

# Accident Investigations



# Why Investigate Accidents?

- Find the cause
- Prevent similar accidents
- Protect company interests



# When Should you Investigate Accidents?

- ASAP
- Site visit
- Site interviews



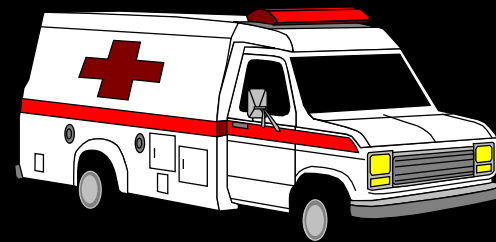
# Investigation is 4-step Process

- Control the scene
- Gather data
- Analyze data
- Write report

**4-step**

# Control the Scene

- Provide medical care for injured
  - First Aid
  - On Scene Evaluation
  - Transport for Medical Care
- Control existing hazards
  - Prevent further injuries
  - Get more help if needed
- Preserve evidence



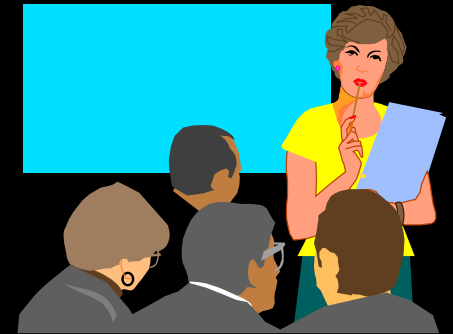
# Gather Data

- Photos of accident scene
- Drawings & sketches & measurements
- Data
  - Persons involved
  - Date, time, location
  - Activities at time of accident
  - Equipment involved
  - List of witnesses



# Information Interviews

- Gather just the facts... make no judgments or statements
- Conduct interviews one on one
- Be friendly but professional
- Conduct interviews near the scene in private
- Interview all supervisors



# Ask all witness

- Name, address, phone number
- What did you see?
- What did you hear?
- Where were you standing/sitting?
- What do you think caused the accident?
- Was there anything different today?



# Ask Supervisors

- What is normal procedure for activities involved in the accident
- What type of training persons involved in accident have had.
- What, if anything was different today
- What they think caused the accident
- What could have prevented the accident

# Analyze Data

- Gather all photos, drawings, interview material and other information collected at the scene
- Determine a clear picture of what happened
- Formally document sequence of events



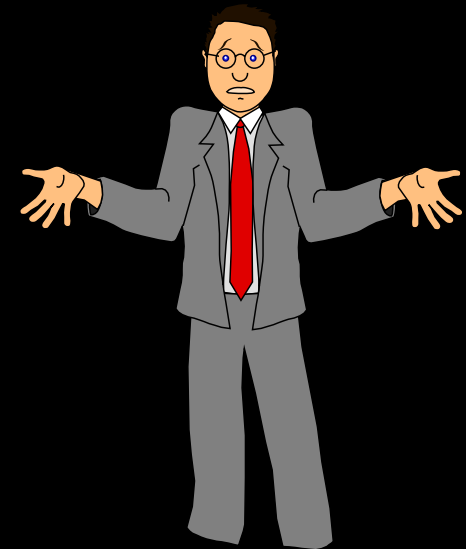
# Data Analysis List

- Accident title
- Date, time, location
- Persons involved
- Witnesses
- Work & environmental conditions at time of accident
- Immediate actions taken at scene



# Basic Causes

- Unsafe Acts – what activities contributed to the accident
- Unsafe conditions – what material conditions, environmental conditions and equipment conditions contributed to the accident?



# Safety Controls

- Engineering Controls - machine guards, safety controls, isolation of hazardous areas, monitoring devices, etc.
- Administrative Controls - procedures, assessments, inspection, records to monitor and ensure safe practices and environments are maintained.
- Training Controls - initial new hire safety orientation, job specific safety training and periodic refresher training.

