

Construction Auditing: Auditing Beyond Cost and Schedule Risks

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Speaker Background

- Paul Pettit, VP Performance Improvement
- Revenew International LLC
- Over 25 years of progressive roles within industry and professional services
- Project Management Professional (PMP), Construction Controls Professional (CCP), Certified Construction Auditor (CCA), Certified Internal Auditor (CIA), Certified in Risk Management Assurance (CRMA) and Certified Professional EH&S Auditor (CPEA)

Presentation Overview

- Cost and schedule risk can impact a construction project
- Poor definition and management of scope can also impact the project
- Quality, Environmental, Health & Safety and Security risks can have a significant impact on the project
 - Fines, delays and, in some cases, complete shutdown of a project
 - Impacts to project cost and schedule
 - May keep the project from generating revenue and management's planned return on investment

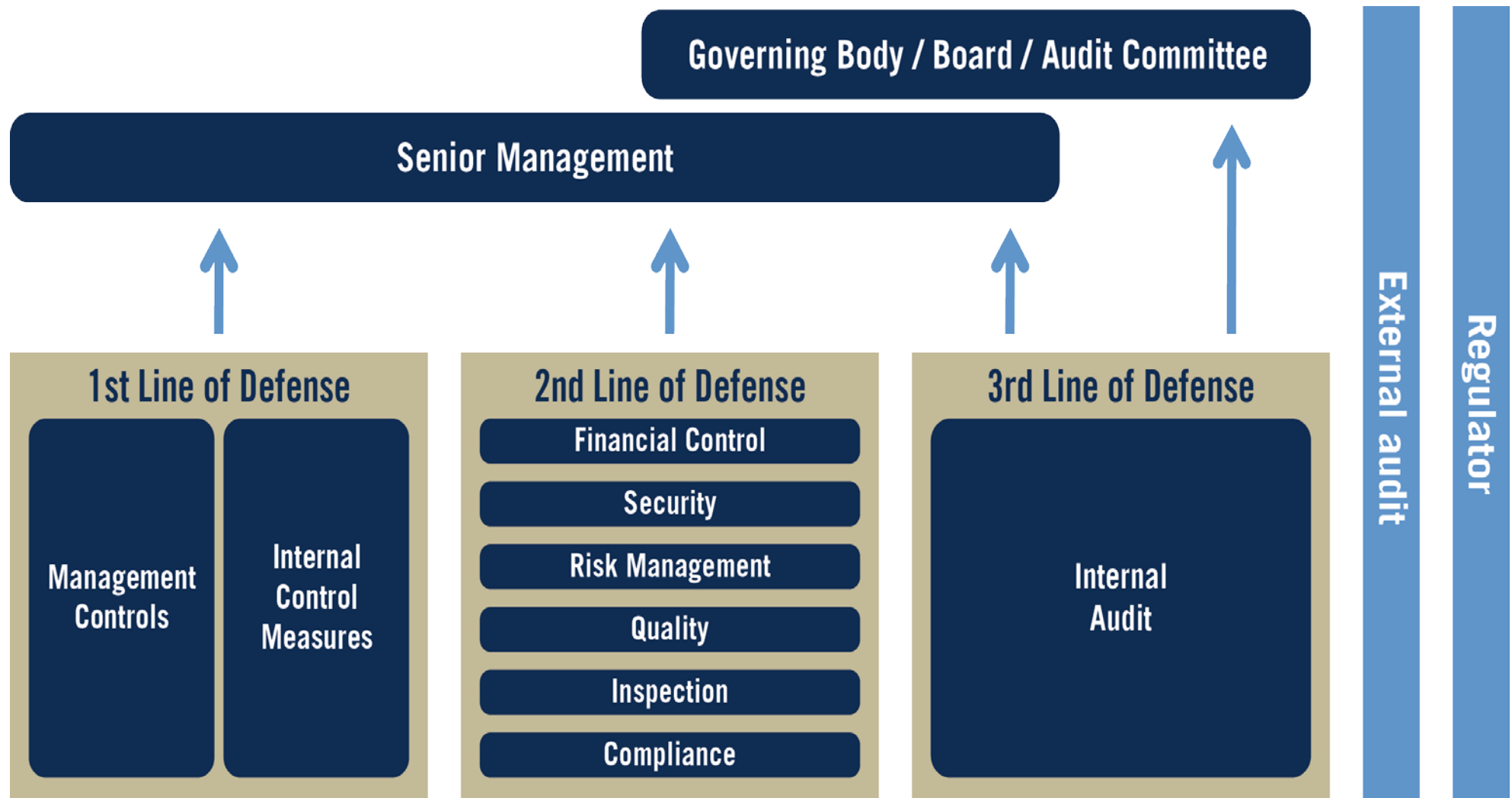
Learning Objectives

- Learn what to look for during a construction project audit
- Understand why auditing more than just the cost and schedule can be beneficial
- Leverage the three lines of defense while auditing your project
- Hear about actual findings and what to look for when you're in the field
- Develop your audit plan to cover more than just cost and schedule risks

Construction Project Audit Scope

- What do you audit today?
 - Cost
 - Schedule
 - Quality
 - Environmental
 - Health & Safety
 - Security
 - Other

3 Lines of Defense



IIA Position Paper: The Three Lines of Defense in Effective Risk Management and Control, 2013.

