

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* came into force on January 1, 2005 and requires a structural inspection of vehicle-mounted elevating work platforms and self-propelled boom-supported elevating work platforms in the 10th year after manufacture and every 5 years thereafter. Section 13.23 (5) has been difficult to implement. It does not specify what type of inspection and testing must be completed during this inspection. There are different safety standards that apply to the various types of vehicle-mounted and self-propelled boom-supported elevating work platforms. Each piece of equipment is subject to different frequency and severity of use. Frequent and heavy use or use in an extreme environment may make it appropriate and necessary to do a structural inspection at an earlier interval than the times specified in section 13.23(5). The annual inspection and certification required by section 13.23(1), if properly done, would address these extreme cases and ensure the appropriate inspection, testing, and if necessary, repair is done at an interval that ensures the equipment is safe for use. As a result, the proposal is to repeal section 13.23 (5) and to confirm in a guideline the quality of the annual inspection and certification required to comply with section 13.23 (1). Repealing section (5) and focusing on the appropriate application of section 13.23(1) will enhance the safety of workers using the equipment.

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.~~~~
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Explanatory Note

The proposed amendment is to delete the requirement for pre-set structural inspections of the critical components of vehicle-mounted elevating work platforms and self-propelled boom-supported elevating work platforms. Rather than provide a pre-set schedule for such structural inspections, professional judgment during each annual inspection will determine when a more detailed structural inspection is appropriate. The need for such a structural inspection will vary depending on the operating time on the machine and the severity of the conditions in which it is used. These factors are covered in the proposed guideline which discusses the concept of "good engineering practice" as it applies to the required inspection and certification process set out in section 13.23(1). This amendment will improve safety as a machine would likely receive a more detailed inspection earlier than the 10 year and subsequent 5 year intervals, where warranted. It will also be more cost effective as a machine which has seen limited use, has been well maintained and parked in a garage or similar protected shelter when not in use may not need a detailed structural inspection at the currently prescribed 10 year interval.

Other requirements under the Regulation continue to apply. For example, the general requirements of Part 4 require equipment to meet the standard applicable when it was manufactured and for it to be used

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

in accordance with manufacturers' instructions and safe work practices, and Section 13.2 states that this equipment must meet and be used in accordance with the standard in effect when the equipment was manufactured. Subsection 13.23 (1) will continue to require annual inspection and certification.

A new Guideline G13.23 (1) has been drafted to outline the quality of annual inspection required to comply with subsection 13.23 (1), to provide a definition of critical components and to provide guidance on the acceptable wording of certificates. A draft of this revised guideline is attached for reference.

It should be noted that section 13.23 (5) was a new requirement introduced on January 1, 2005 as part of the redraft of Part 13. Since enactment, numerous employers, suppliers and professional engineers have contacted the Board seeking an interpretation. Industry has said the provision is unclear and has repeatedly asked whether a teardown inspection to expose all critical components is required in order to comply with subsection 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 subsection 13.23 (5) was suspended by a Vice-President Directive pending regulatory reform.



PART 13: LADDERS, SCAFFOLDS AND TEMPORARY WORK PLATFORMS

DIVISION 5 – MOVABLE WORK PLATFORMS

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| Testing | 13.23 | <p>(1) A vehicle-mounted elevating work platform and a self-propelled boom-supported elevating work platform must be</p> <ul style="list-style-type: none">(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. <p>(2) An insulated elevating work platform must be dielectrically tested at least annually in accordance with the edition of <i>CSA Standard CAN/CSA-C225 Vehicle-Mounted Aerial Devices</i> that the device was designed to meet, or the most recent edition, as the circumstances require.</p> <p>(3) The insulating capability of an insulated elevating work platform must be certified by the testing agency.</p> <p>(4) If an insulated elevating work platform does not pass the testing method required by subsection (2) and subsection (3),</p> <ul style="list-style-type: none">(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. <p>(5) Repealed.</p> |
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G13.23(1) Inspection and certification of elevating work platforms

Draft March 24, 2006

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 section 13.23(1). It also provides information on who is authorized to certify that the inspection has been done and that the equipment complies with Part 13 of 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 section 13.23(1) means that the inspection, assessment, repair (if necessary) and certification of the equipment is to be done with due consideration of the

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

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. Without this authorization a distributor would not represent the manufacturer in this regard. See also OHS Guideline G1.2 (Professional engineer) for more information.

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 with 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 needed (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 extent of an inspection, including dismantling, assessment and NDT or other testing, will be determined by the certifying professional. Factors relevant in making the determination 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:
 - (a) particular design and model of equipment, including known reliability or component problems, and
 - (b) overall effectiveness of the employer or equipment owner’s maintenance program
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 versus light duty 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 versus a clean, dry shop or yard area)
9. The available records on the use, inspection and maintenance of the equipment.

The certifying professional will undertake sufficient inspection and investigation, and oversee any necessary repairs, to ensure the machine is safe for use. A certificate will not be issued until all necessary repairs have been done to the satisfaction of the certifying professional. The certificate will

- confirm the scope of the review conducted,
- confirm any required repairs have been completed, and
- state a professional opinion that the equipment complies with Part 13 and is safe for use, pursuant to section 13.23 (1) of the *OHS Regulation*.

A certificate which does not address all of these elements will be incomplete and will not be evidence of compliance with section 13.23(1).

Restrictions placed on a certificate (for example, that some components are currently acceptable for safe use but will likely require replacement or renewal before the next annual inspection) do not render the certificate incomplete. The certifying professional will ensure the

equipment owner and the employer are made aware of these concerns and note the condition in the equipment inspection and maintenance records.

If a certifying professional is engaged to do only a portion of the work necessary to certify the equipment is safe for use, any report issued will clearly set out the scope of the work completed and include a statement that the report is not intended to certify the equipment is safe for use.

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