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# GOVERNMENT NOTICE

#### DEPARTMENT OF LABOUR

No. R. 734

15 July 2009

#### OCCUPATIONAL HEALTH AND SAFETY ACT, 1993

#### PRESSURE EQUIPMENT REGULATIONS

The Minister of Labour has, under section 43 of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), after consultation with the Advisory Council for Occupational Health and Safety and the Minister of Finance, made the regulations in the Schedule.

#### **SCHEDULE**

#### **Definitions**

- 1. In these Regulations any word or expression to which a meaning has been assigned in the Act shall have the meaning so assigned and, unless the context otherwise indicates —
- "accreditation authority" means the South African National Accreditation System (SANAS) established by section 3 of the Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act, 2006 (Act No. 19 of 2006);
- "appliance" means an appliance as defined in SANS 1539;
- "ASME" means the American Society of Mechanical Engineers:
- "authorised person" means a person who is registered as competent within the scope of work for which an organisation approved by the chief inspector has registered that person;
- "certificate" means a written declaration of conformance to these Regulations;
- "construction" includes materials, design, fabrication, modification, repair, installation, examination, inspection, testing and certification;
- "dangerous substance" means a substance defined and classified as such in terms of SANS 10228;

- "design pressure" means the gauge pressure used in the design formulae to determine the dimensions of the component parts of the pressure equipment;
- "design temperature" means the temperature used in the design formulae to determine the dimensions of the component parts of the pressure equipment;
- "design verification" means verification that the pressure equipment complies with the applied design of the relevant health and safety standard and the requirements of these Regulations;
- "fire extinguisher" means a rechargeable container which has a fire extinguishing substance that is expelled by the action of internal pressure for the purpose of extinguishing a fire;
- "fluid" means gases, liquids, vapours in pure phase and mixtures thereof and may contain solids in suspension;
- "gas" means gases, liquefied gases, gases dissolved under pressure, vapours, and those liquids whose vapour pressure at the design temperature is greater than 50 kPa above normal atmospheric pressure;
- "gas system" means an assembly of tubes, pipes or similar ducts, fittings and valves for the reticulation, circulation and conveyance of a gas, excluding a pressure vessel or transportable gas container connected to the system;
- "latent defect" means a fault inherent in pressure equipment, resulting from deficiencies in the design or manufacturing process that may cause a health and safety risk;
- "manufacturer" means any person who has overall control and is responsible for the construction of the pressure equipment;
- "modification" means any change to the original design conditions of pressure equipment, including re-rating, or the addition or removal of elements that could affect the integrity of the pressure equipment, and "modify" has a corresponding meaning;
- "non-metallic" means glass, thermoplastic or thermosetting polymeric reinforced and un-reinforced materials or combinations thereof;
- "pipeline" means piping or a system of piping designed for the transport and distribution of any fluid from an installation that is onshore or offshore, starting from and including the last isolation device located within the confines of the installation, including all the auxiliary equipment designed specifically for that pipeline;
- "piping" means pipes, tubes or flexible pressure hose elements intended for the transport or distribution of any fluid at a pressure of 50 kPa or above when connected together for integration into a system, including heat exchangers consisting of pipes for the purpose of cooling or heating air;

- "pressure accessory" means devices with an operational function having pressure-bearing housing;
- "pressure equipment" means a steam generator, pressure vessel, piping, pressure accessory and safety accessory, transportable gas container, and fire extinguisher and includes, but is not limited to, an accumulator, a hotwater geyser, and hyperbaric chambers;
- "pressure vessel" means a housing designed and manufactured to contain a fluid under a design pressure equal to or greater than 50 kPa;
- "provincial director" means the provincial director as defined in regulation 1 of the General Administrative Regulations promulgated by Government Notice No. R. 1449 of 6 September 1996;
- "re-certification" means activities undertaken to determine appropriate design parameters for pressure equipment where such data is unknown or unavailable;
- "repair" means restoration to original standard by the application of heat or welding to any pressure equipment, or the replacement of expanded tubes, and in the case of non-metallic equipment it means the application of heat, welding, solvent cement, laminate or curing of thermo-set;
- "re-rating" means any change in the design parameters of pressure equipment which affects the certification;
- "reticulation" means the conveyance of gas by pipeline with a general operating pressure of no more that 200 kPa to the ultimate points of consumption;
- "risk-based inspection" means an inspection scope based on the results of a formal risk assessment, including inspection and test intervals;
- "safety accessory" means a device designed to protect pressure equipment;
- **"SANS 151"** means the Standard Specification for fixed electric storage water heaters, SANS 151, published by the South African Bureau of Standards;
- **"SANS 347"** means the Standard Specification for categorization and conformity assessment criteria for all pressure equipment, SANS 347, published by the South African Bureau of Standards;
- **"SANS 10227"** means the Standard Specification for the criteria for the operation of inspection authorities performing inspection in terms of the Pressure Equipment Regulations, SANS 10227, published by the South African Bureau of Standards;

