

# Environmental Management Systems: Program Evolution



Drivers, Trends, Challenges, and  
Emerging Practices

How to Improve Programs to  
Meet Changing Expectations

*Discussion Topics*

*Presented and Facilitated by*

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# Suggested Agenda

1. Introductions and Background
2. Developments, Drivers
3. Common Focus Areas
4. Discussion



## I. Introduction & Background

Who we are.

What you'd like to get out of this discussion.

# Introduction & Background

- Lincoln Romain, CPEA
  - Senior Manager, Env. Health & Safety at Global Crossing;
  - 25+ yrs. experience, in industry and consulting
  - Global experience
  - Board of BEAC ([www.beac.org](http://www.beac.org)), and formerly of Auditing Roundtable
- Douglas Hileman, P.E., CPEA
  - 30+ yrs. In Env., H&S, and Sustainability
  - Industry and consulting experience (including PwC)
  - Compliance, program evaluation & development, management systems, Enterprise Risk Management
  - Board of (EHS) Auditing Roundtable ([www.auditing-roundtable.org](http://www.auditing-roundtable.org))

# Introduction & Background (*cont'd.*)

Environmental Management Systems (EMS) involves:

- Systematic way to manage Environmental affairs, including compliance
- Alignment with Plan-Do-Check-Act process improvement cycle,
- Aspects, impacts, goals, targets
- Continuous improvement
- ISO 14000 series is common reference standard

Solve everything? Consider that:

- What's documented = what's done; there is no performance standard
- Pace of continuous improvement is not specified

# Introduction & Background (*cont'd.*)

[Not in Webster's, but...], "Sustainability" involves:

- A broader approach to management and reporting of an organization's activities
- Three main focus areas typically cited:
  1. Environmental
  2. Mission (Financial for private sector)
  3. Stakeholder/ Mission/ Socialwith "Triple bottom line" (TBL) reporting on each area

Sounds easy, right? Consider that:

- Each of the three 'bottom lines' has different legacy, maturity, applicability, and challenges. Furthermore, these may differ by agency or industry sector, and by territory.

# Introduction & Background (*cont'd.*)

[Also not in Webster's, but...], "Auditing" involves:

- Comparing any actual to a specified standard,
  - Identifying gaps,
  - Making recommendations, helping to close those gaps
- Other concepts: independence, documentation

Sounds easy, right? Consider that:

- There are a multitude of "standards"
- Discerning the "actual" is harder than it sounds
- Internal and financial auditors have frameworks and expectations for "auditing;" many apply to EHS

# Introduction & Background (*cont'd.*)

## Auditing Roundtable

- Promotes professional practice of auditing in Environmental, Health & Safety, and Sustainability (EHSS)
- 25+ years
- Meetings (national, regional), webinars, training
- [www.auditing-roundtable.org](http://www.auditing-roundtable.org)

## Board of Environmental, Health & Safety Auditor Certifications (BEAC)

- Formation of AR and the Institute of Internal Auditors
- Accreditation body for Certified Professional Environmental Auditors (CPEAs)
- [www.beac.org](http://www.beac.org)



## 2. Developments & Drivers

Compliance.  
Executive Order 13423.  
Performance.  
Protection.  
Stewardship.  
Ecosystems.  
Commerce.  
Economic Realities.  
Organization & Structure.  
Transparency.  
Our Legacy.

You could think of a hundred other drivers.

They all shape what we do now.

# Developments & Drivers

## *Executive Order 13423*

Executive Order 13423 includes [partial listing]:

- Improve energy efficiency and reduce Greenhouse Gas (GHG) emissions by 30% by 2015, using 2003 as baseline
- Reduce water consumption by 16% by 2016, using 2007 as baseline
- In acquisition of goods & services, the use of Sustainable practices [examples provided]
- Reduce the quantity of toxic or hazardous materials acquired, used, or disposed of
- [If fleet of >20 vehicles], reduce consumption of petroleum products by 2% annually through FY2015, relative to 2005
- Implement Environmental Management Systems (EMS)

# Developments & Drivers

## *Executive Order 13423 (cont'd.)*

With regard to EMS, Executive Order 13423 requires the head of each agency shall (b) implement within the agency environmental management systems (EMS) at all appropriate organizational levels to ensure:

- (i) use of EMS as the primary management approach for addressing **environmental aspects** of internal agency operations and activities, including environmental aspects of energy and transportation functions,
- (ii) establishment of agency **objectives and targets** to ensure implementation of this order, and
- (iii) **collection, analysis, and reporting of information to measure performance** in the implementation of this order;

# Developments & Drivers (cont'd.)

## *Enterprise Risk Management*

The Committee of Sponsoring Organizations (COSO) developed a framework for internal controls in response to the last financial system crisis.

- Controls do not necessarily = performance.

In the wake of Sarbanes-Oxley, COSO published an Enterprise Risk Management (ERM) framework:

- Subject-neutral
- Address strategy, operations, compliance, (financial and non-financial) reporting
- Components are compatible with EMS
- Key concepts: enterprise boundary, baselines, priorities

[www.coso.org](http://www.coso.org)

# Developments & Drivers (cont'd.)

- Under new Administration, significant changes and more visibility are likely. Energy, Environment, responsibility, and accountability are all watch words.
- Changes, improvements likely expected to align with EO 13423 – with rationale, supporting documentation.
- With EO 13423 over two years old, many stakeholders (Executive and Legislative branch, other agencies, Non-Governmental Organizations, public) will expect to see goals, targets, and performance soon.
- As stewards of some of nation's most precious resources, the DOI could be expected to demonstrate leadership.
- Others?

