

DEPARTMENT OF MINERAL RESOURCES

NO. R. 894

25 AUGUST 2017

SCHEDULE

REGULATIONS AMENDMENTS

CHAPTER 8

MACHINERY AND EQUIPMENT

Amendment of Chapter 8 of the regulations

Chapter 8 of the regulations is hereby amended by the addition of the following regulations:

8.11 Lifts**Definitions**

For purposes of regulation 8.11, unless the context otherwise indicates-

Definitions

Lift means any installation used or intended to be used for the conveyance of persons, **material**, explosives or minerals by means of a car fitted with safety catches running on fixed solid guides and serving defined levels, where the control system of the driving machine is not normally operated manually from the motor or engine room;

material means whatever may be conveyed by means of a winding plant, lift or self-propelled mobile machine, excluding persons, minerals and explosives;

explosive means-

- a) a substance, or mixture of substances, in a solid or liquid state, which is capable of producing an explosion;
- b) a pyrotechnic substance in a solid or liquid state, or a mixture of such substances, designed to produce an effect by heat, light, sound, gas or smoke, or a combination of these, as the result of non detonative self-sustaining exothermic chemical reaction, including pyrotechnic substances which do not evolve gases;
- c) any article or device containing one or more substances contemplated in paragraph (a); or
- d) any other substance or article which the relevant Minister may from time to time by notice in the Gazette declare to be an explosive in terms of the Explosive Act, Act No 15 of 2003;

recoverable recordable system means any recordable system that will retain the data captured therein indefinitely and which -

- a) captures the time and date of every entry, name and signature of every person making an entry;
- b) allows for the retrieving of all data captured;
- c) incorporates measures to prevent unauthorised changes to any captured data;
- d) is auditable; and
- e) in the case of an electronic system, is backed up at least weekly.

Supervision by a competent person

8.11.1 The *employer* must take reasonable measures to ensure that **lifts** are installed, modified, operated and maintained under the supervision of a **competent person**.

Lift particulars to be sent to the Principal Inspector

8.11.2 The *employer* must take reasonable measures to ensure that the *Principal Inspector of Mines* is notified:

- (a) on form DMR 298 **lift** particulars prescribed in Chapter 21, of the required particulars of the **lift** prior to the commencement of:
 - (i) its installation;
 - (ii) major modifications to the **lift** as defined in the relevant standard referred to in regulation 8.11.5; or
 - (iii) its decommissioning, either after having been extended, relocated or not being used for a continuous period of six (6) months.
- (b) In writing within 30 days if any **lift** has been decommissioned or has not been used for more than six (6) consecutive months.

Lift particulars to be available

8.11.3 The *employer* must take reasonable measures to ensure that a copy of any notification contemplated in regulation 8.11.2 is kept readily available at the *mine*.

Permit issued prior to the enactment of these regulations to be kept

8.11.4 Any *employer*, using a **lift** for which a permit was issued by the *Principal Inspector of Mines* prior to enactment of these regulations, must take reasonable measures to ensure that such permit is kept readily available at the *mine*.

Construction, installation and commissioning of lifts

8.11.5 The *employer* must take reasonable measures to ensure that every lift is constructed, installed and commissioned in accordance with the following South African Bureau of Standards Specifications, where applicable:

- (a) SANS 1545 - 1:2014 Safety rules for the construction and installation of lifts. Part 1 - Electric Lifts;
- (b) SANS 1545 - 2:2009 Safety rules for the construction and installation of lifts. Part 2 - Hydraulic lifts;
- (c) SANS 1545 - 5:2007 Safety rules for the construction and installation of lifts. Part 5 - Access goods only lifts;
- (d) SANS 1545 - 6:2014 Safety rules for the construction and installation of lifts. Part 6 - Rack and Pinion lifts;
- (e) SANS 4344:2004 Steel wire ropes for lifts-Minimum requirements;
- (f) SANS 10360:2006 The maintenance and repair of electric and hydraulic powered lifts, escalators and passenger conveyors;
- (g) SANS 50081-1:2004/EN 91-1:2004
Safety rules for the construction and installation of lifts Part 1: Electric lifts;
- (h) SANS 50081-2:1998/EN 81-2:2000
Safety rules for the construction and installation of lifts Part 2: Hydraulic lifts;
- (i) SANS 50081-3:2005/EN 81-3:2000
Safety rules for the construction and installation of lifts Part 3: Electric and hydraulic service lifts; and
- (j) SANS/ISO/TS 14798 2009
Lift (elevators), escalators and passenger conveyors- Risk analysis methodology.

8.11.6 The normative references in the SANS standards listed in 8.11.5 are not applicable to the *employer*.

Examination and testing of lifts

- 8.11.7 The *employer* must take reasonable measures to ensure that a written procedure is prepared by a **competent person** and implemented for the examination, testing, repair and maintenance of every **lift**. Such procedure must take into account:
- (a) any original equipment manufacture's recommendations;
 - (b) the relevant SANS standard; and
 - (c) the site specific *risks* identified in terms of the mine's *risk* assessment.
- 8.11.8 The procedure contemplated in regulation 8.11.7 must provide for at least the following:
- (a) that a **competent person** examines and tests the entire **lift** installation at least once a month;
 - (b) that a **competent person** examines at least once a calendar week the **lift** installation, well, guides, ropes and rope attachments, the driving machinery, the drums, sheaves, all safety devices and appliances to identify any deterioration of the components;
 - (c) that records are kept readily available at the *mine* of the examinations carried out and of the **competent persons** who did the examinations; and
 - (d) that a **recoverable recordable system** is established and maintained at the *mine* in which is captured details of all maintenance, repairs, testing, inspections and examinations of the **lift** installation and of the findings, which must be captured by the **competent person** who undertook the maintenance, repairs, inspections or examinations within 24 hours from completion of such maintenance, repairs, inspections or examinations.
- 8.11.9 The *employer* must take reasonable measures to ensure:
- (a) if as a result of examination, any weakness or defect is found which may pose a *risk* to the health or safety of any person, that the **lift** is not used until the defect has been rectified; and
 - (b) when a landing door or other gate is required to be open while a **lift** is being examined, serviced, or repaired or while any other work is being done in the hatchway, that an effective barrier is provided and used to prevent inadvertent access to the hatchway.

