EMS implementation, audit and certification for real performance

NAEM International Conference

Thousand Oaks, California

15 July 2004

Brian Kraus

Chief Executive Officer

ERM Certification and Verification Services

ERMCVS

About ERM Certification and Verification Services

- An independent member of the worldwide ERM Group

- Provide full suite of EHS certification and verification service
  - ISO 14001, EMAS, OHSAS 18001 certification
  - Sustainability report verification
  - GHG verification (UKAS, UNFCC-accredited)
  - Integrated compliance and certification auditing programmes
  - Accredited training

- Advisory Board: Derek Osborn, William K Reilly, Professor Dan Esty and others

Clients include

- Amerada Hess
- Applied Materials
- ArvinMeritor
- Bausch & Lomb
- Baxter
- Bayer
- BHP Billiton
- BP
- ConocoPhillips
- Dura Automotive
- DuPont
- ENI
- Exxon
- GKN plc
- GlaxoSmithKline

- Huntsman Chemicals
- Johnson & Johnson
- Lincoln Electric
- Marks & Spencer
- MEMC Electronic Materials
- Miami Int'l Airport
- Motiva Enterprises
- National Institutes of Health
- Nike
- Philip Morris
- Pfizer
- Port of Houston
- Premier Oil
- Proctor & Gamble

- Rohm & Haas
- Shangri La
- Shell Chemicals
- Shell Oil
- Smiths plc
- State Env. Agencies (Colorado, Texas, Utah, Virginia)
- Statoil
- Timken
- National Grid Transco
- Umicore
- U.S. Air Force
- U.S. Army
- World Bank

Organisations seeking to use ISO 14001 for real value

ERM CVS *is working in 52 countries*

The Americas

- Argentina
- Brazil
- Canada
- Chile
- Costa Rica
- Colombia
- Domin. Rep.
- Mexico
- Peru
- Puerto Rico
- Trinidad
- Venezuela
- U.S.A.

Europe

- Austria
- Belgium
- Bulgaria
- Czech Rep.
- Denmark
- France
- Germany
- Hungary
- Ireland
- Italy
- Malta
- Netherlands
- Portugal
- Spain
- Sweden
- Switzerland
- Turkey
- U.K.

Asia-Pacific

- Australia
- China
- Hong Kong
- India
- Indonesia
- Japan
- Korea
- Malaysia
- Pakistan
- Philippines
- Singapore
- Sri Lanka
- Taiwan
- Thailand
- Vietnam

Africa/Mid. East

- Algeria
- Iran
- Libya
- South Africa
- Tunisia
- Zimbabwe

Environment: an increasing source of risk to business

- Young science with massive levels of research into emerging issues

- Focus on environment by school teachers, companies, governments, media, NGOs and others giving rise to:
  - Product obsolesce
  - Liabilities (even for issues not considered today)
  - More NIMBYs (less tolerance of impacts)
  - More regulation, tighter enforcement and environmental taxation
  - Greater focus on environmental in the market place (supply chain and competitive pressure)

EMS (implementation, auditing and certification): an opportunity

- Management engagement

- A whatever it takes mentality with certification

- Resource intensive

  - Over 95% internal resources (program development, training, recurring pre-audit blitz).

