Safety | NewsAlert

Incident Investigations: The What, Why and the How

Jack Fearing, CPEA

Meet Today's Presenter

- More than 35 years of experience in General Industry Compliance
- OSHA 10/30 authorized instructor
- Professional member of the NJASSP Chapter - 2019 SPY
- B.S., University of Massachusetts, M.Ed., Boston University
- Retired US Army LTC, Senior Army Aviator & Aviation Safety Officer

Jack Fearing, CPEA
Managing Partner
Fearing International Group LLC

Safety|NewsAlert

Presentation Overview

- Incident Statistics & Costs
- The Investigation Process
- Incident Reporting & Recording
- Root Case Analysis Techniques & Examples
- Investigation Myths & Facts
- Q/A

What is an incident?

An unplanned, unwanted, but controllable event which can disrupt the work process and may also cause injuries, illnesses, fatalities to your employees and/or facility damage.

The Cost of an Incident

The **Direct** cost of an incident generally accounts for about 1/3 of the total cost. The remaining costs are **Indirect** costs.

Examples of **Indirect** costs include:

- Loss of productivity/skill set
- Training/retraining
- Impact on employee morale
- Equipment downtime
- Customer related issues
- Others

The Cost of an Incident

Work Injury Costs - 2020

Statistics published by the NSC indicate direct incident costs in CY2020 injuries and illnesses included:

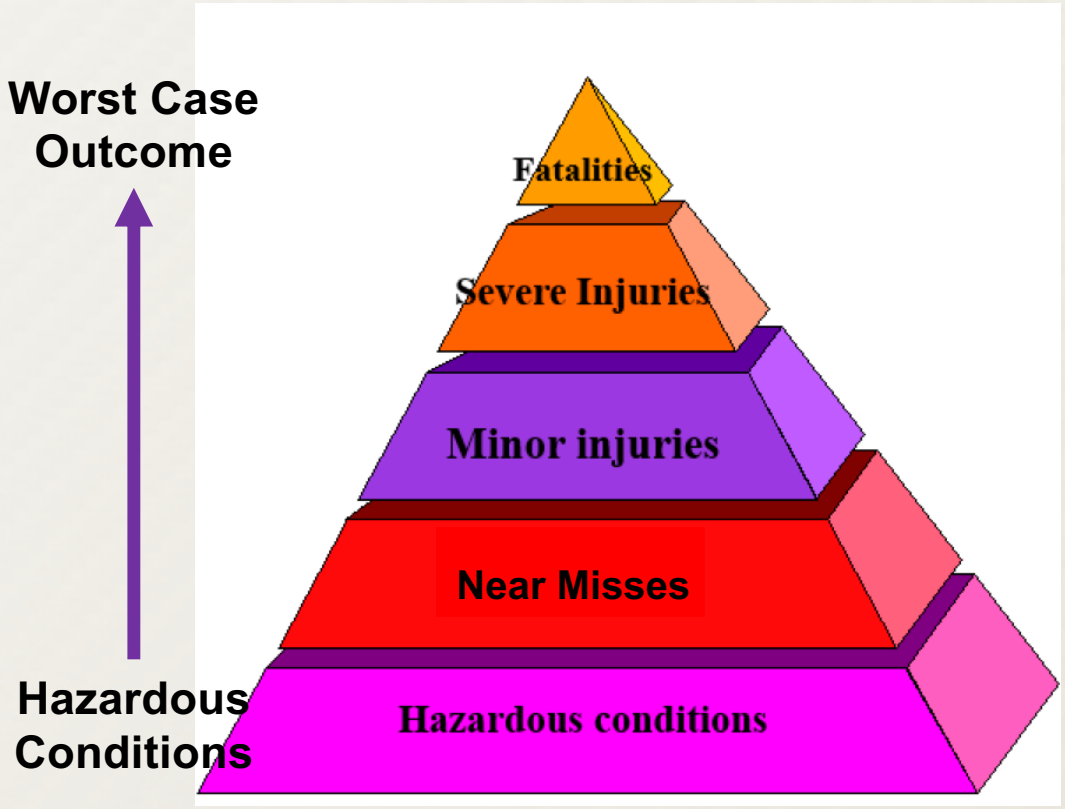
- Total costs - $163.9 billion
- Cost per employee - $1,100.
- Cost per employee fatality - $1,310.
- Cost per medically consulted injury - $44,000.

Time Lost Due to Work-Related Injuries - 2020

- Total days lost – 99,000,000
- Loss due to injury or illness – 65,000,000
- Injuries or illnesses in the prior year – 34,000,000
- Future years from 2020 injuries or illnesses – 50,000,000

The Incident Pyramid

The Incident Pyramid, also known as Heinrich's Law or Bird's triangle, is a theory of industrial incident prevention. It shows the relationship between fatalities, serious & minor incidents, near misses and existing hazards.