"SANS 10228" means the Standard Specification for the identification and classification of dangerous goods for transport, SANS 10228, published by the South African Bureau of Standards;

**"SANS 10254"** means the Standard Specification for the installation, maintenance, replacement and repair of fixed electric storage water heating systems, SANS 10254, published by the South African Bureau of Standards;

**SANS/ISO 17020"** means the Standard Specification for general criteria for the operation of various types of bodies performing inspection, SANS 17020, published by the South African Bureau of Standards;

"steam generator" means any apparatus to convert water continuously into steam at a pressure higher than that due to the atmosphere and where the heat is derived from a source other than steam, and includes any super heater or economiser which is an integral part of a steam generator or is separately fired there from, fired steam and hot-water boilers, waste-heat boilers, waste-incineration boilers, and electrode or immersion-type electrically heated boilers;

"the Act" means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993);

"transportable gas container" means any refillable vessel for the storage and conveyance of liquefied, dissolved or compressed gases, of water capacity from 0,5 litres to 3 000 litres;

"unique mark" means the mark and accreditation reference number of the approved inspection authority.

#### Scope of application

- 2. (1) These Regulations shall apply to the design, manufacture, operation, repair, modification, maintenance, inspection and testing of pressure equipment with a design pressure equal to or greater than 50 kPa, in terms of the relevant health and safety standard incorporated into these Regulations under section 44 of the Act.
- (2) Regulations 3, 4, 5, 9(1), 9(2) and 9(3) shall not apply to pressure equipment in use or on order prior to the publication of these Regulations, which equipment shall be designed and constructed according to the requirements applicable at the time of order.
- (3) The following pressure equipment shall be excluded from these Regulations:
  - (a) Piping for the supply, distribution and discharge of water below its boiling point at atmospheric pressure and associated pressure equipment and headraces such as penstocks, pressure tunnels, pressure shafts for hydro-electric installations and their related specific pressure accessories;
  - (b) aerosol dispensers;
  - (c) pressure equipment intended for the functioning of road and rail vehicles, excluding a fuel gas system;
  - (d) pressure equipment comprising casings or machinery where the dimensioning, choice of material and manufacturing rules are based primarily on requirements for sufficient strength, rigidity and stability to meet the static and dynamic operational effects or other operational characteristics and for which pressure is not a significant design factor, and such pressure equipment may include —
    - (i) engines, including turbines and internal combustion engines;
    - (ii) reciprocating steam engines, gas turbines, steam turbines, turbo-generators, compressor engines, pumps and actuating devices;
  - (e) open metal-making pots and blast furnaces
  - (f) housing for electrical machinery such as switchgear, control gear, transformers and rotating machines;
  - (g) tyres and flexible pressurised casings used for recreational purposes;

(h) fixed electrical hot-water storage container of water capacity from 15 litres to 450 litres operating at a maximum pressure of 600 kPa manufactured to the requirements of SANS 151, which shall be installed in accordance with the requirements of SANS 10254.

#### General requirements

- 3. (1) Any person who manufactures, imports, sells, offers or supplies any pressure equipment described in these Regulations for use in the Republic shall ensure that such equipment complies with these Regulations.
- (2) Any person who erects or installs any pressure equipment for use in the Republic shall ensure, as far as is reasonably practicable, that it is erected or installed in a safe manner and without risk to health and safety when properly used.
- (3) All pressure equipment for use in the Republic shall be categorized and submitted to the applicable conformance assessments of SANS 347 in addition to the requirements of the relevant health and safety standard incorporated into these Regulations under section 44 of the Act.

