

Implementing HSE Compliance Assurance

A Systematic Approach

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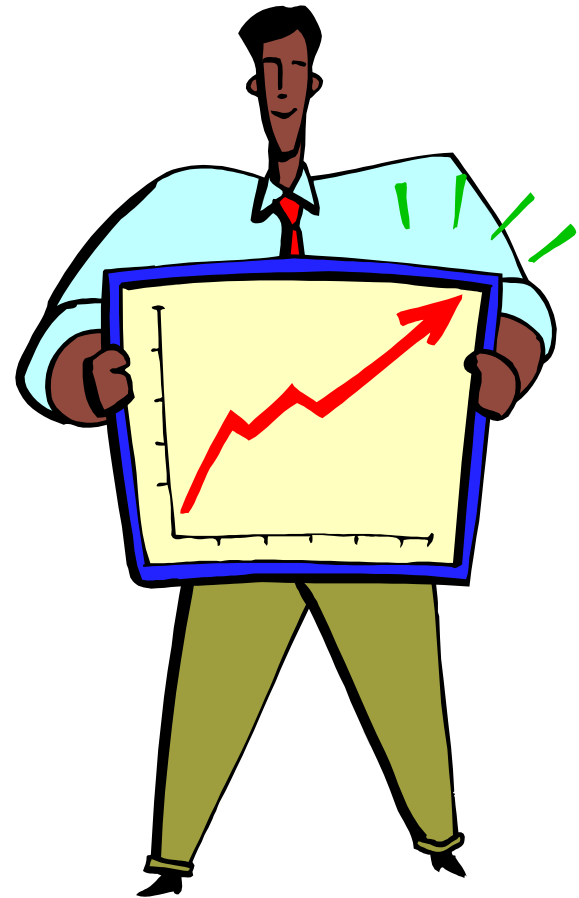
November 4, 2004

Which Statement Describes You?

1. We are frequently inspected by regulatory agencies. If we get an NOV, we may bring some lawyers to explain it and some engineers to fix it.
2. Things seem okay. We seldom have agency visits. We periodically audit our significant assets with internal teams and take action to address the specific issues identified.
3. EHS staff knows what new/existing laws/regulations apply to us and what is required. Our systems audit program provides an independent review, and line management is informed of findings. Lagging indicators are used to trend performance
4. Every one understands their compliance responsibilities; compliance verification is integrated into our business processes. Third-party audits verify that we are meeting applicable legal requirements and root cause corrective actions are promptly implemented.
5. We choose and participate in appropriate public policy to help shape meaningful regulations. Results and corrective actions from risk-based third party audits are reported to all appropriate levels of management, along with leading indicators of performance.

Why enhance HSE compliance systems?

- ◆ Improved HSE performance
- ◆ Increased stakeholder, customer, and employee confidence
- ◆ Reduced risk of damage to reputation
- ◆ Increased business continuity
- ◆ Decreased legal exposure





Management Commitment



- Time commitment to identify and catalogue tasks and operational controls is significant.
- Tools to support compliance assurance may be costly.
- Project deliverables need to be in site plan.
- HSE personnel need to be engaged early.

Compliance Assurance Tools

- Paper-based systems
- Spreadsheets
- Plant historians
- Emissions tabulation tools
- Task managers
- Incident managers



5-Step Implementation Process to Enhance HSE Compliance



1. Risk Assessment and Prioritization

Security:

Port Security
Outer Continental Shelf Facility Security
Wastewater Treatment Facility Security
Drinking Water Security
Vessel Security

DOT:

HAZMAT Safety
Pipeline Safety
Coast Guard Marine Safety

Health and Safety:

Walking & Working Surfaces
Exit Routes, Emergency Action
& Fire Prevention Plans
Powered Platforms, Lifts &
Vehicle-Mounted Work Platforms
Occupational Health &
Environmental Control
Hazardous Materials
Personal Protective Equipment
General Environmental Controls
Medical & First Aid

Environmental:

