

Overview of proposed amendments to

Part 13: Ladders, Scaffolds and Temporary Work Platforms Section 13.23, Testing

Section 13.23 (5) of the *Occupational Health and Safety Regulation* (“OHSR”) was proclaimed in force on January 1, 2005 and requires an additional structural inspection of vehicle-mounted elevating work platforms and self-propelled boom-supported elevating work platforms starting in the 10th year after manufacture and every 5 years after that.

Section 13.23 (5) has been difficult to implement because it does not specify what type of testing must be completed during this extraordinary inspection and there are no consistent standards which apply to both vehicle-mounted and self-propelled boom-supported elevating work platforms. Some engineering firms have understood this section to require a full teardown inspection, while other firms have interpreted it to require much less (approaching what has normally been completed during an annual inspection). There is a significant difference in the cost of a teardown inspection versus an annual-type inspection. Engineering firms have asked for an interpretation in order to maintain a level playing field.

Rather than confirm a full teardown inspection, the proposal is to repeal section 13.23 (5) and confirm the quality of the annual inspections required to comply with section 13.23 (1). Section 13.23 (1) calls for an inspection in accordance with good engineering practice and certification by a professional engineer. The inspection required is explained in Guideline G13.23(1), which allows the engineer considerable discretion to determine how extensive an inspection must be before certifying the equipment as safe for use.

Providing there is compliance with the other relevant sections of the *OHSR*, repealing this section should not reduce the safety of workers using the equipment. The *OHSR* requires equipment to meet the standard to which it was designed (which includes stability when used as directed by the manufacturer), and for a professional engineer to decide annually how much disassembly is needed (based on the age, usage and design of the equipment), to determine the condition of the equipment before certifying it is safe for continued use.

PART 13: LADDERS, SCAFFOLDS AND TEMPORARY WORK PLATFORMS

DIVISION 5 – MOVABLE WORK PLATFORMS

- Testing** **13.23**
- (1) A vehicle-mounted elevating work platform and a self-propelled boom-supported elevating work platform must be
 - (a) inspected in accordance with good engineering practice at least every 12 months, and
 - (b) certified in writing by the equipment manufacturer or a professional engineer as complying with this Part and safe for use.
 - (2) An insulated elevating work platform must be dielectrically tested at least annually in accordance with the edition of *CSA Standard CAN/CSA-C225 Vehicle-Mounted Aerial Devices* that the device was designed to meet, or the most recent edition, as the circumstances require.
 - (3) The insulating capability of an insulated elevating work platform must be certified by the testing agency.
 - (4) If an insulated elevating work platform does not pass the testing method required by subsection (2) and subsection (3),
 - (a) the platform must be considered non-insulated,
 - (b) any markings or identification on the device indicating insulated capability must be removed or effectively covered over, and
 - (c) the user must be informed of the non-insulated status of the device.
 - ~~(5) In the tenth year after the date of manufacture, and every fifth year after that, or more frequently if specified by the manufacturer, the inspection required by subsection (1) must include a structural inspection to ensure the platform still meets the standard to which the platform was manufactured to verify
 - ~~(a) the integrity of critical components of the platform, and~~
 - ~~(b) the platform's stability.~~~~
-

Explanatory Note

The new requirement for structural testing of vehicle-mounted and self-propelled boom-supported elevating work platforms came into effect on January 1, 2005 as part of the redraft of Part 13 of the *Occupational Health and Safety Regulation* ("OHSR"). The concept of structural testing as equipment ages was taken from the 2002 CSA Standard on self-propelled boom-supported elevating work platforms (*CSA Standard B354.4-02*).

Existing section 13.23 (5) expanded this concept in two ways: it extended the requirement for structural testing to vehicle-mounted elevating work platforms, and it extended the requirement to all such equipment, regardless of the year of manufacture. This is a significant departure from the general rules in Part 4 and in section 13.2 of the *OHSR* which require equipment to be maintained to the standard in effect at the time of manufacture. However, the intent was to create common expectations for structural inspections across a range of work platforms.

Since enactment, numerous employers, suppliers and professional engineers have contacted the Workers' Compensation Board seeking an interpretation. As currently worded, it is unclear whether a teardown inspection to expose all critical components is required in order to comply with section

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

13.23 (5). The cost of this type of inspection could range from \$5,000 for smaller elevating platforms, \$50,000 for large platforms and exceeding \$100,000 in rare cases for large elevating platforms. These estimates do not include the downtime costs.

In July 2005, the enforcement of existing section 13.23 (5) was suspended by Vice-President Directive pending regulatory reform.

