

BACKGROUND

1. Explanatory Notes

Section 16.21 sets out requirements for protection of operators of mobile equipment from various hazards.

2. The OHSR

Section 16.21(1):

Operators of mobile equipment must be protected against falling, flying or intruding objects or material by means of suitable cabs, screens, grills, shields, deflectors, guards or structures.

Section 16.21(2), in part:

The means of protection must meet the requirements of the following applicable standard:

- (a) [*WCB Standard - G601, Standard for Log Loader and Log Yarder Backstops;*](#)
- (b) [*WCB Standard - G602, Standard for Log Loader and Log Yarder Raised Cabs;*](#)
- (c) [*WCB Standard - G603, Standard for Log Loader and Log Yarder Window Guards;*](#)
- (d) [*WCB Standard - G604, Standard for Light-Duty Screen Guards for Off-Highway Equipment;*](#)
- (e) [*WCB Standard - G605, Standard for Mobile Equipment Half-Doors;*](#)
- (f) [*WCB Standard - G607, Standard for Medium Duty Screen Guards - Front End Log Loader;*](#)
- (g) [*WCB Standard - G608, Standard for Mobile Equipment Roof Structures - Heavy Duty;*](#)
- (h) [*WCB Standard - G609, Standard for Mobile Equipment Roof Structures - Light Duty;*](#)

...

POLICY

The standards referenced in Section 16.21(2) mean that the minimum operator protection expected on hydraulic excavators exposed to hazards caused by intruding or flying objects, such as loose debris, snags, tree trunks, or limbs, normally encountered in pioneering steep side hill logging grades and right-of-way construction, is:

WCB G602 – cab structure designed to resist a force of at least 2,000 lbs. (simulating a blunt log impact at 3.9 miles per hour), and an alternate exit meeting the requirements of Section 16.17.

WCB G603 – window guards (mild steel bars or rods with a maximum opening of 64 square inches) on the front, sides (where permitted by boom clearance), and back of the cab where there is a hazard of intruding or flying objects.

WCB G608 – heavy duty roof structure (able to absorb 8500 foot – pounds of energy). SAE J1043 – Minimum Performance Criteria for Falling Object Protective Structures for Industrial Equipment or equivalent standard is an accepted option under G608.

Polycarbonate at least 1/4 inch thick and supported from behind with at least a one inch overlap along the perimeter is an adequate substitute for [WCB Standard G604 light duty wire screen or brush guards.](#)

Polycarbonate at least 1/2 inch thick and adequately supported from behind along the perimeter and by members in one direction not more than 10 inches apart *may* be an adequate substitute for G603 window guards. Consult with the WCB Engineering Section for assistance in assessing G603 window guards with polycarbonate.

EFFECTIVE DATE:	April 1, 2001
AUTHORITY:	Section 16.21 of the <i>OHSR</i> .
CROSS REFERENCES:	Section 16.17 of the <i>OHSR</i> .
HISTORY:	April 6, 2020 - Housekeeping changes. September 15, 2010 - Housekeeping changes to delete practice reference and make formatting changes. March 1, 2005 - Housekeeping changes to reflect the October 29, 2003 changes to the <i>OHSR</i> . This Item originally replaced Policy No. 26.16(1) of the former Prevention Division <i>Policy and Procedure Manual</i> . October 29, 2003 - The reproduction of section 16.21(2) of the <i>OHSR</i> in this Item was revised to reflect its amendment. This Item results from the 2000/2001 "editorial" consolidation of all Prevention policies into the

Prevention Manual. The POLICY in this Item merely continues the substantive requirements of Policy No. 26.16(1), as they existed prior to the Effective Date, with any wording changes necessary to reflect legislative and regulatory changes since Policy No. 26.16(1) was issued.

APPLICATION: This policy applies to protective structures for hydraulic excavators on and after April 1, 2001.

R16.22-1
Guards - Rollover Protective Structures (Pipe Layers or Side Boom Tractors)

BACKGROUND

1. Explanatory Notes

Section 16.22(1) requires that certain types of mobile equipment, weighing 700 kg (1,500 lbs) or more, must have protective rollover structures. Included in the list of equipment are pipe layers or side boom tractors manufactured after January 1, 2000.

2. The OHSR

Section 16.22(1), in part:

The following types of mobile equipment, weighing 700 kg (1,500 lbs) or more, must have rollover protective structures (ROPS):

...

(h) pipe layers or side boom tractors manufactured after January 1, 2000.

POLICY

Pipe layers or side boom tractors manufactured before January 1, 2000 are exempt from the requirement for ROPS.

However, although not required, the fitment of a ROPS canopy should be encouraged where possible in such cases.

If a ROPS is not fitted, the employer must provide the operator with detailed safe work procedures which, when followed, will minimize the possibility of machine roll over.

EFFECTIVE DATE: April 1, 2001

AUTHORITY: Section 16.22(1)(h) of the *OHSR*.