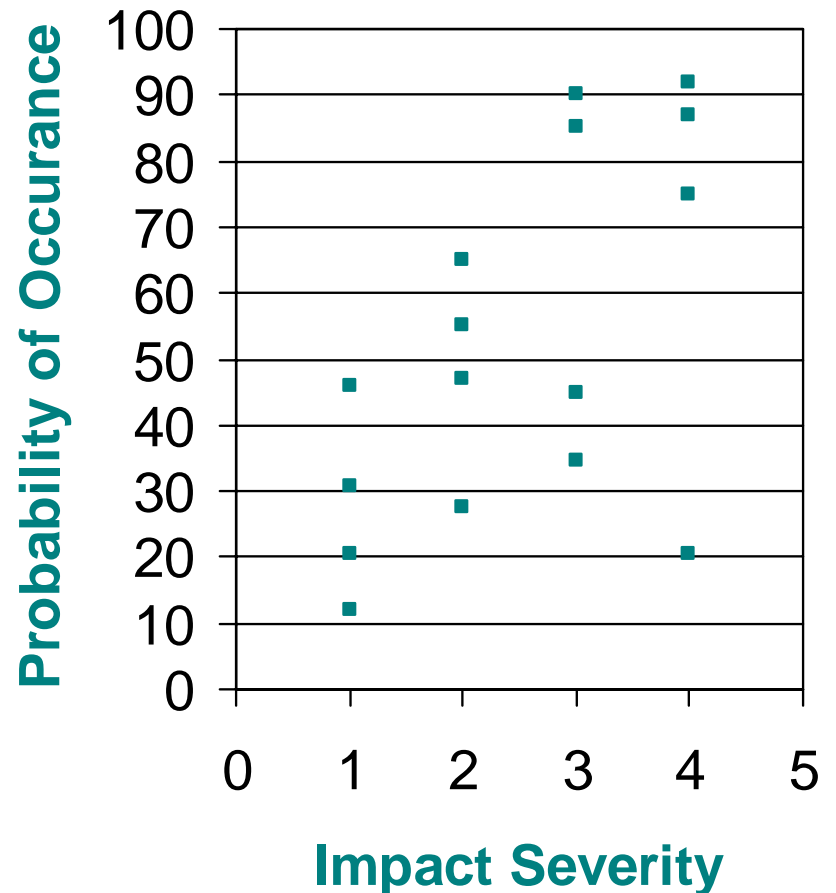
Air Emissions, Permitting, Risk Management
Planning, NESHAP's/MACT, NSR/PSD, BACT,
NSPS, Title V, Ozone Depleting Substances
Chemical Management (Toxic Substances
Control Act) – Chemical Imports, Chemical
Exports, Health and Environmental Effects,
Inventory Reporting, Inventory Update Rule,
Lead-Based Paints, PCBs
Emergency Planning and Community Right-to-
Know: Emergency Planning, Release
Notification, Toxic Release Inventory,
Community Right-to-Know
Pesticides
Spill Prevention and Response: SPCC
Requirements, Underground Storage Tanks,
CERCLA
Contaminated Sites
Used Oil
Waste – Asbestos, Hazardous Waste, Medical
Waste, NORM, Oily Waste, Solid Waste,
Universal Wastes
Underground Injection Control – Class I, Class II,
Enhanced Oil Recovery
Water – Coastal Zone Management, Wetlands,
Wastewater Treatment Facilities, Wastewater
Discharge, Drinking Water, Storm Water, Water
Use
Fish and Wildlife – Marine Mammals,
Endangered and Threatened Species, Other
National Environmental Policy Act
Land Use
Marine Sanitation Devices
Minerals Management

- Identify applicable legal requirements
- Document rationale for non-applicable ones.

