

Photo credit - Todd Rosenberg

Connecting Boiler Operation with Environmental Performance

*Organizational Behavior/Systems that
Result in Team Effort*

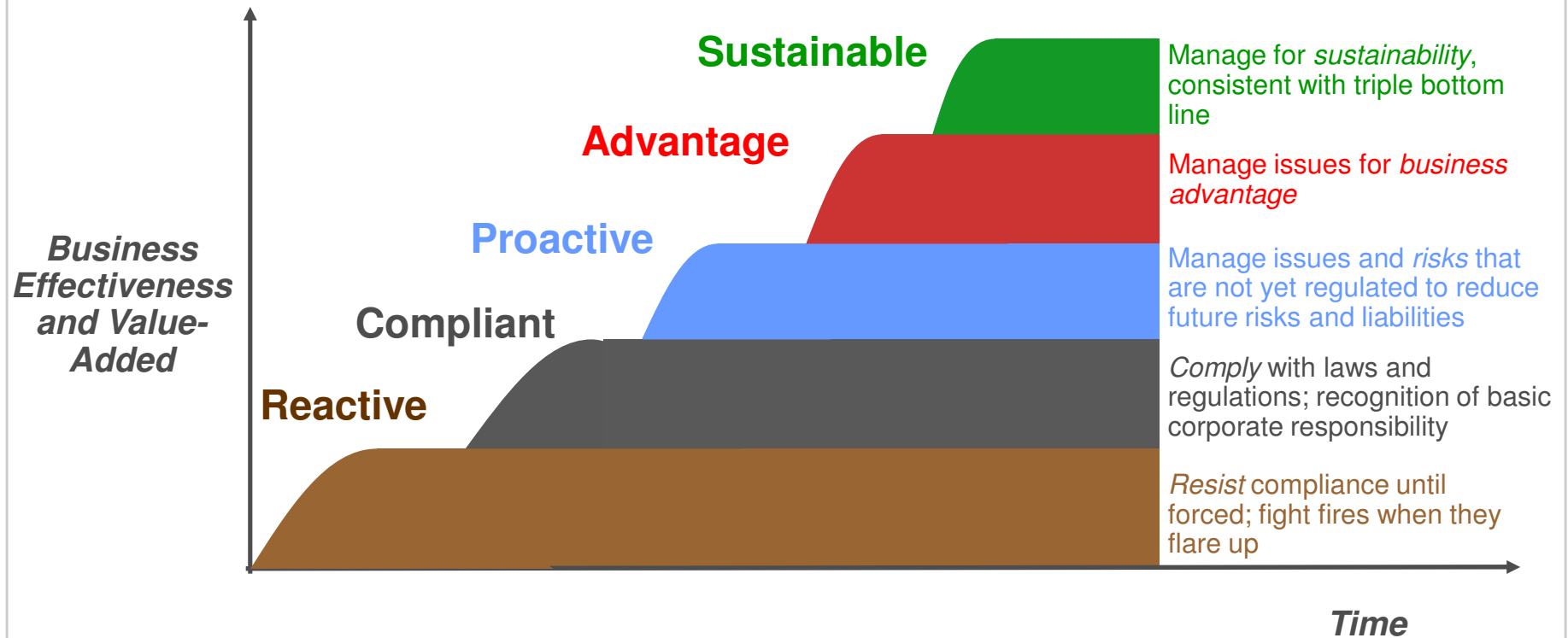
*CIBO Quarterly Focus Group
8 June 2010*

Bernie Evans

OVERVIEW / AGENDA

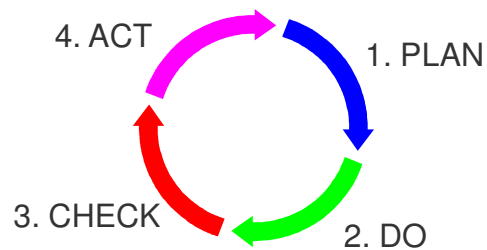
- **Environmental Management Systems**
- **What Makes up “Best Performing System”?**
- **Examples of Bad and Good Programs**
- **Discussion/Take-Aways**

Evolution of EHS Management - approx. 1970's to Present



Why a management system approach?

