

CRANE OPERATIONS

Operators run cranes they are competent on, to the load chart, on ground that can hold them, with a crew they can hear. The operator works to CSA Z150 or Z248 as the machine requires, applicable ASME B30 standards, the manufacturer, WorkSafeBC, and the site. If those conditions are not present, the crane does not come on load.

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The chart is the law of the machine.

BEFORE THE SHIFT

PROCEDURE

01 MACHINE AND CONFIGURATION

Confirm the crane on site is the crane this lift requires. Counterweight, boom, jib, tyres, tracks, software - as the chart requires.

02 INSPECTION

Complete the operator inspection. Defects that affect lifting are reported and the crane stays down until they are resolved.

03 GROUND AND SETUP

Outriggers fully extended unless the chart allows otherwise. Mats as required. Cribbing is engineered thinking, not scrap lumber theatre. Level within the manufacturer's limit.

04 SITE HAZARDS

Overhead lines, underground services, excavations, other cranes, public, aircraft if applicable. Approach distances to power lines are treated as hard walls.

05 BRIEF

Signals, radius, known loads, critical lift status, wind limits, who stops the job.

ON THE HOOK

The operator does not lift a load they cannot account for on the chart, including deductions and rigging weight.

No lifting over people. No riding the load. No using the crane as an elevator unless the operation is a permitted, engineered personnel lift.

Shock loading, side loading and dragging are not operating. They are abuse.

If the signal is unclear, the answer is stop - not interpret.

Leave the seat only when the crane is in a stable, manufacturer-accepted condition.

CRITICAL LIFTS

Treat as critical unless the site defines a stricter threshold: loads approaching chart capacity, tandem lifts, lifts over operating plant or public space, non-routine paths, loads with shifting COG, a flytable / flyform cycle, or a loading-platform install, reposition or strike. Critical lifts get an SJP, named supervision, and a slower brief. Ego is not a control. Flytables: PROVEN-SWP-028, PROVEN-JHA-011, PROVEN-SJP-001. Loading platforms: PROVEN-SWP-030, PROVEN-JHA-014, PROVEN-SJP-003.

FLYTABLE CYCLING - PROVEN-SWP-028 -> <https://sin.ae.org/safety/swp/flytable-cycling>

LOADING PLATFORM - PROVEN-SWP-030 -> <https://sin.ae.org/safety/swp/loading-platform-reposition>

WEATHER AND POWER LINES

Wind limits come from the manufacturer and the lift plan - the lower number wins. Tower: 14.92 anemometer, stop when the load cannot be handled safely, 50 km/h if the OEM is silent. Cold: 14.93, stop below -18 degC unless the manufacturer or engineer says otherwise. Lightning: thunder is the stop. Environment Canada - if you hear it, you are in striking distance. Wait 30 minutes after the last rumble. Do not count flash-to-bang to 30 before stopping. Technical Safety BC does not write a 30/30 crane rule; earthing of the supply is the owner's electrical work. A strike is a misadventure (14.16.1).

LIGHTNING - STOP. THUNDER IS THE TRIGGER. DO NOT COUNT TO 30.

TRIGGER	ACTION
Thunder heard, or lightning seen	Stop the lift. Land. Manufacturer shutdown. Shelter. Do not wait for a 30-second count.
30 minutes after the last rumble	Resume clock. Then inspect. Manufacturer weather limits still apply.
Strike, or suspected strike, on the crane	Misadventure. Crane down until a professional engineer certifies it. 14.16.1.

WEATHER AND WIND - PROVEN-SWP-023 -> <https://sin.ae.org/safety/swp/weather-and-wind>

Power lines: assume they are live. MAD is Table 19-1A - the same numbers BC Hydro publishes. If the lift cannot hold that clearance, it is not a crane job until 30M33 is signed.

TABLE 19-1A - LIMITS OF APPROACH. INTACT LINES. PHASE TO PHASE.

VOLTAGE	METRES	FEET
Under 750 V - service / secondary (BC Hydro)	1	4
Over 750 V to 75 kV	3	10
Over 75 kV to 250 kV	4.5	15
Over 250 kV to 550 kV	6	20

VOLTAGE NOT VERIFIED - UNTIL BC HYDRO NAMES IT.

LINE	METRES	FEET
Distribution	3	10
Transmission	6	20

Voltage from the utility - BC Hydro Express Connect 1 877 520 1355. Boom, load, tag line and people all stay outside the number. Tower crane: zone-limiting device if practicable (19.24.1(2)).

WORKING NEAR POWERLINES - PROVEN-SWP-018 -> <https://sin.ae.org/safety/swp/working-near-powerlines>

LOCKOUT, ACCESS, ERECTION

Operating the crane is not servicing it. Isolation before a body is in the machine: PROVEN-SWP-026. Climbing the ladder to the cab to operate is not jumping the tower. Erection, climbing (increasing height) and dismantling are a separate lift under a qualified supervisor, with a Notice of Project as 14.73.3 requires. PROVEN-SWP-027. Emergency shutdown: people first. PROVEN-SWP-024.

LOCKOUT / ISOLATION - PROVEN-SWP-026 -> <https://sin.ae.org/safety/swp/lockout>

TOWER ERECTION, CLIMBING AND DISMANTLING - PROVEN-SWP-027 -> <https://sin.ae.org/safety/swp/tower-erection-climbing>

22 - CRANE BINDERS -> <https://sin.ae.org/safety/crane-binders>