



HSE Regulation & Enforcement, Doha, Qatar

Asset Integrity Management Systems Audits / Verifications at
Oil And Gas Production / Process Plants

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Audit

Definitions & Philosophies

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ISO 8402

“Systematic and independent examination to determine whether activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives”

Definitions & Philosophies

Institute of Internal Auditors

"... an independent, objective, assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve effectiveness of risk management, control, and governance processes."

Definitions & Philosophies

More Audit Definitions

Doing what the president of the Organization / Company would do if he/she had the Time

Making sure that appropriate, adequate and effective controls are in place

Definitions & Philosophies

More Audit Definitions

Leaving the site in a better situation than when arrived

**When Auditors stomp their feet,
the sound must resonate
throughout the enterprise**

Audits

(Systematic)

- **Notification**
- **Plan**
- **Scope**
- **Objective**
- **Terms of Reference**
- **Program / Schedule**
- **Opening Meeting**
- **Closing Meeting**
- **Report**

Audits

Critical Success Factors [CSFs] for Audits Include:

- **Knowledge** [i.e., Adequate Information]
- **Psychology** [i.e., Make the Auditee feel at ease]
- **Skills** [i.e., line of questioning]
- **Intelligence** [i.e., when to pursue and when to stop]
- **Communication** [i.e., language]
- **Professionalism** [i.e., punctuality]
- **Objectivity** [not subjective, impartial, impersonal, etc]
- **Curtsey & Respect** [Gain auditees's confidence & cooperation]

Audits

Critical Success Factors for Audits

Include:

- Conduction Training
- Consistency & Fairness
- Independence
- Ethical Conduct
- Taking time and following leads