CROSS REFERENCES:

HISTORY: April 6, 2020 - Housekeeping changes.
September 15, 2010 - Housekeeping changes to delete practice reference and make formatting changes.

Replaces Policy No. 26.16(3)(b) of the *Prevention Division Policy and Procedure Manual*.

APPLICATION: This Item results from the 2000/2001 "editorial" consolidation of all prevention policies into the *Prevention Manual*. The POLICY in this Item merely continues the substantive requirements of Policy No. 26.16(3)(b), as they existed prior to the Effective Date, with any wording changes necessary to reflect legislative and regulatory changes since Policy No. 26.16(3)(b) was issued.

R16.24-1
Guards - ROPS Certification (Sweep Arms)

BACKGROUND

1. Explanatory Notes

Section 16.24 sets out the requirements for certification of ROPS and changes to ROPS.

2. The OHSR

Section 16.24:

(1) A ROPS must be certified by the ROPS manufacturer or a professional engineer as meeting a standard specified in section 16.23.

(2) Any addition, modification, welding or cutting on a ROPS must be done in accordance with the instructions of and be recertified by the ROPS manufacturer or a professional engineer.

POLICY

The sweep arms on rubber-tired skidders are intended to deflect material away from in front of the canopy. Sweep arms occasionally get damaged (bent or deformed) through contact with large trees or logs.

Where the sweep arm is an integral part of the ROPS on a skidder, the ROPS must be replaced or recertified when structural damage to the sweep arm is observed.

Damage to the sweep arm *alone* does not invalidate the ROPS certification where the sweep arm is not an integral part of the ROPS.

EFFECTIVE DATE: April 1, 2001
AUTHORITY: Section 16.24 of the *OHSR*.
CROSS REFERENCES:
HISTORY: April 6, 2020 - Housekeeping changes.
September 15, 2010 - Housekeeping changes to delete practice reference and make formatting changes.
Replaces Policy No. 26.16(2)-2 of the Prevention Division *Policy and Procedure Manual*.
APPLICATION: This Item results from the 2000/2001 "editorial" consolidation of all prevention policies into the *Prevention Manual*. The POLICY in this Item merely continues the substantive requirements of Policy No. 26.16(2)-2, as they existed prior to the Effective Date, with any wording changes necessary to reflect legislative and regulatory changes since Policy No. 26.16(2)-2 was issued. The references to specific brand names in Policy No 26.16(2)-2 have been deleted as not being appropriate for inclusion in policy.

R16.3-2
General Requirements - Operation and Maintenance (Fuel Tank Filler and Vent Outlet Locations)

BACKGROUND

1. Explanatory Notes

Section 4.3(1) requires that equipment be operated in accordance with safe work practices.

2. The OHSR

Section 4.3(1):

The employer must ensure that each tool, machine and piece of equipment in the workplace is

- (a) capable of safely performing the functions for which it is used, and
- (b) selected, used and operated in accordance with
 - (i) the manufacturer's instructions, if available,
 - (ii) safe work practices, and
 - (iii) the requirements of this Regulation.

POLICY

A fuel tank fill point or tank vent opening is not permitted within the enclosed cab of a vehicle. This condition is most likely to arise when a winter cab enclosure is installed on a vehicle.

Officers finding a tank fill point, or a vent outlet within a worker-occupied enclosure on a vehicle, will require extension of the filler and/or vent line to safe locations outside the cab. The connection between the extension and the original opening must be liquid and vapour tight to prevent fuel leakage or vapour release into the enclosure.

If the feasibility of doing the modifications appears doubtful, officers will discuss their concerns with a Board engineer before issuing orders.

EFFECTIVE DATE: April 1, 2001
AUTHORITY: Section 4.3(1) of the *OHSR*.
CROSS REFERENCES:
HISTORY: April 6, 2020 - Housekeeping changes.
September 15, 2010 - Housekeeping changes to update *OHSR* provisions due to repeal of section 16.3(4), delete practice reference and make formatting changes.
Replaces Policy No. 26.02-3 of the Prevention Division *Policy and Procedure Manual*.
APPLICATION: This Item results from the 2000/2001 "editorial" consolidation of all prevention policies into the *Prevention Manual*. The POLICY in this Item merely continues the substantive requirements of Policy No. 26.02-3, as they existed prior to the Effective Date, with any wording changes necessary to reflect legislative and regulatory changes since Policy No. 26.02-3 was issued.

GENERAL REQUIREMENTS

R16.3-2 [General Requirements - Operation and Maintenance \(Fuel Tank Filler and Vent Outlet Locations\)](#)

GUARDS

R16.21-1 [Guards - Protective Structures \(Hydraulic Excavators\)](#)

R16.22-1 [Guards - Rollover Protective Structures \(Pipe Layers or Side Boom Tractors\)](#)

R16.24-1 [Guards - ROPS Certification \(Sweep Arms\)](#)