

## PART 20: CONSTRUCTION, EXCAVATION AND DEMOLITION

### ~~PILE DRIVING AND DREDGING~~ MARINE CONSTRUCTION, PILE DRIVING AND DREDGING

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|---------------------------------|---------------|------------|--|
| <b>Suspended work platforms</b> | <b>20.102</b> | <b>(1)</b> | Suspended work platforms such as gilly boards, small boats and buckets used to support workers must meet the requirements for suspended work platforms in Part 13 (Ladders, Scaffolds and Temporary Work Platforms). |
|                                 |               | <b>(2)</b> | <b>Despite section 13.27 (5), a secondary hoisting line on a crane may be used to suspend workers on a work platform in a marine construction or pile driving operation if</b>                                       |
|                                 |               | <b>(a)</b> | <b>it is not practicable to provide another means for positioning workers to perform work tasks,</b>   |
|                                 |               | <b>(b)</b> | <b>all of the crane's hoisting gear that is being used conforms to section 13.29 (1), and</b>  |
|                                 |               | <b>(c)</b> | <b>the total load attached to or suspended from all load lines of the crane does not exceed 50% of the rated capacity of the crane for the reach and configuration.</b>  |

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#### Explanatory Note

Section 13.27 of the *Occupational Health and Safety Regulation* provides as follows:

- (1) The weight of a work platform suspended from a crane or hoist or attached to a crane boom and its rigging, plus the rated capacity, must not exceed 50% of the rated capacity of the crane or hoist at the working radius or configuration.
- (2) If a work platform attached to a crane boom causes eccentric loading on the boom,
  - (a) the effect on the rated capacity of the crane must be determined and the rated capacity certified by the crane manufacturer or a professional engineer, and
  - (b) the rated capacity of the crane must be reduced accordingly
- (3) The boom of a crane used to suspend a work platform must have a powered boom or a fixed boom.
- (4) A work platform must not be
  - (a) suspended from an articulating boom crane, or
  - (b) attached to an articulating boom crane, unless the crane manufacturer approves the installation.
- (5) If workers are on a work platform suspended from a crane, a secondary hoisting line on the crane must not be used.

The intent of section 13.27(5) is to ban simultaneous movement of a worker on one hoisting line and materials on another hoisting line for all activities involving the use of a work platform suspended from a crane. The ban is important because such simultaneous use of two hoisting lines on a single crane can be dangerous and result in serious injury to a worker. The requirement in section 13.27(5) was part of the proposal to amend Part 13, which was taken to a March 2004 public hearing and came into effect on January 1, 2005.

During the public hearing, the marine and pile driving industry raised concerns about the proposed amendment to ban the use of a secondary hoisting line on a crane when workers are on a platform suspended from the crane. They noted that the proposal would result in the need to use two cranes for activities that were historically completed with one crane. As a result, this would create a greater hazard to workers as two crane booms would be working in close proximity to one another. In addition, they advised that in marine construction activity, worksites that are accessed by marine derricks (e.g., ferry slips) usually preclude the possibility of two cranes being positioned to perform the work.

A new requirement is proposed for Part 20 (proposed section 20.102(2)) to recognize that the nature of the work performed in certain marine construction and pile driving operations necessitates the use of a

**PROPOSED AMENDMENTS FOR PART 13: LADDERS, SCAFFOLD AND WORK PLATFORMS AND  
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IN THE OCCUPATIONAL HEALTH AND SAFETY REGULATION**

secondary hoisting line and that there are currently no practicable alternative work processes. The scope of work covered by the proposed change is some types of dock and wharf construction and repair work, and during pile driving and related support work. It is envisioned that if work is taking place in an area that provides sufficient space to position other equipment on firm and near level ground or other solid surfaces such as a dock, the use of a boom-supported elevating work platform, or other safe means, would be generally considered to be a practicable alternative to the use of a secondary hoisting line. It is anticipated that a guideline would outline the circumstances where the WCB envisions that the use of a secondary line would likely be the only practicable means to do some tasks, and circumstances where other methods of positioning workers to do tasks at height would be considered practicable.

Section 20.102 (2) (b) is intended to require all load lines in use on a crane to be powered up and down (i.e., free running lines are not to be used). This would include the boom hoist line on a conventional crane.

Section 20.102 (2) (c) is intended to ensure that the total load suspended on the crane (i.e., loads suspended from both lines) does not exceed 50% of the rated capacity of the crane.

## PART 13: LADDERS, SCAFFOLDS AND TEMPORARY WORK PLATFORMS

### DIVISION 5 – MOVABLE WORK PLATFORMS

- Hoisting and lowering work platforms**    **13.29**
- (1) Cranes, winches and other devices used for hoisting and lowering movable work platforms must
    - (a) be operated as slowly as practicable while supporting the work platform,
    - (b) be lowered under power, if the device is powered, and
    - (c) not be equipped with a free running boom or hoisting winch controlled only by brakes.
  - (2) If a moveable work platform is suspended over a structure that cannot safely support its weight or if other hazards exist below the platform, lower limit travel devices compatible with the hoist system must be used to ensure the platform cannot be lowered beyond the safe lower limit of travel.

**(2.1) If the lower limit travel devices required by subsection (2) are not practicable, the employer must ensure that work procedures acceptable to the Board are used that will minimize the risk of the platform going beyond the safe lower limit of travel.**
  - (3) A trial lift for a work platform suspended from or attached to a crane or hoist must be performed at all work locations before the platform is occupied.

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#### Explanatory Note

The intent of section 13.29(2) is to ensure that lower limit travel devices are used to prevent a work platform from being lowered beyond a safe level. Specifically, the requirement for these devices is needed if the work platform is to be suspended over a structure that cannot safely support its weight, or if other hazards exist below the platform. Some examples of the hazards that might exist below the platform are when a work platform is being lowered over water, a canopy entrance to a building, or the entrance to the underground parking area of a building. Lower limit devices are generally practicable if the hoisting equipment being used is a permanent powered platform. Most permanent powered platforms and many portable powered platforms use a cable climbing hoist. For these types of hoists, the use of cable clips positioned at the appropriate spot on the hoist line(s) may be considered a lower limit travel device. Lower travel limit devices are generally not practicable for crane-supported or drum winch-supported work platforms.

The requirement in section 13.29(2) was part of the proposal to amend Part 13, which was taken to a March 2004 public hearing and came into effect on January 1, 2005. During the public hearing, a submitter noted that some types of hoists do not have devices to limit a work platform's travel beyond a safe level.

It is proposed that the requirement for lower limit travel devices be amended (proposed section 13.29 (2.1)) to address situations where it is not practicable to have these devices, while maintaining worker health and safety. The proposed amendment is intended to outline a hierarchy of safety measures when a moveable work platform is suspended over a structure that cannot safely support its weight or if other hazards exist below. The use of a lower limit travel device would be the primary means of worker safety. The use of work procedures would be secondary, and only where the devices do not exist or are not practicable. If a winch or drum hoist is being used, painting a warning mark on the hoist line at an appropriate spot may be part of the work procedures for controlling lower travel limits. It is anticipated that a practice guideline would outline the applicable work procedures that are acceptable to the WCB.