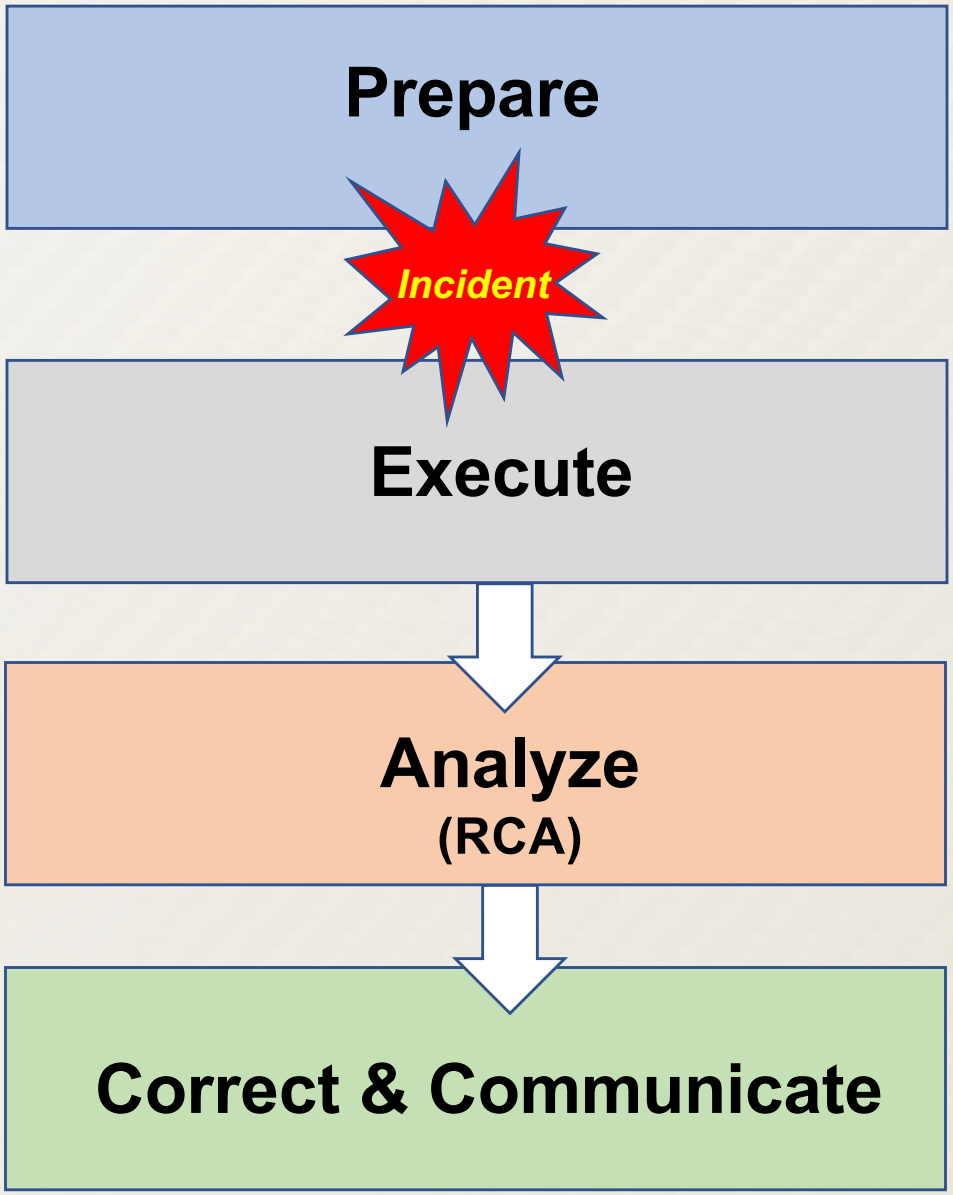


Safety|NewsAlert

Why do We Investigate?

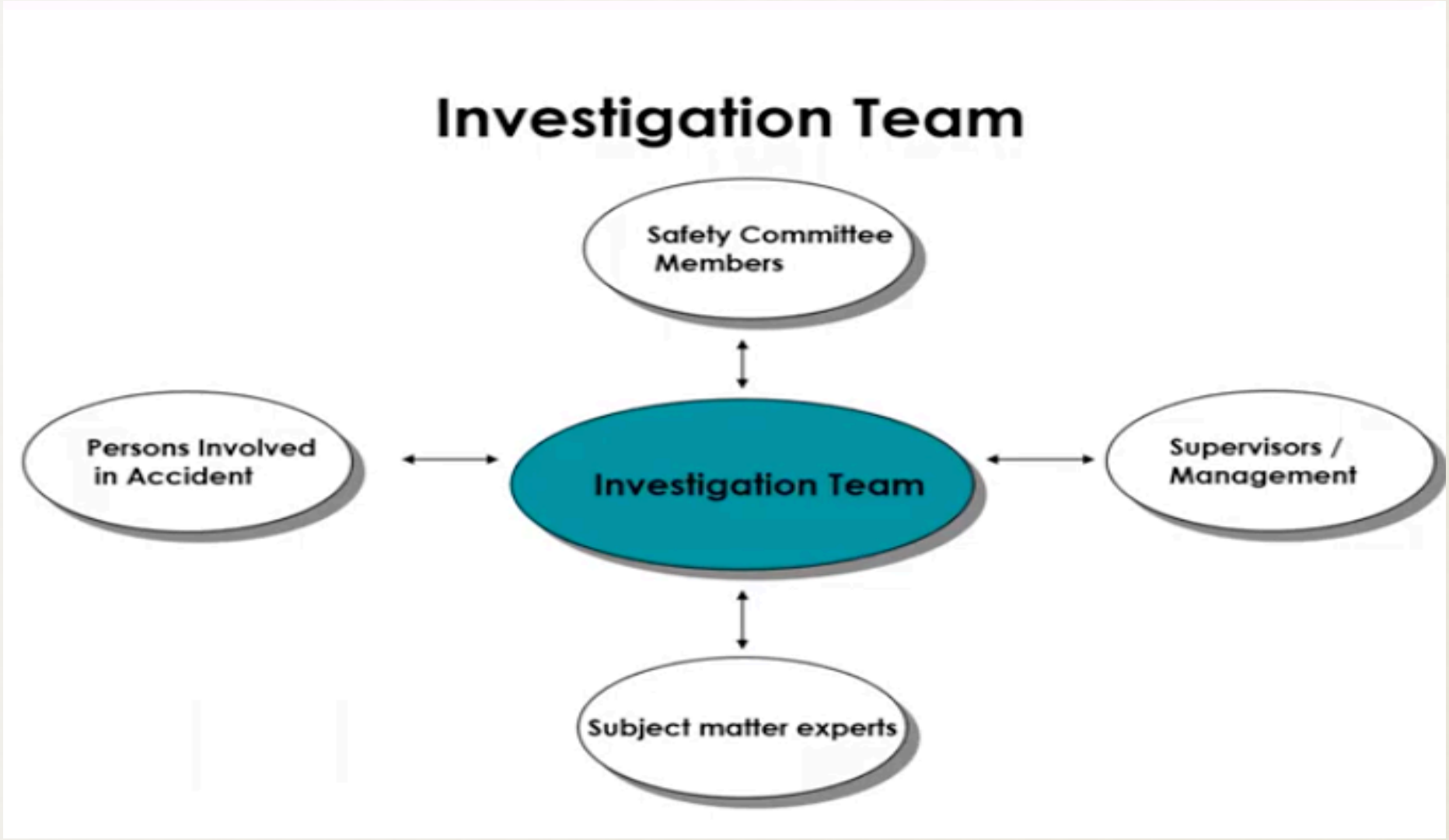
- Prevent future incidents
- Identify and eliminate hazards
- Identify deficiencies in process and/or equipment
- Reduce injury & Workers' Compensation costs
- Maintain employee morale
- Comply with regulatory requirements

