

# ACCIDENT PREVENTION

Workers Compensation Fund  
Presented by  
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MPH,CSP,ARM

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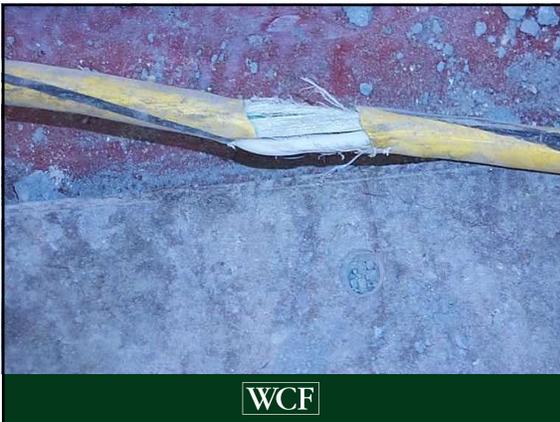
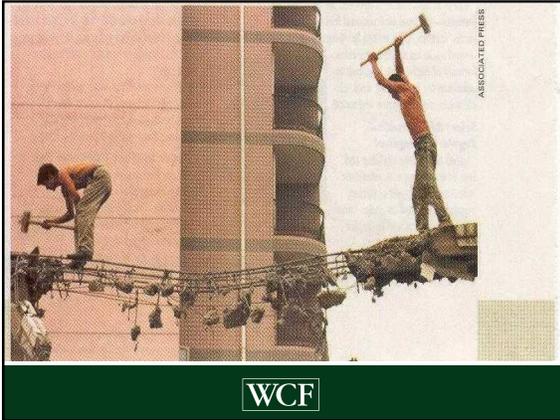
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Popular Theories

- Heinrichs Domino Theory
- General Methods of Control Approach
- Energy-Release Theory
- Technique of Operations Review (TOR)
- System Safety Approach

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Contributing Factors

**Human Factors** - selection, training, supervision, motivation

**Environmental** - physical, chemical, biological, ergonomic

**Situational** - operations, tools/equipment, facilities

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## HUMAN FACTORS

Hire the Best People You Can. Be Selective!

- ↪ Prior Work References
- ↪ Drug Screen
- ↪ Motor Vehicle Report
- ↪ Skills Testing/Demonstration
- ↪ Physical Abilities Testing
- ↪ Other (NCCI, Credit Report)



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## HUMAN FACTORS

Train Your People Properly

Initial Training:

- ↪ Hazards of the Job
- ↪ How to do the Job Right
- ↪ Safety Rules/Procedures
- ↪ Equipment/Tools/Machinery
- ↪ OSHA Required Programs



Human Error is Reduced  
When Employees Demonstrate  
Skill Proficiency Before  
Performing a Particular Task.



## HUMAN FACTORS

Ongoing Training:

- ↪ Periodic (Toolbox, Tailgate)
- ↪ Changes in operations
- ↪ Post accident
- ↪ Remedial
- ↪ Document



## HUMAN FACTORS

### SUPERVISION

Supervisor is the key:

- Should best know the operation
- Should best know their people (strengths/weaknesses/limitations)
- Should periodically assess progress



## HUMAN FACTORS

- Motivation
  - Incentive program/rewards
  - Peer group
  - Fear – Disciplinary Action
  - Recognition
  - Involvement in safety program



## ENVIRONMENTAL

Physical-Noise, vibration, temperature, illumination  
Chemical-gases, vapors, fumes, smokes  
Biological-bacteria, mold, parasites  
Ergonomic-postures, frequency, force



## SITUATIONAL FACTORS

- ✓ Tools/equipment-use the right tool, use it properly and maintain
- ✓ Physical facilities-hazard inspections and maintenance program
- ✓ Operations-are they as safe as they can be?



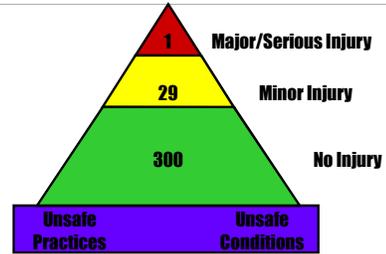
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## Heinrich: Foundation of a Major Injury



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## ACCIDENT INVESTIGATION

AN INJURY, NEAR-MISS, PRODUCT and EQUIPMENT DAMAGE is an INDICATION of SOMETHING GONE WRONG, and SHOULD be INVESTIGATED.

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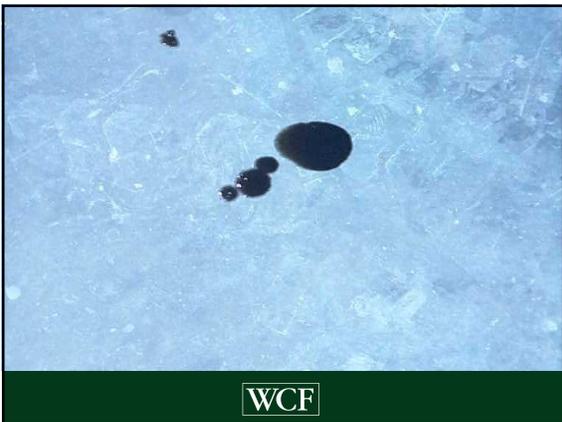
## Identify Contributing Factors

Determine factors by asking open ended questions:

Who, What, Where, Why and How

Use a Simple Incident Report Form to Document Findings

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## FIND ROOT CAUSES

When you have determined the contributing factors, dig deeper

If employee error, what caused the behavior?

If defective machinery, why wasn't it fixed?

If poor lighting, why not corrected?

If no training, why not?



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Sometimes the hardest thing to become aware of is that which we are most familiar.  
We fail to see that which we see too often.

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## When an Accident Occurs

Don't limit your thinking to determining just unsafe acts or conditions, **question the very operation.**

Why do we do this this way?

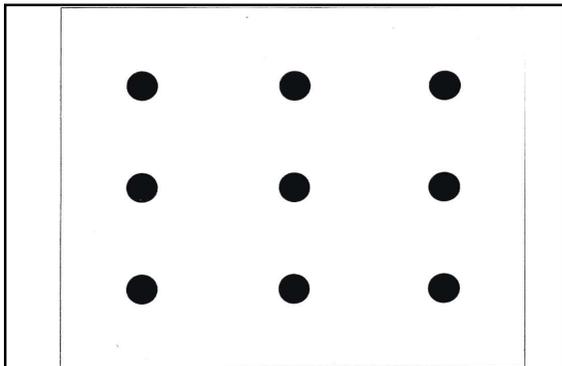
What other way could it be done?

How can it be improved?

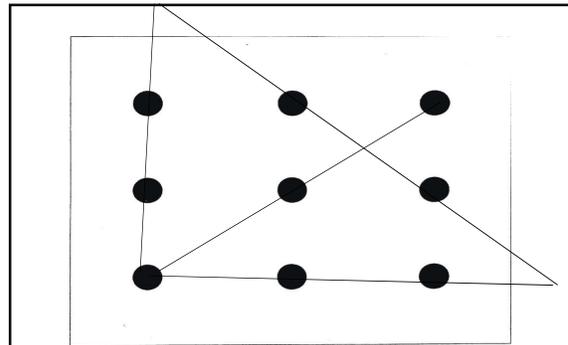
What detail could be changed or eliminated?



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## Group Exercises

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