  - Less than 5% external resources (consultant fees, certifier fees, printing costs, etc).
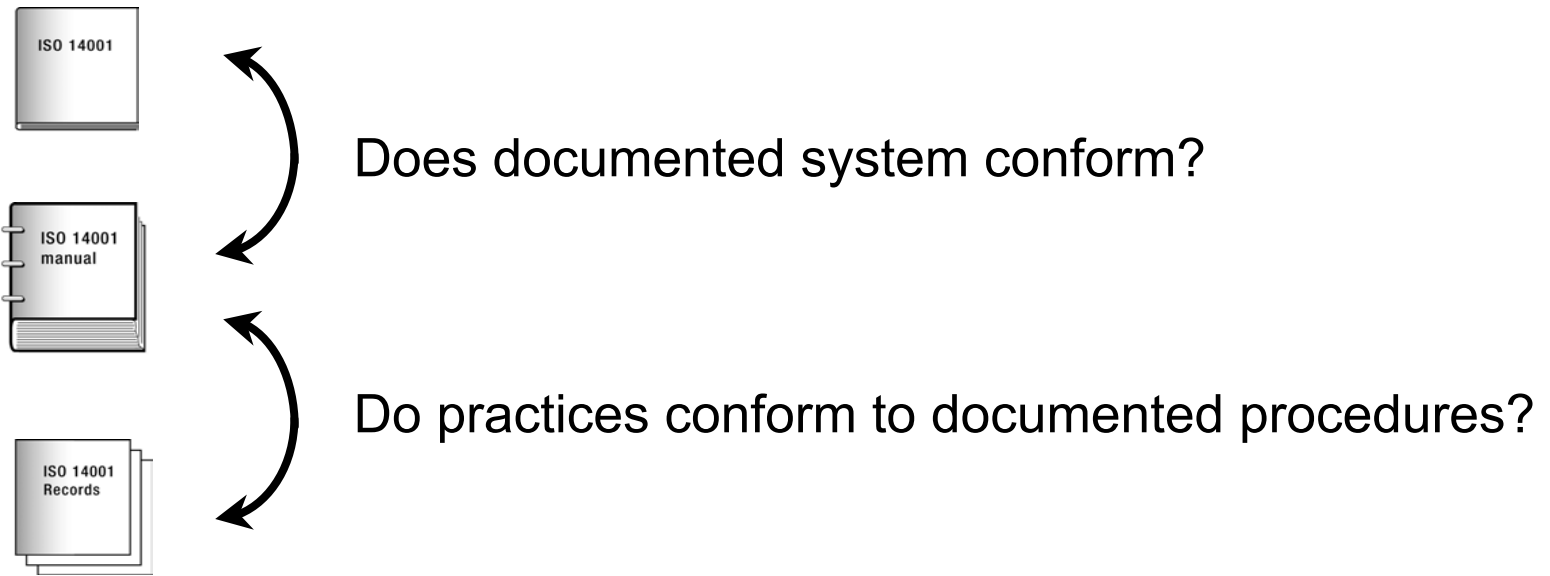
Do EMSs deliver?

ISO 14001 - a checklist of needs for good environmental management

- On-going commitment and engagement from the top (compliance, improvement);

- Ways of ensuring environmental issues and regulatory requirements are understood;

- Programs for setting and meeting improvement goals;

- Means for ensuring competence;

- Means for ensuring responsibilities clear and communicated.

- Communication channels for environmental information clear and functioning.

ISO 14001 - a checklist of needs for good environmental management contd.

- Necessary documents and records up-to-date and accessible;

- Clearly defined methods for controlling operations which can cause significant impact (documented where necessary);

- Measuring performance (critical emissions and compliance);

- Possible emergencies understood and response mechanisms established

- Programs to test if meeting goals and the effectiveness of management of the environment;

- Properly addressing problems if they arise (correcting and preventing).

Traditional (ISO 9000–like) approach to EMS auditing and certification

ISO 14001

Does documented system conform?

ISO 14001 manual

Do practices conform to documented procedures?

ISO 14001 Records

- Focuses on conformance (to the standard)
- Centered around the documented system manual
- Not consistent with the way people (managers) get results
- Multiple studies finding poor correlation between E (and H&S) MS and performance

Multiple studies show little correlation between EMS and performance

- UK's Environment Agency commissioned the Policy Studies Institute – considered most comprehensive ever

- Reviewed 843 industrial sites and compared them with the Agency's enforcement action records

- "EMSs do not lead to direct improvements in outcomes, as measured by incidents and complaints or by legal action than tho without."

- "...the analysis came up with no evidence that an externally validated EMS leads to direct improvements in outcomes, as measured either by OPA 6 scores in the operator performance assessment, or by the legal compliance record. Therefore, reduc the degree of inspection for compliance at sites with EMAS or IS 14001 is unlikely to lead to a better targeting of resources."

Multiple studies show little correlation between EMS and performance

- Conducted by University of Sussex's SPRU and six Europe[an] research institutes
- Reviewed 430 manufacturing facilities in five industrial sectors across six European countries
- "firms and sites with certified environmental management systems (ISO 14001 or EMAS) did not appear to perform better than those without"

- Industrial Research Institutes in Sweden
- Reviewed nearly 200 ISO-certified and EMAS-registered Swedis[h] companies
- Half the companies that participated in the study missed some of their most important environmental risks (aspects) and that there [is] considerable room for improvement in the application of EMS standards by auditors.

