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## GOVERNMENT NOTICES GOEWERMENSKENNISGEWINGS

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### DEPARTMENT OF LABOUR DEPARTEMENT VAN ARBEID

No. R. 1591

4 October 1996

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993

#### VESSELS UNDER PRESSURE 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, made the regulations in the Schedule.

## SCHEDULE

### Definitions

1. In these regulations "the Act" means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), and any expression to which a meaning has been assigned in the Act shall have the meaning so assigned and, unless the context indicates otherwise -

"boiler" means any apparatus to convert continuously any liquid into steam, vapour or gas at a pressure higher than that due to the atmosphere and where the heat is derived from a source other than steam or the ambient temperature of the atmosphere, and includes any superheater or economiser which is an integral part of a boiler or is separately fired therefrom, but does not include such an apparatus, superheater or economiser in which the product of the design pressure in pascal and the volume in cubic metres is less than the figure 15 000;

"design pressure" means the pressure used in the design formulae to determine the dimensions of the component parts of a vessel under pressure;

"flammable liquid" means any liquid which produces a vapour that forms an explosive mixture with air, and includes any liquid with a closed-cup flash-point of less than 55 °C;

"gas fuel" means any liquefied petroleum gas, coal produced gas or natural gas;

"gas fuel system" means an assembly of tubes, pipes or similar ducts, fittings and valves for the process and conveyance of a gas fuel, excluding a boiler, pressure vessel or portable gas container connected to the system;

"gauge pressure" means the pressure in excess of that due to the atmospheric pressure;

"hand-held fire extinguisher" means a rechargeable container which has a fire extinguishing substance that is expelled by the action of internal pressure for the purposes of extinguishing a fire;

"hazardous chemical substance" means a substance defined as such in regulation 1 of the Regulations for Hazardous Chemical Substances published under Government Notice No. R. 1179 of 25 August 1995;

"maximum permissible operating pressure" means the maximum gauge pressure at which a vessel under pressure may be operated;

"modification" means any change from the original design criterion of the vessel under pressure and "modify" has a corresponding meaning;

"portable gas container" means any cylinder or other vessel of which the water capacity by volume is at least 0,5 litres, but does not exceed 1200 litres and which is intended for the storage and conveyance of compressed, liquefied or dissolved gases;

“pressure vessel” means any vessel of which the interior or jacket is under pressure or in which a cushion of gas or vapour can form above the liquid at a pressure in excess of that of the atmosphere, including a diving bell, but does not include -

- (a) a boiler;
- (b) a vessel in which the pressure is exerted by a liquid the temperature of which does not exceed the boiling point of the liquid at atmospheric pressure and in which a cushion of gas or vapour cannot form above the liquid;
- (c) the working cylinders or chambers of a steam, heat or air engine;
- (d) a vessel under pressure which forms an integral operating part of a motor vehicle or locomotive running on railway lines;
- (e) a portable gas container;
- (f) a pressurised system;
- (g) a vessel of which the product of the design pressure in pascal and the capacity in cubic metres is less than the figure 15 000;
- (h) a vessel of which the design pressure is less than 40 000 pascal gauge pressure;
- (i) a vessel with a nominal internal diameter of less than 150 mm; or
- (j) a hand-held fire extinguisher;

“pressurised system” means an assembly of vessels under pressure and includes connections by pipes or similar ducts, fittings and valves which operate under gauge pressure equal to or greater than 40 000 pascal for the process and conveyance of a flammable liquid, hazardous chemical substance, saturated steam or superheated steam;

“provincial director” means the provincial director as contemplated in regulation 1 of the General Administrative Regulations published under Government Notice No. R. 1449 of 6 September 1996, as amended;

“repair” means a repair to any part subjected to pressure from a vessel under pressure that requires the application of heat or welding, or the replacement of more than 20% of expanded tubes in a boiler or pressure vessel at any one time and “repairing” has a corresponding meaning;

“SABS 1475” means the Standard Specification for the Production of Reconditioned Fire-fighting Equipment, SABS 1475, Part 1: Portable Fire Extinguishers, published by the South African Bureau of Standards (SABS);

“SABS 0227” means the Code of Practice for The Evaluation of the Technical Competence of Inspection Authorities for the Certification of Vessels under Pressure, SABS 0227, published by the South African Bureau of Standards (SABS); and

“vessel under pressure” means a vessel which operates under pressure and includes a boiler, pressure vessel, pressurised system or portable gas container.

### Scope of application

2. These regulations shall apply to all users of vessels under pressure: Provided that regulation 3 shall not apply to a boiler, pressure vessel or portable gas container in use prior to 23 October 1992, and which was designed, constructed and manufactured in accordance with regulations in force at that time.

### Design, construction and manufacture

3. (1) Subject to the provisions of subregulation (2), no user shall use, require or permit the use of any vessel under pressure unless -
  - (a) it has been designed and constructed in accordance with a health and safety standard incorporated into these regulations in terms of section 44 of the Act;
  - (b) it has been manufactured under the supervision of an approved inspection authority as contemplated in regulation 17(1)(a) or any other inspection authority outside the Republic recognised by the chief inspector; and
  - (c) the user is in possession of a certificate of manufacture issued by the manufacturer in which it is certified that the boiler, pressure vessel or portable gas container has been designed, constructed and tested in every respect in accordance with the standard contemplated in subregulation (1)(a): Provided that such a certificate shall be countersigned by the approved inspection authority as evidence that the design of such a boiler, pressure vessel or portable gas container has been verified and that it has been constructed and tested under their supervision in accordance with the said standard.

