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Mining and EHS Management Systems

Stories of Success and Failure

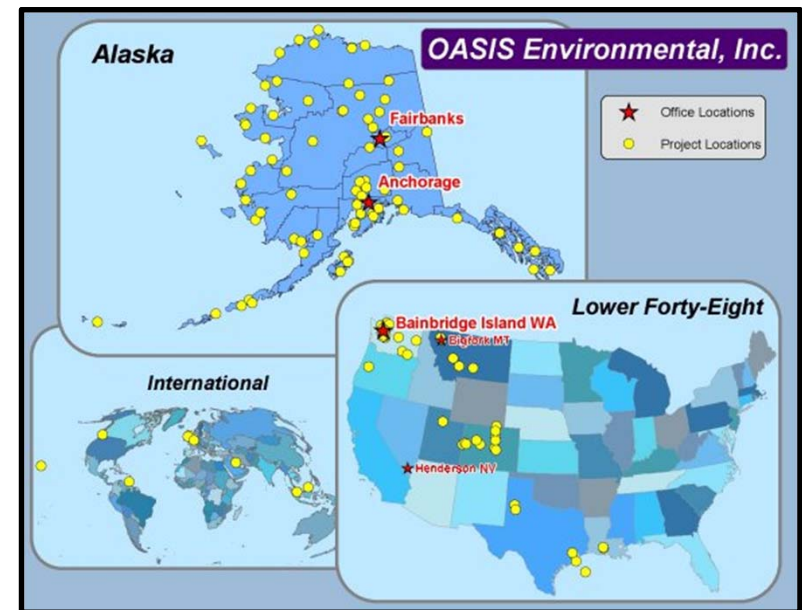*Nathan Sande*
Robert Newman

Who are we?

- **Nathan Sande**
  - Partner/Manager – Bigfork, Montana
  - EMS Project Manager, Regulatory/Waste Specialist, Environmental Engineer, Web/Database Application Developer
  - 15 years experience

- **Nicholas Schnee**
  - Partner/Senior Consultant - Bainbridge Island, Washington
  - EMS Services Lead and Project Manager
  - 21 years experience

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Who is OASIS?

- **EMS / ISO 14001 Experts**

- **Resource Extraction Industry Experience**
  - Mining
  - Oil and Gas Production/Exploration
  - Wood Products

- **Inter-Disciplinary Team**
  - EHS Management System Experts
  - Engineers
  - Compliance Specialists
  - Hydrologists
  - Risk Assessors
  - Biologists
  - Geologists

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What is ISO 14001 & EMS?

▸ **ISO 14001**
  ❑ A internationally-recognized collection of standards and framework designed to help organizations improve their environmental performance and manage environmental risks.

▸ **…a Management System**
  ❑ EMS does not, in itself, specify detailed environmental obligations of an organization, but rather provides the framework to meet them, manage them and continually improve.
  ❑ Provides the mechanism to demonstrate that you **Say** what you **Do**, and **Do** you what you **Say**.

