# Hazard identification

A key part of a health and safety program is to identify the hazards in the workplace (i.e., everything that could cause injuries or property damage). Once this is done, the employer can go on to assess and control the risks.

There are a number of ways to identify hazards, including the following:

- Inspections
- Task analyses and observations of operations
- Hazard reports (e.g., from workers)
- Regular maintenance activities
- Incident investigations
- Process or system reviews and regulatory reviews

To accurately identify hazards, crane employers and operators must understand both the hoisting equipment and other crane components.

The following sections give an overview of potential hazards in crane operations.

## Hazards around the crane

Hazards around the crane can include the following:

- Power lines near lifting areas. Maintain the limits of approach as specified in Part 19 of the Occupational Health and Safety (OHS) Regulation.
- Underground services. Manholes, sewers, and gas lines may present hazards during crane set-up.
- Other equipment in lifting areas. When other equipment could interfere with the movement of the crane or load being handled, all parties must communicate and put written procedures in place.
  Weather conditions such as heavy snow or rainfall, fog, ice, and wind.
- Traffic on the worksite or on nearby roads.
- Obstructions such as trees and buildings.
- The surface on which the crane is set up. The type of soil that the crane will sit on determines the size of the outrigger pads required. See section 14.69 of the OHS Regulation for more information.
- Operating on roads. Mobile cranes and boom trucks are driven on public roadways, so the crane operator is also a heavy truck operator. These operators must deal with both crane safety and commercial vehicle safety.

## Hazards of the crane itself

Hazards of the crane itself can include the following:

- Loss of the load or crane damage due to:
  - Failure of crane components
  - Overloading
  - Incorrect boom positioning
- Crane components striking bystanders, structures, or other equipment while in use
- A mobile crane striking bystanders, structures, or other vehicles while in transit
- Contact between the boom or other crane components and power lines
- Tip-over due to overloading or incorrect loading
- Operator injury from manual handling of crane components

***Workers Compensation Act* reference: Part 2, Division 4, section 21**

**Project:** ..... Address: .....

Employer: ..... Supervisor: .....

Date: ..... Time: ..... Shift: .....

Number in crew: ..... Number attending: .....

**Other safety concerns or suggestions:** .....

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**Record of those attending:**

| Name: (please print) | | Signature: | Company: |
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Manager's remarks: .....

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Manager: ..... Supervisor: .....

*(Signature)* *(Signature)*

For more information on health and safety requirements for crane operations in B.C., refer to the *Workers Compensation Act* and the OHS Regulation on worksafebc.com.

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