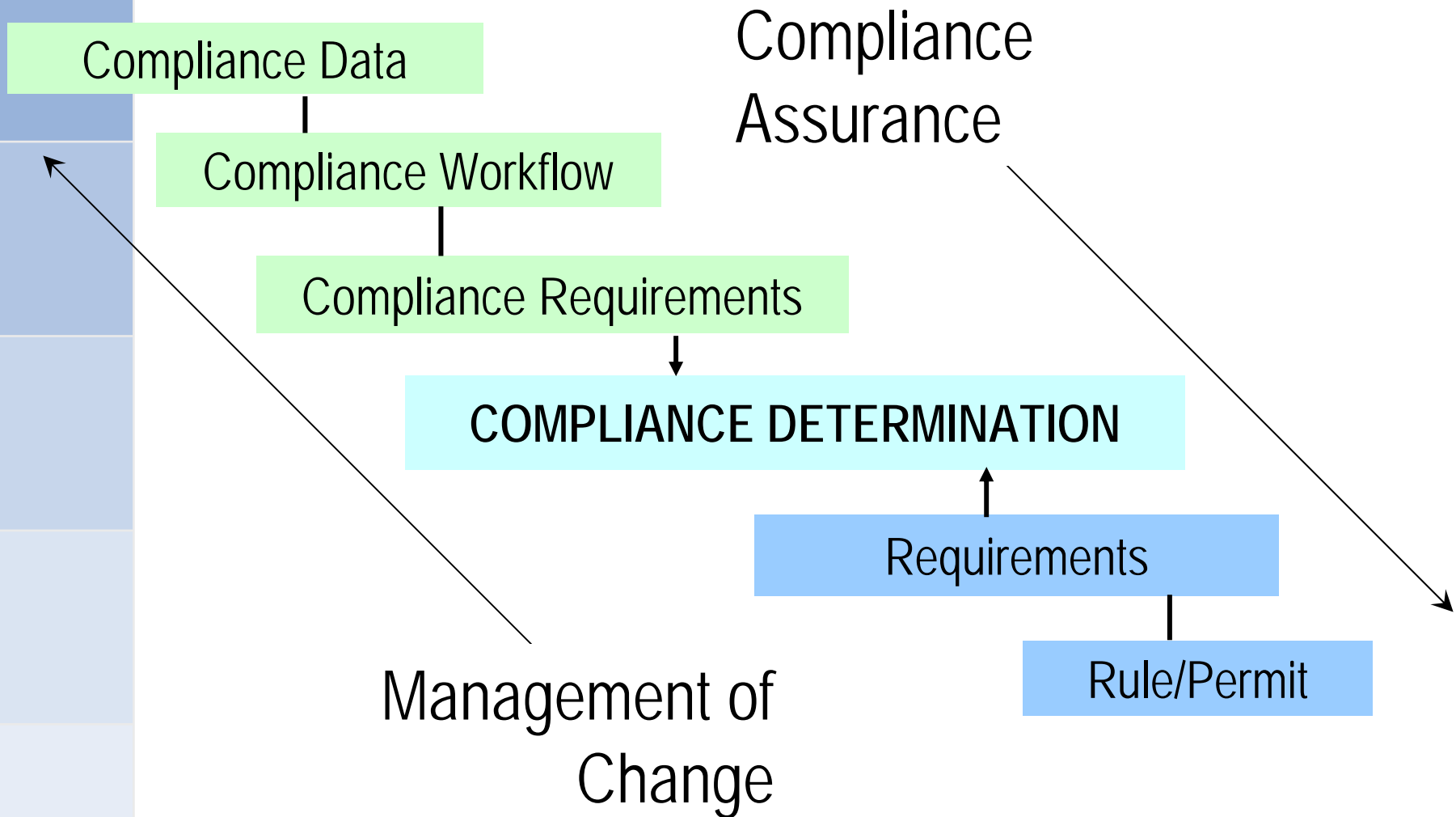


1. Risk Assessment and Prioritization (cont.)

- Rank risk of noncompliance based on impact severity and probability of occurrence.
- Prioritize regulatory programs based on risk.



2. Compliance Planning



2. Compliance Planning (cont.)

Clearly identify all compliance obligations and assign responsibility and accountability for delivery.