4-Step Incident Investigation Process

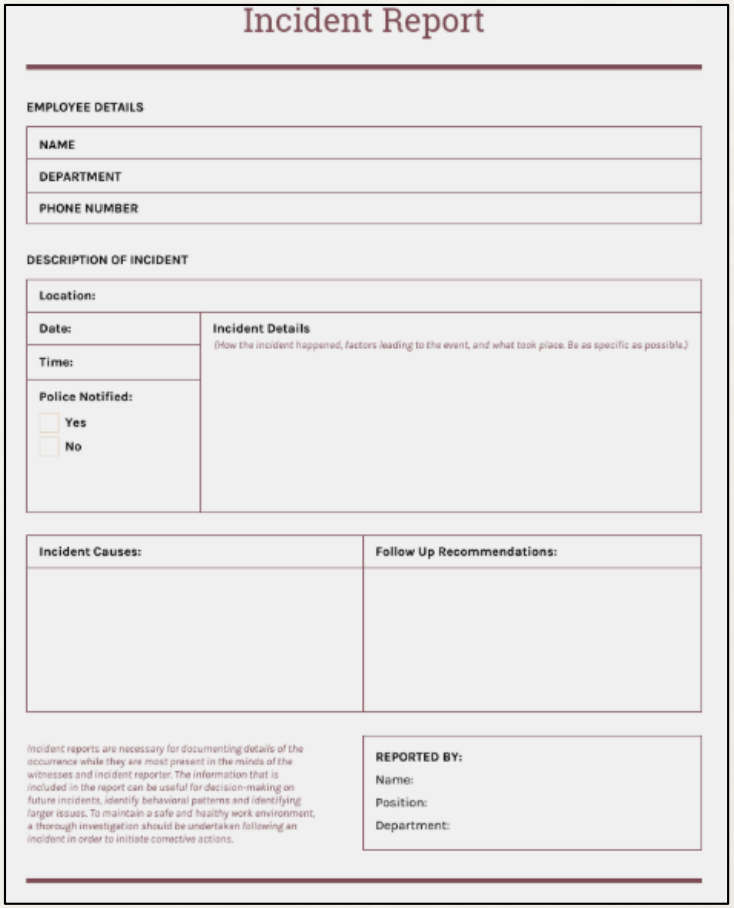


Safety|NewsAlert

Preparing an Incident Investigation Process



The Incident Investigation Form



Incident Report

EMPLOYEE DETAILS

NAME
DEPARTMENT
PHONE NUMBER

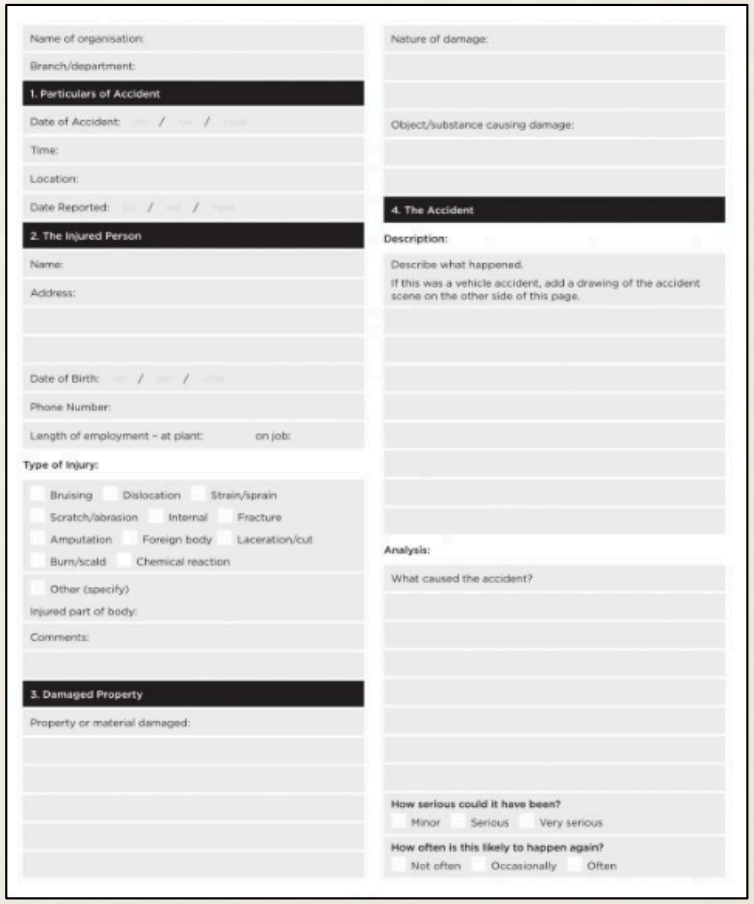
DESCRIPTION OF INCIDENT

Location:	
Date: **Time:** **Police Notified:** ☐ Yes ☐ No	**Incident Details** *(How the incident happened, factors leading to the event, and what took place. Be as specific as possible.)*

Incident Causes:	**Follow Up Recommendations:**

Incident reports are necessary for documenting details of the occurrence while they are most present in the minds of the witnesses and incident reporter. The information that is included in the report can be useful for decision-making on future incidents, identify behavioral patterns and identifying larger issues. To maintain a safe and healthy work environment, a thorough investigation should be undertaken following an incident in order to initiate corrective actions.

REPORTED BY:
Name:
Position:
Department:



Name of organisation:
Branch/department:

1. Particulars of Accident

Date of Accident: DD / MM / YEAR
Time:
Location:
Date Reported: DD / MM / YEAR

2. The Injured Person

Name:
Address:
Date of Birth: DD / MM / YEAR
Phone Number:
Length of employment – at plant: on job:

Type of Injury:

☐ Bruising ☐ Dislocation ☐ Strain/sprain
☐ Scratch/abrasion ☐ Internal ☐ Fracture
☐ Amputation ☐ Foreign body ☐ Laceration/cut
☐ Burn/scald ☐ Chemical reaction
☐ Other (specify)

Injured part of body:
Comments:

3. Damaged Property

Property or material damaged:

Nature of damage:
Object/substance causing damage:

4. The Accident

Description:

Describe what happened.
If this was a vehicle accident, add a drawing of the accident scene on the other side of this page.

Analysis:

What caused the accident?

How serious could it have been?
☐ Minor ☐ Serious ☐ Very serious

How often is this likely to happen again?
☐ Not often ☐ Occasionally ☐ Often

Conducting the Investigation

- Arrange for appropriate medical treatment
- Secure the scene (e.g., spill, fire, other)
- Identify witnesses and conduct interviews
- Document the scene (e.g., photos & videos
- Collect additional information