# *Multiple studies show little correlation between EMS and performance*

NDEMS

- Three year study conducted by the University of North Carolina at Chapel Hill

- Reviewed 83 facilities in 17 U.S. states to determine the effect of EMSs on a facility's performance, regulatory compliance, and economic performance

- "On the whole, however, there was no statistical difference between the total numbers of violations, non-compliances or fines at these facilities [those with EMSs to those without them]

AIHA
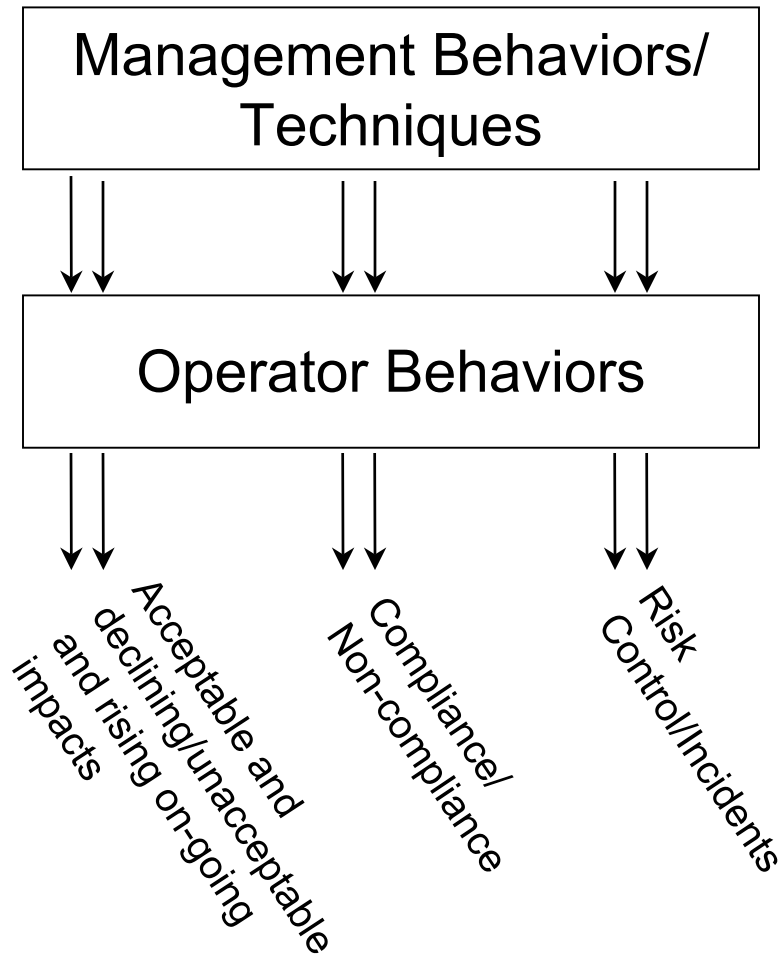**Your Essential Connection**

- Research conducted by Loma Linda University (Calif.) on OHSMS; published in AIHA Journal (Dec. 2003)

- "Findings presented here raise potentially disturbing questions regarding the reliability of OHS management programme and system audit findings, particularly in light of the emphasis industry has placed on certifications and status achieved secondary to "passing" an audit."