Good Systems



Good results



- Reduces dependence on people
- Creates focus on key issues
- Finds and corrects problems
- Drives continuous improvement

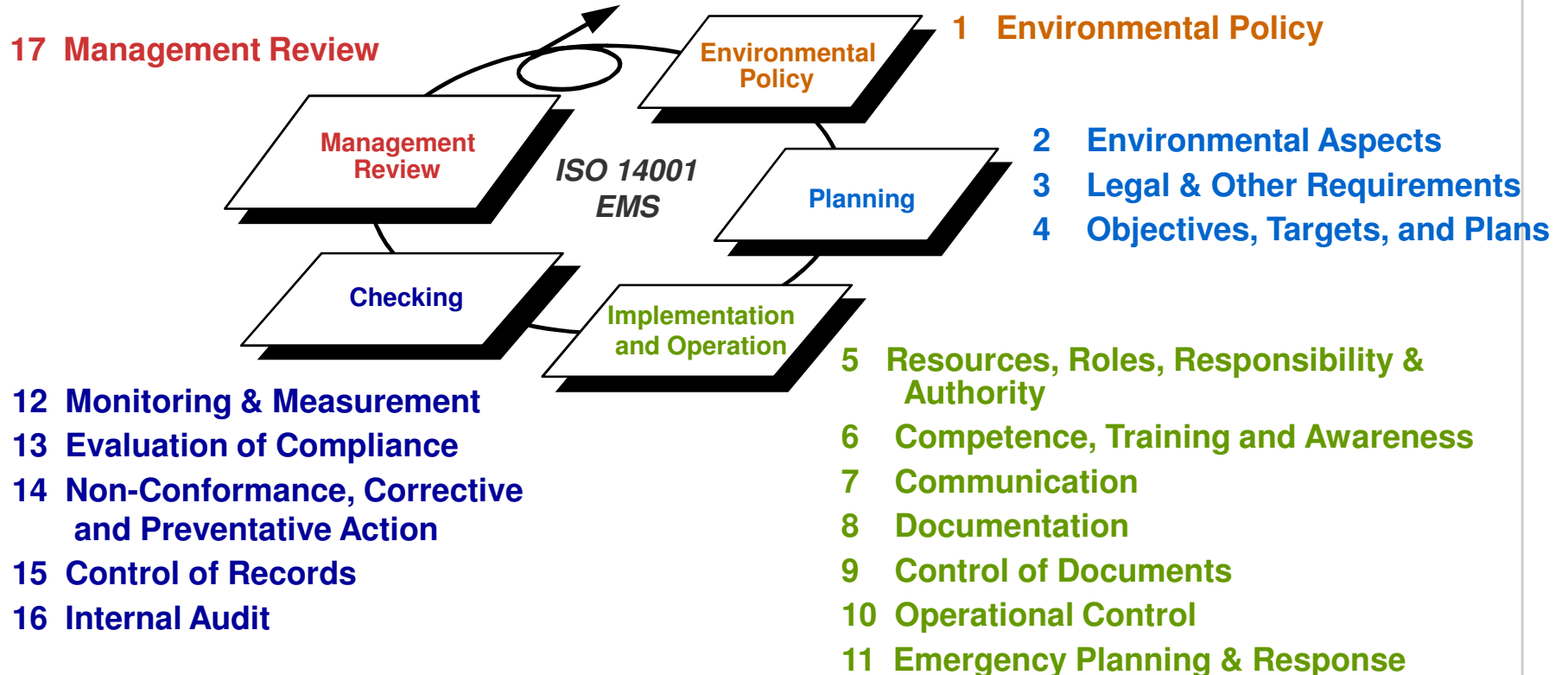
- Demonstrates corporate diligence
- Builds culture over time
- Ensures common minimums everywhere

There are many models out there ...

