Factsheet Explains Importance of Root Cause Analysis in Incident Investigations

When a safety or environmental incident (or near miss) occurs in your workplace, you must investigate it. But the approach you take in that investigation can determine how effective you are at preventing similar incidents from happening in the future.

A new factsheet from the US agencies OSHA and the EPA explains the importance of conducting what's called a root cause analysis in incident and near miss investigations.

As the factsheet explains, a root cause analysis lets an employer discover the underlying or systemic, rather than the generalized or immediate, causes of an incident. Correcting only an immediate cause may eliminate a symptom of a problem'but not the problem itself.

Consider this scenario: A worker slips on a puddle of oil on the plant floor, falls and injures himself.

A traditional investigation may find the cause of this slip-and-fall to be 'oil spilled on the floor,' with the remedy limited to cleaning up the spill and instructing the worker to be more careful.

A root cause analysis would reveal that the oil on the floor was merely a symptom of a more basic or fundamental problem in

the workplace. An employer conducting a root cause analysis of the incident would ask:

- Why was the oil on the floor in the first place'
- Were there changes in conditions, processes or the environment'
- What's the source of the oil'
- What tasks were underway when the oil was spilled'
- Why did the oil remain on the floor'
- Why wasn't it cleaned up'
- How long had it been there'
- Was the spill reported'

So in this example, a root cause analysis may have revealed that the root cause of the spill was a failure to have an effective mechanical integrity program that would prevent or detect oil leaks from equipment. In contrast, an analysis that focused only on the immediate cause (failure to clean up the spill) won't prevent future incidents because it wouldn't establish a system to prevent, identify and correct leaks.

Bottom line: A robust process safety program, which includes root cause analysis of incidents and near misses, can result in more effective control of hazards, improved process reliability, increased revenues, decreased production costs, lower maintenance costs and lower insurance premiums.

The OHS Insider has additional information, tools and other resources on incident investigations, including:

- A root cause analysis checklist
- Investigating Workplace Incidents: 9 Common Traps to Avoid
- Dos and don'ts for assessing evidence in an incident investigation
- A log you can use to document and track any physical evidence gathered in an incident investigation
- How failing to learn from safety incidents can be

costly.