

I have a flowchart to classify safety incidents based on specific criteria. I will provide a narrative of the situation and events, and I would like your help in classifying the incident by answering the following questions:

1. **Was high energy present?**

• Estimate the number of joules associated with the primary energy source. If the energy magnitude exceeds 1500 joules, classify as high energy; otherwise, classify as low energy. In your summary, answer this question and provide a brief justification. You can make reasonable assumptions, but if you do not have enough information, ask additional questions. Use the following as shortcuts to classify as high-energy:

- Heavy suspended load
- Falls from height over 4 ft
- Mobile equipment or traffic with workers on foot
- Heavy rotating equipment
- Surface temperatures over 150 degrees Fahrenheit
- Steam
- Fire with a sustained fuel source
- Explosions
- Excavations of trenches over 5 feet deep
- Electrical over 50 volts
- Arc flash
- Chemical or radiation exposure over permissible exposure limits from the

CDC ([NIOSH IDLH Guide](#))

- Any other hazards with over 1500 joules of energy

2. **Did a high-energy incident occur?**

• An incident is an instance where the high-energy source was released, and the worker came into contact with or proximity to the high-energy source. Energy release is defined as a temporary loss of control of the high energy or the energy changing state while exposed to the work environment. Examples include:

- A tool being dropped, transitioning from potential to kinetic energy.
- A vehicle operator falling asleep and departing from the traffic pattern.
- Contact occurs when high energy is transmitted to the human body.
- Proximity occurs when the boundary of high-energy exposure is within 6 feet

of the worker with unrestricted egress or at any distance when the worker is in a confined space or has restricted egress.

• Answer the question and provide justifications or assumptions. If you lack sufficient information, ask specific questions.

3. **Was a serious injury sustained?**

• Serious injuries include life-ending, life-threatening, and life-altering events:
• Life-threatening: When the injured person needed life-saving treatment to survive.

• Life-altering: When the injured person will never permanently recover, and the permanent disablement affects daily life.

- Answer based on the information provided, classify low-energy events that resulted in serious injury as “LSIF” and those that did not as “low severity.” Make reasonable assumptions if needed, but ask questions if more information is required.

4. **Was a direct control present?**

- A direct control is defined as one that:
 - Specifically targets the high-energy source.
 - Effectively mitigates exposure to the high-energy source when installed, verified, and used properly (i.e., a SIF should not occur under these conditions).
 - Remains effective even if there is unintentional human error during the work (unrelated to the installation of the control).
 - Answer based on the information provided. If a high-energy incident occurred without a direct control, classify as “PSIF.” If it occurred with a direct control, classify as “Capacity.”

Classification Rules:

- **Capacity:** Incident with a release of high energy in the presence of a direct control where a serious injury was not sustained.
- **Exposure:** Condition where a high-energy hazard is present without a corresponding direct control.
- **High-Energy Serious Injury or Fatality (HSIF):** Incident with a release of high energy where a serious injury was sustained.
- **Low-Energy Serious Injury or Fatality (LSIF):** Incident with a release of low energy where a serious injury was sustained.
- **Low Severity:** Incident with a release of low energy where no serious injury was sustained.
- **Potential Serious Injury or Fatality (PSIF):** Incident with a release of high energy in the absence of a direct control where a serious injury was not sustained.
- **Success:** Condition where a high-energy hazard was present with a corresponding direct control.

When classifying, follow these steps in order. If you do not have enough information, state so and ask specific questions. Wait for me to provide the case before classifying.

- **Exposure:** High-energy hazard present without a direct control.
- **HSIF:** High-energy incident with a serious injury sustained.
- **LSIF:** Low-energy incident with a serious injury sustained.
- **Low Severity:** Low-energy incident, no serious injury sustained.
- **PSIF:** High-energy incident without a direct control, no serious injury sustained.
- **Success:** High-energy hazard present with a direct control.

When classifying, follow these steps sequentially, justify each answer briefly, and ask for additional information if needed. Wait for me to provide the case before classifying.