- **International Chamber of Commerce Business Charter for Sustainable Development**
- **Coalition of Environmentally Responsible Economies (CERES)**
- **UN Global Compact**
- **International Organization of Standardization (ISO 14001)**
- **BSI OHSAS 18001**
- **Europe's Eco-Management and Audit Scheme (EMAS)**
- **EPA's National Enforcement Investigations Center Compliance-Focused EMS**
- **Amendments to the DOJ Sentencing Guidelines**
- **Industry-Specific: ACC, API, E&P Forum, CIA**
- **AA1000 Assurance Standard**

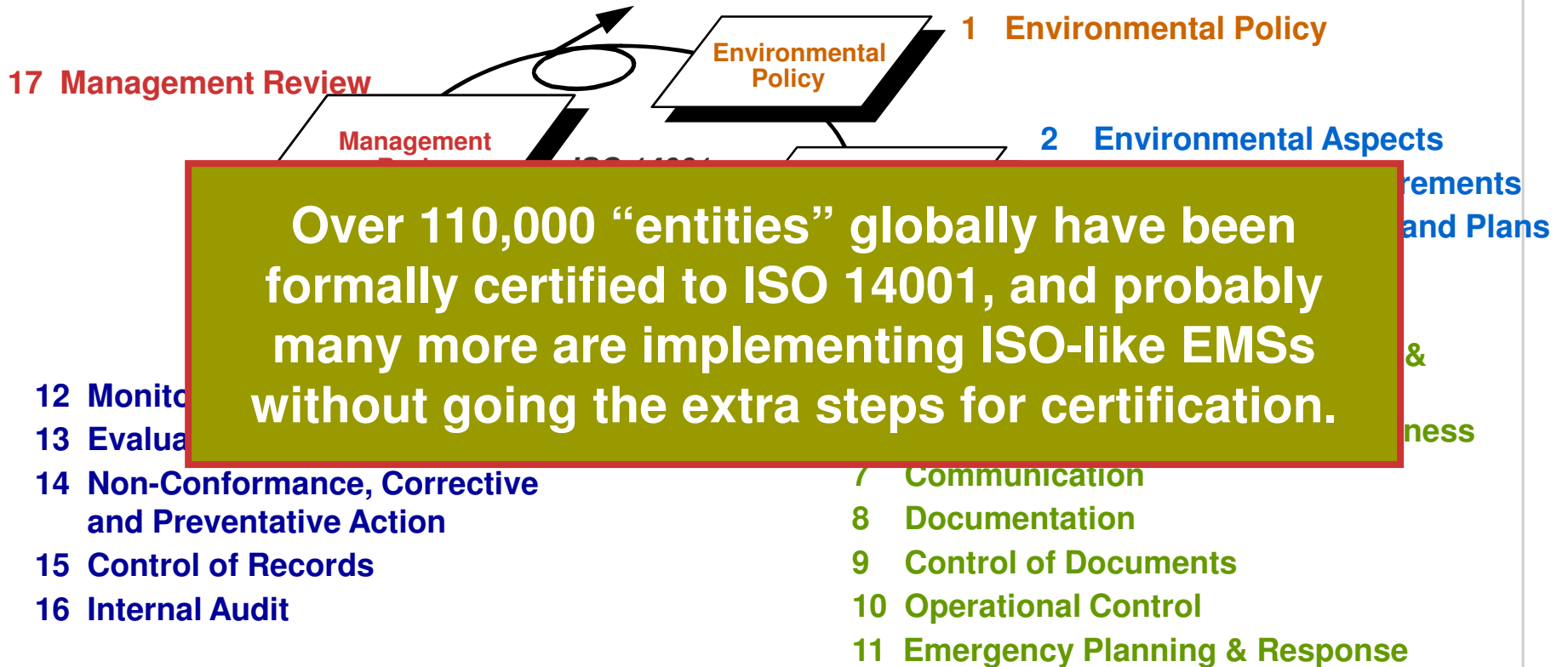
**Some of these
date back to 1989**

The components are generally the same...