Types of requirements:

- Constant requirements
 - Conditional requirements
 - Periodic requirements
 - Limits
 - Methods
 - Prohibitions
1. Applicable
 - ◆ “Nontaskable.”
 - ◆ “Taskable,” generating one or more of the following types of tasks:
 - ▶ Periodic/actionable tasks
 - ▶ Event-driven tasks
 - ▶ Verification or audit tasks
 2. Non-applicable

2. Compliance Planning (cont.)

1. Develop a tasking approach.

- ◆ Assess “taskability” of each applicable rule/requirement.
- ◆ Inventory and understand current state of all HSE tools, data sets, and operational controls in use for compliance.
- ◆ Map out process steps associated with meeting requirements.
- ◆ Enhance processes by simplifying them, removing non-value added steps, and adding efficiency improvement steps.
- ◆ Get consensus on the appropriate tasking approach for compliance.

2. “Task out” the requirements.

- ◆ For each task, clarify steps, frequency, operational controls, associated records, and assignment of responsibility and accountability for delivery.

3. Improve operational controls.

BP Cherry Point Refinery

Rules: Phase 2

Taskable Rules | All Rules

Phase 2

Status	Sort	Task Group Other	Applicable	Taskable	Rule	Requirement Citation	Rule Title	Requirement Text
▼	6015.00	ENV - Air	yes	Yes	15	5.1.16	South Vacuum Heater	NSPS Subpart J - Fuel Gas - Fuel gas limited to a composition of H2S<230 mg/dscm (0.10 gr/dscf).
▶	6016.00	ENV - Air	Yes		15	5.2.1	Water seal/caps on individual drain systems	NSPS Individual Drain Systems - Each affected individual drain system shall be equipped with a
▼	6017.00	ENV - Air	yes	Yes	15	5.2.2	Junction Box inspections	NSPS Individual Junction Boxes - Each affected individual junction

Rules: Associated Tasks

Rule: 15
Requirement Citation: 5.2.1

Complete	Task Title
<input type="checkbox"/>	Conduct Initial Inspection of Active/Inactive Wastewater Drains
<input type="checkbox"/>	Conduct Monthly Inspection of Active Wastewater Drains
<input type="checkbox"/>	Conduct Weekly Inspection of Inactive Wastewater Drains
<input type="checkbox"/>	Conduct Semi-Annual Inspection of Capped Out-of-Service Drains
<input type="checkbox"/>	Conduct Initial Inspection of Active/Inactive Wastewater Drains
<input type="checkbox"/>	Conduct Monthly Inspection of Active Wastewater Drains
<input type="checkbox"/>	Conduct Weekly Inspection of Inactive Wastewater Drains

Task Detail

BP Cherry Point Refinery

Rule: 15
Requirement Citation: 5.2.1

Task Detail Complete

Revisit: [Dropdown]

Tracked: Yes
Requirement Type: [Dropdown] Paper-based
Task Group Legal: Legal
Training Legally Required: No
Preferred Tracking Method: Compliance Manager

Responsible Party: Smith, Joe
Team: VOC
Contractor: Yes
Secondary Responsible Party: Jones, Mary

Record Name/Description: [Text Box]
Record Location: Q:\RSSI\VOC\Folder\IOWS

Process Unit: 11_#1 Reformer
Equipment: Components in VOC Service
Due Date: 1/1/2006
Frequency: Monthly
Frequency Num: 6

Event Trigger: [Text Box]
Trigger Value (Days): 0 (Use negative value to indicate a task that must occur prior to an event)



