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Weekly Safety Meeting

Root Cause Analysis (RCA)

OHSA and the EPA encourage employers to conduct a root cause analysis when an incident or near miss occurs to investigate the reason why it happened, and to prevent a similar occurrence from happening again. A root cause analysis allows an employer to discover the underlying and systemic causes of an incident rather than the generalized and immediate ones.

A root cause analysis seeks answers to these four questions:

- ***What*** happened?
- ***How*** did it happen?
- ***Why*** did it happen? and
- ***What*** needs to be corrected?

Gas Explosion Example

Some examples of root causes for a gas explosion might include:

- Gas leaks due to aging infrastructure, poor maintenance, construction accidents, or pipeline damage;
- Poorly maintained equipment due to equipment malfunctions or failure;
- Ignition sources like sparks, open flames, and improper grounding;
- Improper ventilation; and
- Human error.

Root Cause Analysis Tools:

Tools for root cause analysis include brainstorming and checklists for simpler events and event/logic trees, timelines, sequence diagrams, and casual factor determination for more complex ones.

Brainstorming – Group discussion to solve problems or come up with solutions.

Checklists – Lists of items to be acquired, actions to be taken, or procedures to be followed, and can be used as a reminder.

Event/Logic Trees – Diagrams that have sideways brackets that branch off from the initiating event and represent the sequences of events that can occur afterwards, such as a hazard or accident. Event/logic trees are often supported by timelines, sequence diagrams, and casual factor determination.

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Timelines – Graphic representation of the passage of time as a line, with the events that occurred placed on the line.

Sequence Diagrams – Detail how operations are carried out, and are used to show the interactions between systems and variables in the order that they occur.

Casual Factor Determination - The process of identifying contributing factors (ex. human mistakes, system errors, or mechanical failures) that directly lead to a problem, failure, incident or near-miss event.

Benefits of Root Cause Analysis

Investigating an incident or near-miss allows the company to identify the problems or issues that contributed or caused it. Addressing the issue helps prevent future incidents from happening and shows that the company is doing all it can to keep its employees safe and healthy. Being proactive also saves employers money in the long run, because they can avoid interruption of the business, increased insurance rates, time in responding to emergency clean-ups and workers compensation/hospital costs. RCA can help companies be proactive instead of reactive--not only does the employer save time and money by finding root causes, they show that they value their employes.

FINDING THE ROOT CAUSE…WILL PREVENT FUTURE LOSS!

Safety Meeting Sign-In Sheet

Supervisor:	Subject:
Location:	Date:
Conducted By:	Trainer Signature:

Name (print clearly)	Signature	Comments / Safety Concerns / Training Requests