Typical EMS combine a risk-based approach with a traditional “Plan-Do-Check-Act”, continuous improvement framework

The components are generally the same



Typical EMS combine a risk-based approach with a traditional “Plan-Do-Check-Act”, continuous improvement framework

The Services of the Environmental Management Systems (EMS) Practice:

- **Corporate Environmental Policy and Strategy**
- **EMS Review and Assessment/GAP Analyses**
- **EMS Streamlining & Implementation**
- **Benchmarking**
- **Analysis of Stakeholder Expectations**
- **Evaluation of Supply Chain Pressures**

EMS Actions

- **Environmental Management Systems**
 - Hundreds of EMS Development and Assessment Projects
- **Business Integration Forums**
 - Conducted Over Multiple Years
 - 30 to 50 Participating Firms

EMS Assessment Actions

What Did EMS Practitioners Learn During EMS Assessments?

Key Elements for the Best Performers:

- **Senior Leadership Commitment & A Culture of Compliance**
- **Compliance Requirements Understood, Communicated & Tracked**
 - Establish Clear **Accountability!**
- **Effective CORE Programs**
 - Management of Change
 - Audit/Corrective Action

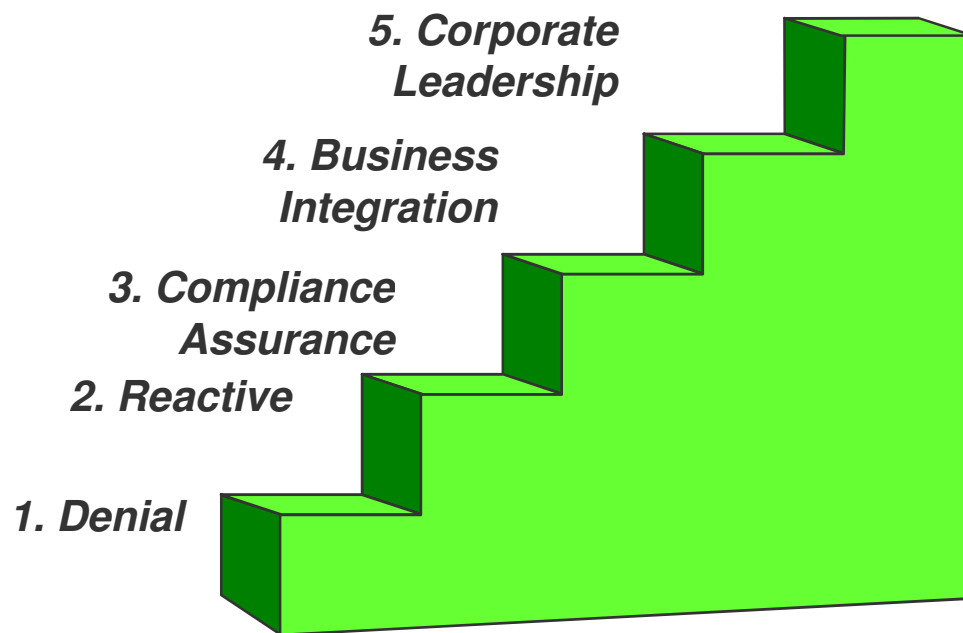
EMS Business Integration Forums

- 35+ senior Environmental, Health, Safety/Corporate Social Responsibility (EHS/CSR] managers, represented 30+ companies from a wide range of sectors
- Analyzed and discussed over 500 initiatives
 - Produced insight into what companies are doing and why
- 54 senior managers from 49 different companies
- Focused on “managing for performance”:
 - What kind of EHS/CSR performance does my company need?
 - What is my function’s role in driving change through the company to deliver that performance?