(2) The certificate required by subregulation (1)(c) in the case of a pressure vessel or portable gas container may refer to more than one pressure vessel or portable gas container: Provided that each pressure vessel or portable gas container has the same design pressure and dimensions, and that the product of the design pressure in pascal and the volume in cubic metres of that vessel does not exceed the figure 500 000.

### Manufacturer's data plate

4. (1) Every user of a boiler or pressure vessel shall cause a manufacturer's plate with the following minimum particulars to be securely fixed in a conspicuous place to the shell of every such boiler or pressure vessel:
  - (a) Name of manufacturer;
  - (b) country or origin;
  - (c) year of manufacture;
  - (d) manufacturer's serial number;

- (e) name, number and date of the standard of design;
  - (f) design gauge pressure in pascal;
  - (g) maximum permissible operating pressure in pascal;
  - (h) operating temperature;
  - (i) capacity in cubic metres; and
  - (j) mark of an approved inspection authority.
- (2) No person shall remove such a manufacturer's plate or wilfully damage or alter the particulars stamped thereon, except as provided in regulation 16 (4).

#### Registration of a boiler

5. (1) No user shall use a boiler unless the user is in possession of a certificate of registration issued in terms of subregulation (3) for that boiler: Provided that a boiler registered with the Department prior to 23 October 1992 shall be deemed to be registered in terms of this regulation: Provided further that a boiler registered after 23 October 1992 shall on change of ownership be required to be reregistered.  
(2) Any user who wishes to use a boiler shall apply to the provincial director for registration of that boiler on a form similar to Annexure 1, prior to such use: Provided that this subregulation shall not apply in respect of the re-erection of a boiler on the same premises.  
(3) On receipt of an application contemplated in subregulation (2), the provincial director shall forward such an application to an inspector who may issue a certificate of registration in the form of Part C of Annexure 1 in respect of that boiler, subject to such conditions as may be specified on the certificate.  
(4) Any user of a boiler for which a certificate of registration has been issued in terms of subregulation (3) or a certificate issued by the Department prior to 23 October 1992, shall cause the certificate of registration to be made available for inspection by an inspector or on request by an approved inspection authority or a competent person.  
(5) The user shall within seven days after the discovery that the certificate of registration has been lost, defaced, destroyed or any such an occurrence, apply to the provincial director in the form similar to Part A of Annexure 1 for the issue of a duplicate certificate, and affix R100 in the form of uncancelled revenue stamps to such an application. On receipt of such application the provincial director shall submit the application to an inspector who shall issue the duplicate certificate on satisfaction that the original certificate was lost, defaced or destroyed.  
(6) An inspector may at any time amend, suspend or cancel a certificate of registration issued in terms of subregulation (3).

(7) Any user of a boiler shall forthwith notify the provincial director in writing when -

- (a) such boiler is no longer in use;
- (b) the right of control over the use of the boiler is transferred by the user to any other user, in which case the user shall also furnish the provincial director with the name and address of such new user; or
- (c) the user moves the boiler 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) when it is cancelled by an inspector;
- (b) upon the transfer of the right of control over the use of the boiler to another user; or
- (c) when a boiler is removed from the premises reflected on its certificate of registration.

#### Appurtenances

- 6 (1) No user shall require or permit a vessel under pressure to be used unless it is provided with all the appurtenances as required by the health and safety standard used in the design, construction and manufacture of such a vessel under pressure: Provided that alternative appurtenances other than those required by the standard shall only be fitted with the written approval of an approved inspection authority.
- (2) In the absence of such a requirement in the health and safety standard used in the design, construction and manufacture of such a vessel under pressure, appurtenances shall be provided by the user as required by the approved inspection authority and those appurtenances shall be so selected, arranged and installed as to be safe for the particular purpose for which the vessel under pressure is to be used.
- (3) Every user of a boiler or pressure vessel shall ensure that the boiler or pressure vessel in use is fitted with at least one pressure gauge and the maximum permissible operating pressure shall be clearly marked with a red line on the dial of the pressure gauge.
- (4) Every user of a boiler or pressure vessel shall ensure that the boiler or pressure vessel in use is fitted with at least one safety valve and such safety valve shall be kept locked, sealed or otherwise rendered inaccessible to any unauthorised person: Provided that the number and capacity of the safety valve shall be to the requirements of the design standard for the boiler or pressure vessel or as required under subregulation (2).

## Automatic controls and indicators

7. Every user shall ensure that the automatic controls and indicators of a boiler, pressure vessel or pressurised system are arranged, installed, maintained and operated in accordance with the provisions of the health and safety standard used in the design and manufacture of the boiler, pressure vessel or pressurised 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.

## Access

8. The user shall cause every boiler, pressure vessel or pressurised system to be erected in such a manner that access to and exit from any chamber, flue, manhole, inspection opening, control or appurtenance is safe and unobstructed.

