

Collisions involving Vehicles, Rail Equipment, and Pedestrian Movement

Recent Statistics:

- 2009-2011:
 - 17 Fatalities involving Vehicles/Trucks, Rail Equipment, and Pedestrian Movement
 - **Examples of tragedies:**
 - Rail Equipment:
 - ❖ Truck from an external company crashed with a train, the driver was crushed and died later in hospital.
 - ❖ An internal employee driving a rail-road vehicle was missing during his job at the river harbor. The vehicle was in the water near the edge of the dock, the driver was found deceased later.
 - Vehicles and Trucks
 - ❖ During rock shipment, while reaching the edge of the dump for unloading truck, the truck was going through preventive edge and fell down from the height of 20m and died.
 - ❖ A driver of a heavy-duty truck, was performing the removal of steel-making production slag out of the slag section of Converter Shop. Other drivers, found the victim crushed by a lump of hot slag at the face of Shovel #1 which was out of operation. The victim was crushed.
 - ❖ The truck driver did not see employee.r in the warehouse and crushed him by moving the truck to mine car.
 - ❖ There was a malfunctioning of the hydro mechanical transmission of a bus, the victim got under the bus and tried to start the engine by using a screwdriver to bridge the starter clamp terminals without placing wheel chocks or setting hand break. The vehicle rolled over victim, crushing him.
 - ❖ After unloading material on a pile, the truck was found down the road, impacted against the material bench with the bucket lifted up 25 meters away from the unload area. The victim was found dead, crushed under the tire.
 - ❖ The zone boss climbed in the locomotive to watch an electrical problem from close-up. He started the locomotive which abruptly started up and crushed the victim between the two bumpers.
 - Pedestrian Movement
 - ❖ At a rail way crossing, a crossing woman on duty opened railway gates after completion of clearing railway tracks of snow and stood close to the road side in order to let truck to drive through. In the mean time, the "Kamaz" truck which was passing began to lose traction and woman got under its rear wheels.
 - In terms of Lost Time Injuries, 71% of employees and contractors involved in Rail, Vehicles and Trucks, and Pedestrian movement suffered crushing injuries or were struck. Typically, the injuries resulted in very long recuperation and work readiness due to the fact that the lower limbs (legs) and upper limbs (arms) were severely injured.
- What do all of us need to do in order to prevent these laid off accidents?
- **Remember:** Most of us are exposed to rail movement, vehicles and trucks, and pedestrian movement

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Vehicles and Driving:

- Roadways throughout our plants must be identified in terms of speed limit, yield points, rail crossings and pedestrian right of ways.
- Necessary illumination (often dark) must be in place. Seek input from the workforce for their input in to increased illumination. Once installed, maintain illumination via regular inspections. Do stop signs and other signs need to be illuminated additionally?
- Maintaining the roadways during inclement weather (ice and snow) must be well managed. Ice and snow conditions increase the potential for accidents.
- Via the risk assessment process, determine the location of all stop, yield, crossing, and all other signs related to safe driving.
- In conjunction with the above point, vehicle and truck movement in which the activity is considerable, risk assessment must be performed with the intent on segregating general traffic from special and hazard traffic. Ex: slag hauling activities.
- Of particular concern are stop signs at all intersections of rail road movement and vehicle/truck movement. Stop Look and Listen signs or equivalent must be installed and regularly inspected for placement.
- Plant gates must go through a risk assessment to determine safest path of travel for pedestrians, all vehicle movement, and gate security personnel.

Pedestrian Movement:

- Via the risk assessment process, every "path of travel" for foot traffic must be defined.
- Yellow striping, embedded reflective markers, signs, etc. must define the path of travel. Additionally, in high traffic areas and areas with large truck and equipment travel, consider the use of additional barrier.
- If particular importance is the risk assessment and resultant path of travel in and out of production facilities. EX: rail movement and truck movement.
- The risk assessment must include what is necessary in terms of audible alarms for vehicles and trucks in movement.
- Overhead doors must not be used for pedestrian movement unless a pedestrian door is not available for entering or exiting a building. Every consideration must be given to installing pedestrian doors.

Rail Movement:

- The mindset must be established and practiced by everyone that general rail movement across plants has the right-of-way. It is most difficult to stop a locomotive or locomotive with attached cars, than it is yourself on (on foot) or while operating any vehicle and truck.
- Locomotives should be painted a color that does not blend in with neighboring buildings or a color that does not illuminate well after dark.
- While operating, locomotives must have head light on.
- The operation crew must protect the head end of the locomotive movement with a crew member.
- Any movement in and out of a building must not occur until an alarm practice is implemented. Therefore, switching in and out of buildings must be developed between the rail crew and operations personnel. All employees must be trained on the procedures. Procedures must be documented.

Behaviours related to all these points:

- Once within the plant, all vehicular and truck drivers must:
 - Abide by established safety signs.
 - Not use a cellular phone or another communication device while moving.
 - Vehicle and truck equipment radio, tape player, and other entertainment devices must not be in operating mode.
 - During inclement weather, windows must be clean of any ice and snow.
 - Vehicle/truck head lights must be in at all times while travelling – both outside and under roof.