What Did EMS Practitioners Learn from the Business Integration Forums?

Examples of Good and Bad Programs

Where is my company?



Corporate Leadership – We lead the pack and set the benchmark for others. EHS is an integral part of how we operate. EHS supports and is supported by our identity.

Business Integration - EHS compliance and performance are part of how we do business.

Compliance Assurance - We try to protect the company and make sure we are not causing problems.

Reactive - If something goes wrong we respond, but we hope we can ignore broader issues.

Denial - We have no problems, business is free to do what ever it wants, there are no limits.

Management systems

- 1. We don't need complicated systems. We've got smart people, they know what to do without us having to tell them.**
- 2. After a major incident or violation we write another policy telling people what not to do so we don't get in trouble again.**
- 3. We have comprehensive EHS policies and procedures, with clear responsibilities, training, and auditing.**
- 4. All departments and functions accept EHS responsibilities, integrate them into their business processes and daily operations, and train and audit based on those responsibilities. We can go through changes to people, products, processes and plants without jeopardizing consistent, reliable performance.**
- 5. Our EHS management systems help create value, and drive and manage change throughout the company. Simple, compelling business messages communicate our EHS policies, and engage and energize people around the company and our business partners.**

Performance Improvement and Measurement

- 1. We have no quantified EHS performance measures.**
- 2. We have “lagging indicators” that measure things after they happen (e.g. lost work days/100 employees, permit exceedances).**
- 3. We set measurable goals to improve EHS performance based on risks, current performance, and internal business and external changes. We routinely and consistently monitor and measure ourselves against them. EHS has action plans to meet the EHS goals.**
- 4. Management and Line Operations helps set the EHS goals and incorporates those goals into business goals and plans. Line management goals include both lagging indicators and leading efforts (e.g. % of employees attending safety training).**
- 5. Performance against goals is reviewed at least quarterly and modifications are made to goals and strategy in “real time”. Goals are established for true leading indicators (such as business-related metrics which indicate trends for incident performance).**

Managers' EHS Support

- 1. Management has more important things to worry about than EHS.**
- 2. If something goes wrong and changes need to be made, management will support the changes, even if it means spending money.**
- 3. Management provides on-going support and provides adequate staffing and funding to assure compliance and support key processes and programs.**
- 4. Management supports the EHS policy and programs visibly and actively. EHS is on the agenda in business meetings. Department and functional managers are expected to provide staffing and funding to do the job right.**
- 5. Management drives continuous improvement in EHS performance, encourages the setting of aggressive EHS performance goals and building them into all business plans and processes.**

Line Operation's EHS responsibility

1. Operations are expected to make money, not to “do good deeds”.
2. If Line Operations get us into trouble for EHS problems, we blame EHS staff first, and then sometimes management.
3. Line Operations feel some responsibility for ensuring that their staff perform EHS compliance functions. They receive periodic reports showing EHS performance data.
4. Line Operations are directly responsible for their staff's EHS performance results. EHS shows up somewhere in managers' performance appraisals.
5. EHS performance – good or bad – is an important factor in Line Operation's compensation and career path.

EHS management information systems

- 1. We have nothing to keep track of or communicate.**
- 2. If something happens, we manage through e-mail, digging out old documents, photocopying and mailing copies around.**
- 3. We have some IT applications to address specific EHS programs (such as incident reporting, regulatory tracking, auditing). Applications are developed for and used by selected EHS staff.**
- 4. EHS IT applications serve a range of users including operations staff. Most frequent, experienced users can get to the information they need with minimum pain. Allows efficiencies in staffing as people share information and best practices.**
- 5. EHS management information systems drive and support a wide range of knowledge management and sharing. Users around the company get and share ideas, learn from each other, and improve performance.**

