

ENGG 404 Assignment #1: Root Cause Analysis

Root cause analysis is one of the best tools to analyze an incident for cause. In your future, you and your team will likely participate in an incident investigation, root cause analysis, and manage corrective actions. Part of the challenge of an investigation is to make the best of the information provided. With high certainty in your career, you will receive a report as described below - missing information, ambiguous, perhaps conflicting.

Let's do an exercise where we are requested to investigate an incident. We want to construct the associated root cause analysis chart, and most importantly, determine what elements of our management system (to manage residual risk) would best apply to prevent this incident. It is highlighted that the effective application of our program elements will not only address this particular incident, but will prevent many other potential incidents that would otherwise have had similar latent causes (management system failures).

Your assignment: For the loss incident report below answer the questions on eClass Assignment #1 (Quiz type).

Loss Incident Report:

You are a Supervisor in a plant and are called upon to investigate an incident that involves employees of your company. The following description of the incident was reported to you

- A) *Upon hearing word from the industrial mechanics about a hot motor bearing that was threatening the operation of a production line, John and Mary immediately left their offices and walked rapidly through congested walkway #3A in the plant, which served as a short-cut, rather than taking the designated plant walkway #1, to access the motor. While walking, they were preoccupied in conversation about a recent hockey game.*
- B) *Prior to this, Dave and Doug, the two industrial mechanics, were relocating a gearbox with an overhead crane and noticed gear oil leaking onto walkway #3A beneath. The angle of the suspended gearbox caused oil to leak from the filler tube, because they had neglected to reinstall the filler cap. Seeing the spilt oil, they found the local container with spill absorption compound to be empty, and so they went to a lower floor to find some. They were then called away to address a hot bearing on a motor that was restricting production.*
- C) *As he was conversing with Mary, John slipped on the oil spill in walkway #3A and fell against the pipe causing his hip to fracture on impact. It was 5 months before John recovered to a point where he could work again, although he will suffer from joint pain and restricted mobility for the rest of his life.*
- D) *Around the same time that Dave and Doug were called away, Bill the pipefitter placed a pipe on one side of the walkway #3A. He did not flag off the area and stepped over some spilled oil on his way back to get his toolbox for installing the pipe.*