Managers use a variety of techniques to produce outcomes
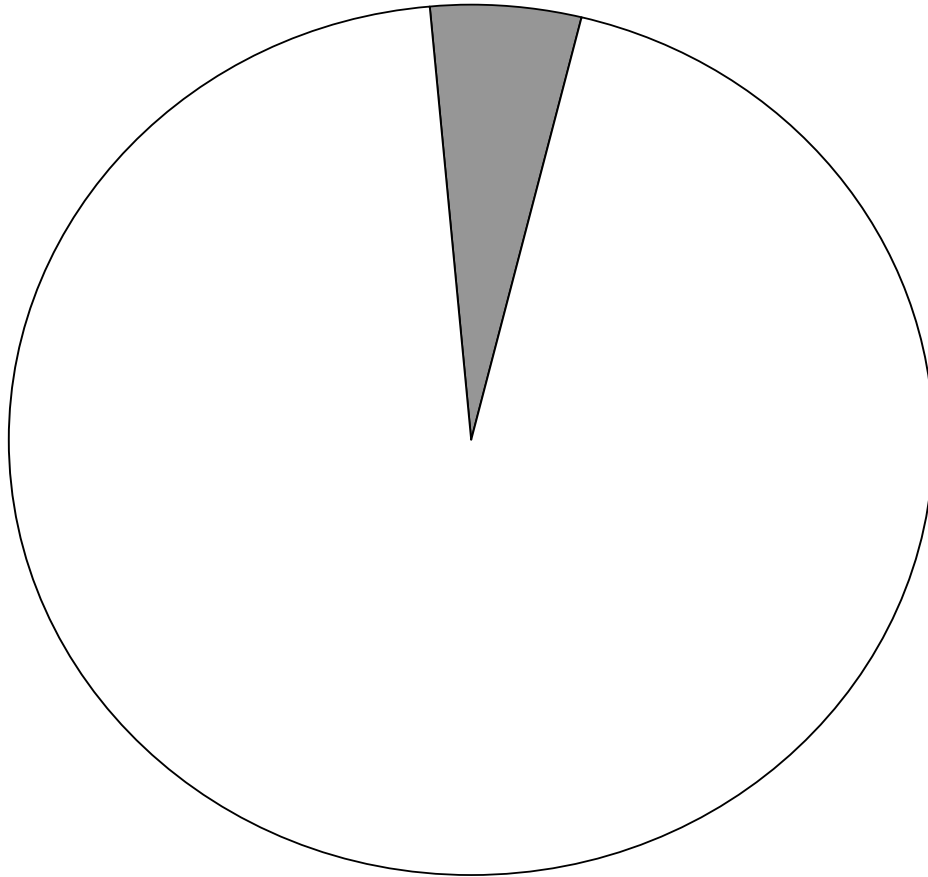
- Environmental outcomes are a product of management and operator behaviors

- Use of documented procedures typically represent less than 10% of the body of techniques used by managers to drive performance

All environmental outcomes are a product of management and operator behaviors

```
┌─────────────────────────────────┐
│   Management Behaviors/          │
│   Techniques                     │
└─────────────────────────────────┘
        ↓↓        ↓↓        ↓↓
┌─────────────────────────────────┐
│   Operator Behaviors             │
└─────────────────────────────────┘
        ↓↓        ↓↓        ↓↓
```

Acceptable and declining/unacceptable and rising on-going impacts

Compliance/ Non-compliance

Risk Control/Incidents

- Good systems produce behaviors which yield good outcomes

- Weak systems produce behaviors which yield poor outcomes

- Improvement (better outcomes) derived from changed management and operator behaviors

EMS implementation, auditing and certification for enhanced performance

- Harness management commitment (to good audit outcomes, certification) and the resources that come with it

- Focus all energy, activity and resources on changing management and operator behaviors

LMS implementation, auditing and certification for enhanced performance

1. **Understand – through audit**
   - What sub-optimal outcomes are arising (poor risk control, non-compliance, ongoing emissions and resource consumption)
   - Assess their seriousness (for the environment and the business)
   - Why they are arising (in behavioral terms)

2. **Help management understand how it is – so they <u>want</u> change**
   - They need to see how serious it is and understand what it might mean for the business and them personally (photos, quotes and thought provoking interviews)