Enhancing Audit Objectivity Tools

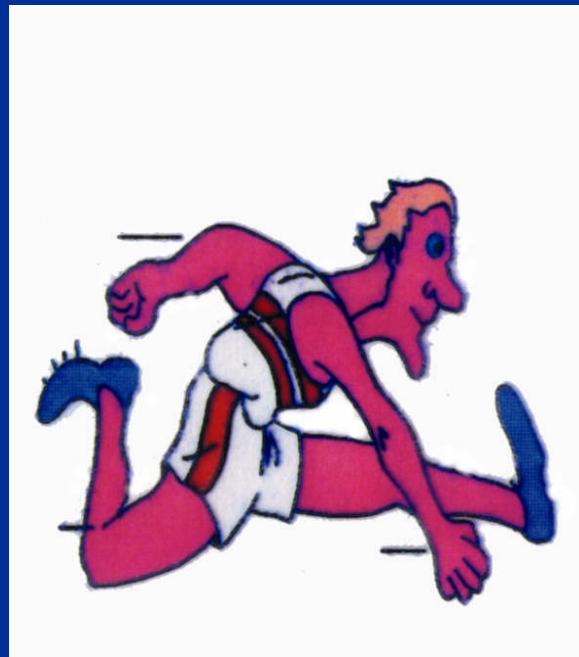
What
When
Why
Where
Which & How

The alternative is

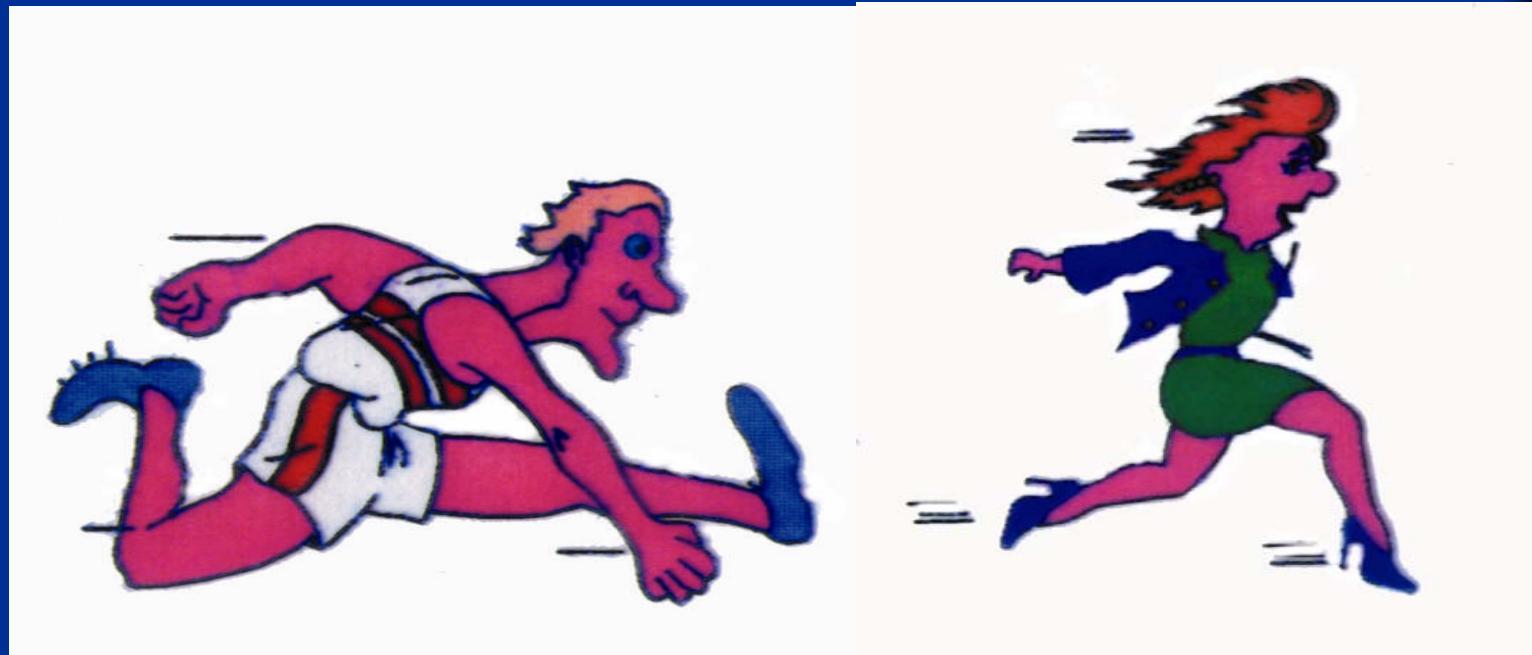
- ❖ **Gross Reporting**
- ❖ **Misinformation and,**
- ❖ **Misjudgment**

Watch The following Events

Somebody appears to be Exercising!

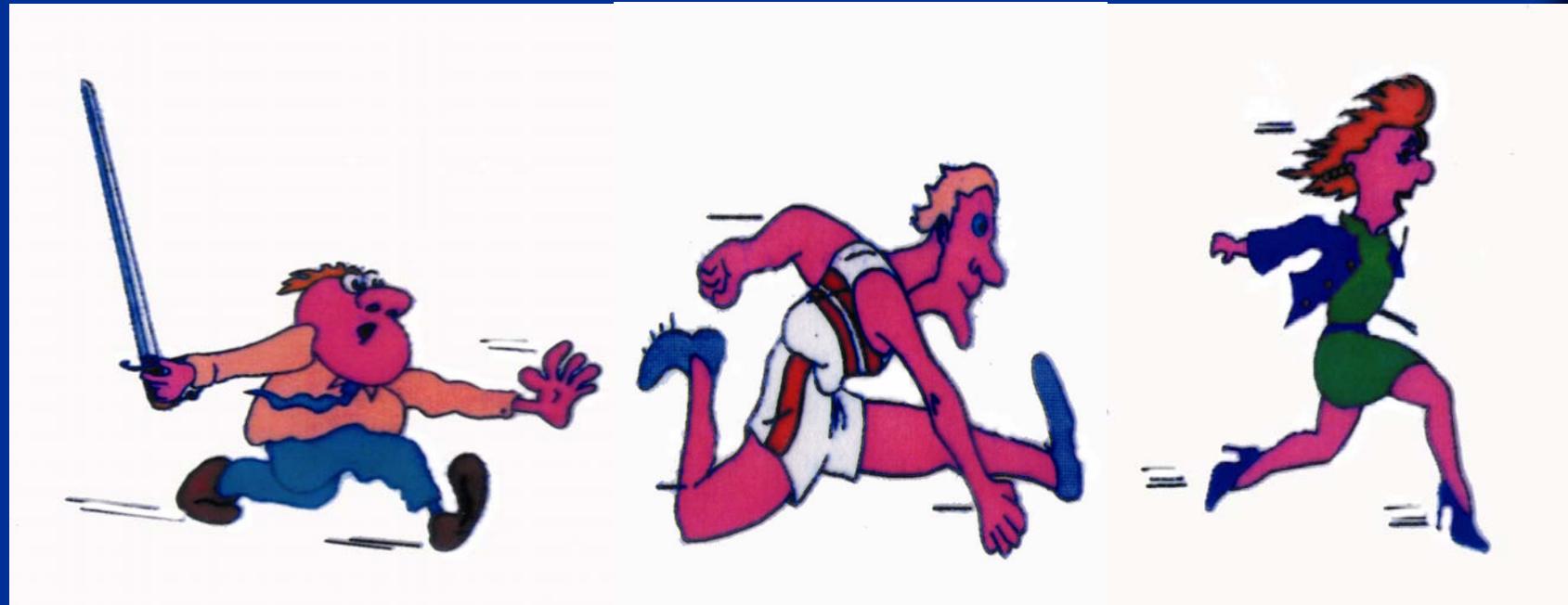


Now it looks like he is running After somebody !