TaskID: 711

Task Title: Conduct Semi-Annual Inspection of Capped Out-of-Service Drains

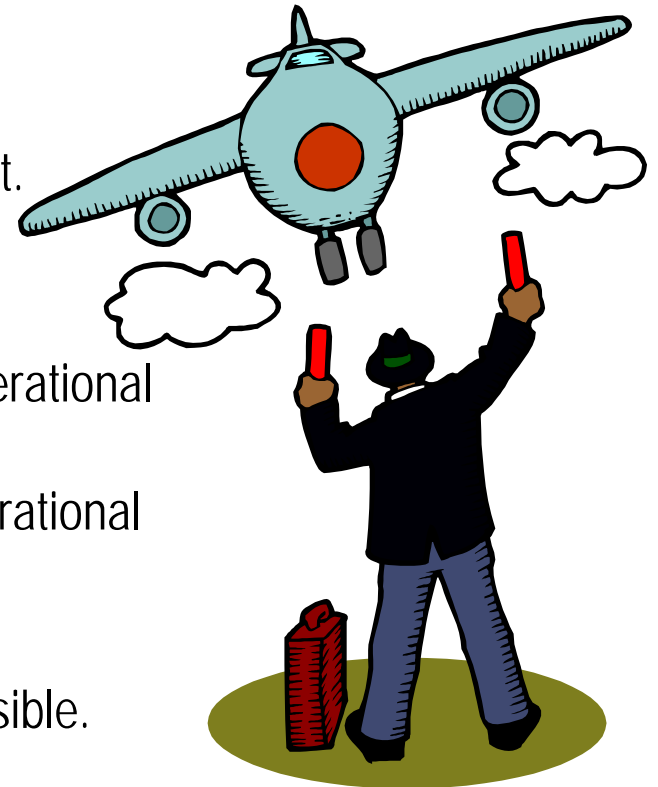
Description: If a cap or plug is used an alternative for out of service drains, each cap and plug shall be inspected semiannually to ensure caps or plugs are in place and properly installed. First efforts to repair shall be made as soon as practical but no later than 24 hours after the detection of a leak. A delay of repair is allowed per 40 CFR 60.692-6 if repair is technically impossible without a complete or partial refinery or process unit shutdown. If a delay of repair is utilized, the repair shall be made before the end of the next refinery or process unit shutdown. For each individual drain record the location, date, and corrective action shall be recorded for each drain when the water seal is dry or otherwise breached per 40 CFR 60.697. Records shall be retained for at least five years.

Operation Control Type	Operational Control Name; Location
▶ Procedure	Inspection checklist and sewer P&ID
*	

2. Compliance Planning (cont.)

Tips for success:

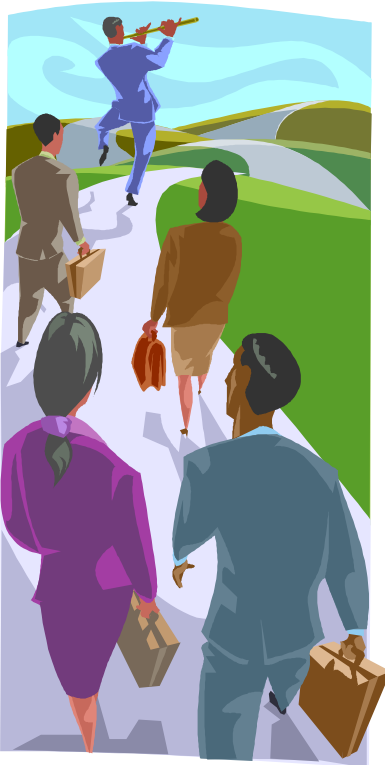
- Involve task owners with task development.
- First things first.
- Connect the dots and fill the gaps.
- Do not repeat information contained in operational controls.
- Document needs for improved or new operational controls as they are identified.
- Less is more.
- Be as specific and comprehensive as possible.
- Report all potential compliance issues immediately.



3. Implementation & Operation

1. Accountability must be clear.
2. Expectations must be understood.
3. Metrics must be visible.
4. Delivery must be supported and monitored.
5. Management's actions must reinforce 1-4.

3. Implementation & Operation (cont.)



Leadership support:

- Include expectations in newsletters, emails, and meetings.
- Drop in during compliance planning meetings .
- Translate HSE compliance assurance expectations into employees' performance objectives.

