

Events and Causal Factors Exercise: Who Crashed My Truck?

Description:

The playground at LCE Town Middle School was in dire need of repair at the end of the school year. Bids were taken and SEI Construction Company was awarded the contract to renovate. SEI has experience doing this type of renovation and has a comprehensive safety program that covers all aspects of the project.

The playground was closed on Friday July 14. Construction began on Monday July 17 and progressed without incident.

The site was shut down for the weekend of July 22 – 23. During the shutdown, several company vehicles -- including a 2.5 ton dump truck -- were parked on the construction site. On Saturday, July 22, a middle school student who lived nearby entered the closed playground through a gap in the fence.

When he found the dump truck unlocked, he climbed into the cab and began playing with the vehicle controls. He released the handbrake. The truck, being on a slight slope, began to roll. The truck rapidly picked up speed. The boy was afraid to jump out, and didn't know how to apply the brakes. The truck crashed into another one of the SEI's vehicles and proceeded into the fence.

The accident investigation revealed that although the safety program specified that unattended vehicles would be locked and the wheels chocked, there was no verification that these rules had been communicated to the drivers.

Exercise:

1. Identify each event in the incident.
 - a. Each event can be either valid based on factual evidence, or presumptive (indicated by a dashed line rectangles).
 - b. Try writing each event on a post-it; it makes it simpler to re-order them according to the timeline. (Bear in mind that there is a primary event and a secondary event in this story.)
 - i. Each event should be derived directly from the event (or events in the case of a branched chain) and conditions preceding it; i.e., "mechanic adjusted camber on both front wheels" is preceded by "mechanic found incorrect camber" which is preceded by "mechanic checked front end alignment" - each event deriving logically from the one preceding it.
 - ii. If an event does not logically derive from the event preceding it, it could be an indication that one or more steps in the sequence have been left out.
2. Place the secondary events horizontally in chronological order on one level. On the same sheet, place the primary events horizontally in chronological order on a level below the secondary events.
3. Examine each event and determine what conditions led to its occurrence.

Note: From the information provided in the story, determine what conditions are valid based on factual evidence and what conditions are presumptive (indicated by dashed line ovals).

- Conditions differ from events insofar as they (a) describe states or circumstances rather than happenings or occurrences and (b) are passive rather than active.

As far as practical, conditions should be precisely described, quantified when possible, posted with time and date when possible, and be derived directly from the conditions immediately preceding them.