Effective Process Safety Auditing Techniques

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Background

  - How the book differs from the previous edition
  - Detailed examples and questions
Process safety culture

• Attend safety or process safety committee meetings

• Plant observations
Management of change

• Don’t start with the change log

• Review sources of change:
  – Work orders
  – Action items
  – Interviews
Management of change

• Temporary changes
  – Past expiration?
  – Returned to original condition?
• Finally – review MOC log
Asset integrity and reliability

- Equipment listing – where to start?
- Review records for equipment deficiencies
Process knowledge management

- Is plant operating within safe upper and lower limits?
- Safety systems
  - Link to operating procedures
Hazard identification and risk assessment

- Hazard identification
- Safeguards
Emergency management

- Efficacy of emergency alarm system
Incident investigation

• How to determine that process safety incidents have been reported and investigated?
  - Front line employee interviews
  - Review of logs, daily reports, work orders
Action item closure

• Have action items been completely closed?
  – PHAs
  – Incident investigations
  – Audits
  – MOCs/PSSRs
  – Engineering studies (RVs, electrical area classification)
Conclusions

- Review auditing protocols, guidance and procedures
- Train auditors
- Improve process safety programs with effective auditing techniques
Questions?