Key messages:

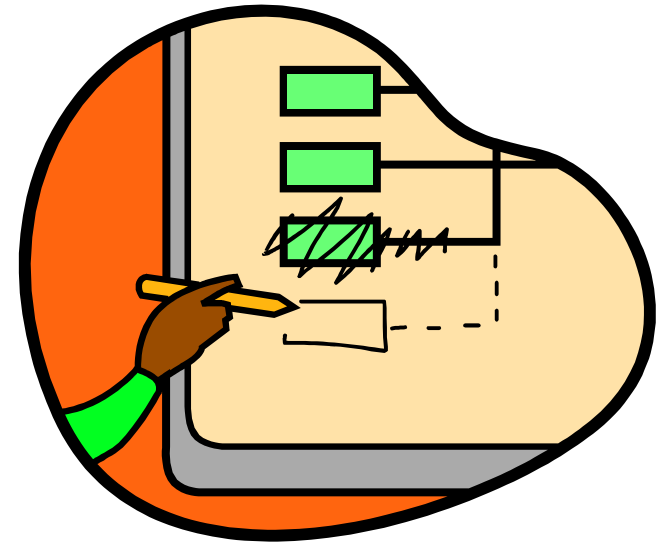
- HSE compliance is serious to me personally.
- This takes resources and support, which will be granted.
- Change is necessary to deliver better performance.

3. Implementation & Operation (cont.)

- Site-wide communication plan to engage all stakeholders
 - ▶ Value of project to them individually & collectively
 - ▶ Their role in delivery
 - ▶ Resources available to help and support
 - ▶ Periodic updates, success stories, etc. to keep it live
 - ▶ Recognition of major contributors
- Training plan for compliance assurance tools.

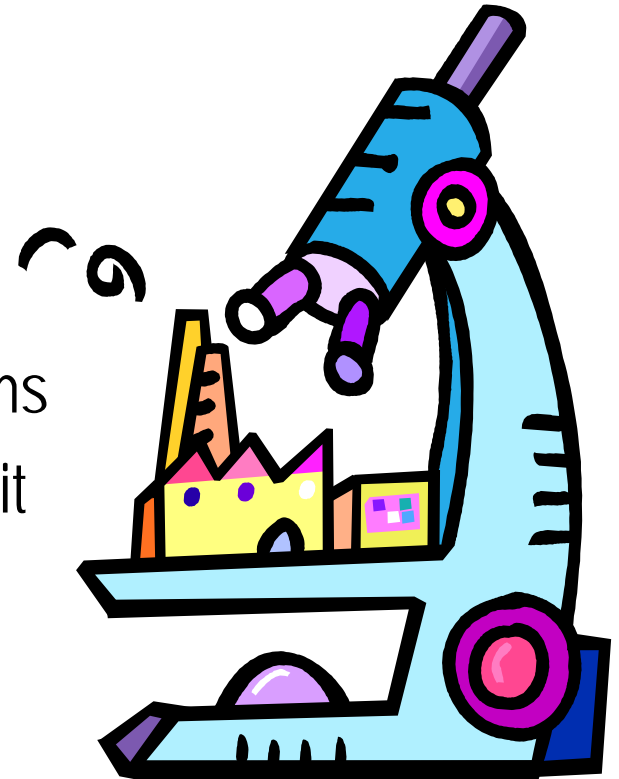
3. Implementation & Operation (cont.)

- Implement effective MOC processes to accommodate changes in:
 - ◆ Legal requirements
 - ◆ Operations
 - ◆ Staff
 - ◆ Responsibilities