## Door interlocks

9. Any user of a pressure vessel or pressurised system shall cause such vessel or system which for operational purposes is equipped with a removable or hinged door to be provided with an interlock or other effective means for preventing -

- (a) a rise of pressure inside the pressure vessel or pressurised system before the removable or hinged door is in the fully closed and locked position; and
- (b) the release of the removable or hinged door from the locked and closed position before the pressure inside the pressure vessel or pressurised system has been reduced to atmospheric pressure.

## Portable gas containers

10. No user shall use or require or permit a portable gas container to be used, and no user shall fill, place in service, handle, modify, repair, inspect or test any portable gas container, other than in compliance with the standards incorporated into these regulations in terms of section 44 of the Act.

## Hand-held fire extinguishers

11. (1) No user shall use, require or permit the use of a hand-held fire extinguisher unless designed, constructed, filled, recharged, reconditioned, modified, repaired, inspected or tested in accordance with a safety standard incorporated into these regulations in terms of section 44 of the Act.  
  
(2) No person shall fill, recharge, recondition, modify, repair, inspect or test any hand-held fire extinguisher unless a holder of a permit issued by the South African Bureau of Standards in terms of SABS 1475.

## Gas fuel use, equipment and systems

12. (1) No person shall handle, store or distribute a gas fuel in any manner, including the filling of a container, other than in accordance with a health and safety standard incorporated into these regulations under section 44 of the Act.
  - (2) No person shall install a fixed appliance, equipment or system for gas fuel in any manner other than in accordance with a safety standard incorporated into these regulations under section 44 of the Act:
  - (3) No person shall install a fixed appliance, equipment or system for gas fuel as contemplated in subregulation (2), unless such person is a holder of a certificate of registration issued by an organisation approved by the chief inspector: Provided that subregulations (2) and (3) shall come into effect on 1 August 1997.

## Inspection and test

13. (1) Any user of a boiler or pressure vessel shall cause, where reasonably practicable, such a boiler or pressure vessel, including the appurtenances and automatic controls and indicators, to be subjected to an internal and external inspection and a hydraulic pressure test to 1,25 times the maximum permissible operating pressure as the case may be—
  - (a) by an approved inspection authority before commissioning after installation, re-erection or repairs; and
  - (b) by a person or a firm appointed in writing by the user and who is competent to do such inspections and tests by virtue of their training, knowledge and experience in the operation, maintenance, inspection and testing of a boiler or pressure vessel within 36 months from the date of the previous internal and external inspection and hydraulic pressure test: Provided that where a pressure vessel is not subjected to corrosion, the user may dispense with the internal inspection and hydraulic pressure test subject to the written approval of an approved inspection authority: Provided further that an inspector may require a specific boiler or pressure vessel to be inspected or tested more frequently or permit a specific boiler or pressure vessel to be inspected or tested less frequently.
- (2) Any user of a pressurised system shall, where reasonably practicable, cause such pressurised system to be subjected to an inspection and hydraulic test by an approved inspection authority before commissioning, after installation or re-erection.
- (3) Any user of a gas fuel system shall, where reasonably practicable, cause the system to be subjected to an inspection and hydraulic test by a registered person in terms of regulation 12 (3), before commissioning, after installation or re-erection.
- (4) Where it is impracticable to use a liquid for the hydraulic pressure test contemplated in subregulation (1), (2) or (3), the test may, subject to the prior written approval of an approved inspection authority, be carried out with a non-flammable gas to a pressure of

1,1 times the maximum permissible operating pressure: Provided that, where reasonably practicable, the test must be preceded by an internal inspection and on such further conditions and precautionary measures as determined by the approved inspection authority.

(5) Where an inspection or test carried out in terms of subregulation (1), (2), (3) or (4) reveals any weakness or defect whereby the safety of persons may be endangered, the weakness or defect shall be reported immediately to the user by the person carrying out the inspection or test and the user shall forthwith cease the use of the boiler, pressure vessel, pressurised system or gas fuel system until such weakness or defect has been rectified to the satisfaction of the approved inspection authority concerned or the person who carried out the inspection, as the case may be.

#### Record keeping

14. Any user of a vessel under pressure shall keep on the premises a record, which shall be open for inspection by an inspector and in which the results of all inspections, tests, modifications and repairs shall be recorded, dated and signed by the competent person.

#### Maintenance

15. (1) No user shall use, cause or permit a vessel under pressure or gas fuel system, including all automatic controls, indicators and appurtenances, to be used unless it is at all times maintained in a safe working condition and the efficiency thereof is proved by regular testing.
- (2) No user shall use, cause or permit a vessel under pressure to be used unless it is kept clean and free from any -
- (a) carbonised oil or other flammable material which may ignite;
  - (b) substance which may cause corrosion; or
  - (c) substance which is liable to chemical reaction which may cause an uncontrolled rise in pressure.

#### Modification and repair

16. (1) Any person who intends to modify or repair a boiler, pressure vessel or portable gas container shall cause such modification or repair to be carried out under the supervision of an approved inspection authority, as contemplated in regulation 17(1)(b).
- (2) Any modifier or repairer carrying out any modification or repair, as contemplated in subregulation (1), shall issue a certificate in which the extent of the modification or repair is described and certify that such work is in accordance with a health and safety standard incorporated into these regulations: Provided that such certificate shall be countersigned by the approved inspection authority as evidence that the design of such modification or repair has been verified and that it has been modified or repaired and tested under their supervision in accordance with the said health and safety standard.