3. **Build a team (internals / externals) who share your vision**
   - How to address environment as an increasing source of risk to the business
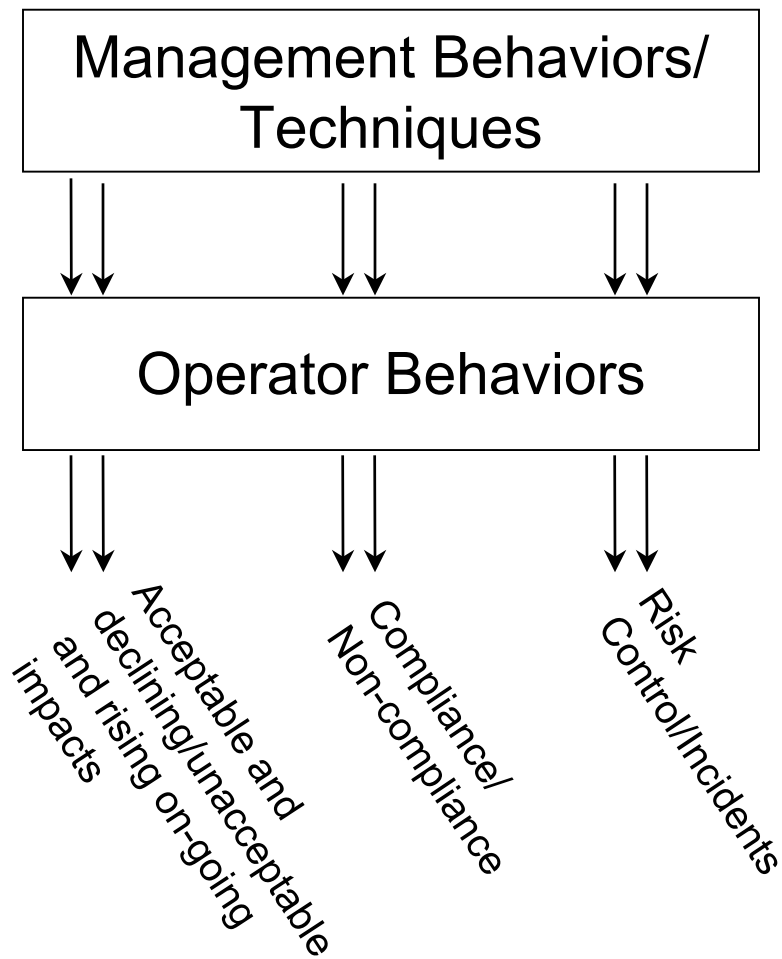
4. Develop effective outcome focussed means to

– Establish what needs to be addressed (risks, compliance needs, where ongoing impacts arise and potential for reducing them)

– Ensure people are competent and feel accountable

– Ensure they are behaving accordingly

5. Advertise, train, coach, persuade
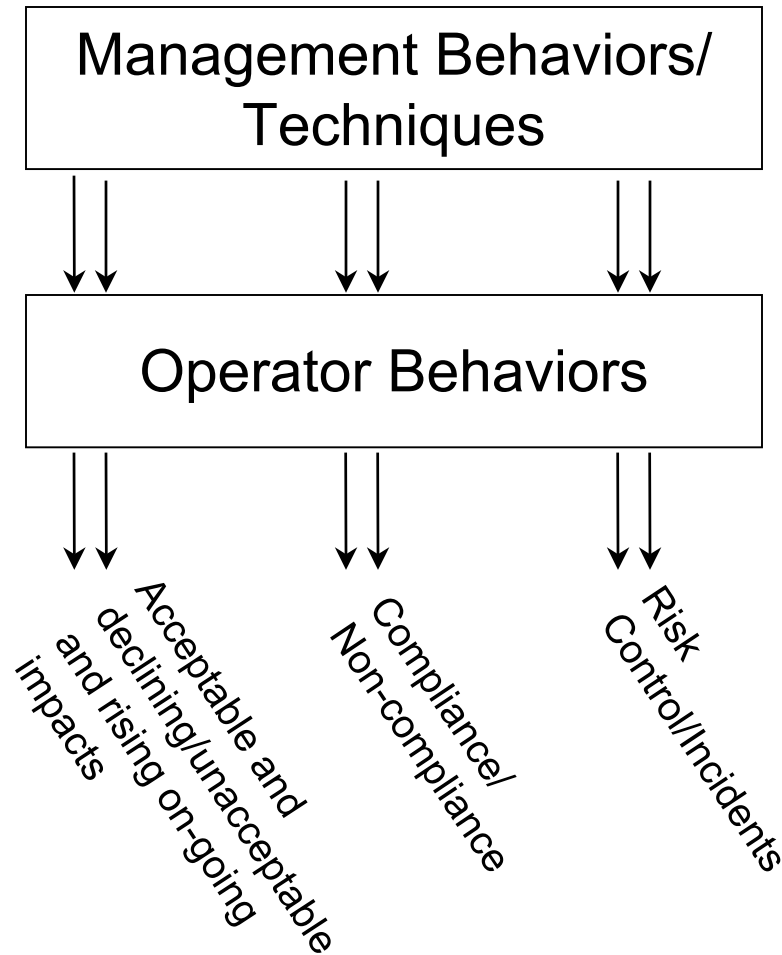
6. Audit (and certification) to

– Check it's working properly (delivering the right outcomes – reliably)

