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WHICH ACCIDENTS SHOULD BE INVESTIGATED

By SeaBright Insurance Loss Control

Investigations of injury accidents, particularly serious accidents, are standard operating procedures at most companies. It is the severe injury, which usually provides the catalyst for conducting a thorough investigation to determine why the accident occurred and how recurrence can be prevented. An injury however, is just one possible outcome of an accident. Not every accident will result in an injury and in fact the vast majority of accidents do not. So the question that must be asked is, are non-injury accidents important and should they be investigated?

Injury Control vs. Accident Prevention

To most people, an accident and an injury are the same thing. In reality, there is a key distinction: an injury is the result of an accident, but not all accidents result in an injury. A worker is standing on the top of a 5-foot stepladder trying to loosen a large nut with a wrench. The nut is rusty, so he applies extra pressure. The wrench slips off, causing him to lose his balance. He falls to the ground. Although embarrassed, he is not hurt, so he brushes himself off and goes back to work without reporting the accident. Even though there was no injury, this was an accident. Unless the cause is addressed, the accident could happen again with a more serious outcome. Quite often the terms "injury" and "accident" become synonymous, with many companies focusing their safety programs on injury control rather than accident prevention. When an injury control program is in place, accidents still occur, but because they are not recognized as such, they are never investigated. The causes are never identified and corrected.

A company that focuses on controlling injuries does not have the same long-term results as those companies that work toward accident prevention. It's common to see a company enhance or modify its safety program in an effort to control the number of injuries. The company often finds itself initially quite content with the steady reduction in injury frequency that occurred shortly after implementing the new program. But a year or two later, the reduction in injury frequency has ceased or injuries increased back to the previous level before the program change. In spite of its best efforts, the company could not seem to reduce injury frequency any further.

Why not? Perhaps the company focused on identifying and correcting only the most obvious conditions causing injuries. These controls were superficial 'fixes' since the core or root causes of their accidents were never accurately identified and rectified. Because of this, it usually does not take long for changes in attitudes, processes, work force, technology, and work methods to get ahead of the new injury control program that has been implemented.

Near Misses

Some people call accidents without injuries "near misses." How important are these so called near misses and why is it so important to prevent them?

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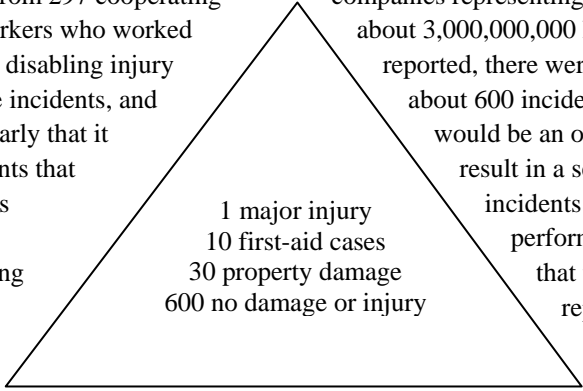


Noted industrial accident prevention expert, H. W. Heinrich, concluded from research conducted many years ago that the foundation for one major injury came from 330 accidents. When looking at a group of 330 accidents, 300 resulted in no injury (near misses), 29 produced minor injuries, and 1 resulted in a major injury. This research created the famous 1-29-300 Heinrich's triangle that many current safety professionals still recognize as the valid accident ratio today. Heinrich also assumed that underlying and causing all accidents is a large number of unsafe practices or conditions.

In completing these studies, Heinrich concluded two things:

- 1) Prevent the accident and there can be no injuries.
- 2) Prevent the unsafe practices and unsafe conditions and there can be neither accidents nor injuries.

Just a few years ago a study was undertaken to determine the relationship, if any, between accident severity and frequency. Over 1,753,498 accidents were analyzed from 297 cooperating companies representing 21 different industries. These companies collectively employed 1,750,000 workers who worked about 3,000,000,000 hours during the course of the study. The study found that for every serious or disabling injury reported, there were about 10 injuries of a less serious nature (first-aid cases), 30 property damage incidents, and about 600 incidents with no visible injury or damage. This 1-10-30-600 ratio indicates quite clearly that it would be an oversight to direct our total investigation efforts at only the relatively few events that result in a serious or disabling injury, when there are 630 other property damage or no loss incidents occurring. This study also shows how misleading it is to define safety performance by lost time injuries, which are comparatively rare events, considering that there are over 600 other accidents occurring. The importance of reporting and investigating property damage accidents should also be obvious, as property losses cost businesses tens of billions of dollars annually.



1 major injury
10 first-aid cases
30 property damage
600 no damage or injury

The message here from both Heinrich's research and the more recent study is that "increased accident frequency eventually leads to injury severity". In other words, to have a program that will effectively prevent injuries, you need to focus efforts on reducing the frequency of those near misses or non-injury accidents. Additionally, you need to focus on the unsafe behaviors within your company that may be producing near-miss accidents.

Look for the Warning Signs

An increase in the number of near misses, property damage incidents, and first-aid cases should be a warning that the potential for a serious injury is increasing and that action must be taken.

Consider the observation made when a SeaBright Loss Control Consultant was walking through a plant with the company's safety director. During a walk through the warehouse area, a large hole in one of the walls was noticed. The consultant asked the safety director how the hole got there. He stated he did not know, but added that it had something to do with the operation of a forklift. He went on to add, "But no one was injured." What he was really saying was that his definition of an accident only included occurrences that resulted in an injury.

If your company plans to permanently control the causes of all accidents, then it must focus its efforts on having an accident prevention program, rather than an injury control program. In order to accomplish this, all personnel must clearly understand the company's definition of an accident. This definition should include both near misses and injury accidents. Require all personnel to report all accidents, and then investigate each one. Your safety inspection program can then focus on finding and correcting the existing unsafe practices and conditions that can lead to an accident.

Never fail to investigate all reported near misses. Until the accidents are investigated and the causes are determined, you will not know if there is still potential for a severe injury or links to previous injuries. If you don't investigate all accidents, people will stop reporting them to you. After all, if you don't think that they are important to investigate, then employees will assume that they are not important enough to report. If you can prevent the accidents from occurring, you won't need to worry about controlling the injuries.

A sample accident investigation form is attached that can be used or customized for your operation.



Accident Investigation Form

| | | |
|---------|----------|----------|
| Company | Division | Location |
|---------|----------|----------|

An accident is an unintended occurrence that caused or could have caused personal injury or material damage.

| | | |
|-------------------------------------|-------|-------|
| Person(s) involved in the accident: | | |
| Department or Trade: | Date: | Time: |

| |
|--|
| Description of accident (<i>including nature of injury and material damage, if any</i>): |
|--|

| |
|---|
| Indicate any additional injury or material damage that could have occurred. |
|---|

| | |
|--|---|
| Primary Cause:(<i>Condition or conditions that contributed to the accident</i>): | Recommended corrective action: Check if completed _____ <input type="checkbox"/> |
|--|---|

| | |
|---|---|
| Secondary Cause(s): (<i>Other acts or conditions that contributed to the accident</i>): | Recommended corrective action: Check if completed _____ _____ _____ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
|---|---|

A thorough investigation will reveal conditions or acts that could have, but did not, cause this accident. Report them and the necessary corrective action.

| | |
|------------------------|---|
| Other possible causes: | Recommended corrective action: Check if completed _____ _____ _____ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
|------------------------|---|

Signature of Supervisor: _____ Date: _____

Reviewed by: _____ Date: _____