

**SAMPLE COPY. CLICK HERE TO PURCHASE THE FULL E-BOOK.**

Industrial incidents occur everyday. Some are major, with injuries to workers as well as damage to property, but most are minor and do not involve time lost, medical care or repairs to property. Incidents can be controlled and prevented. One of the best ways to prevent incidents is to investigate the causes of each incident that occurs. The degree of investigation depends on the potential severity of the incident.

Every incident consists of a **cause** and a **result**. An incident involving a near miss (near hit), no injury, or a slight injury may reveal as many constructive conclusions as the investigation of an incident involving a fatality. Once the cause is set in motion, little can be done to control the result. The difference between a scraped shin and a fractured skull is often a matter of luck. Many slight injuries or near hits might just as well have been fatalities.

Incident investigations must be prompt and thorough. Nothing can be assumed or taken for granted. Every **alleged fact must be challenged** until the investigator is finally satisfied that he knows just exactly what happened which means understanding, **“Who did or did not do something and why?”** We are not trying to fix blame but improve conditions and attitudes.

Always remember the purpose of an incident investigation is to find the cause(s) so that plans can be made to prevent the incident from happening again. The invariable cause of an incident is that someone did something that he should not have done or that someone failed to do something that he should have done. Do not be confused by such words as “machine failure,” “man failure” and “unsafe physical conditions.” **Behind all these phrases is an unsafe act or failure to act on the part of somebody.**

The investigating team should have all the preliminary information available regarding the incident, the person injured and the injury itself. Equipment age, maintenance records and records of who performed the maintenance of the equipment should be obtained. Manufacturers’ manuals and recommended procedures are also pertinent to the investigation.

Strenuous efforts should be made in an attempt to find out **all** the contributing factors. Effective investigation is, first of all, a **fact-finding job**, which requires among other things, personal sincerity and honesty. Facts as they are found should be met and acknowledged face to face. An investigation should not be looked upon as a necessary evil but rather in its true light, which is the opportunity to bring about better control of hazardous operating conditions.

**All** incidents including near-hits should be investigated in order to find the answers to the following four **“W”** questions. With these answers we can the answer the final two **“W”** questions.

- Exactly **What** happened that resulted in the injury, damage incurred or environmental incident? Under what accompanying or special circumstances did the incident occur?
- **Where** did these actions take place?
- **Who** was injured, **who** was involved, **who** might know something about the incident or **who** was on location but not involved or does not know anything about the incident?
- **When** did it happen?
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Interview witnesses and do not lose the opportunity of discussing with the injured person, when available, the details regarding the occurrence of the incident and obtaining his recommendations for correcting the hazard which caused his injuries. He may know more and have better answers than anyone else.

Once the facts are found from the four **“W”** questions, the investigation team can determine the answers to the fifth **“W”**: **Why** the incident occurred. Once we have reconstructed the details surrounding the occurrence of the incident, we should proceed to determine **what** should be done to eliminate or control the hazards that caused the incident. Finally, a follow up plan should be developed to see that the necessary changes are carried out.