– And drive change if it's not

Behavior and outcome-focused EMS auditing and certification for performance improvement

```
┌─────────────────────────────┐
│  Management Behaviors/      │
│       Techniques            │
└─────────────────────────────┘
        ↓↓      ↓↓      ↓↓
┌─────────────────────────────┐
│     Operator Behaviors      │
└─────────────────────────────┘
        ↓↓      ↓↓      ↓↓
```

Acceptable and declining/unacceptable and rising on-going impacts

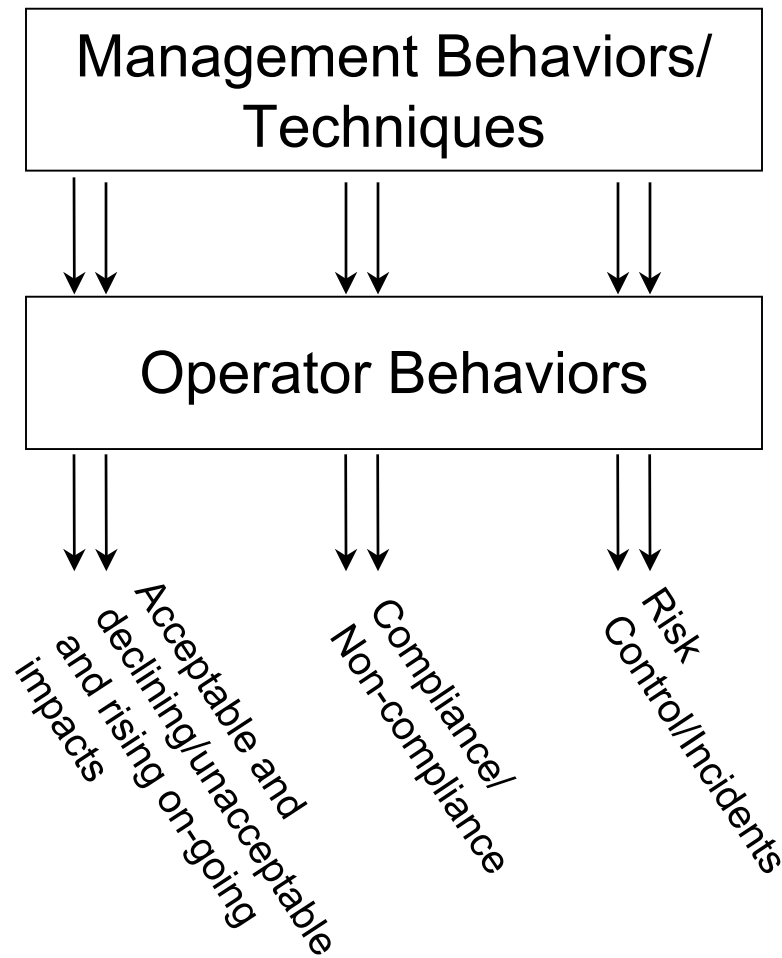Compliance/Non-compliance

Risk Control/Incidents

- Audit criteria:
  - Acceptable performance outcomes arising (risk control, compliance, acceptable and declining ongoing impacts)
  - Means established to sustain a body of management and operator behaviors which will deliver the results