(3) Whenever it appears from an inspection or test that a boiler or pressure vessel cannot be used with safety at its maximum permissible operating pressure and the user declines to have the necessary renewals or repairs effected, the user shall ensure that -

- (a) an approved inspection authority fixes a new reduced maximum permissible operating pressure; and
- (b) that the boiler or pressure vessel is not used at a pressure higher than the new reduced pressure.

(4) The user shall cause the reduced maximum permissible operating pressure as calculated under subregulation (3)(a) to be marked on the manufacturer's plate on which the approved inspection authority shall also place its mark and no user shall thereafter require or permit such a boiler or pressure vessel to be used at a pressure higher than such a reduced pressure: Provided that in the case of a boiler the registration certificate together with a copy of the approved inspection authority's report shall be forwarded to the provincial director for correction.

#### Approved inspection authorities

17. (1) The chief inspector may approve any organisation that has been accredited in terms of -
- (a) SABS 0227 Part 1 to perform the functions regarding the certification of new vessels under pressure, inspections and testing; or
  - (b) SABS 0227 Part 2 to perform the functions regarding the certification of modified or repaired vessels under pressure, inspections and testing, as an approved inspection authority.
- (2) Application for approval for an organisation as contemplated in subregulation (1), must be accompanied by a valid certificate issued by the South African Bureau of Standards in terms of SABS 0227 Part 1 and or Part 2.
- (3) The chief inspector may at any time withdraw any approval of an approved inspection authority, subject to the provisions of section 35 of the Act.

#### Offences and penalties

18. Any person who contravenes or fails to comply with the provisions of regulation 3(1), 4, 5(1), 5(2), 5(4), 5(5), 5(7), 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 or 16 shall be guilty of an offence and is on conviction liable to a fine or to imprisonment for a period not exceeding twelve months and, in the case of a continuous offence, to an additional fine of R200 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 does not exceed 90 days.

#### Repeal of regulations and annexures

19. The following regulations, notices and annexures are hereby repealed:

- (a) Notice of the incorporation of the safety standard published under Government Notice No. R. 2357, dated 25 November 1988;

(b) Vessels under Pressure Regulations, 1992, Annexure 1 and the schedule published under Government Notice No. R. 2919, dated 23 October 1992; and

(c) Correction notice published under Government Notice No. R. 78 dated 22 January 1993.

**Short title**

**20. These regulations shall be called the Vessels Under Pressure Regulations, 1996.**

**ANNEXURE 1**  
**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993**  
**[Regulation 5 (2) of the Vessels under Pressure Regulations]**

**REGISTRATION OF A BOILER**

**A. APPLICATION FOR REGISTRATION OF A BOILER/DUPLICATE CERTIFICATE**

To: Provincial Director  
Department of Labour

.....  
.....  
.....

From: (Postal address)  
.....  
.....  
.....

Tel. ....  
Fax. ....

I (user) (legal persona) ..... hereby apply for registration/duplicate registration certificate of a boiler, particulars of which are reflected in Part B below.

.....  
Signature of applicant

.....  
Date

.....  
Name of Applicant (In Block Letters)

.....  
Designation of applicant

**B. PARTICULARS OF BOILER**

1. Physical address of installation .....
2. Type of boiler .....
3. Name of manufacturer .....
4. Country of origin .....
5. Year of manufacture .....
6. Manufacturer's serial number .....
7. Name, number and date of the standard of design .....
8. Design gauge pressure in pascal .....
9. Maximum permissible operating pressure in pascal .....
10. Operating temperature .....
11. Source of energy (oil, coal, gas, electricity or nuclear) .....
12. Steaming capacity of boiler..... kg of steam per hour from and at 100 °C
13. Name of approved inspection authority (during manufacture) .....
14. Copy of manufacturer's certificate shall be attached .....
15. Copy of approved inspection authority's commissioning report shall be attached .....

**FOR OFFICIAL USE ONLY**

**C. BOILER REGISTRATION CERTIFICATE**

The boiler of which the particulars appear above in Part B has this day ..... been registered with the official number ..... Permission is hereby granted to use the boiler at a maximum permissible operating pressure of ..... kPa.

OFFICIAL STAMP

.....  
SIGNATURE OF INSPECTOR

**ISSUE OF DUPLICATE BOILER REGISTRATION CERTIFICATE**

REVENUE STAMPS FOR  
DUPLICATE CERTIFICATE

Date .....

.....  
SIGNATURE OF INSPECTOR

Consult regulation 5 (5) for fee payable for a duplicate boiler registration certificate.

No. R. 1591

4 Oktober 1996

**WET OP BEROEPSGESONDHEID EN VEILIGHEID, 1993****REGULASIES VIR HOUERS ONDER DRUK**

Die Minister van Arbeid het kragtens artikel 43 van die Wet op Beroepsgesondheid en Veiligheid, 1993 (Wet No. 85 van 1993), na oorleg met die Adviesraad vir Beroepsgesondheid en Veiligheid, die regulasies in die Bylae gemaak.