#### **Duties of manufacturers**

- **4.** (1) The manufacturer shall have an obligation to ensure that all equipment designed and manufactured for use in the Republic shall be conformity assessed and subjected to the requirements set out in SANS 347.
- (2) Subject to the requirements set out in the relevant health and safety standard incorporated into these Regulations under section 44 of the Act, the manufacturer shall ensure that the pressure equipment as manufactured, modified, inspected, tested or repaired is safe and without risks to health when properly used.
- (3) Subject to the requirements of this regulation a manufacturer shall issue a certificate of manufacture for all pressure equipment supplied, with a verification signature by an approved inspection authority when so required.
- (4) Subject to the requirements of this regulation a manufacturer shall comply with any other duty assigned to the manufacturer in these Regulations.
- (5) A manufacturer who determines that pressure equipment in use has a latent defect shall advise the chief inspector in writing forthwith thereof and of measures being taken to correct the defect.

# **Duties of importers and suppliers**

**5.** (1) Importers and suppliers shall ensure that pressure equipment sold complies with the requirements of these Regulations.

- (2) The importer shall assume the liability of the manufacturer in terms of these Regulations.
- (3) Any pressure equipment that requires a permit to be issued by an organisation approved by the chief inspector shall ensure that such approval is obtained by the importer or manufacturer before the pressure equipment is placed in the market: Provided that such equipment shall comply with the relevant health and safety standard incorporated into these Regulations under section 44 of the Act.

#### **Duties of users**

- **6.** (1) The user shall ensure that the pressure equipment is operated and maintained within its design and operating parameters.
- (2) The user shall, subject to the relevant health and safety standard incorporated into these Regulations under section 44 of the Act
  - (a) provide the manufacturer, repairer or modifier with comprehensive information of the operating or intended operating conditions of the pressure equipment, including the characteristics of the fluid and operating parameters of other connected pressure equipment, where reasonably practicable;
  - (b) ensure pressure equipment has a certificate, issued by the manufacturer, including a verification signature by an approved inspection authority when required, which certifies that the pressure equipment has been designed and manufactured in accordance with the relevant health and safety standard incorporated into these Regulations under section 44 of the Act:
  - (c) ensure pressure equipment has a certificate issued by the repairer or modifier, including a verification signature by an approved inspection authority when required, which certifies that the pressure equipment has been modified or repaired in accordance with the relevant health and safety standard incorporated into these Regulations under section 44 of the Act;
  - (d) ensure that pressure equipment has a certificate issued by an approved inspection authority before commissioning, where applicable; and
  - (e) ensure that a gas system has a valid certificate issued by an authorised person.

# Approval and duties of approved inspection authority

- 7. (1) Only an organisation holding an approval certificate from the chief inspector shall perform the duties of an approved inspection authority within the scope of accreditation.
- (2) An application for approval in terms of subregulation (1) shall include the applicant's proof of accreditation prescribed by paragraph (a) or (b) of subregulation (3), including full contact details and address.
- (3) The chief inspector's approval
  - (a) of inspection bodies operating in the Republic shall be subject to the submission of an accreditation certificate issued by the accreditation authority in accordance with the requirements of SANS/ISO 17020 and SANS 10227: Provided that the chief inspector may set additional requirements before granting approval; or
  - (b) of foreign inspection bodies shall be subject to the submission of an accreditation certificate issued by an International Laboratory Accreditation Cooperation (ILAC) or an International Accreditation Forum (IAF), Mutual Recognition Arrangement signatory in accordance with the requirements of ISO/IEC 17020: Provided that
    - (i) the foreign inspection body shall ensure compliance with all the duties assigned to an approved domestic inspection authority in terms of these Regulations and within their scope of accreditation together with the applicable health and safety standards; and
    - (ii) the chief inspector may set additional requirements before granting approval.
- (4) Imported pressure equipment stamped by an ASME authorised manufacturer in compliance with the full ASME Code of Construction shall be deemed to meet the requirements of these Regulations.
- (5) In the event of a dispute of a technical or safety issue, which could not be reasonably resolved between an approved inspection authority and any interested party, including the user, modifier, repairer or manufacturer, an interested party may refer the case to the chief inspector in writing for arbitration, setting out the full details of the dispute.
- (6) Upon receiving such a dispute in terms of subregulation (5), the chief inspector may appoint an arbitrator mutually agreed upon between the parties.
- (7) A case referred to the chief inspector in terms of subregulation (5) shall be investigated and arbitrated within a maximum of 90 days.

(8) An approved inspection authority shall ensure compliance with all the duties assigned to an approved inspection authority in these Regulations within its scope of accreditation and the relevant health and safety standard.