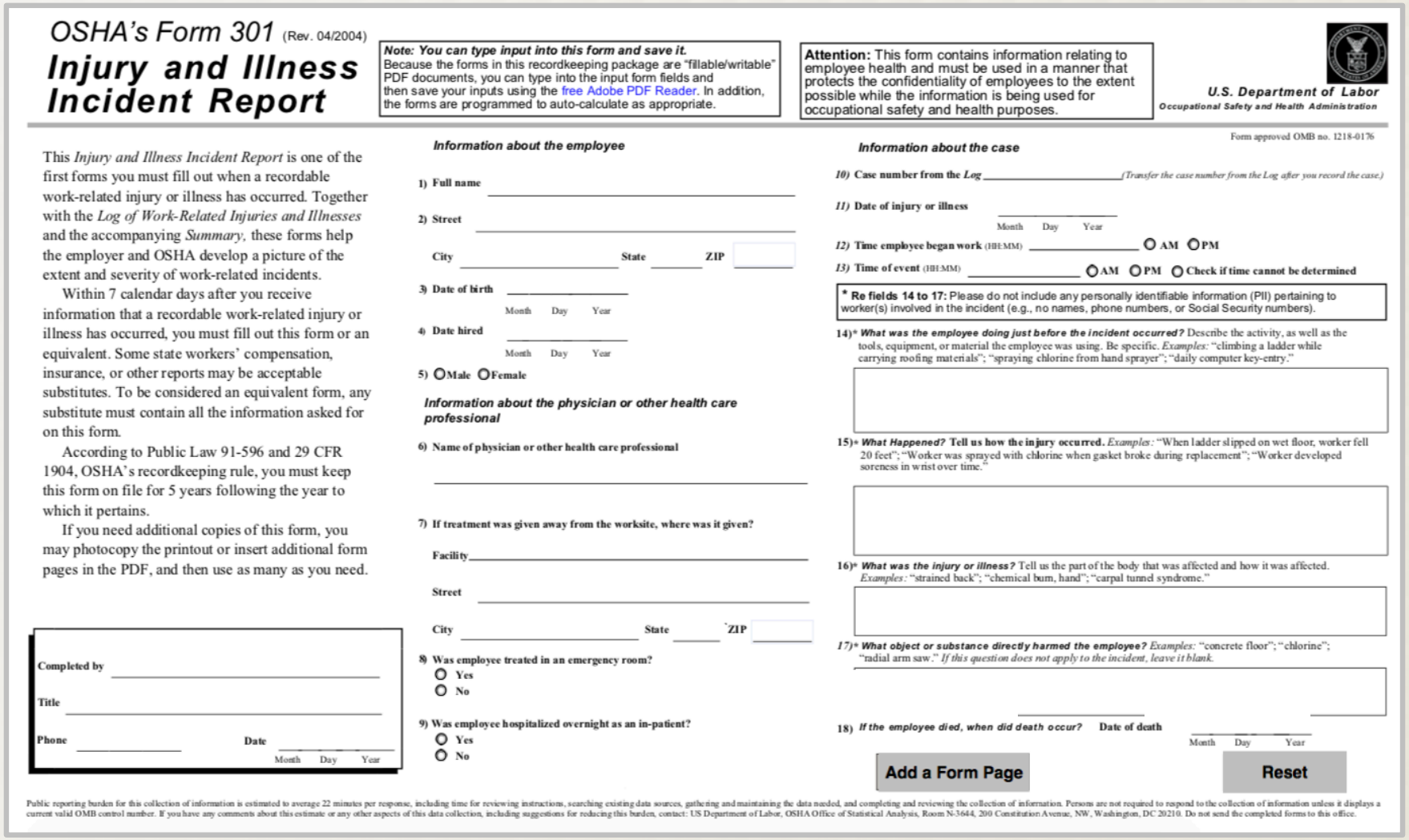
Injury/Illness Reporting & Recording

Employers must report:

- All work-related fatalities:
  Within 8 hours
- Other work-related within 24 hours:
  - In-patient hospitalization
  - Amputations
  - Loss of an eye

Note: Failure to report can bring fines up to $14,502. *per instance.*

OSHA Form 301



OSHA's Form 301 (Rev. 04/2004)

Injury and Illness Incident Report

Note: You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary,* these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy the printout or insert additional form pages in the PDF, and then use as many as you need.

Completed by _____

Title _____

Phone _____ Date _____ (Month Day Year)

Information about the employee

1) Full name _____

2) Street _____

City _____ State _____ ZIP _____

3) Date of birth _____ (Month Day Year)

4) Date hired _____ (Month Day Year)

5) ○ Male ○ Female

Information about the physician or other health care professional

6) Name of physician or other health care professional _____

7) If treatment was given away from the worksite, where was it given?

Facility _____

Street _____

City _____ State _____ ZIP _____

8) Was employee treated in an emergency room?
○ Yes
○ No

9) Was employee hospitalized overnight as an in-patient?
○ Yes
○ No

Information about the case

10) Case number from the *Log* _____ *(Transfer the case number from the Log after you record the case.)*

11) Date of injury or illness _____ (Month Day Year)

12) Time employee began work (HH:MM) _____ ○ AM ○ PM

13) Time of event (HH:MM) _____ ○ AM ○ PM ○ Check if time cannot be determined

* **Re fields 14 to 17:** Please do not include any personally identifiable information (PII) pertaining to worker(s) involved in the incident (e.g., no names, phone numbers, or Social Security numbers).

14)* ***What was the employee doing just before the incident occurred?*** Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. *Examples:* "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."

15)* ***What Happened?*** **Tell us how the injury occurred.** *Examples:* "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."

16)* ***What was the injury or illness?*** Tell us the part of the body that was affected and how it was affected. *Examples:* "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."

17)* ***What object or substance directly harmed the employee?*** *Examples:* "concrete floor"; "chlorine"; "radial arm saw." *If this question does not apply to the incident, leave it blank.*

18) *If the employee died, when did death occur?* Date of death _____ (Month Day Year)