Compliance Auditing

- 1. We don't.**
- 2. We'll send someone in to check for problems once we've had a violation, to make sure there's nothing else wrong.**
- 3. We have an effective on-going compliance auditing program, with a set schedule, adequate staffing and training, and a corrective action tracking process**
- 4. Our on-going audit program is driven and supported by the business but independent and credible. Managers are held accountable for timely completion of corrective actions and face consequences for repeat findings.**
- 5. Senior management is actively involved in supporting and learning from the audit process. Senior managers participate in meaningful discussions of audit results, focusing on lessons to be learned as well as reinforcing management and operations accountability for performance.**

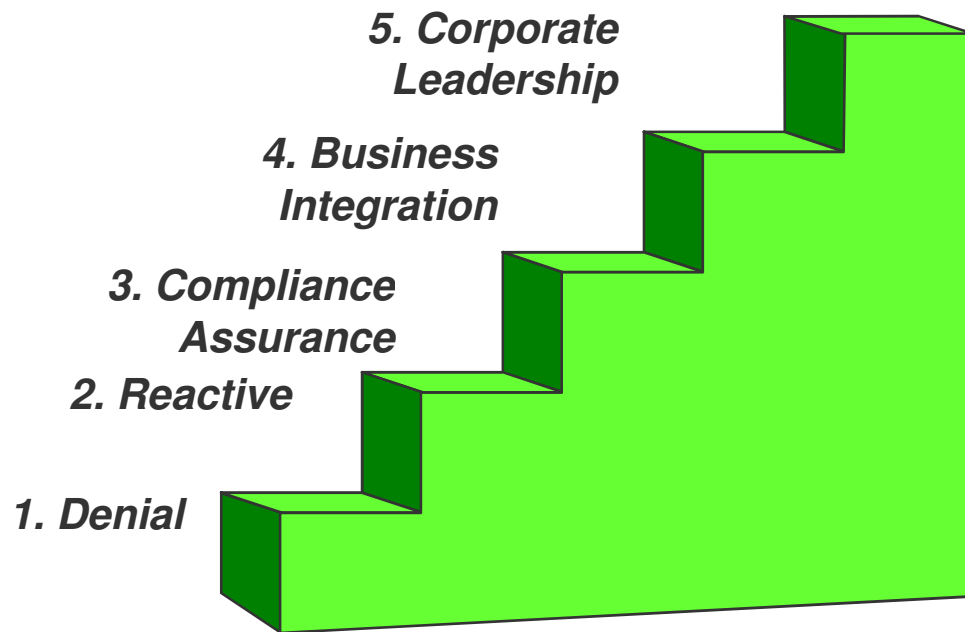
Internal Reporting

- 1. Our EHS performance is protected and discussed only on a “need-to-know” basis.**
- 2. We report up to senior management after the fact, informing them about spending and major negative events such as compliance failures (NOV’s) and releases.**
- 3. We gather and report data on our EHS performance on on-going basis.**
- 4. We establish key indicators, set goals, benchmark, track progress, and report on all of these internally.**
- 5. We have an ongoing dialog on our EHS performance with senior management including periodically with the Board, with two-way communications leading to improvements in the way we do business.**

External Reporting & Communications

- 1. Our EHS/CSR performance is protected and discussed only on a “need-to-know” basis.**
- 2. We gather data on our EHS/CSR performance and report to internal audiences only.**
- 3. We share EHS/CSR performance data with external stakeholders.**
- 4. We establish key indicators, set goals, benchmark, track progress, and report on all of these externally.**
- 5. We have an ongoing dialog on our performance with a wide range of internal and external stakeholders, with two-way communications leading to improvements in the way we do business.**

Where is my company?