Behavior and outcome-focused EMS auditing and certification for performance improvement
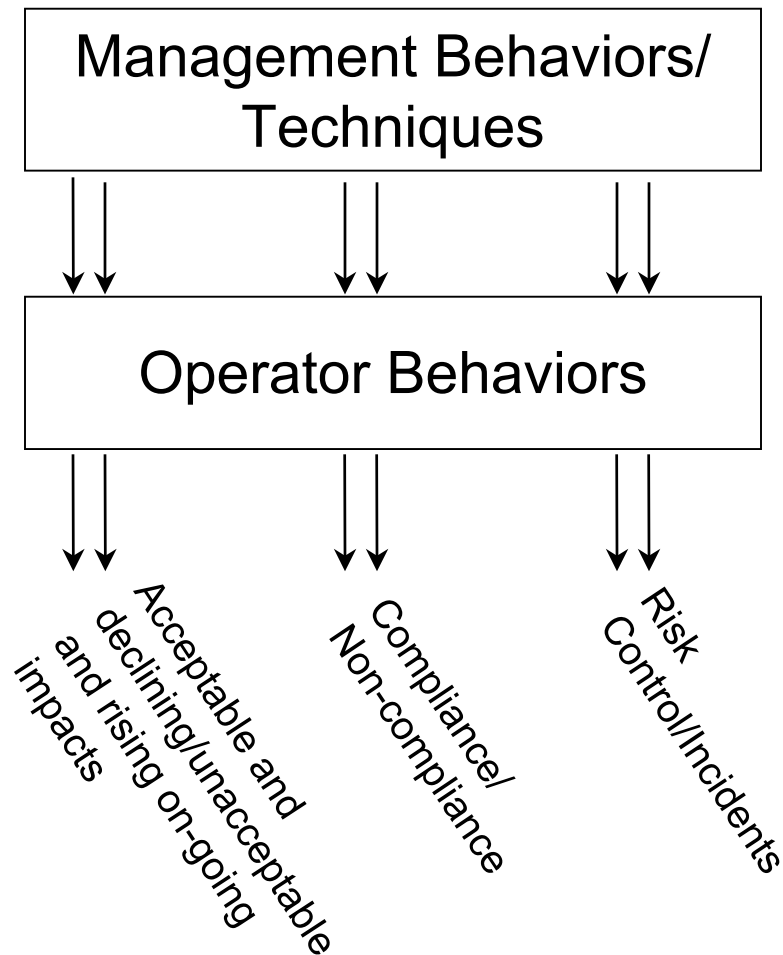
```
┌─────────────────────────────────┐
│   Management Behaviors/          │
│        Techniques                │
└─────────────────────────────────┘
        │ │      │ │      │ │
        ▼ ▼      ▼ ▼      ▼ ▼
┌─────────────────────────────────┐
│      Operator Behaviors          │
└─────────────────────────────────┘
        │ │      │ │      │ │
        ▼ ▼      ▼ ▼      ▼ ▼
```

Acceptable and declining/unacceptable and rising on-going impacts

Compliance/ Non-compliance

Risk Control/Incidents

- Audit objectives:
  - Establish if management behaviors and the programs they have established are *and will continue to* deliver
    - … a reliable body of operator behaviors which are *and will continue* to deliver …
    - … acceptable performance outcomes (risk control, compliance, acceptable and declining ongoing impacts)
  - Communicate status in a manner which will induce change, if this is necessary

Management Behaviors/ Techniques

↓↓ ↓↓ ↓↓

Operator Behaviors

↓↓ ↓↓ ↓↓

Acceptable and declining/unacceptable and rising on-going impacts

Compliance/ Non-compliance

Risk Control/Incidents

- Opening Meeting
  - Logistics, etc
  - Expectation that management will receive feedback on the effectiveness of their actions

- Site assessment and root cause analysis
  - Quality of outcomes – a measure of management effectiveness
  - Root cause analysis around poor quality outcomes.
  - Photographs to help management understand (show consequences)

Management Behaviors/ Techniques

↓↓ ↓↓ ↓↓

Operator Behaviors

↓↓ ↓↓ ↓↓

Acceptable and declining/unacceptable and rising on-going impacts

Compliance/ Non-compliance

Risk Control/Incidents

- Business performance review

- Environmental management review
  - Discussion with management to understand the techniques employed to deliver excellence elsewhere (in their areas of responsibility) and extent to which these are used to drive environment
  - Focused on results – not bureaucracy

- Meeting with senior management

- Closing meeting
  - Feedback on how it is

EMS

- An unstoppable movement

- An extraordinary opportunity for government, companies and institutions to deliver a step change in performance (less impact)

- Improvement dependent on the extent to which all parties focus on the dynamics of performance – this requires a REAL and URGENT shift in approaches

- A lot depends on our ability to seize the opportunity: we can use it for great good!

Contact information

Brian Kraus

ERM Certification and Verification Services

8 Cavendish Square

London W1G 0ER

Telephone: +44-20-7465-7369

e-mail: brian.kraus@ermcvs.com