Add a Form Page | Reset

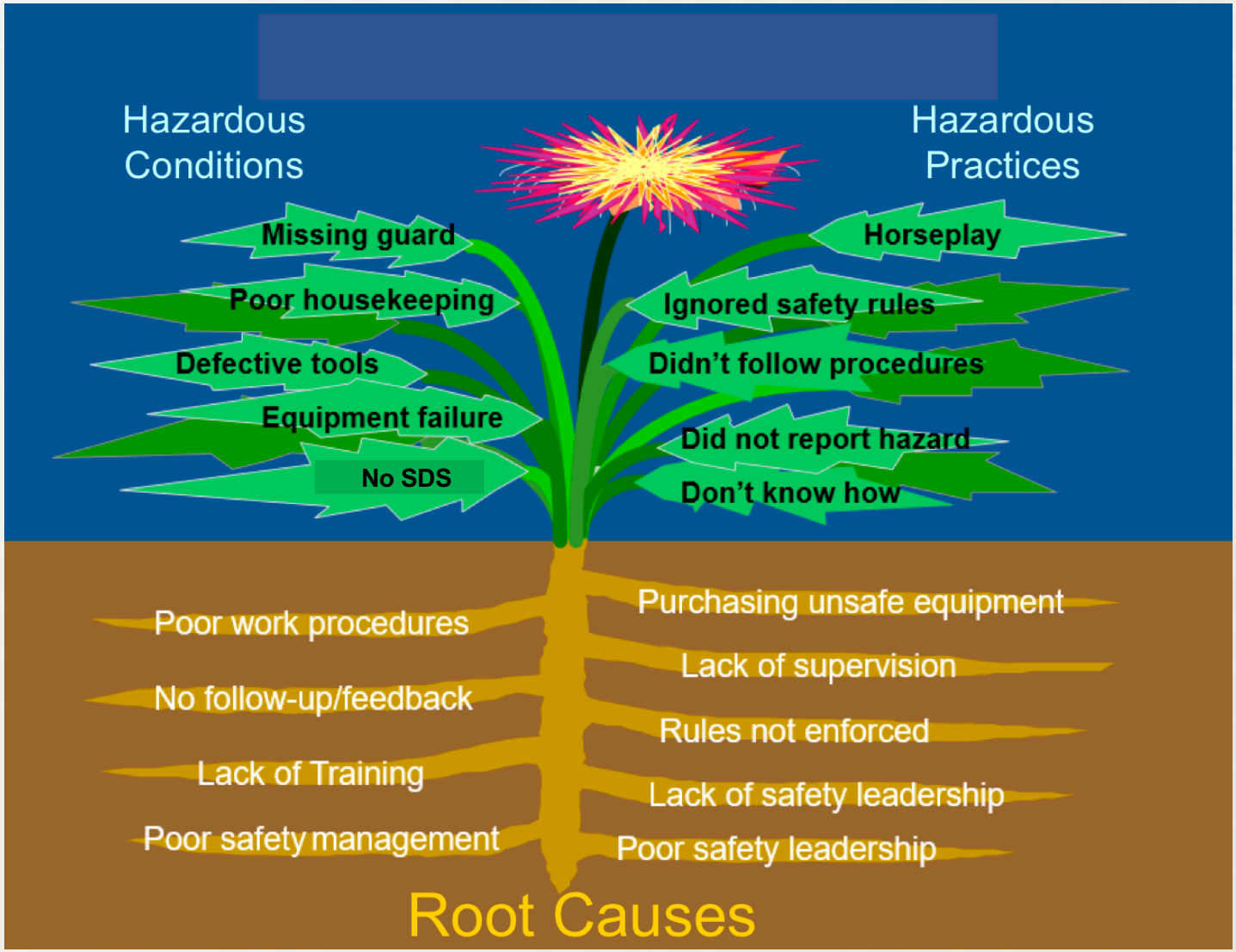
Public reporting burden for this collection of information is estimated to average 22 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Persons are not required to respond to the collection of information unless it displays a current valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, including suggestions for reducing this burden, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

What is Root Cause Analysis

Root cause analysis is a systematic technique that focuses on finding the real cause of a incident and dealing with that, rather than just dealing with its symptoms. A root cause is the cause that, if corrected, would prevent recurrence of this and similar occurrences.

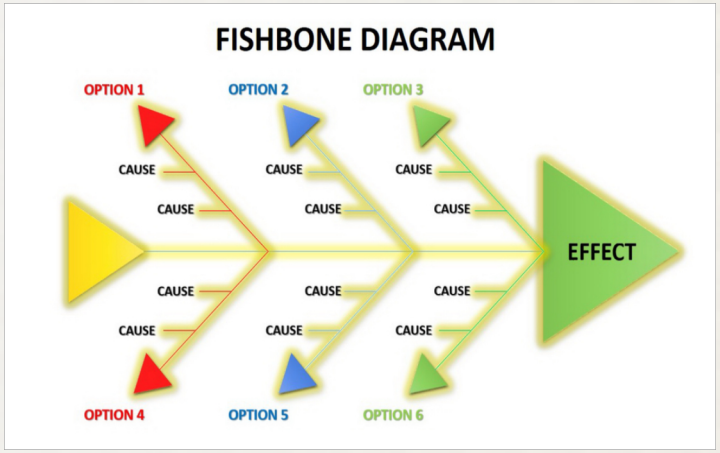
- **Direct Cause** – Unplanned release of energy or hazardous materials
- **Indirect Cause** – Unsafe acts and/or unsafe conditions
- **Root Cause** – policies and decisions, personal factors, environmental factors