▸ **"Fit for Purpose"**
  ❑ ISO 14001 is flexible and customizable to fit the needs of an operation.
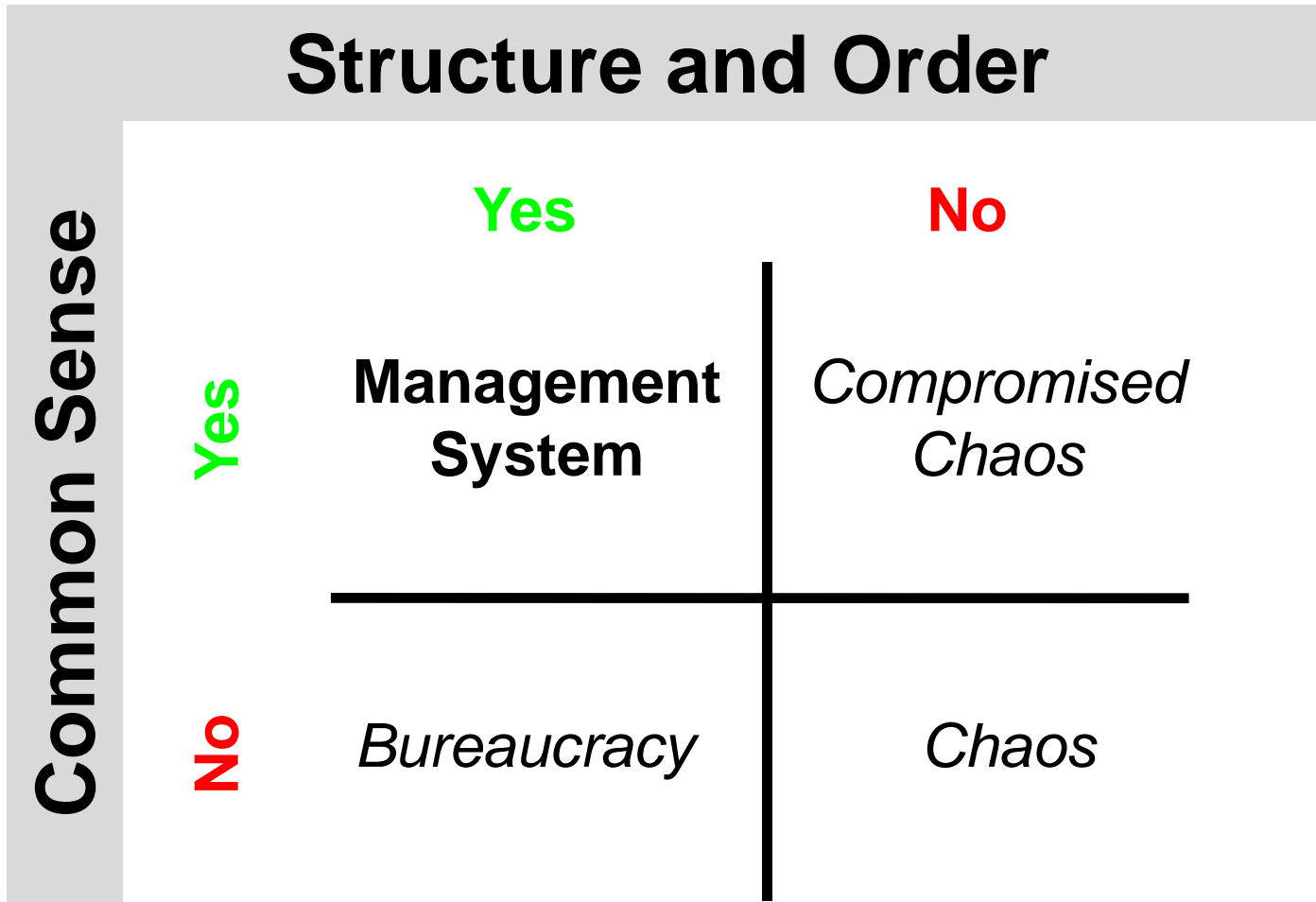
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What is ISO 14001 & EMS?

"A commitment to:

1) *continual improvement;*
2) *prevention of pollution; and*
3) *compliance with legal and other requirements.*

…with respect to the nature, scale and environmental impacts of an organization's activities, products or services."

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System Litmus Test

Structure and Order

	Yes	No
Yes	**Management System**	*Compromised Chaos*
No	*Bureaucracy*	*Chaos*

Common Sense

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The Top 10 ISO 14001 Pitfalls

LATE SHOW with OASIS Environmental

"…and now, today's Top Ten List."

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#10 – The System Costs What?

▶ **Lack of recognition that lifetime cost of the management system is significant.**

- ❑ Initial design and implementation typically requires a significant amount of labor to complete.

- ❑ An annual budget needs to be allotted for system maintenance, certification surveillance audits, etc. once design/implementation completed.

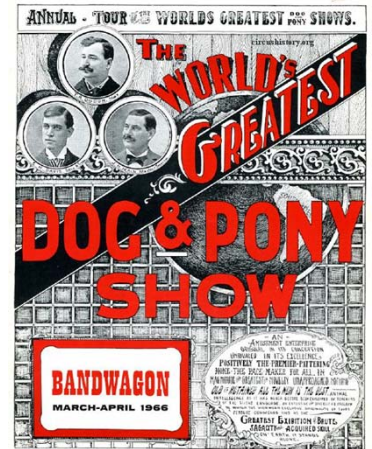oasis | ENVIRONMENTAL

#9 – "We can build it in 2 months"

▶ **Unrealistic time frames and labor allocation for development and implementation.**

❑ EMS helps manage some of an operation's most significant risks. Would you trust someone to come in and design and implement management system for some of your most significant risks in an 8-week timeframe?

❑ Tackling too much work in too little time.