Because the specific requirements of existing section 13.23 (5) are unclear, its revocation will not diminish the health and safety of workers. Other requirements under the *OHSR* require that these platforms must be safe for use. In addition to the general requirements of Part 4 which require that equipment meet the standard applicable when it was manufactured and be used in accordance with manufacturers' instructions and safe work practices, Part 13 provides specific requirements for elevating work platforms.

Section 13.2 states that this equipment must meet and be used in accordance with the standard in effect when the equipment was manufactured, and section 13.23 (1) requires annual inspections and certification.

The annual inspections required by section 13.23 (1) involve a visual inspection of components and operational testing. Certain abnormalities on such inspections will indicate that further investigation should be done. Guideline G13.23(1) specifies the quality of annual inspection required to comply with existing section 13.23 (1).



Proposed Guideline G13.23(1) Inspection and certification of elevating work platforms

Proposed November, 2005

Regulatory excerpt

Section 13.23(1) (Testing) of the *OHS Regulation* states:

- (1) A vehicle-mounted elevating work platform and a self-propelled boom-supported elevating work platform must be
 - (a) inspected in accordance with good engineering practice at least every 12 months, and
 - (b) certified in writing by the equipment manufacturer or a professional engineer as complying with this Part and safe for use.

Purpose of guideline

This guideline outlines some of the factors that should be considered when determining if an inspection has been conducted in accordance with "good engineering practice" under this section. It also provides information on who is authorized to certify that the inspection has been done and that the equipment complies with the *OHS Regulation* and is safe for use.

The concept of good engineering practice

The annual inspection and certification of a vehicle-mounted elevating work platform or a self-propelled boom-supported elevating work platform is required by the *OHS Regulation*. This inspection and certification is to be done in accordance with good engineering practice. The concept of good engineering practice as it applies to this section means inspection, assessment, repair (if necessary) and certification of the equipment, is to be done in consideration of

- applicable regulations, safety codes and standards,
- manufacturer's instructions for operation, inspection, maintenance, servicing, and repair, and
- operating, maintenance and service records.

Who may do the certification

Certification will generally be done by a professional engineer. If the inspection, assessment and any necessary repair work is done in BC, the engineer, as required by the *Engineers and Geoscientists Act*, must be licensed to practice in BC. If this work is being done outside BC, for example in Alberta, the engineer must be licensed to practice in that jurisdiction.

If certification is to be provided by the equipment manufacturer, the person signing on behalf of the manufacturer must be specifically authorized in writing by the manufacturer to make such a certification on behalf of the manufacturer.

For convenience, the professional engineer or equipment manufacturer's representative will be referred to as the "certifying professional" in the remainder of this guideline.

The inspection and certification process

The employer or owner of the equipment should consult the certifying professional in advance to arrange the location of the inspection, testing and necessary repair work, and to ensure qualified people and adequate facilities are used. Generally the “hands on” part of inspection, testing and repair will be done by mechanics, service technicians, non-destructive testing (NDT) technicians and other qualified workers as necessary (for example, welders), working under the direction of the certifying professional.

Inspection and certification requires assessment of the “critical components”, meaning the structural, mechanical and control system components which affect the safe operation of the equipment. The specific identity of these components will vary from one type of equipment to another, depending on the design and configuration of the equipment.

The frequency of inspections and their extent, including dismantling, assessment and NDT or other testing, will be determined by the certifying professional. The factors relevant in making these determinations include:

1. Requirements of the applicable regulations, safety codes and standards
2. The equipment manufacturer’s specifications and instructions
3. The certifying professional’s familiarity with the particular design and model of equipment, including known reliability problems or component problems
4. Previous inspection history and results
5. Age of the equipment and number of hours of use
6. Circumstances of use of the equipment (for example, heavy duty vs. light use) and any known incidents since the last certification
7. The general condition of the equipment
8. The environment in which the equipment has been used (for example, a corrosive environment vs. a clean, dry shop or yard area)
9. The available use, service, inspection and maintenance records
10. The certifying professional’s knowledge of the overall effectiveness of the service and maintenance program.

Based on the outcomes of the inspection, the certifying professional will determine any necessary repair work.

The certification document will include a statement that the equipment is "safe for use" at the completion of the inspection and any necessary repair. This means that the equipment should then reasonably be expected to perform safely until the next inspection and certification is required if operated according to the manufacturer's instructions.

If the certifying professional deems it necessary to provide a restricted certification statement (for example, that some components are currently acceptable for safe use but will likely require replacement or renewal before the next annual inspection), the certifying professional will ensure the owner or employer is made aware of these concerns and will also note the condition on the equipment inspection and maintenance records.