# Registration of a steam generator

- 8. (1) No user may use a steam generator unless such user is in possession of a certificate of registration issued in terms of subregulation (3) for that steam generator.
- (2) Application for registration to use a steam generator shall be made prior to use to the provincial director in the form of Annexure 2, including copies of a certificate from the manufacturer and from the approved inspection authority after installation prior to commissioning: Provided that this subregulation shall not apply in respect of the re-erection of a steam generator on the same premises.
- (3) On receipt of an application for registration in terms of subregulation (1), the provincial director shall forward that application to an inspector who may issue a certificate of registration in the form of Part C of Annexure 2 in respect of that steam generator, subject to the conditions that may be specified on the certificate.
- (4) Any user of a steam generator for which a certificate of registration has been issued shall cause the certificate of registration to be made available on request to an inspector or an approved inspection authority.
- (5) A user shall, within seven days after discovering that the certificate of registration has been lost, defaced or destroyed, apply to the provincial director in the form of Part A of Annexure 2 for the issue of a duplicate certificate, and affix the fee of R100,00 in the form of uncancelled revenue stamps to such an application.
- (6) On receipt of an application in terms of subregulation (5), the provincial director shall issue the duplicate certificate if he or she is satisfied that the original certificate has been lost, defaced or destroyed.
- (7) A user of a steam generator shall immediately notify the provincial director in writing when
  - (a) such steam generator is no longer in use;
  - (b) the right of control over the use of the steam generator is transferred by the user to any other user; or
  - (c) the user moves the steam generator to premises other than the premises reflected on its certificate of registration.
- (8) A certificate of registration issued in terms of subregulation (3) shall lapse –

- (a) upon the transfer of the right of control over the use of the steam generator to another user; or
- (b) when a steam generator is removed from the premises reflected on its certificate of registration.

# Pressure equipment marking

- **9.** (1) Every manufacturer of pressure equipment shall cause the pressure equipment to be marked in accordance with the relevant health and safety standard incorporated into these Regulations under section 44 of the Act.
- (2) Every manufacturer shall cause a data plate to be permanently fixed in a conspicuous place to any steam generator or pressure vessel with the following minimum particulars:
  - (a) Name of manufacturer;
  - (b) country of origin;
  - (c) year of manufacture;
  - (d) manufacturer's serial number;
  - (e) reference number, date and edition of the health and safety standard:
  - (f) design pressure in units of Pascal;
  - (g) design temperature for both minimum and maximum in degrees Celsius:
  - (h) capacity in cubic metres;
  - unique mark of an approved inspection authority as applicable;
     and
  - (j) the hazard category in accordance with the requirements of SANS 347.
- (3) In the case of composite pressure equipment the following information shall be included in addition to that referred to in subregulation (2):
  - (a) The resin system of the corrosion barrier/lining;
  - (b) the resin system of the structural wall; and
  - (c) the name and specific gravity of the medium for which the vessel was designed.

- (4) No person may remove a marking or data plate referred to in this regulation or wilfully damage or alter the particulars marked thereon, except as provided in this regulation.
- (5) A user shall ensure that any modification that changes the original design conditions is identified by affixing an additional data plate.
- (6) A user shall ensure that a data plate is affixed to any steam generator or pressure vessel that has been re-certified: Provided that where the manufacturer is unknown, the user responsible for the re-certification shall be deemed to be the manufacturer.

#### Pressure and safety accessories

- 10. (1) No user may require or permit pressure equipment to be used unless it is provided with all the pressure and safety accessories required by the relevant health and safety standard which is incorporated into these Regulations under section 44 of the Act and used in the design, construction and manufacture of such pressure equipment: Provided that alternative safety accessories other than those required by the standard may be fitted with the written approval of an approved inspection authority.
- (2) In the absence of a requirement referred to in subregulation (1) in the relevant health and safety standard which is incorporated into these Regulations under section 44 of the Act and used in the design, construction and manufacture of such pressure equipment, safety accessories shall be provided by the user as required by the approved inspection authority and those safety accessories shall be so selected, arranged and installed as to be safe for the particular purpose for which the pressure equipment is to be used.
- (3) Every user of a steam generator or pressure vessel shall ensure that the steam generator or pressure vessel in use is fitted with at least one pressure measuring device.
- (4) Every user of a steam generator or pressure vessel shall ensure that the steam generator or pressure vessel in use is fitted with at least one safety valve and that safety valve is kept locked, sealed or otherwise rendered inaccessible to any unauthorised person.
- (5) The number and capacity of the safety valve referred to in subregulation (4) shall comply with the requirements of the design standard for the steam generator or pressure vessel or as required in terms of subregulation (2).
- (6) Every user shall ensure that the automatic controls and indicators of a steam generator, pressure vessel or piping are arranged, installed, maintained and operated in accordance with the relevant health and safety standard which is incorporated into these Regulations under section 44 of the Act and used in the design and manufacture of the steam generator, pressure vessel or pressurized system: Provided that in the absence of such

provisions, where automatic controls and indicators are installed, they shall be selected, arranged and installed subject to the written approval of an approved inspection authority.