**BYLAE****Woordomskrywings**

1. In hierdie regulasies beteken "die Wet" die Wet op Beroepsgesondheid en Veiligheid, 1993 (Wet No. 85 van 1993), en het enige woord of uitdrukking waaraan in die Wet 'n betekenis geheg is, daardie betekenis aldus daaraan geheg, en tensy uit die samehang anders blyk, beteken -

"drukhouer" enige houer waarvan die binnewand of omhulsel onder druk is of waarin 'n gas- of dampkussing bo die vloeistof kan vorm, met 'n druk groter as die van die atmosfeer, asook 'n duikklok, maar sluit nie in nie -

- (a) 'n stoomketel;
- (b) 'n houer waarin die druk uitgeoefen word deur 'n vloeistof waarvan die temperatuur nie hoër as die kookpunt van die vloeistof by atmosferiese druk is nie en waarin 'n kussing van gas of damp nie bo die vloeistof kan vorm nie;
- (c) die werkende silinders of kamers van 'n stoom-, hitte- of lugjenjin;
- (d) 'n houer onder druk wat 'n integrale werkende deel van 'n motorvoertuig is of van 'n lokomotief wat op 'n treinspoor loop;
- (e) 'n verplaasbare gashouer;
- (f) 'n drukvaste stelsel;
- (g) 'n houer waarvan die produk van die ontwerpdruck in pascal en die kapasiteit in kubieke meter laer is as die syfer 15 000;
- (h) 'n houer waarvan die ontwerpdruck laer as 40 000 pascal meterdruck is;
- (i) 'n houer met 'n nominale binnedeursnee van minder as 150 mm; of
- (j) 'n handgedraagde brandblusser;

“drukvaste stelsel” ‘n samestelling van houers onder druk en sluit in verbindings met pype of soortgelyke kanale, onderdele en kleppe wat onder meterdruk gelykstaande aan of hoër as 40 000 pascal werk vir die proses en vervoer van ‘n vlambare vloeistof, gevaaarlike chemiese substansie, versadigde stoom of oorverhitte stoom;

“gas brandstof” enige vloeibare petroleumgas, steenkool-vervaardigde gas of aardgas.

“gas brandstofstelsel” ‘n samestelling van buise, pype of soortgelyke kanale, onderdele en kleppe vir die proses en vervoer van ‘n gas brandstof, uitgesluit ‘n stoomketel, drukhouer of verplaasbare gashouer wat aan die stelsel verbind is;

“gevaarlike chemiese substansie” ‘n substansie soos bedoel in regulasie 1 van die Regulasies vir Gevaarlike Chemiese Substansies, afgekondig by Goewermentskennisgewing No. R. 1179 van 25 Augustus 1995;

“handgedraagde brandblusser” ‘n hervulbare houer met ‘n brandblussingssubstansie wat deur die aksie van interne druk uitgedryf word vir die doel om ‘n brand te blus;

“herstelwerk” herstelwerk aan enige deel onderhewig aan druk van ‘n houer onder druk wat die aanwending van hitte of sweiswerk, of die vervanging te eniger tyd van meer as 20 % van gerolseëld buise in ‘n stoomketel of drukhouer vereis en “herstel” het ‘n ooreenkomstige betekenis;

“houer onder druk” ‘n houer wat onder druk werk en sluit ‘n stoomketel, drukhouer, drukvaste stelsel of verplaasbare gashouer in;

“maksimum toelaatbare werkdruck” die maksimum meterdruk waarby ‘n houer onder druk bedryf mag word;

“meterdruk” die druk hoër as die van atmosferiese druk;

“modifikasie” enige verandering aan ‘n houer onder druk wat awyk van die oorspronklike ontwerpkrterium en “modifiseer” het ‘n ooreenstemmende betekenis;

“ontwerpdruck” die druk gebruik in die ontwerpformules om die afmetings van die samestellende dele van ‘n houer onder druk te bepaal;

“provinsiale direkteur” die provinsiale direkteur soos bedoel in regulasie 1 van die Algemene Administratiewe Regulasies afgekondig by Goewermentskennisgewing No. R. 1449 van 6 September 1996, soos gewysig;

“SABS 1475” die Standaardspesifikasie vir die Produksie van Vernude Brandbestrydings-uitrusting, SABS 1475, Deel 1: Draagbare Brandbluskers, gepubliseer deur die Suid-Afrikaanse Buro vir Standaarde (SABS);

“SABS 0227” die Gebruikskode vir die Evaluering van die Tegniese Bevoegdheid van Inspeksie-owerheid vir die Sertifisering van Houers onder Druk, SABS 0227, gepubliseer deur die Suid-Afrikaanse Buro vir Standaarde (SABS);

“stoomketel” enige toestel wat ononderbroke enige vloeistof in stoom, damp of gas omskep teen ‘n druk hoër as atmosferiese druk en waar die hitte verkry word van enige bron behalwe stoom of die omgewings-temperatuur van die atmosfeer en sluit in enige

oorverhitter of bespaarder wat 'n integrale deel van 'n stoomketel uitmaak of afsonderlik daarvan gevuur word; maar sluit nie in nie sodanige toestel, oorverhitter of bespaarder waarin die produk van die ontwerpdruck in pascal en die volume in kubieke meter minder as die syfer 15 000 is;

"verplaasbare gashouer" enige silinder of ander houer waarvan die waterkapasiteit volgens volume ten minste 0,5 liter is maar wat nie 1 200 liter oorskry nie, en wat bedoel is vir die stoor en vervoer van saamgeperste, vloeibaargemaakte of opgeloste gasse; en

"vlambare vloeistof" enige vloeistof wat damp veroorsaak wat met lug 'n ontplofbare mengsel vorm en sluit in enige vloeistof met 'n gesloten-bakkie-flitspunt van minder as 55 °C.