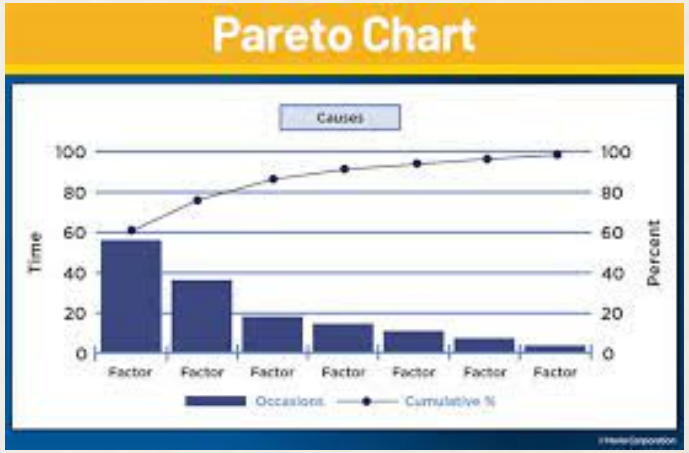
The Incident Weed

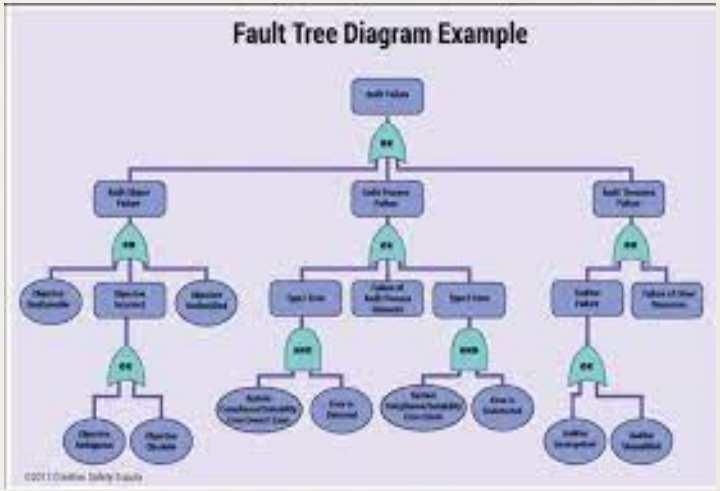


Safety|NewsAlert

Root Cause Analysis Techniques







Safety|NewsAlert

The 5 Whys

- The “5 Whys” is one of the simplest of the root cause analysis methods. It is a question-asking method used to explore the cause/effect relationships underlying a particular incident. Ultimately, the goal of applying the 5 Whys method is to determine the root cause of an incident.
- Basic Question - Keeping asking “What caused or allowed this incident to occur” until you get to the root cause(s).

5 Whys Example:

The Incident: A maintenance employee slips and falls and suffered a serious injury.

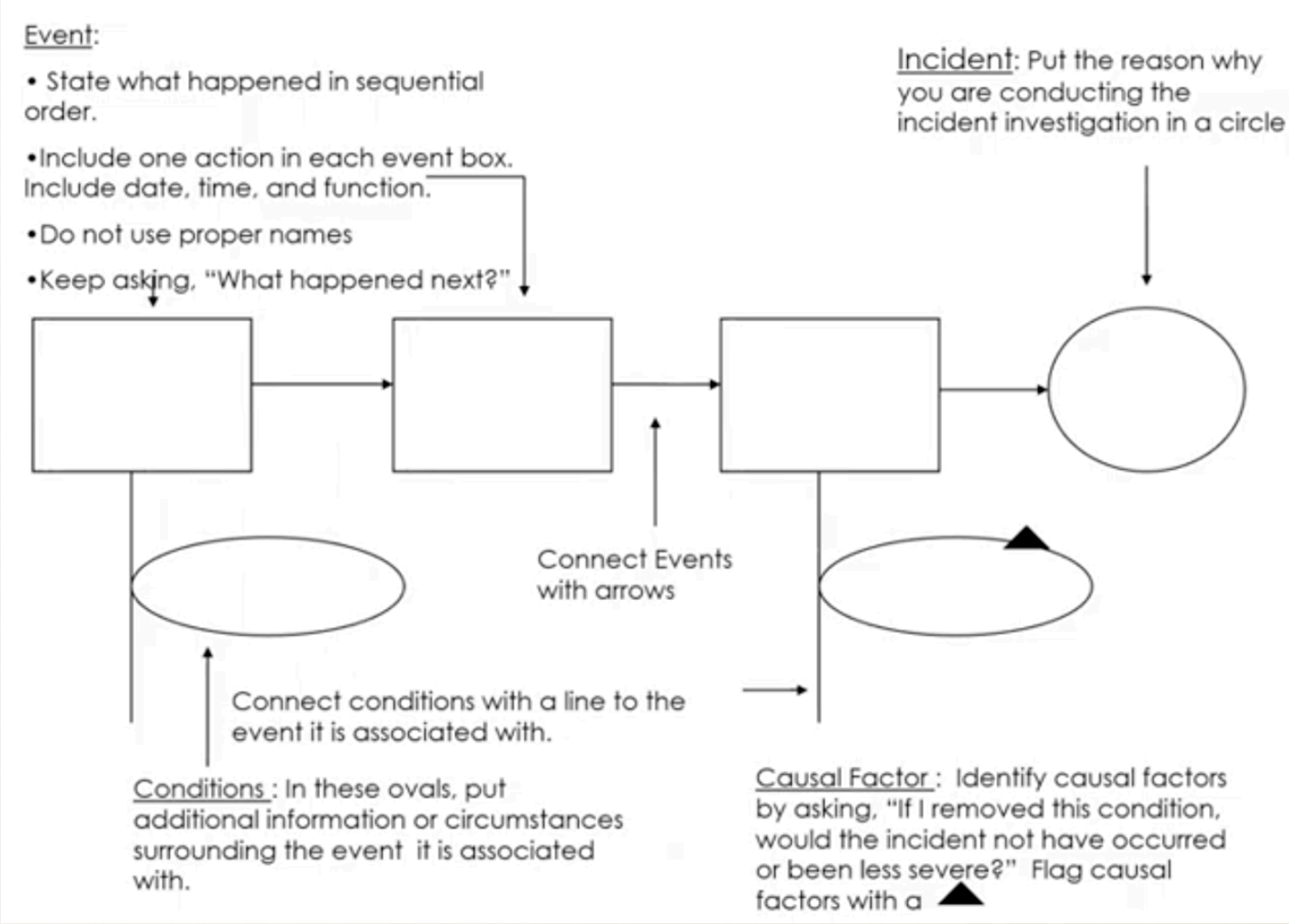
- *Why #1*: Why was there a puddle of oil on the floor?
- *Why #2*: Why did the oil spill from the compressor?
- *Why #3:* Why was the leak in the compressor not detected?
- *Why #4*: Why was the compressor not inspected?

Root Cause – The compressor was not in the plant Preventive Maintenance (PM) program.