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Now it looks like both are running away from somebody !



Now every body seems to be running to help somebody !



Tips on the Auditing / inspection Process Presentation 2007 Doha¹⁵, Qatar

Asset Integrity Audit

- 21 Companies / Operations Total**
- 11 Onshore Operations**
- 4 Offshore Operations**
- 6 Mixed Operations [Onshore and Offshore]**

Scope of Audit

- 1. Management Systems In general**
- 2. Procedures for operation, inspection and maintenance**
- 3. Evaluation, selection and training of personnel**
- 4. Design practices, codes and standards**
- 5. Certification in various areas of operation and maintenance**
- 6. Document control and record keeping**
- 7. Management of change**
- 8. Safety critical equipment**
- 9. Pressure equipment**
- 10. Electrical & Instrumentation**
- 11. Lifting equipment**
- 12. Hazardous areas**
- 13. Emergency systems**
- 14. Structure**

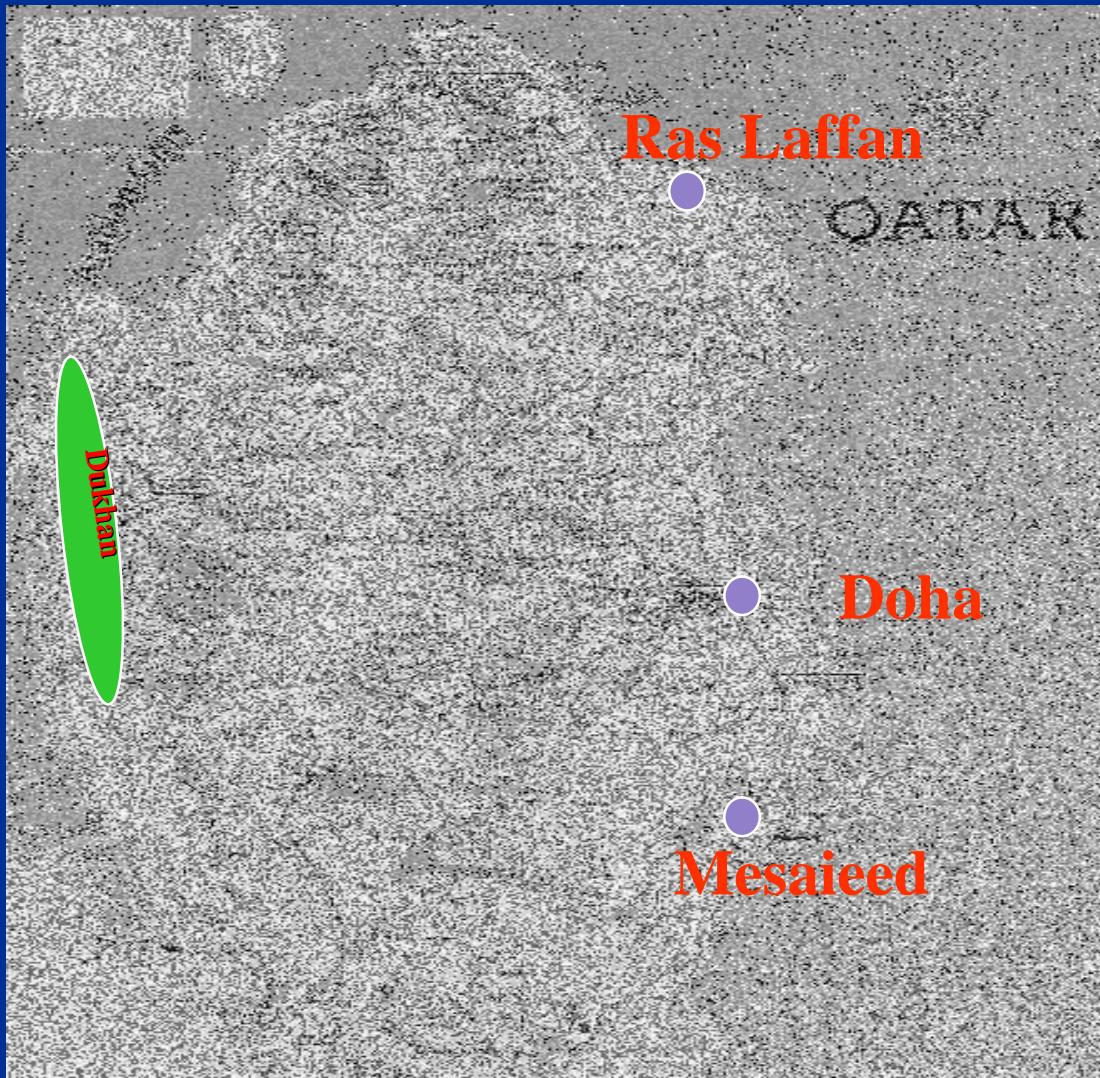
Audit Objectives

Reviewing and appraising the soundness, adequacy, and application of in house Asset Integrity management Systems [AIMS]

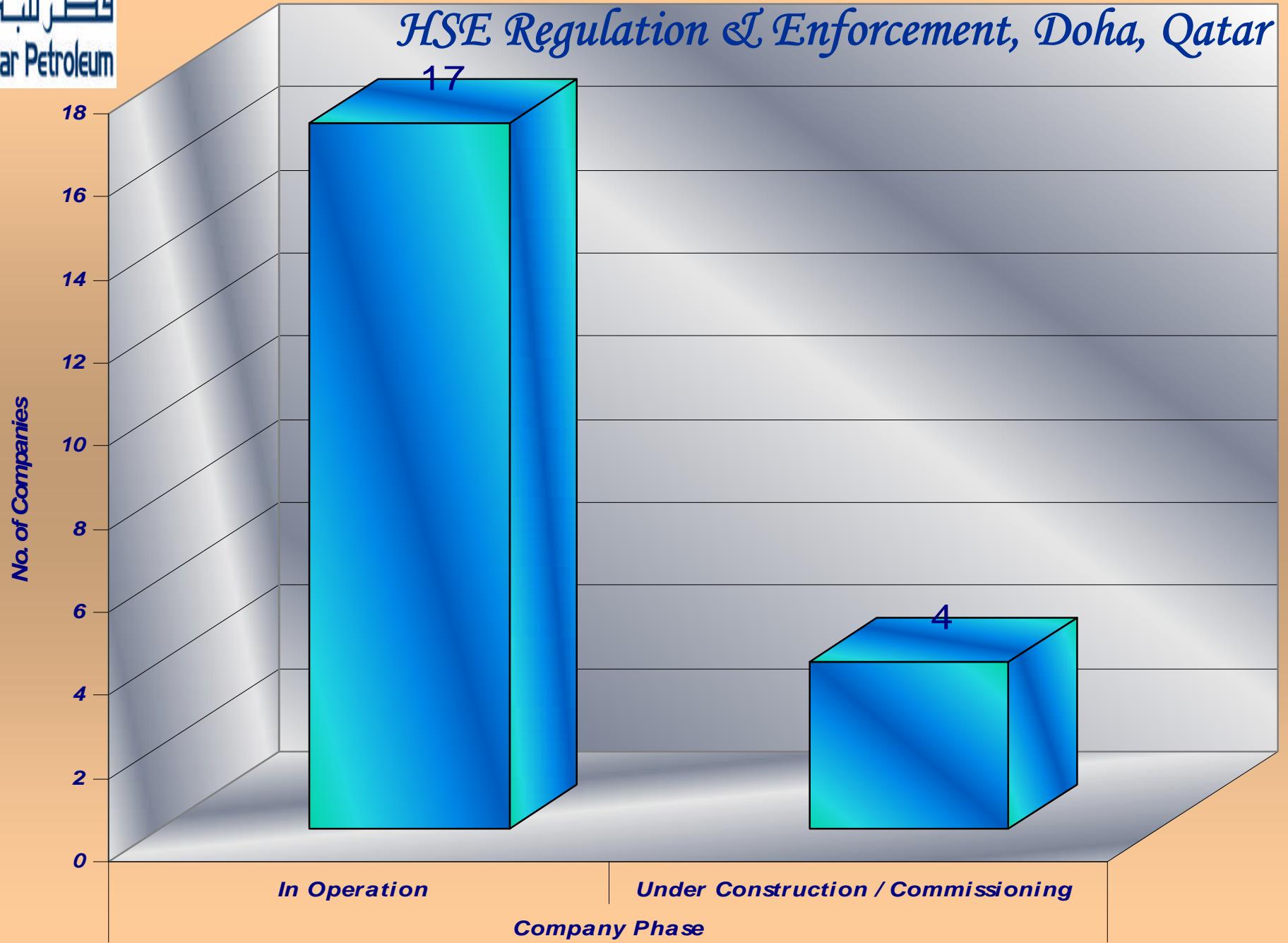
Ascertaining the extent of compliance with established in house policies, plans, and procedures