#### Toepassingsbestek

2. Hierdie regulasies sal van toepassing wees op alle gebruikers van houers onder druk: Met dien verstande dat regulasie 3 nie van toepassing sal wees nie op 'n stoomketel, drukhouer of verplaasbare gashouer wat voor 23 Oktober 1992 in gebruik was en wat in oorstemming met die regulasies van daardie tyd ontwerp, gebou en vervaardig is.

#### Ontwerp, konstruksie en vervaardiging

3. (1) Onderhewig aan die bepalings van subregulasie (2), mag geen gebruiker 'n houer onder druk gebruik, vereis of toelaat dat dit gebruik word nie tensy -
  - (a) dit ontwerp en vervaardig is ooreenkomsdig 'n gesondheids- en veiligheidstandaard wat by hierdie regulasies ingelyf is kragtens artikel 44 van die Wet;
  - (b) dit vervaardig is onder toesig van 'n goedgekeurde inspeksie-owerheid soos bedoel in regulasie 17(1)(a) of enige ander inspeksie-owerheid buite die Republiek wat deur die hoofinspekteur erken word; en
  - (c) die gebruiker in besit is van 'n sertifikaat van vervaardiging uitgereik deur die vervaardiger waarin gesertifiseer word dat die stoomketel, drukhouer of verplaasbare gashouer in alle opsigte ontwerp, vervaardig en getoets is ooreenkomsdig die standaard bedoel in subregulasie (1)(a): Met dien verstande dat sodanige sertifikaat deur die goedgekeurde inspeskie-owerheid mede-ondersteken moet wees as getuenis dat die ontwerp van sodanige stoomketel, drukhouer of verplaasbare gashouer geverifieer is en dat dit onder hul toesig vervaardig en getoets is ooreenkomsdig die genoemde standaard.

- (2) Die sertifikaat vereis by subregulasie (1)(c) in die geval van 'n drukhouer of verplaasbare gashouer kan verwys na meer as een drukhouer of verplaasbare gashouer: Met dien verstande dat elke drukhouer of verplaasbare gashouer dieselfde ontwerpdruck en afmetings het, en dat die produk van die ontwerpdruck in pascal en die volume in kubieke meter van daardie houer nie die syfer 500 000 oorskry nie.

### Vervaardiger se dataplaat

4. (1) Elke gebruiker van 'n stoomketel of drukhouer moet toesien dat 'n vervaardigersplaat met die onderstaande minimum besonderhede daarop op 'n opvallende plek stewig op die romp van elke sodanige stoomketel of drukhouer aangebring word:

- (a) Naam van vervaardiger;
- (b) land van oorsprong;
- (c) jaar van vervaardiging;
- (d) vervaardiger se reeksnommer;
- (e) naam, nommer en datum van die ontwerpstandaard;
- (f) ontwerpmetterdruk in pascal;
- (g) maksimum toelaatbare werksdruk in pascal;
- (h) bedryfstemperatuur;
- (i) kapasiteit in kubieke meter; en
- (j) identifikasiemerk van 'n goedgekeurde inspeskie-owerheid.

(2) Niemand mag sodanige vervaardigersplaat verwijder of die besonderhede daarop aangebring, opsetlik beskadig of verander nie, behalwe soos in regulasie 16 (4) voorsien.

### Registrasie van 'n stoomketel

5. (1) Geen gebruiker mag 'n stoomketel gebruik nie tensy die gebruiker in besit is van 'n registrasiesertifikaat uitgereik ingevolge subregulasie (3) ten opsigte van daardie stoomketel : Met dien verstande dat 'n stoomketel wat voor 23 Oktober 1992 by die Departement geregistreer is, ingevolge hierdie regulasie as geregistreerd geag sal word: Met dien verstande voorts dat 'n stoomketel geregistreer na 23 Oktober 1992 met verandering van eienaar weer geregistreer moet word.

(2) Enige gebruiker wat 'n stoomketel wil gebruik moet op 'n vorm soortgelyk aan Aanhangsel 1, by die provinsiale direkteur aansoek doen om registrasie voor sodanige gebruik: Met dien verstande dat hierdie subregulasie nie van toepassing is op die heroprigting van 'n stoomketel op dieselfde perseel nie.

(3) By ontvangs van 'n aansoek beoog in subregulasie (2), moet die provinsiale direkteur sodanige aansoek deurstuur na 'n inspekteur wie 'n registrasiesertifikaat soortgelyk aan Deel C van die Aanhangsel 1 ten opsigte van daardie stoomketel mag uitreik, onderhewig aan sodanige voorwaardes as wat op die sertifikaat bepaal mag wees.

(4) Enige gebruiker van 'n stoomketel ten opsigte waarvan 'n registrasiesertifikaat ingevolge subregulasie (3) of 'n sertifikaat wat deur die Departement voor 23 Oktober 1992 uitgereik is, moet toesien dat die registrasiesertifikaat beskikbaar is vir inspeksie

deur 'n inspekteur of op aanvraag deur 'n goedgekeurde inspeksie-owerheid of bevoegde persoon.