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- Q. What is the most frequent cause of incidents?  
 A. Nine out of ten incidents can be traced to an employee's unsafe actions, which may result from poor attitudes, lack of skill or poor knowledge of the job.
- Q. In what ways are incidents costly?  
 A. **Incidents cost a great deal in human suffering to the injured as well as their family. The cost of incidents is greater than medical and insurance costs. These costs include:**
- Losses due to weakened morale of uninjured employees.
  - Damage to equipment or materials.
  - Down time of the rig.
  - Loss of injured and uninjured employees' productive time.
  - Loss of wages of injured employee.
  - Learning time of a "substitute" employee.
  - Loss of supervisory time needed to investigate incident, change work schedule, train new employee.
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- Q. How is lost time incidence rate computed?  
 A. Incidence Rate = 
$$\frac{\text{No. of lost time incidents} \times 200,000}{\text{No. of man-hours worked}}$$
- Q. How is the frequency rate of incidents computed?  
 A. Incident Frequency = 
$$\frac{\text{No. of lost time incidents} \times 1,000,000}{\text{No. of man-hours worked}}$$
- Q. How is incidence severity rate computed?  
 A. Incident Severity = 
$$\frac{\text{No. of man days lost} \times 200,000}{\text{No. of man-hours worked}}$$
- Q. How can incidence rates be used to control accidents?  
 A. **These figures help show: (1) Progress or decline in accident prevention; (2) How safety performance compares with other rigs or companies; (3) Which operations are especially hazardous; and (4) Where better safety methods are needed.**
- Q. What steps should a Toolpusher or Driller take to make his rig safe for work?  
 A.
- Fully recognize the importance of preventing occupational incidents and illnesses.
  - Help employees make safety a habit.
    - Start with:
      - Providing proper safety instruction to new employees.
      - Re-instructing older employees when necessary.
      - Building employee interest through one-on-one talks, safety exhibits, and scorecards.
      - Considering employee safety suggestions.
      - Establishing safety rules and seeing that they are followed.
      - Conducting hazard assessment of the work place and tasks.
      - Assisting crews in creating Job Safety Analysis of hazardous tasks. Utilize these JSAs in pre-job safety meetings.
      - Seeing that hazardous jobs are guarded and that equipment is in safety-shape.
      - Analyzing safety records to see where preventive action is needed.
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- Q. How does rig housekeeping affect safety?  
 A. A disorderly working area is an accident trap. It promotes incidents from tripping, bumping and falling objects. Poor housekeeping encourages carelessness.

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Whenever there's an accident—whether someone is killed, or a child breaks a teacup—somebody is sure to ask, “How did it happen?”

The answer should always be the same—it didn't happen. Somebody, or several somebodies, caused the accident.

Accidents don't just happen. They are **caused**. And the cause is almost always that some **person or persons** fell down on the job somewhere along the line.

Suppose you fall on the stairs in your own house and break a leg. That didn't just happen. There was no little demon waiting to trip you. Something made you fall, and that something was the result of an action of some person, or the failure of some person to act or observe. In the case of your leg, you are that person.

Chances are the fall was your own fault. Maybe you were in a hurry and took the stairs faster than you should. Maybe you had a few beers. Maybe you were trying to carry an awkward load that put you off balance. Maybe your eyesight is bad, and you haven't bothered to get proper glasses.

But maybe somebody else did something to cause the accident. Maybe Junior left his roller skates on the stair or mom left a mop bucket. Maybe the carpet was torn or the banister was broken, and no one in the family bothered to fix it. Maybe the light was poor, and you hadn't gotten around to installing a good light.

It's just this simple. Not every dangerous act produces an accident. But no accident is ever produced unless one or more factors are involved.

Sometimes we kid ourselves by thinking, “Well, everything is just right, so I can break the rule, because it won't produce an accident in this case.”

That kind of thinking is just what produces all those deaths you hear about from so-called unloaded guns. A person is sure that the gun doesn't have a bullet in it. But sometimes he is wrong about its being unloaded. This is why the old safety rule about guns says, “Never point a gun at anything you don't want to kill.”

In your daily work, you know the safe way to do the job. Just remember that if you always do your job that way, you'll never be the person who caused an accident.

It's a good idea to take stock once in a while by asking ourselves: Do any wrong attitudes apply to me?

- Selfishness—the “me first” attitude responsible for so much lack of consideration for others, commonly referred to as discourtesy.
- Self-importance—the idea that “I'm too big for rules; they apply only to the other guy.”
- Overconfidence—“I'm good. I don't have to be careful. I know it all.”
- Chance-taking—the “live dangerously” concept, sometimes involving great faith in luck (“It can't happen to me”).
- Fatalistic attitude—“you go when your number is up, and what you do doesn't make any difference.”
- Hostility--a constant “unfocused” feeling of anger towards others, resulting in an attitude of aggression.
- Attitude of inferiority—“I won't be pushed around.”
- Competitive “trying to get ahead”—to beat the other fellow.
- Unconscious self-destruction—an attitude frequently noted by psychologists, a need to injure one's self.
- Horseplay—showing off.
- Pleasure in destruction—a personality maladjustment in which pleasure is derived from destroying things.
- Transfer of guilt—creating situations in which blame can be placed on others, thus relieving feelings of guilt on the part of the instigator.
- My safety is not a core value to me.