#### Inspection and test

- **11.** (1) Subject to the requirements of the relevant health and safety standard incorporated into these Regulations under section 44 of the Act, the user shall cause
  - (a) steam generators or pressure vessels, including pressure and safety accessories, after they are installed or reinstalled and before they are commissioned, to be subjected to a witnessed internal and external inspection of a hydraulic pressure test to 1,25 times the design pressure by an approved inspection authority: Provided that Category I equipment as categorized in terms of SANS 347 may be inspected, tested and witnessed by the user: Provided further that the user may, subject to the written approval of an approved inspection authority, dispense with the internal inspection and hydraulic pressure test where it could have an adverse effect on the operation or integrity of the pressure equipment;
  - (b) piping to be inspected and tested by the manufacturer after manufacture, installation, modification or repair and before commissioning in accordance with the relevant health and safety standard incorporated into these Regulations under section 44 of the Act, and, where applicable, to be witnessed by an approved inspection authority: Provided that Category I equipment as categorized in terms of SANS 347 may be inspected, tested and witnessed by the user;
  - (c) every fire-tube steam generator to be subjected to an external inspection every 12 months and a witnessed hydraulic test and crack detection of critical welds every 36 months, by an approved inspection authority for inservice inspection appointed by the user in writing;
  - (d) every pressure vessel and steam generator, excluding those referred to in subregulation (3), to be subjected to an internal and external inspection and a hydraulic test to a pressure of 1,25 times the design pressure by an approved inspection authority for in-service inspection appointed by the user in writing, at intervals not exceeding 36 months: Provided that Category I equipment as categorized in terms of SANS 347 may be inspected and tested by the user: Provided further that where the pressure equipment is not subject to

deterioration processes, the user may dispense with the internal inspection and hydraulic pressure test, subject to a maximum period of nine years for that pressure vessel or steam generator and written approval by an approved inspection authority: Provided further that the chief inspector may require a specific steam generator or pressure vessel to be inspected or tested more frequently; and

- (e) all piping and pipelines to be inspected and tested in accordance with the relevant in-service health and safety standard: Provided that where the health and safety standard does not prescribe in-service inspections and test intervals, such intervals shall be determined by a risk-based inspection applying sound engineering practice: Provided further that such inspection and test for Category II equipment and higher as categorized in terms of SANS 347 shall be performed by a competent person referred to in regulation 1 of the General Machinery Regulations, 1988.
- (2) Where it is impracticable to use a liquid for the hydraulic pressure test referred to in subregulation (1)(d) or (e), the test may, subject to the prior written approval of an approved inspection authority, be carried out with an inert gas to a pressure of 1,1 times the design pressure: Provided that, where reasonably practicable, the test shall be preceded by an internal inspection and any conditions and precautionary measures determined by the user and approved by the approved inspection authority.
- (3) Where an inspection or test carried out in terms of subregulation (1)(c), (d) and (e) reveals any weakness or defect whereby the safety of persons may be endangered, the weakness or defect shall be reported forthwith to the user by the person carrying out the inspection or test and the user shall forthwith cease the use of the pressure equipment until such weakness or defect has been rectified to the satisfaction of the person who carried out the inspection and the approved inspection authority concerned in cases of modifications or repairs, as the case may be, or the steam generator, pressure vessel or storage vessel has been re-rated to the satisfaction of the approved inspection authority.

#### **Risk-based inspection**

- 12. (1) The user may, as an alternative to the in-service inspection and testing interval requirements referred to in regulation 11(1)(d), implement a risk-based inspection management system in accordance with the relevant health and safety standard incorporated into these Regulations under section 44 of the Act.
- (2) A risk-based inspection process and implementation shall be verified by a certification body accredited by the accreditation authority in terms of ISO

17021 specifically for risk-based inspections and approved by the chief inspector.