# Addressing Developments & Drivers!



“Change”...

is easier to  
imagine than to  
implement.



### 3. Common Focus Areas

**Requirements, policies, programs, management, and reporting, are evolving quickly.**

Here are a few Common Focus Areas where attention can drive Environmental or Sustainability program improvements.

Do others come to mind?

What are yours?

# Common Focus Areas for EMS Development or Improvements (*cont'd.*)

## “Secrets of EMS”

- Document what you do, do what you document
  - Heavy on documentation
  - Not so much emphasis on performance
- Continuous improvement
  - No mention of on what or how fast
- Certification
  - Requires [only] that what's done = what's documented
  - Expensive
  - Recurring

# Environmental Management Systems: Other Considerations

- “Aspects” and “Impacts” → can change over time.
- Objectives and targets? → performance metrics are not specified
- Applicability, level of detail have changed over time – notably for energy and supply chain.
- All EMS’s are not created equal: how to compare (e.g., organization and vendors; Bureaus within departments, Business Units within companies)?
- Should EMS’s within an Organization BE the same?

*Is an EMS for everyone?*

*Does it make a difference how you approach it?*

# Common Focus Areas for EMS Development or Improvements

- “Compliance”:
  - Laws, regulations, Executive Orders.
  - Legal agreements (example: MOUs), industry standards, customer requirements.
  - Mission; other requirements.
- Standards: dozens. No..... scores. No..... Hundreds.
- Supply Chain: Vendor and procurement practices, customer/ stakeholder inquiries.
- Hidden Compliance Risks: permit applications, plans, reference documents, dynamics of changing standards.

*What's what? How do we track, prioritize, implement, and manage?*

# Common Focus Areas for EMS Development or Improvements *(cont'd.)*

- Benchmarking: “What’s everybody else doing?” The structure, goals, and documentation of benchmarking activities are critical to gaining useful information, and understanding limitations. However, other organizations’ information is likely to be:
  - Incomplete
  - Self-serving, and
  - Late

Understand uses and limitations of benchmarking.

- Stakeholders: more active, vigilant, assertive, and systematic. Their expectations can be narrowly focused, and may not align with each other. Or yours.

# Common Focus Areas for EMS Developments or Improvements *(cont'd.)*

- Assertions and Data: Assertions and data are standard elements of EMS programs and reporting.
  - How can EMS help support assertions and data? [example]
- Performance metrics can be driven by regulation, or by organizational needs.
  - What performance metrics make sense?
  - How can “leading indicators” be used to help drive performance?
  - What are risks of inaccurate, unsupportable, or inconsistent data?
  - How can EMS help? [example]

# Typical Benefits as Companies Develop and Implement EMS *cont'd.*)

- Aspects: document all the activities that have an effect on the Environment.
- Impacts: what are all the impacts the organization's activities might have on the Environment.
- Completeness: helps make sure we haven't forgotten anything – and if we have, to identify gaps and fill them
- Management of Change: for changes that can originate
  - Externally (regulations, mission, risks)
  - Internally (organization, staffing, operations)
- Transparency: provide documentation/ comfort to other parties

# Common Focus Areas for EMS Developments or Improvements *(cont'd.)*

- EHSS Auditing Basics: EHSS Auditing has been around 30+ years, with the Auditing Roundtable for 25 years. Basic principles can be applied to EMS:
  - Independence
  - Scope determination
  - Auditor credentials
  - Protocols or checklists [example]
  - Documentation and reporting
  - Corrective actions and follow-up [example]
  - What tips would some veterans impart?
- EHSS Auditing Skills can be applied to readiness with new or emerging issues, risk assessments, gap analysis, and other areas.

## Common Focus Areas for EMS Developments or Improvements *(cont'd.)*

- Root Cause Analysis: Finding compliance gaps is one thing—correcting them is another. Preventing gaps from recurring is even more helpful. How can underlying causes be identified and understood, to avoid recurrence?
- Trend Analysis: Audits, assessments, work groups, and ad hoc teams identify gaps (and sometimes leading practices!). How do individual findings, or groups of findings, point towards bigger issues that may require a fundamentally different approach?
- Ethical dilemmas: Work groups, auditors, or assessors will inevitably encounter situations that pose ethical dilemmas. What are some examples the Team's area? How could fraud occur? What mechanisms are available to discuss issues of potential concern, or to make appropriate reports.

## Common Focus Areas for EMS Developments or Improvements *(cont'd.)*

- The Enterprise View: Environmental touches almost every other organizational function, from Human Resources to Purchasing to Accounting. In many cases, these functions don't even know it! How can an EMS help work with these functions, get buy-in, and accelerate program development and performance? [example]
- New or Emerging Issues: EMS or Risk Management can be applied to new or emerging issues – where there may be no standards or protocols suitable for a compliance audit. How can an EMS or auditing skill sets be applied to conduct a gap analysis, readiness assessment, or a customized exercise for a new or emerging issue?



## 4. Discussion

### Contact Information

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### Professional Organizations

[www.auditing-roundtable.org](http://www.auditing-roundtable.org)

[www.beac.org](http://www.beac.org)

[www.theiia.org](http://www.theiia.org)

### Another Resource

[www.coso.org](http://www.coso.org)