Benefits of Asking the Five Whys

- **Simplicity**. It is easy to use and requires no advanced mathematics or eTools.
- **Effectiveness**. It truly helps to quickly separate symptoms from causes and identify the root case of a problem.
- **Comprehensiveness**. It aids in determining the relationships between various problem causes.
- **Flexibility**. It works well alone and when combined with other quality improvement and trouble shooting techniques.
- **Engaging**. By its very nature, it fosters and produces teamwork and teaming within and without the organization.
- **Inexpensive**. It is a guided, team focused exercise. There are no additional costs.

Events & Casual Factors Diagram



Writing the Report

The report should include:

- An accurate narrative of “what happened”
- Clear description of unsafe acts or conditions
- Recommended immediate corrective action (e.g., RCA)
- Recommended long-term corrective action
- Recommended follow up to assure “fix” is in place
- Recommended review to assure correction is effective.

Safety|NewsAlert

Conclusions of the Report

Report conclusions should answer the following:

- What should happen to prevent future similar incidents?
- What resources are needed?
- Who is responsible for making changes?
- Who will follow up and ensure changes are implemented?
- What will be the future long-term procedures?

Note: If additional resources are needed during the implementation of recommendations, then provide options. Having a comprehensive plan in place will allow for the success of your investigation. Success of an investigation is the implementation of viable corrections and their ongoing use.

Incident Investigations
Myths & Facts

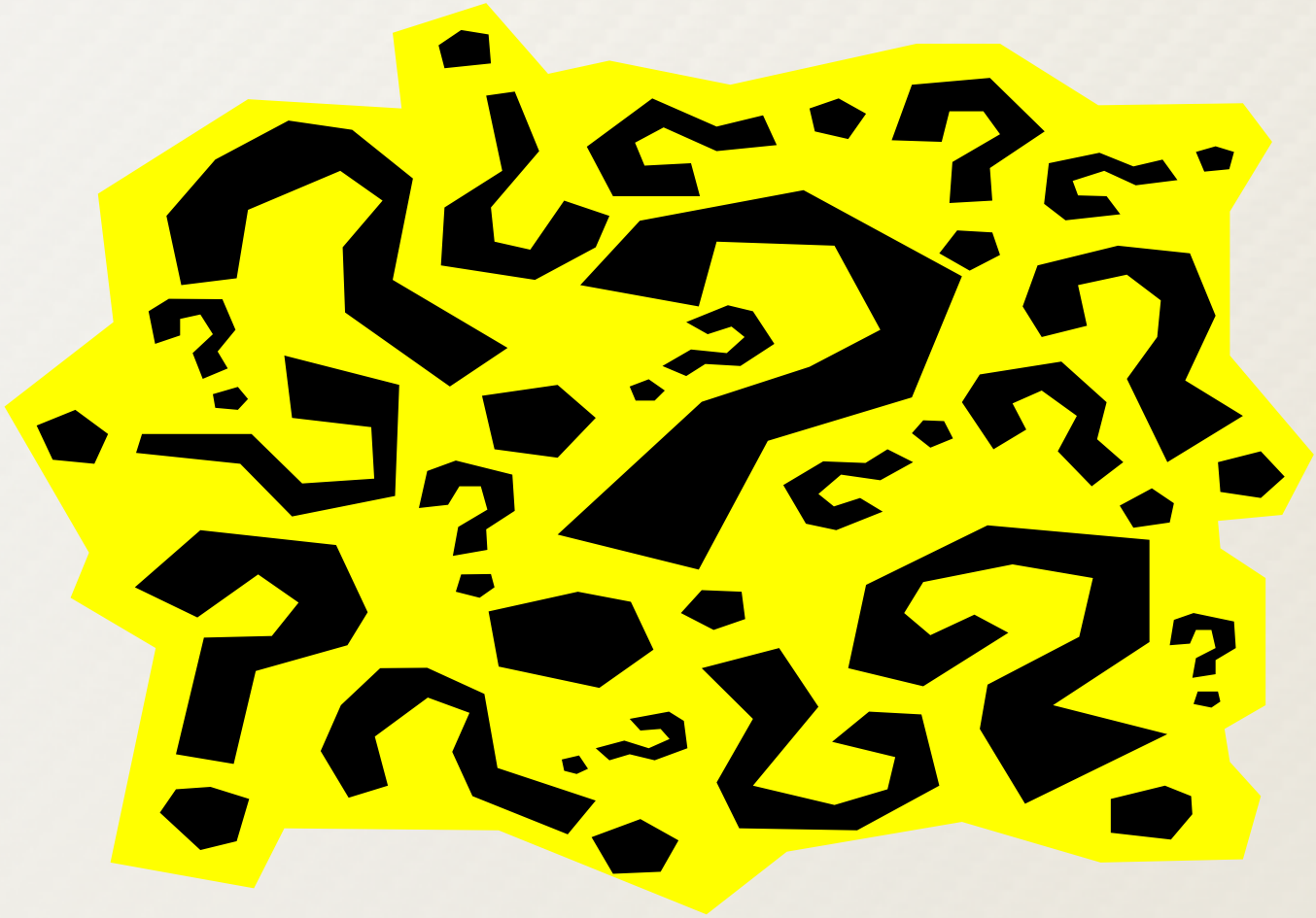
Myth #1: Only the large incidents are worth reporting

Myth #2: Speed in reporting is everything

Myth #3: Once you put out the ”fire” – you’re done

Myth #4: Hazards or near misses don’t need to be reported

Questions?



Thank You for Your Participation

Jack Fearing, CPEA

(908) 303-8359 / jack@fearing-international.com

For more information or additional questions, please email

mmyers@successfuel.com

Safety | NewsAlert