Promoting effective controls and best practice

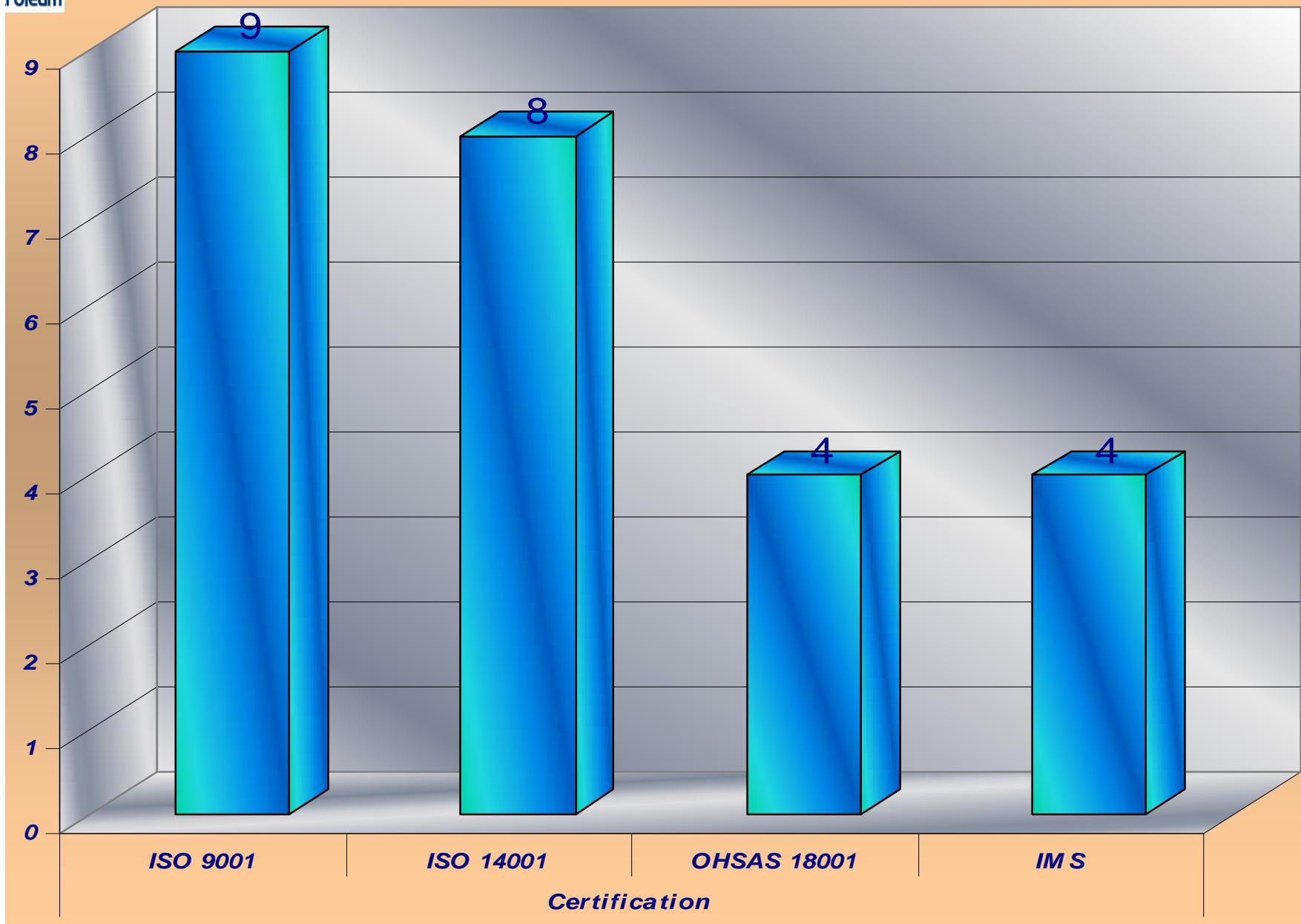
Geography covered



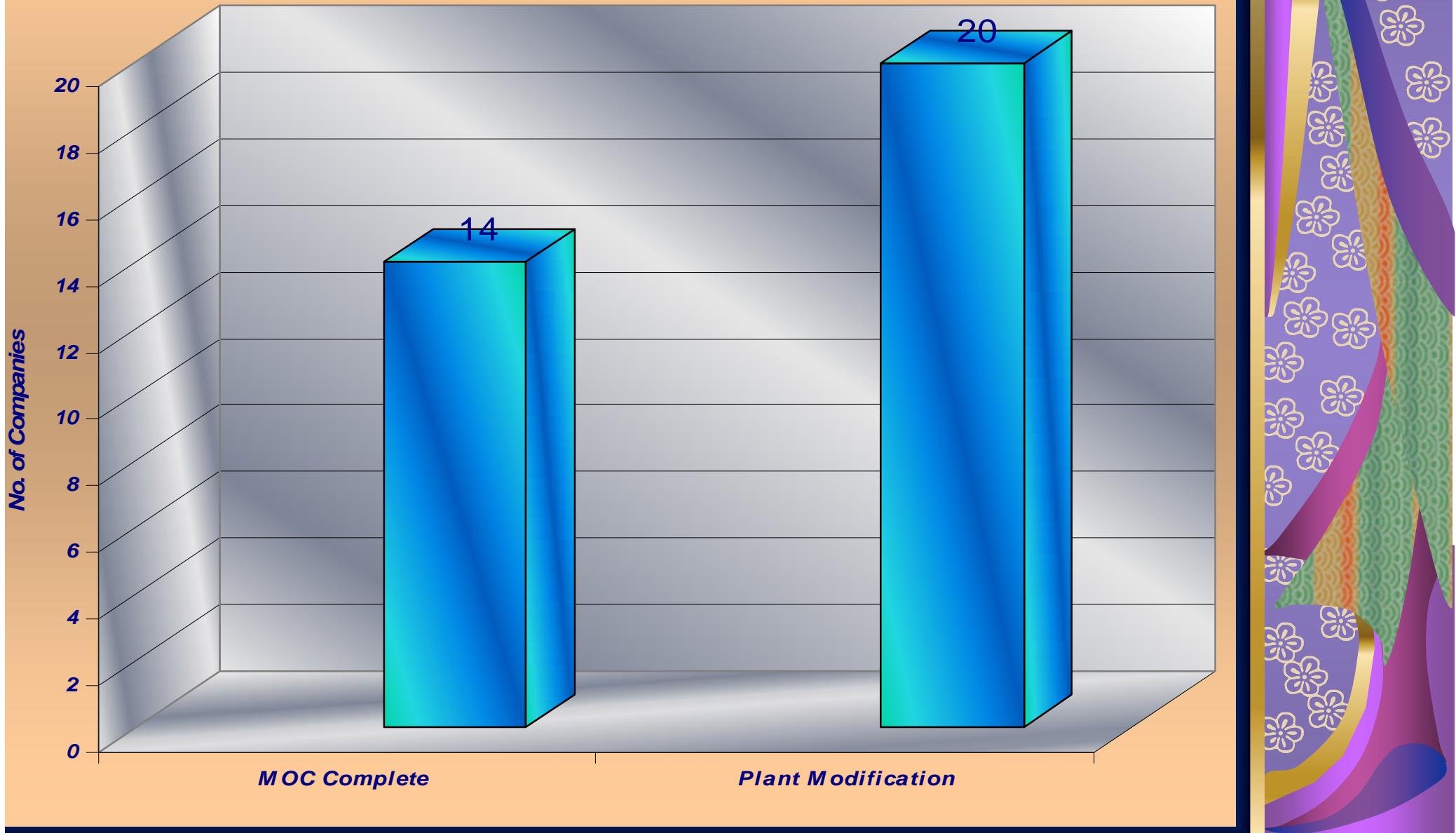