Operating procedure

- 8.11.10 The employer must take reasonably practical measures to ensure that the simultaneous transportation of persons, equipment or **material** in a conveyance is carried out in accordance with an operating procedure prepared and implemented for that purpose.

Emergency preparedness

- 8.11.11 The *employer* must take reasonable measures to ensure that an emergency preparedness procedure is drawn up, after consultation with the lift manufacturer, for the rescue of persons trapped in a car in a lift well.

Flooding of lift well

- 8.11.12 The *employer* must take reasonable measures to ensure, where there is a *risk* of a lift well or shaft being flooded to a level that may pose a significant *risk* to persons travelling in the car, that measures are in place to prevent the car from entering any flooded area of the lift well or shaft.
- 8.11.13 The *employer* must take reasonable measures to ensure that any examination contemplated in regulation 8.11.8 is conducted in the presence of an *Inspector* if so requested in advance by the *Principal Inspector of Mines*.

8.12 Chairlifts

Definitions

For purposes of regulation 8.12, unless the context otherwise indicates-

chairlift means any appliance or combination of appliances, excluding endless rope haulages and monoropes, used or intended to be used for the conveyance of any load, including persons, by means of:

- (i) chairs or other means of conveyances suspended from an endless hauling rope; or
- (ii) chairs or conveyances moved with a hauling rope or chain and running on a rope or in or on a rail circuit.

Supervision by a competent person

- 8.12.1 The *employer* must take reasonable measures to ensure that the installation, modification, operation and maintenance of every **chairlift** is under the supervision of a **competent person**.

Chairlift Particulars to be sent to the Principal Inspector

8.12.2 The *employer* must take reasonable measures to ensure that the *Principal Inspector of Mines* is notified:

8.12.2.1 on Form DMR 299 Chairlift particulars prescribed in Chapter 21, of the required particulars of every **chairlift** prior to commencement of:

- a) its installation;
- b) major modifications (as defined in SANS 273:2007 Edition 1 "The design, construction, maintenance and safe operation of chairlifts in mines") to it; or
- c) its recommissioning, either after having been extended, relocated or not being used for a continuous period of six (6) months.

8.12.2.2 in writing within 30 days if any **chairlift** has been decommissioned or has not been used for more than six (6) consecutive months.

Chairlift Particulars available

8.12.3 The *employer* must take reasonable measures to ensure that a copy of the notification as contemplated in regulation 8.12.2.1 is kept readily available at the mine and is also displayed where it can be seen by users of the **chairlift**.

Permit issued prior to enactment of these regulations to be kept and displayed

8.12.4 Any *employer*, using a **chairlift** for which a permit was issued by the *Principal Inspector of Mines* prior to enactment of these regulations, must take reasonable measures to ensure that such permit is kept readily available at the mine and that a copy of it is displayed where it can be seen by users of the **chairlift**.

Construction, installation and testing of chairlifts

- 8.12.5 The *employer* must take reasonable measures to ensure that every **chairlift** is constructed, installed, maintained and tested in accordance with SANS 273:2007 Edition 1 "The design, construction, maintenance and safe operation of chairlifts in mines".
- 8.12.6 Any *employer* intending to install a **chairlift** of a design not covered by the scope of SANS 273:2007 Edition 1 may only do so with permission of the **Chief Inspector of Mines** and subject to such conditions as may be specified.
- 8.12.7 The normative references in the SANS standards in 8.12.6 are not applicable to the *employer*.

Examination and testing of chairlifts

- 8.12.8 The **employer** must take reasonable measures to ensure that a written procedure is prepared by a **competent person** and implemented for the examination, testing and maintenance of every **chairlift**. Such procedure must take into account:
- a) any original equipment manufacture's recommendations;
 - b) SANS 273:2007 Edition 1 "Standard for the design, construction, maintenance and safe operation of chairlifts in mines"; and
 - c) the site specific risks identified in terms of the mine's risk assessment.

8.12.9 The procedure contemplated in regulation 8.12.8 must provide for at least the following:

- a) that a **competent person** examines and tests the entire **chairlift** installation at least once a month;
- b) that the **chairlift** installation is functionally tested and examined at least once a week by a **competent person(s)**;
- c) that if as a result of examination or test any weakness or defect is found which presents a significant risk to any person, the **chairlift** is not used until the defect has been rectified; and
- d) that a lock-out procedure is in place to remove the tension on the hauling rope before any repair or replacement on the drive system is undertaken.

Chairlift operation

8.12.10 The *employer* must take reasonable measures to ensure that only a competent person(s) operates any **chairlift** and does so in accordance with a written procedure prepared and implemented for this purpose. Such procedure must cover at least the following:

- a) loading and unloading of persons and other loads;
- b) stopping and starting;
- c) investigation and reporting of malfunctioning and corrective measures to be taken;
- d) initial examination before commissioning; and
- e) emergency procedures for persons to disembark in case of a trip out.

Chairlift installation where other traffic exists

8.12.11 The *employer* must take reasonable measures to ensure that, where a **chairlift** operates in the same excavation or close proximity to other traffic or moving equipment, a procedure is prepared and implemented to prevent persons from being injured by such traffic or moving equipment.