(5) Die gebruiker sal binne sewe dae nadat dit aan die lig gekom het dat die registrasiesertifikaat verlore, geskend, vernietig is of enige soortgelyke gebeurtenis, by die provinsiale direkteur aansoek doen op 'n vorm soortgelyk aan Deel A van Aanhangsel 1 vir die uitreiking van 'n duplikaatsertifikaat, en R100 se onkanselleerde belastingseëls aan sodanige aansoek heg. By ontvangs van sodanige aansoek moet die provinsiale direkteur die aansoek deurstuur aan 'n inspekteur wat die duplikaatsertifikaat moet uitrek by bevestiging dat die oorspronklike sertifikaat verlore, geskend of vernietig is.

(6) 'n Inspekteur kan te eniger tyd 'n registrasiesertifikaat wat uitgereik is ingevolge subregulasie (3), aanpas, opskort of kanselleer.

(7) Enige gebruiker van 'n stoomketel moet onverwyld die provinsiale direkteur skriftelik in kennis stel sodra -

(a) sodanige stoomketel nie meer gebruik word nie;

(b) die reg van beheer oor die gebruik van die stoomketel oorgedra is aan 'n ander gebruiker, in welke geval die gebruiker ook die provinsiale direkteur moet voorsien van die naam en adres van sodanige nuwe gebruiker; of

(c) die gebruiker die stoomketel verskuif na 'n ander perseel as die perseel vermeld op die registrasiesertifikaat.

(8) 'n Registrasiesertifikaat uitgereik ingevolge subregulasie (3) verval -

(a) as dit deur 'n inspekteur gekanselleer word;

(b) by die oordrag van die reg van beheer oor die gebruik van 'n stoomketel aan 'n ander gebruiker; of

(c) wanneer 'n stoomketel verwyder word van die perseel vermeld op die registrasiesertifikaat.

#### Toebehore

6. (1) Geen gebruiker mag vereis of toelaat dat 'n houer onder druk gebruik word nie tensy dit voorsien is van alle toebehore soos vereis in die gesondheids- en veiligheidstandaard vir die ontwerp, konstruksie en vervaardiging van sodanige houer onder druk: Met dien verstaande dat alternatiewe toebehore anders as die wat deur die standaard vereis word, slegs aangebring mag word met die skriftelike goedkeuring van 'n goedgekeurde inspeksie-owerheid.

(2) By afwesigheid van sodanige vereiste in die gesondheids- en veiligheidstandaard gebruik in die ontwerp, konstruksie en vervaardiging van sodanige houer onder druk, moet toebehore deur die gebruiker voorsien word soos deur die goedgekeurde inspeksie-owerheid vereis en daardie toebehore moet so geselekteer, gerangskik en geïnstalleer word dat dit veilig is vir die besondere doel waarvoor die houer onder druk gebruik sal word.

- (3) Elke gebruiker van 'n stoomketel of drukhouer moet toesien dat die stoomketel of drukhouer in gebruik, voorsien is van minstens een drukmeter en die maksimum toelaatbare werksdruk moet duidelik met 'n rooi streep op die wyserplaat van die drukmeter aangedui word.
- (4) Elke gebruiker van 'n stoomketel of drukhouer moet toesien dat die stoomketel of drukhouer in gebruik, voorsien is van minstens een veiligheidsklep en sodanige veiligheidsklep moet gesluit, verseël of andersins ontoeganklik gemaak word vir enige ongemagtigde persoon: Met dien verstande dat die nommer en kapasiteit van die veiligheidsklep aan die ontwerpstandaard vir daardie stoomketel of drukhouer voldoen of soos vereis by subregulasie (2).

#### **Outomatiese kontroles en aanwysers**

7. Elke gebruiker moet toesien dat die outomatiese kontroles en meters van 'n stoomketel, drukhouer of drukvaste stelsel ooreenkomsdig die bepalings van die gesondheids- en veiligheidstandaard gebruik by die ontwerp en vervaardiging van die stoomketel, drukhouer of drukvaste stelsel gerangskik, geïnstalleer, in stand gehou en bedryf is: Met dien verstande dat by afwesigheid van sodanige bepalings, waar outomatiese kontroles en aanwysers geïnstalleer word, hulle behoudens die skriftelike goedkeuring van 'n goedgekeurde inspeksie-owerheid geselekteer, gerangskik en geïnstalleer word.

#### **Toegang**

8. Die gebruiker moet toesien dat elke stoomketel, drukhouer of drukvaste stelsel so opgerig is dat die toegang daartoe en uitgang van enige kamer, gang, mangat, inspeksie-opening, kontrole of toebehore veilig en onbelemmerd is.

#### **Deurvergrendeling**

9. Enige gebruiker van 'n drukhouer of drukvaste stelsel moet toesien dat sodanige houer of stelsel wat vir bedryfsdoeleindes met 'n verwyderbare of geskarnierde deur toegerus is, voorsien is van grendeling of ander doelmatige wyse om te voorkom dat -
- (a) die druk binne die drukhouer of drukvaste stelsel styg voordat die verwyderbare of geskarnierde deur heeltemal toe en gesluit is; en
  - (b) die verwyderbare of geskarnierde deur oopgemaak of oopgesluit word voordat die druk binne die drukhouer of drukvaste stelsel tot atmosferiese druk verminder is.