3 Lines of Defense in Construction

1st Line Contractor

- Project Management
- Project Controls
- Project Risk Owners and Managers

2nd Line Owner

- Risk Management and Compliance
- Limited Independence
- Reports Primarily to Management

3rd Line Audit

- Project Audit
- Provides an Independent Perspective and Challenges the Process
- Objective and Offers Assurance



Quality

Quality

- Start with the process
 - Who, what, when, where, why
- Identify the controls
 - QA/QC
 - Inspection
 - Factory Acceptance Testing
 - Commissioning & Turnover
- Conduct a walkthrough during construction
- Document your findings
 - Let's take a look



Environmental

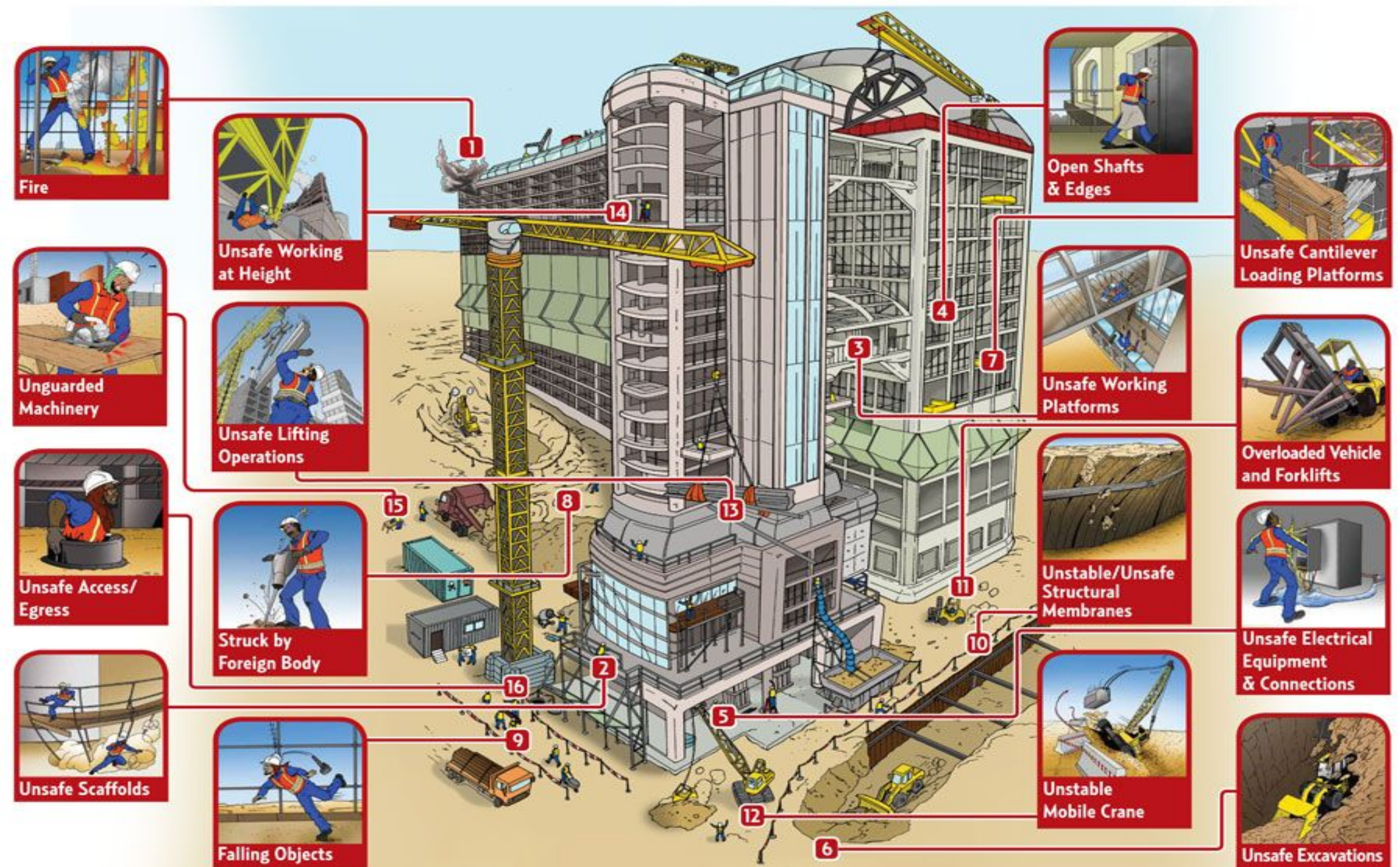
Environmental

- Start with the process
 - Who, what, when, where, why
- Identify the controls
 - Air
 - Water
 - Waste
 - Noise
- Conduct a walkthrough during construction
- Document your findings
 - Let's take a look



Health & Safety

Top 16 hazards in construction sites



Health & Safety

- Start with the process
 - Who, what, when, where, why
- Identify the controls
 - Training
 - Inspection
 - Monitoring
 - Auditing
- Conduct a walkthrough during construction
- Document your findings
 - Let's take a look



Security

Security

- Start with the process
 - Who, what, when, where, why
- Identify the controls
 - Detection
 - Monitoring
 - Response
- Conduct a walkthrough during construction
- Document your findings
 - Let's take a look

Conclusion and Takeaways

- Lots of potential impacts on construction projects
 - Poor definition and management of scope
 - Cost overruns and schedule delays
 - Quality issues
 - Environmental incidents
 - Health & Safety incidents
 - Security incidents
 - Fines, delays and, in some cases, complete shutdown of a project
 - Delayed revenue growth and negative return on investment
- Develop an audit plan to cover more than just cost and schedule risks



everything
to
gain

Thank you! – Questions

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