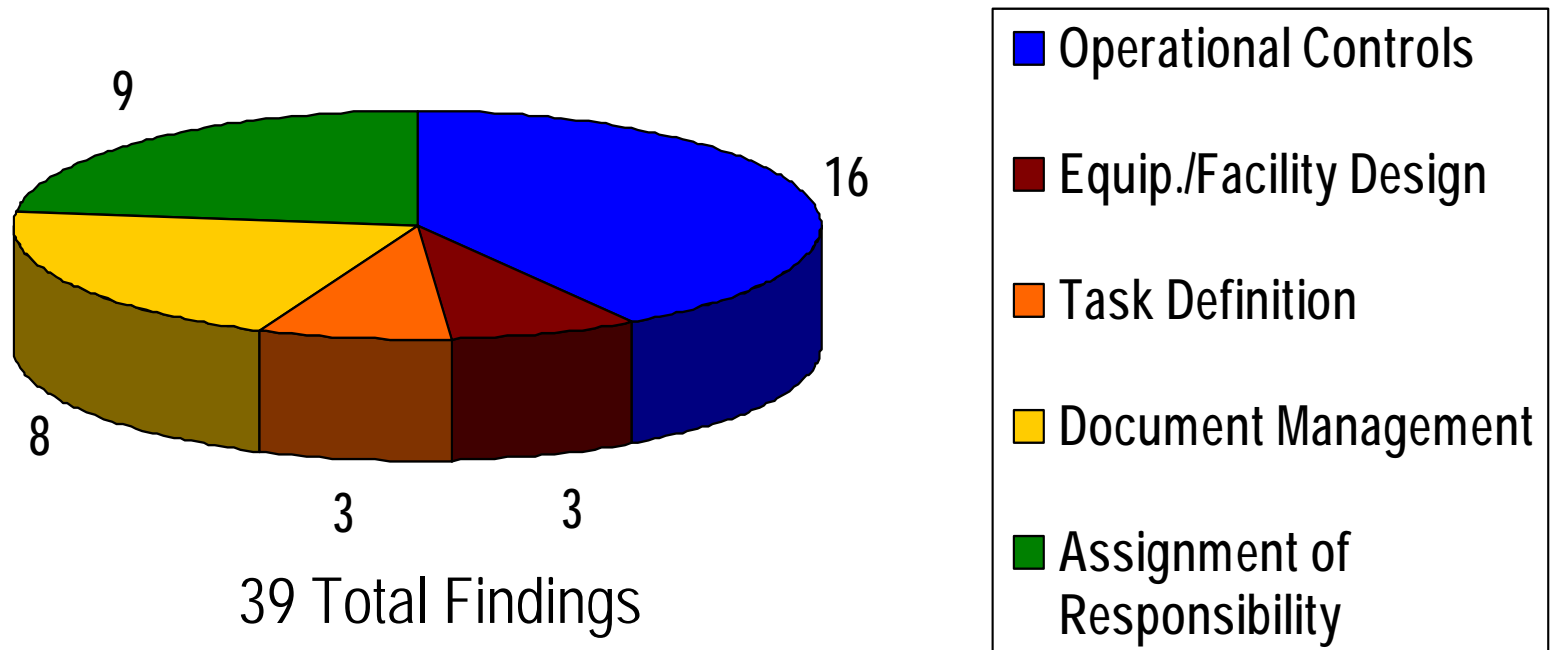
4. Measurement, Evaluation, and Corrective Action

- Self-verification process
- Meaningful metrics to measure performance
- Qualified and independent audits every 2-5 years to identify problems
- Tracking and management of audit findings
- Corrective actions to address root causes



4. Measurement, Evaluation, and Corrective Action (cont.)

Sample Root Cause Analysis



5. Management Review & Certification



- Annual review of compliance management system by leadership
- Updating systems:
 - ◆ To accommodate new technologies
 - ◆ For continual improvement of HSE performance
 - ◆ To streamline work processes
- Compliance considerations integrated into business planning
- Discipline and corporate incentives aligned to reinforce and support compliance management system

Positive Outcomes

- Identification of all applicable HSE requirements
- Definition of roles and responsibilities
- Delineation of links between:
 - ▶ Legal requirements
 - ▶ Compliance tasks
 - ▶ Accountable people
 - ▶ Operational controls
 - ▶ Records
 - ▶ Training
- Streamlined compliance assurance
- Efficient management of change



Positive Outcomes (cont.)