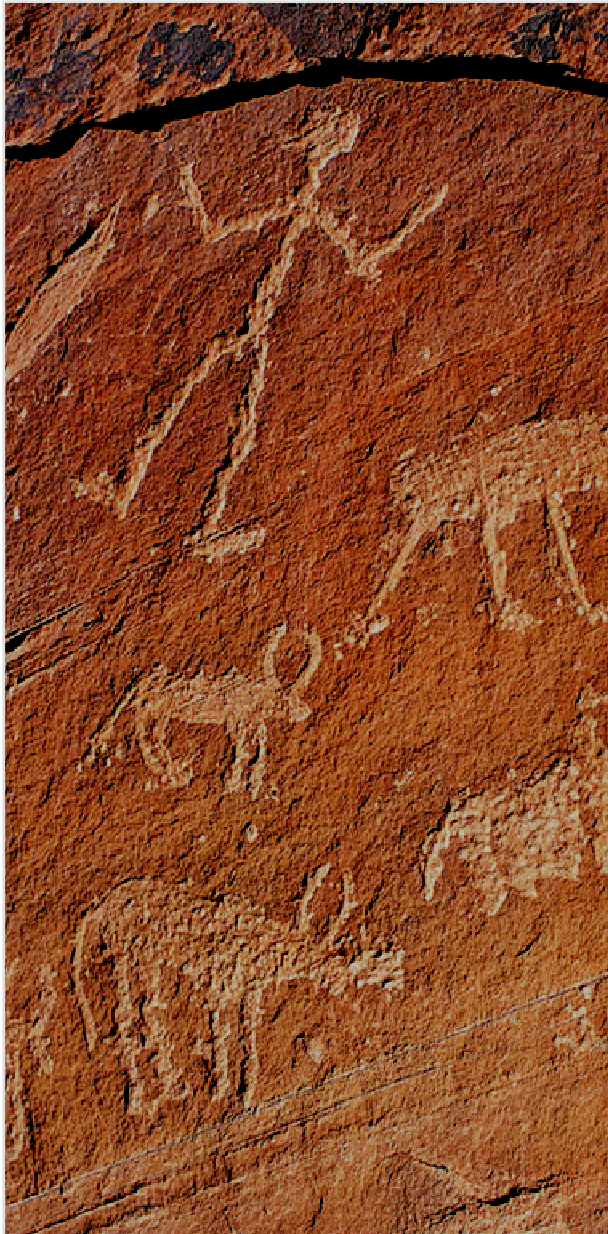
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Diagnostic: Three Questions

Looking at these areas in more depth:

- Where am I now?
- Where do I need to be in 24 months?
- What are the gaps – if any -- that I need to pay attention to now?

EXAMPLE

Where is my company now?

	1	2	3	4	5	Comments
Assurance/Governance						
Compliance expectations				⊗		
Compliance auditing			○		X	
Incident investigation				X	○	
Management systems			○	X		
Line managers' EHS support				○	X	
Line managers' EHS responsibility			○	X		
Risk evaluation	○		X			
Emergency preparedness and response		○			X	
Mergers, divestitures and Acquisitions				⊗		
Reserves		○		X		

Where is my company now?

	1	2	3	4	5
Assurance/Governance					
Compliance expectations				⊗	
Compliance auditing			○	⊗	⊗
Incident investigation				X	○
Management systems			○	X	
Line managers' EHS support				○	⊗
Line managers' EHS responsibility			○	X	
Risk evaluation	○		X		
Emergency preparedness and response		○			⊗
Mergers, divestitures and Acquisitions				⊗	
Reserves		○		X	

Why should my company aim for this level? Is there a "business case"?
Is this part of our definition of "who we are"?

Where is my company now?