#### Repairs and modifications

- **13.** (1) Subject to the requirement of the relevant health and safety standard incorporated into these Regulations under section 44 of the Act -
  - (a) any person who intends to modify or repair any pressure equipment shall cause such modification or repair to be carried out in accordance with the relevant health and safety standard, and in accordance with the assessment procedure, as specified by the relevant hazard category as determined by SANS 347;
  - (b) any modifier or repairer carrying out any modification or repair, referred to in paragraph (a), shall issue a certificate in which the extent of the modification or repair is described and certify that such work is in accordance with the relevant health and safety standard incorporated into these Regulations under section 44 of the Act: Provided that such certificate shall be countersigned by the approved inspection authority, where applicable, as evidence that the design of such modification has been verified and that it has been modified or repaired and tested under its supervision in accordance with the original health and safety standard where reasonably practicable;
  - (c) any user requiring re-certification of any pressure equipment shall ensure that the re-certification is performed under the supervision of an approved inspection authority, as applicable; and
  - (d) whenever it appears from any inspection or test that pressure equipment cannot be used safely in accordance with its design criteria and the user chooses not to have the necessary repairs effected immediately, the user shall, subject to approval by an approved inspection authority, ensure that the pressure equipment is re-rated, the amended data plate added and the pressure equipment operated within the re-rated criteria: Provided that, in the case of a steam generator, the registration certificate, together with a copy of the approved inspection authority's design verification report, shall be forwarded to the provincial director for updating of the steam generator registration.

#### Records

- 14. (1) Every user of pressure equipment shall keep a record, which shall be open for inspection by an inspector, in which the certificate of manufacture, and the results, after manufacturing, of all inspections, tests, modifications and repairs shall be recorded.
- (2) When pressure equipment is sold, the manufacturer shall ensure that it is accompanied, where relevant, with instructions for the user, containing all the necessary safety information relating to -
  - (a) mounting, including the assembling of different pieces of pressure equipment;
  - (b) putting into service; and
  - (c) maintenance, including checks by the user:

Provided that those instructions shall cover information affixed to the pressure equipment in accordance with these Regulations and the relevant health and safety standard incorporated into these Regulations by section 44 of the Act, with the exception of serial identification, and be accompanied, where appropriate, by technical documents, drawings and diagrams that are necessary for a full understanding of the instructions: Provided further that, if appropriate, the instructions shall also refer to hazards arising from misuse of the pressure equipment.

(3) The manufacturer shall keep the original manufacturing records of the pressure equipment for a minimum period of 12 years.

#### Access

15. The user shall cause pressure equipment to be erected and maintained in such a manner that access to and exit from any chamber, flue, manhole, inspection opening, control or accessory is safe and unobstructed.

#### **Door interlocks**

- 16. (1) Any user of pressure equipment shall cause such pressure equipment which for operational purposes is equipped with a quick-actuating opening, to be provided with an interlock or other effective means for preventing
  - (a) a rise of pressure inside the pressure equipment before the quick-actuating openings are in the fully closed and locked position; and
  - (b) the release of the quick-actuating opening from the locked and closed position before the pressure inside the pressure equipment has been reduced to atmospheric pressure or the pressure across the openings has been equalised.

#### Gas reticulation equipment and systems

- **17.** (1) No person shall
  - (a) handle, store or distribute any gas in any manner, which includes the filling of a container, other than in accordance with the relevant health and safety standard incorporated into these Regulations under section 44 of the Act;
  - (b) install or remove an appliance, pressure equipment or system for gas in any manner other than in accordance with the relevant safety standard incorporated into these Regulations under section 44 of the Act:
  - install or remove a gas appliance, or a gas system or a gas reticulation system, unless such person is an authorised person; or
  - (d) use pressure equipment or systems for gas in any manner other than in accordance with the relevant safety standard incorporated into these Regulations under section 44 of the Act.
- (2) After installation or re-installation, and before commissioning a gas system, the user shall ensure that an external inspection and a leak test are performed by an authorised person or an approved inspection authority as applicable in terms of subregulation (1)(c).
- (3) An authorised person or an approved inspection authority shall issue a certificate of conformity after completion of a gas installation, modification, alteration or change of user or ownership in the form of Annexure 1.

#### Transportable gas containers

- **18.** (1) No user shall use, require or permit a transportable gas container to be used, and no user shall fill, place in service, handle, modify, repair, inspect or test any transportable gas container, other than in compliance with the relevant standards incorporated into these Regulations under section 44 of the Act.
- (2) The inspection and test referred to in subregulation (1) shall be carried out by an approved testing station.
- (3) Applications for approval of a testing station shall include proof of accreditation as prescribed in subregulation (4), and shall include full contact details and address information.
- (4) The chief inspector's approval is subject to a valid accreditation certificate issued by the accreditation authority: Provided that the chief inspector may set additional requirements before granting approval.

