy-in
What can you do?

• Laggard
  – Avoid and keep away from Reactionaries

• Reactionary
  – Avoid or engage Iconoclasts to distract them
  – Recruit as Transformers, if they must be engaged

• Iconoclast
  – Give them information to support your cause
  – Publicly keep your distance

• Spiritual Recluse
  – Use when they can support your goals
What can you do?

- **Curmudgeon**
  - Energy drain that are best to avoid
  - Look for opportunities rehabilitate

- **Controller**
  - Treat them as ‘super-transformers’
  - Have a clear action-focused message ready
  - Stress benefits of idea
  - Don’t waste time with chit chat
  - Avoid nervous laughter
Scenarios – Amoeba Game
Round 2

• Role play activity centered around sustainable practices
• Each person will be assigned a role
• Read your card and play the role as authentically as possible
• Use your knowledge about potential ‘players’ to navigate scenario

• Two new scenarios:
  – Construction waste management (CWM)
  – Greenhouse Gas Emissions (GHG)
Feedback

• How much progress did you make?

• What challenges did you encounter?

• Pull out your ideas handout –
  – Who else would you engage?
  – What strategies would you take with the key players?
Remember the AMOEBBA

- A = Adapt the Innovation
- M = Mobilize the Change Agents
- O = Organize the Transformers
- E = Easy does it for the Mainstreamers
- B = Build momentum at the margins
- A = Avoid Reactionaries, Laggards, and Curmudgeons

Additional Thoughts

• Walk the Talk
  – Without the experience of wrestling with changes yourself, it is difficult to advise others on how to make a large-scale change

• Use up-to-date information
  – Have current information when you talk with your peers
  – Encourage your peers to be technical leads and to recommend strategies

• Share information and credit
  – Create a cooperative environment
  – Nominate peers in different organizations for energy and environmental awards
Thank you!

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