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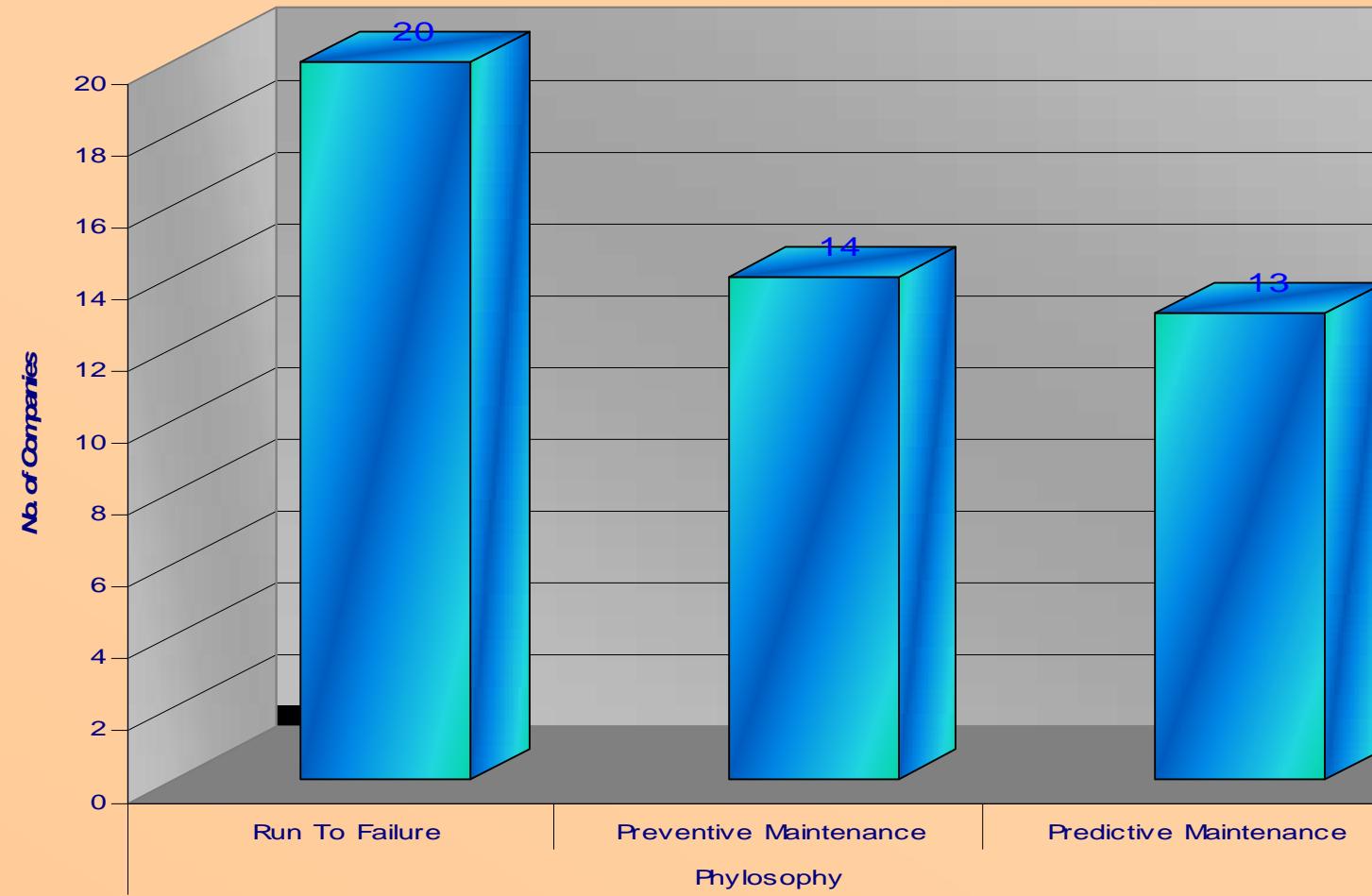
MANGEMENT SYSTEMS