❑ Phased development is typically more successful - expand the scope of proven, currently existing management methods.
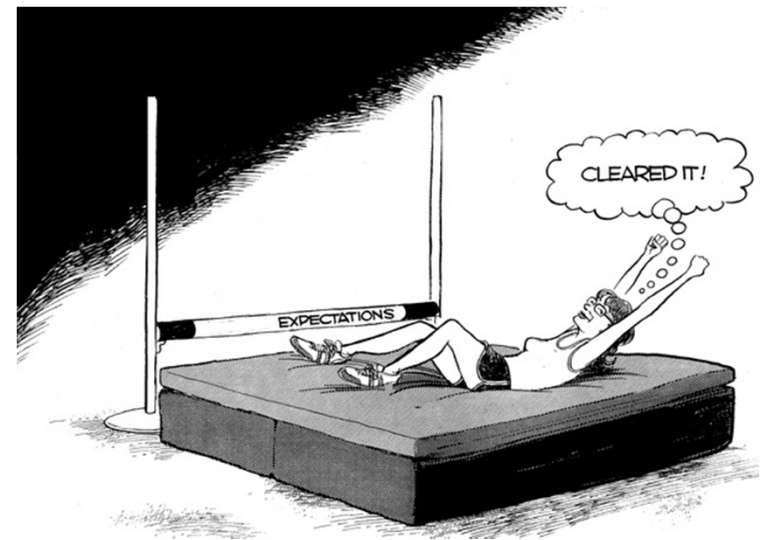
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#8 – The Dog & Pony show

▶ **Implementing an EMS purely for others' perception.**

❑ The system won't work if no one believes it has a bottom line purpose.

❑ Top management endorsement is often not present nor actively sought.

❑ *…putting lipstick on the pig…*

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#7 – Setting the Bar Too Low

▶ **Keeping the limit and scope of the EMS small and insignificant.**

- Setting the bar low so there's no way an operation can fail.

- System provides no benefit because no challenges for improvement are identified or practiced.

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#6 – "…there are no tags on these fire extinguishers…"

▸ **Using an ISO 14001 auditor who does not understand your business or operation.**

- ❑ EMS certification fails because of an auditor's lack of knowledge about the mining industry.
- ❑ Operations' faith in the EMS is undermined by certification failure.
- ❑ Initial perception of the system's overall value is minimized due to an audit's focus upon items of limited worth.

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#5 – "EMS should be managed as a separate entity…"

▸ **Initiate new and separate activities for the EMS, rather than modify existing activities to conform to the EMS.**

  ❑ Most operations have most pieces of a functioning EMS already in place – the framework just needs to be applied.

▸ **Management system "turf-wars" may occur.**

  ❑ Quality Management System
  ❑ Contractor Management System
  ❑ Health and Safety Management System
  ❑ Operations Integrity Management System
  ❑ Environmental Management System

HANDS OFF! PLEASE LOOK, BUT DO NOT TOUCH!

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#4 – "…but it worked in my spreadsheet…"

▶ **High goals and expectations and targets set in the EMS are not matched by ground reality and action.**

- ❑ An EMS team spearheading implementation without setting foot out of the office or communicating outside the group.

▶ **Bureaucratic response, instead of focus upon integration with day-to-day operations.**

▶ **Failing to recognize that operations typically would rather be told what they need to do, rather than understand all of the philosophy and concepts behind an EMS.**
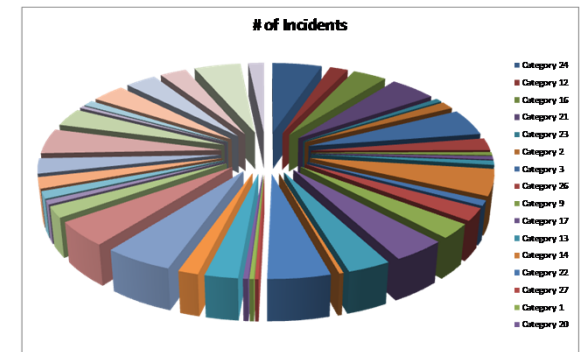
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#3 – "but the EMS Document says…"

▸ **Not recognizing that the heart of the EMS is the People comprising the Operation, not the documents that support it.**

❑ Over-reliance upon documents, rather than providing tools, capabilities, and competencies that deliver improved performance.

❑ Active participation of all staff members and departments are not sought for design and implementation.

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#2 – "We're going to identify everything"

▶ **Paralyzing Detail**

   ❑ Analyzing every part of an operation to so much detail that the big picture is lost.

   ❑ Creating so much analysis/evaluation work that the project cannot be completed.

   ❑ Thinking that an EMS can deliver stepwise instruction and framework for every activity at a site.

   ❑ Losing support from operations personnel by turning the EMS into a micro-management tool.

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#1 – "Just Get the Certificate"

- **Implement an EMS and apply for ISO 14001 certification for the sake of obtaining the certificate.**

  - EMS activities are terminated after certificate has been obtained.

  - Subsequent focus is on documentation and data gathering for audits, rather than on activities and actions.

  - Chasing data last minute for surveillance audits costs more than maintaining the system.

ISO 14001

BUREAU VERITAS
Certification

PANIC

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Questions or Comments?

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