#### Fire extinguishers

- 19. (1) No user shall use, require or permit the use of a fire extinguisher unless designed, constructed, filled, recharged, reconditioned, modified, repaired, inspected or tested in accordance with the relevant safety standard incorporated into these Regulations under section 44 of the Act.
- (2) No person shall fill, recharge, recondition, modify, repair, inspect or test any fire extinguisher unless such person is an authorised person employed by a permit holder: Provided that a permit is issued by an organisation approved by the chief inspector.
- (3) Applications for approval shall include proof of accreditation as prescribed in subregulation (4), and shall include full contact details and address information.
- (4) The chief inspector's approval shall be subject to a valid accreditation certificate issued by the accreditation authority: Provided that the chief inspector may set additional requirements before granting approval.

#### Offences and penalties

20. (1) Any person who contravenes or fails to comply with any of the provisions of regulations 3, 4, 5, 6, 7(1), 7(2), 8(1), 8(2), 8(3), 8(4), 8(5), 8(7), 9, 10, 11(1), 11(3), 12(2), 13, 14, 15, 16, 17, 18(1), 18(2), 19(1) and 19(2) shall be guilty of an offence and liable upon conviction to a fine or to imprisonment for a period not exceeding 12 months and, in the case of a continuous offence, to an additional fine of R200,00 for each day on which the offence continues or additional imprisonment of one day for each day on which the offence continues: Provided that the period of such additional imprisonment shall not exceed 90 days.

#### Repeal of regulations and annexures

**21.** The Vessels under Pressure Regulation, 1996, published under Government Notice No. R. 1591, dated 4 October 1996, is hereby repealed.

#### **Short title**

22. These Regulations shall be called the Pressure Equipment Regulations, 2009, and shall come into effect on 1 October 2009: Provided that approved inspection authority for in-service inspections shall come into effect on 1 April 2011 on condition that the inspection shall be carried out by an authorised person.

#### Annexure 1

# CERTIFICATE OF CONFORMITY FOR GAS INSTALLATIONS

# OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 Regulation 17(3) of the Pressure Equipment Regulations, 2009

Certificate of conformity by an authorised person

| 1,                       | , declare that I am an author  | ised     |
|--------------------------|--|----------|
| person for gas installat | , declare that I am an author tions with registration number                 | and ID   |
| number                   |  |          |
| Address                  |  |          |
|                          | w <u>,</u>   |          |
|                          |  |          |
| Telephone number (       | )  |          |
|                          |  |          |
| Street                   | inspected and tested the installation at -                                   |          |
| Stand number             |  |          |
| Name of building         |  |          |
| Name of farm             |  |          |
| Number of farm           |  |          |
| Township/Municipality/   | /District  |          |
| Name of gas supplier _   |  |          |
| Type of gas              |  |          |
| Amount of gas stored of  | on premiseskg  |          |
|                          | f regulation 17(3), the installation complies that the installation is safe. | with the |
| I am aware that I am lia | able to prosecution in the case of a false declar                            | ration.  |
| Signature                | Date   |          |
| Oignature                | Date   |          |

#### Annexure 2

# **REGISTRATION OF A STEAM GENERATOR**

# OCCUPATIONAL HEALTH AND SAFETY ACT, 1993

Regulation 8(2) of the Pressure Equipment Regulations, 2009

Registration of a steam generator

# A. APPLICATION FOR REGISTRATION OF A STEAM GENERATOR/DUPLICATE CERTIFICATE

|                     | rovincial Director<br>tment of Labour  | From: (Postal Address)   |  |
|---------------------|--|--|--|
|                     |  |  |  |
|                     |  | Fax  |  |
| l (user<br>registra | r) (legal persona)ation certificate of a steam generator, parti                  | hereby apply for a registration/duplicate culars of which are reflected in Part B below. |  |
| Signa               | ture of applicant  | Date   |  |
| Name                | of applicant (in block letters)  | Designation of applicant   |  |
| В.                  | PARTICULARS OF STEAM GEN   | ERATOR   |  |
| 1.                  | Physical address of installation   |  |  |
| 2.                  | Type of steam generator  |  |  |
| 3.                  | Name of manufacturer   |  |  |
| 4.                  | Country of origin  |  |  |
| ·5.                 | rear of manufacture  |  |  |
| 6.                  | Manufacturer's serial number   |  |  |
| 7.                  | Name, number and date of the standard of design                                  |  |  |
| 8.                  | Design gauge pressure in pascal  |  |  |
| 9.                  | Design gauge pressure in pascal Maximum permissible operating pressure in pascal |  |  |
| 10.                 | Operating temperature Source of energy (oil, coal, gas, electricity or nuclear)  |  |  |
| 11.<br>12.          | Steaming capacity of steam generatorkg of steam per hour from and at             |  |  |
| 12.                 | 100 degrees Celsius  |  |  |
| 13.                 | Name of approved inspection authority (during manufacture)                       |  |  |
| 14.                 | Copy of certificate from manufacturer attached                                   |  |  |
| 15.                 | Copy of approved inspection authority's attached                                 | commissioning report   |  |