# What Controls Failed?

- List the specific engineering, administrative and training controls that failed and how these failures contributed to the accident

# What Controls Worked?

- List any controls that prevented a more serious accident or minimized collateral damage or injuries

# Determine

- What was not normal before the accident?
- Where the abnormality occurred?
- When it was first noted?
- How it occurred?



# Unsafe Acts

- List all unsafe acts involved in the accident
- Examples of unsafe acts
  - Unauthorized operation of equipment
  - Running - horse play
  - Not following procedures
  - By-passing safety devices
  - Not using protective equipment
  - Under influence of drugs or alcohol
  - Taking short-cuts



# Unsafe Conditions

- List all unsafe conditions involved in the accident
- Examples of unsafe conditions
  - Ergonomic hazards
  - Environmental hazards
  - Inadequate housekeeping
  - Blocked walkways
  - Improper or damaged PPE
  - Inadequate machine guarding

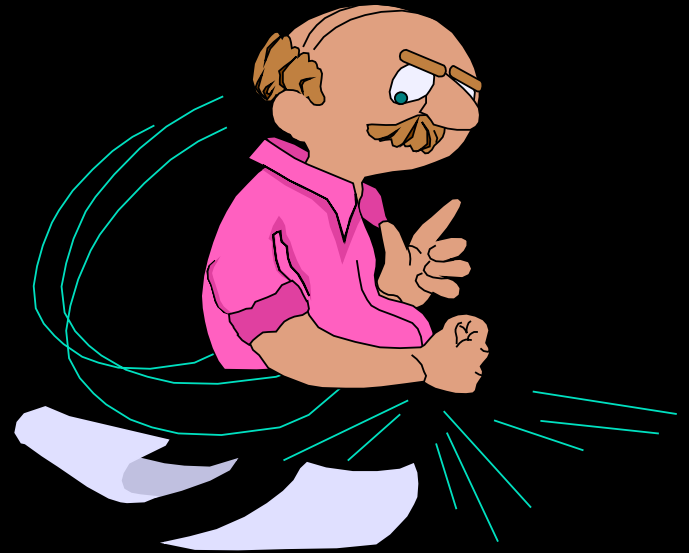


# Change Analysis

1. Define the problem (What happened?)
2. Establish the norm (What should have happened?)
3. Identify, locate, and describe the change (What, where, when, to what extent?)
4. Specify what was and what was not affected
5. Identify the distinctive features of the change
6. List the possible causes
7. Select the most likely causes

# Prevention

- What needs to change or be improved to prevent similar accidents in the future?
  - Engineering Controls
  - Administrative Controls
  - Training Controls

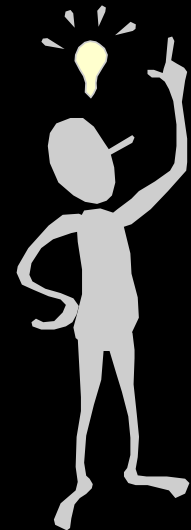


# Final Report

- Background Information – where, when, who & what
- List of those involved & other witnesses
- Account of the Accident - sequence of events, extent of damage, accident type, source

# Report Causes

- Analysis of the Accident – HOW & WHY
  - a. Direct causes (energy sources; hazardous materials)
  - b. Indirect causes (unsafe acts and conditions)
  - c. Basic causes (management policies; personal or environmental factors)



# Recommendations

- Action to remedy
  - Basic causes
  - Indirect causes
  - Direct causes
- Recommendations - as a result of the finding is there a need to make changes to:
  - Employee training
  - Work stations design
  - Policies or procedures

# Send & File Report

- After developing a formal report, forward it for review & action.
- File a copy of the report and all raw data, photos, interview notes, etc. in a single file

# Feedback

*Using reports to eliminate future hazards*

- Information spreadsheet for Safety Director
- New tools or equipment
- New processes
- Employee changes

# Feedback

## *Hazard controls*

- Engineering
- Administrative
- PPE