	1	2	3	4	5	Comments
Assurance/Governance						
Compliance expectations						
Compliance auditing			O			
Incident investigation						
Management systems			O			
Line managers' EHS support						
Line managers' EHS responsibility			O			
Risk evaluation	O		X			
Emergency preparedness and response		O			X	
Mergers, divestitures and Acquisitions				⊗		
Reserves		O		X		

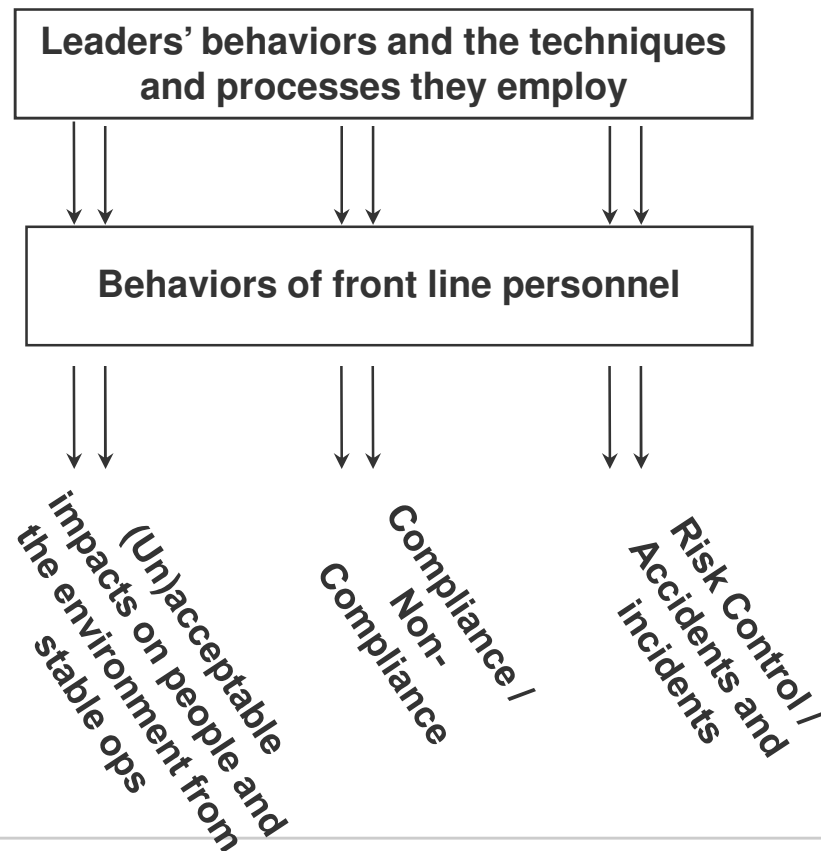
Can my company accept this level? Is this good enough to protect the business?

Where is my company now?

	1	2	3	4	5	Comments
Assurance/Governance						
Compliance expectations				⊗		
Compliance auditing			○	□	>	
Incident investigation				X	○	
Management systems			○	X		
Line managers' EHS support				○	X	
Line managers' EHS responsibility			○	X		
Risk evaluation	○	□	X			
Emergency preparedness and response		○	□	□	X	
Mergers, divestitures and Acquisitions				⊗		
Reserves		○	□	X		

Which gaps are most important to close?
What will it take to close them?

All performance outcomes arise from behaviors



- Leaders' commitment and their behaviors, the techniques they use, the resources they provide and the systematic processes they adopt will yield a body of behaviours amongst front line personnel
- Behaviors of front line personnel which arise from these will yield good and bad EHS and operational outcomes
 - Risk control and incidents
 - Compliance and non compliance with defined requirements
 - Acceptable impacts on people and the environment from stable operations and unacceptable impacts
- **Behaviors = thought + action**

Improving performance outcomes

- **Better EHS outcomes only arise if front line personnel change their behaviors (i.e. when they think and act differently)**
- **Front line personnel will only change their behaviors if managers adopt different behaviors and use different approaches**

Discussion/Take-Aways

Robust Environmental Management Relies on Several Key Elements:

- **Senior Leadership Commitment & A Culture of Compliance**
- **Compliance Requirements Understood, Communicated & Tracked**
- **Effective CORE Programs**