# FOR OFFICIAL USE ONLY

# C. STEAM GENERATOR REGISTRATION CERTIFICATE

| been registered with the official num    | s of which appear in Part B, has this day ber the boiler at a maximum permissible pressure of |
|--|---|
| Signature of inspector                   | Official stamp  |
| Issue of duplicate steam generator r     | egistration certificate  Date   |
| Revenue stamps for duplicate certificate |   |

No. R. 735

15 July 2009

# **OCCUPATIONAL HEALTH AND SAFETY ACT, 1993**

# INCORPORATION OF HEALTH AND SAFETY STANDARDS INTO THE PRESSURE EQUIPMENT REGULATIONS, 2009

I, MMS Mdladlana, Minister of Labour, after consultation with the Advisory Council for Occupational Health and Safety, hereby, under section 44 of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), incorporate into the Pressure Equipment Regulations, 2009, the health and safety standards specified in the Schedule.

MMS MDLADLANA Minister of Labour

#### SCHEDULE

SANS 347: Categorization and conformity assessment criteria for all pressure equipment

SANS 10227: Criteria for the operation of inspection authorities performing inspections in terms of the Pressure Equipment Regulations

SANS 10019: Transportable metal containers for compressed gas – Basic design, manufacture, use and maintenance

SANS 1475 – 1: The production of reconditioned fire-fighting equipment – Part 1: Portable and wheeled (mobile) rechargeable fire extinguishers

SANS 10087: The handling, storage, distribution and maintenance of liquefied petroleum gas in domestic, commercial and industrial installations:

Part 1: Liquefied petroleum gas installations involving gas storage containers of individual water capacity not exceeding 500 \( \ext{t} and a combined water capacity not exceeding 3 000 \( \ext{t} per installation

Part 2: Installation in mobile units and small non-permanent buildings

Part 3: Liquefied petroleum gas installations involving storage vessels of individual water capacity exceeding 500  $\ell$ 

Part 4: Transportation of LPG in bulk by road

Part 6: The application of liquefied petroleum and compressed natural gases as engine fuels for internal combustion engines

Part 7: Storage and filling sites for refillable liquefied petroleum gas (LPG) containers of capacity not exceeding 9 kg

Part 8: The fuelling of fork-lift trucks and other LP gas operated vehicles

Part 10: Mobile filling stations for refillable liquefied petroleum gas (LPG) containers of capacity not exceeding 9 kg.

SANS 10147: Refrigeration systems including plants associated with airconditioning systems

SANS 1539: Appliances operating on liquefied petroleum gas — Portable and mobile appliances — Safety aspects

SANS 1237: Single-stage low-pressure regulators for liquefied petroleum gas (LPG)

SANS 329: Industrial thermal processing equipment – Safety requirements for combustion and fuel-handling systems

SANS 10105 – 1: The use and control of fire-fighting equipment – Part 1: Portable and wheeled (mobile) fire extinguishers

SANS 1910: Portable refillable fire extinguishers

SANS 1567: Portable rechargeable fire extinguishers – CO<sub>2</sub> type extinguishers

Printed by and obtainable from the Government Printer, Bosman Street, Private Bag X85, Pretoria, 0001
Publications: Tel: (012) 334-4508, 334-4510

Publications: Tel: (012) 334-4508, 334-4509, 334-4510 Advertisements: Tel: (012) 334-4673, 334-4674, 334-4504 Subscriptions: Tel: (012) 334-4735, 334-4736, 334-4737

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Gedruk deur en verkrygbaar by die Staatsdrukker, Bosmanstraat, Privaatsak X85, Pretoria, 0001 Publikasies: Tel: (012) 334-4508, 334-4509, 334-4510

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