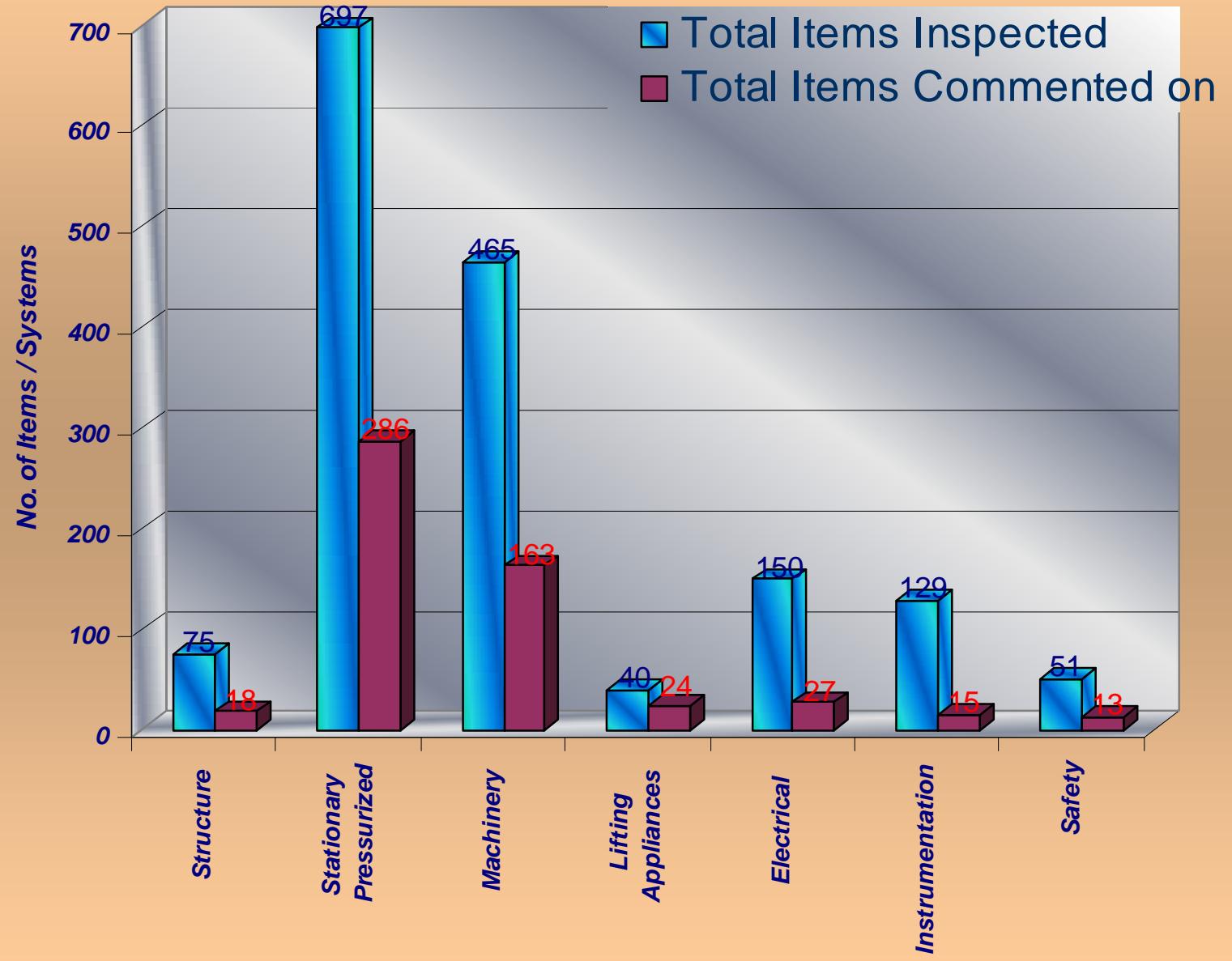
MANAGEMENT OF CHANGE & PLANT MODIFICATIONS



