

MIDWESTERN INSURANCE ALLIANCE

Loss Control Newsletter

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Midwestern Insurance Alliance maintains the goal of providing our insureds with a wide range of loss control services. Only one of which is this monthly *Loss Control Newsletter*. To become aware of the many other services offered, contact Loss Control Manager, Keith Wertz at (502) 429-9990 or send e-mail to krwertz@midwesterninsurance.com

Accident Investigations (Part 3)

"Surface Causes" vs. "Root Causes"

Identifying Surface Causes and Root Causes

Despite well-intentioned efforts, the accident investigations conducted in many companies fail to provide the intended degree of benefit. The primary flaw in many accident investigations is the failure to correctly identify both the surface causes and the root causes of the accident being investigated.

Perhaps human nature is the limiting force that leads individuals to seek the easiest solution to any question.

However, when the question is, "What caused the accident?," the person who seeks the quick and easy answer will likely be the person who fails to identify the root cause of the accident.

To understand why the failure to identify root causes is flawed, it is necessary to thoroughly explain the terms the terms "surface causes" and "root causes."

Surface Causes

Surface causes are the factors that have a direct impact upon accident causation. They are often readily apparent and are often easy to correct once they are identified. Surface causes can be considered to be comprised of two types, those which relate to "unsafe conditions," and those which relate to "unsafe acts."

Unsafe Acts

Unsafe acts are the *behaviors* that directly contribute to the cause of the accident. These may involve the injured employee's action or omission of action, or may result from the action or failure of another. Unsafe acts include such things as failure to look in the direction of travel when operating a forklift, removing a guard from a machine, using improper lifting techniques, failing to obtain assistance from another employee when warranted and failing to use available material handling aids.

Unsafe Conditions

Unsafe conditions are the *attributes of the workplace* that directly contributed to the cause of an accident. Unsafe conditions are also called hazardous conditions, as the existence of an unsafe condition creates a hazard. They may be either physical characteristics or environmental conditions. Physical characteristics which may constitute unsafe conditions may include such things, as a spill on the walking surface which creates a slip hazard or a poorly-designed workstation that requires the employee to move in an awkward manner. Environmental characteristics which may constitute unsafe conditions may include such things as excessive temperatures, excessive noise, poor lighting and inadequate ventilation. Although environmental characteristics are not tangible features of a workplace, they nevertheless may constitute unsafe conditions.

Root Causes

Root causes are the conditions that allow the surface causes to exist and almost always have their foundation in the administrative and managerial systems of a company. As indicated above, the surface causes of accidents are generally categorized into either unsafe acts or unsafe conditions. However, it is only by understanding why an employee acted in an unsafe manner or why an unsafe condition existed that the accident investigator is able to identify the root causes of the accident.

Many individuals charged with conducting accident investigation and who lack a sound knowledge of accident prevention, fail to inquire any further after a surface cause has been identified. By failing to identify and address the root causes of each accident, future accidents continue to occur. However, a lack of knowledge concerning the anatomy of an accident is not the only reason that many accident investigations are considered complete before the root cause has been identified. Identifying the root causes of accidents requires some uncomfortable introspection. Although no person enjoys finding deficiencies in their own actions, if managers or supervisors are charged with the responsibility of conducting accident investigations, they must accept the reality that no management system is flawless and that no flawed system can improve until the deficiencies are identified. The following table identifies some of the deficiencies that can reside within an administrative or managerial functions. These deficiencies represent root causes of accidents.

Deficiencies within Administrative Functions

- absence of a routine means of recognizing unsafe conditions
- absence of a routine means of recognizing unsafe work practices
- failure to provide employee safety training
- inadequacy of training (failure to address specific hazards)
- failure to provide safety incentives and motivation
- failure to hold supervisors and employees individually and corporately responsible
- inadequate preventive maintenance emphasis
- lack of due diligence in purchasing

Deficiencies within Managerial Functions

- failure to correct unsafe work practices
- failure to recognize safe work practices
- failure to motivate employees
- lack of supervisor involvement in safety program
- failure to adequately convey expectations of employees
- failure to instruct employees of safe work procedures
- failure to instruct employees of hazards
- failure to forward safety-related suggestions to management for approval
- failure to provide adequate supervision

Identifying Root Causes

To identify root causes of accidents, the investigator must have an innate desire to continually seek further explanation.

When unsafe acts are the apparent direct source of an accident an investigator might ascertain if the employee knew the rules and procedures. If the employee was unaware of specific rules and procedures, why was that condition so? Was there training conducted? Was the training appropriate? Why was the training apparently ineffective?

When unsafe conditions are revealed as a result of an accident investigation, an investigator might ascertain if the condition had been recognized previously. If the condition was not recognized previously why not? Are there effective safety inspections being conducted? Are employees being provided with the means and incentive to report unsafe conditions? Is there an effective preventative maintenance program? Is the work area or equipment poorly designed?

Summary

Accidents can be viewed as occurring as the direct result of something (surface cause). However, it is important to remember that surface causes are permitted to exist primarily because of administrative or management oversights (root causes). By addressing both surface causes and root causes with every accident, the likelihood of incurring similar accidents in the future is greatly reduced.

**The Loss Control staff of
Midwestern Insurance
Alliance is ready, willing and
able to help you address
accident investigations.**



**For assistance, or for more
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(502) 429-9990**