High Energy Hazards

EHS-North America Business Program – Action Based Safety

Appendix A

High energy hazards are those that are most likely to cause a serious injury or fatality if an uncontrolled release of energy results in contact between a person and that hazard. The most common high energy hazards include:

1. Suspended / overhead loads
2. Mobile equipment with workers on foot
3. Heavy equipment that rotates
4. Electrical contact (≥ 50 volts)
5. High doses of toxic chemicals
6. Falls from elevations (≥ 4 feet)
7. Motor vehicle incidents (> 30 mph)
8. High temperatures (≥ 150F)
9. Fires with sustained fuel sources
10. Excavation / trench pressure (≥ 5 feet)
11. Steam
12. Explosions

Remember:

- ✓ All injuries result from contact between a human and an energy source.

- ✓ The amount of energy contained in the energy release that results in that contact determines the severity of the injury.
  - The higher the amount of energy, the more severe the injury.
  - All of the items listed above are examples of common sources of high energy.

- ✓ Being in the path of an energy release is "line of fire" – every injury results from a person being in the line of fire.
  - Is the energy source identified?
  - Is the energy managed?

- ✓ **The most critical part of identifying a high energy hazard is having one or more controls in place to effectively prevent an energy release from coming into contact with a person.**

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Observers will look for high energy hazards as part of the ABS observation process under the categories below. This will support co-worker safety by helping to identify and control potentially serious outcomes from any high energy hazards observed.

- Suspended Load / Overhead
- Working at Elevation
- Mobile Equipment / Traffic
- Unstable Ground / Excavation
- Mechanical / Machine Motion
- Electricity
- Pressure / Tension (Stored)
- Toxic Chemical / Gas