MAINTENANCE PHILOSOPHY



OVERALL STATUS



Tips for The Auditor

- Develop a reputation for Objectivity
- Know the objectives
- Good salesmanship. Sugar coated pills are much more palatable than bitter ones

Tips for The Auditor

- Almost all defects can be traced back to violations of good Management Principles**
- Never depend solely on what you are told or on hearsay. Always go for objective evidence**

Tips for The Auditor

- Ask open ended questions whenever possible
- Don't use names of individuals
- Give the auditee the benefit of the doubt
- Keep the auditee informed of findings. There should be no surprises in the closing meeting.

Tips for The Auditor

- Emphasize that you are there to audit the system/process; not the person
- Take accurate and detailed notes during the audit to ensure accurate reporting. Make sure the auditee understands that
- Make sure you have all the details of a defect / nonconformity. It must be verifiable and traceable

Tips for The Auditor

- Make sure you take the induction Training, if there is one
- Make sure you ask for a Management presentation and take a plant tour before commencing audit activities
- Every site has its own culture. Try to understand it while reporting on findings

Tips for The Auditor

- Never commence audit activities without a detailed audit schedule
- Knowledgeable senior Managers are the best source of information
- Findings should be settled and agreed upon during the audit; not after it (i.e., during closing meeting)
- Make use of previous audit reports and local internal auditors

Tips for The Auditor

- Enquire about and comply with the auditee safety rules
- Avoid asking for too much or unnecessary pre-audit information.
- Give credit to satisfactory findings during the closing meeting as well as in the audit report

Audit Team Structure

- Principal Auditor
- Project Manager [Auditor / surveyor]
- Mechanical [Auditor / surveyor]
- Electrical & Instrumentation [Auditor/ Surveyor]
- Process / Structural [Auditor / Surveyor]

Project Duration

March 2006 - May 2007

15 Months Altogether

12 months Actual

*15 Months Altogether
12 months Actual*

Audit Duration

**Two weeks to one week
Depending on**

- ❖ Plant size, and
- ❖ Diversity

Thank you