Air Monitoring Exercise

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Workplace Safety Training
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Presentation Topics

• Monitoring Strategies
• Air Sampling and Air Monitoring
• Instrument Calibration
• Direct-Reading Instruments for:
  – Flammable Atmospheres
  – Oxygen Atmospheres
  – Toxic Atmospheres
• Calibration and Relative Response
• Using Detector Tubes
pH Paper Demo

Video Removed
Flammable Atmospheres

- Readings expressed as % of LEL
- Instrument does not identify specific chemical
- Instrument does not respond to combustible dust
- General action level is 10% of LEL
Oxygen Atmospheres

• Electrochemical sensor is selective for oxygen
• Expresses readings in % oxygen in air
• Normal air is 20.9% oxygen
• Acceptable readings are 19.5 – 23.5%
• Any variation *could* indicate problem
Toxic Atmospheres

- Chemical specific and general survey instrument
- Readings expressed in parts per million (ppm)
- Survey instrument (PID) may be converted with relative response factor
- Specific chemicals have exposure limits such as:
  - Permissible Exposure Limit
  - Threshold Limit Value
Detector Tubes

- Specific chemical or family of chemicals
- Most express reading as length of stain with scale on side of tube
- Readings in PPM
- ± 25% accuracy allowed
- Interference or cross sensitive chemicals