#### **Verplaasbare gashouers**

10. Geen gebruiker mag 'n verplaasbare gashouer gebruik, vereis of toelaat dat dit gebruik word, en geen gebruiker mag 'n verplaasbare gashouer vul, in diens stel, hanteer, wysig, herstel, ondersoek of toets nie anders as ooreenkomsdig die standarde ingelyf in hierdie regulasies kragtens artikel 44 van die Wet.

## Handgedraagde brandblusser

11. (1) Geen gebruiker mag 'n handgedraagde brandblusser gebruik, vereis of toelaat dat dit gebruik word nie, tensy sodanige brandblusser ontwerp, gebou, gevul, hervul, opgeknap, gewysig, herstel, ondersoek of getoets is in ooreenstemming met 'n gesondheids- en veiligheidstandaard ingelyf by hierdie regulasies ingevolge artikel 44 van die Wet.
- (2) Geen persoon mag enige handgedraagde brandblusser vul, hervul, opknап, wysig, herstel, ondersoek of toets tensy sodanige persoon in besit is van 'n permit uitgereik deur die Suid-Afrikaanse Buro vir Standaarde ingevolge SABS 1475.

## Gas brandstof gebruik, toerusting en stelsels

12. (1) Geen persoon mag 'n gas brandstof hanteer, stoor of versprei op enige manier nie, insluitend die vulling van houers, behalwe soos uiteengesit in 'n gesondheids- en veiligheidstandaard wat by hierdie regulasies ingelyf is onder artikel 44 van die Wet.
- (2) Geen persoon mag 'n vasstaande apparaat, toerusting of stelsel vir gas brandstof installeer nie, behalwe soos uiteengesit in 'n gesondheids- en veiligheidstandaard wat by hierdie regulasies ingelyf is onder artikel 44 van die Wet.
- (3) Geen persoon mag 'n vasstaande apparaat, toerusting of stelsel vir gas brandstof installeer soos bedoel in subregulasie (2) nie, tensy sodanige persoon in besit is van 'n registrasiesertifikaat uitgereik deur 'n organisasie wat deur die hoofinspekteur goedgekeur is: Met dien verstande dat subregulasies (2) en (3) eers op 1 Augustus 1997 van krag word.

## Inspeksie en toets

13. (1) Enige gebruiker van 'n stoomketel of drukhouer moet, waar redelikerwys uitvoerbaar, toesien dat sodanige stoomketel of drukhouer, insluitend toebehore en outomatiese kontroles en aanwysers, onderwerp word aan 'n interne en eksterne inspeksie en 'n hidrouliese druktoets tot 1,25 maal die maksimum toelaatbare werksdruk soos van toepassing -
- (a) deur 'n goedgekeurde inspeksie-owerheid voordat dit die eerste keer in bedryf gestel word na installering, heroprigting of herstelwerk; en
- (b) deur 'n persoon of firma wat skriftelik deur die gebruiker aangestel is en wat bevoeg is om sodanige inspeksies en toetse uit te voer uit hoofde van hul opleiding, kennis en ondervinding in die bedryf, instandhouding, ondersoek en toets van 'n stoomketel of drukhouer, binne 36 maande vanaf die datum van die vorige interne en eksterne inspeksie en hidrouliese druktoets: Met dien verstande dat waar 'n drukhouer nie onderwerp word aan korrosie nie, die gebruiker mag afsien van die interne inspeksie en hidrouliese druktoets behoudens die skriftelike goedkeuring van 'n goedgekeurde inspeksie-owerheid: Met dien verstande voorts dat 'n inspekteur verder mag vereis dat 'n bepaalde stoomketel of drukhouer meer gereeld geïnspekteer of getoets word of toelaat dat 'n bepaalde stoomketel of drukhouer minder gereeld geïnspekteer of getoets word.
- (2) Enige gebruiker van 'n drukvaste stelsel moet waar prakties uitvoerbaar, toesien dat sodanige drukvaste stelsel voor inwerkingstelling, na installering of heroprigting

onderwerp word aan 'n inspeksie en hidrouliese toets, uitgevoer deur 'n goedgekeurde inspeksie-owerheid.

(3) Enige gebruiker van 'n gas brandstofstelsel moet, waar prakties uitvoerbaar, toesien dat die stelsel onderwerp word aan 'n inspeksie en hidrouliese toets deur 'n geregistreerde persoon soos bedoel in regulasie 12 (3), voor inbedryfstelling, na installering of heroprigting.

(4) Waar dit onprakties is om 'n vloeistof vir die hidrouliese druktoets bedoel in subregulasie (1), (2) of (3) te gebruik, kan die toets, onderworpe aan die vooraf verkrygde skriftelike goedkeuring van 'n goedgekeurde inspeksie-owerheid, met 'n nie-vlambare gas tot 'n druk 1,1 maal die maksimum toelaatbare werkdruck uitgevoer word: Met dien verstande dat die toets, waar redelikerwys uitvoerbaar, voorafgegaan moet word deur 'n interne inspeksie en op sodanige verdere voorwaardes en voorsorgmaatreëls soos deur die goedgekeurde inspeksie-owerheid bepaal.

(5) Waar 'n inspeksie of toets uitgevoer ingevolge subregulasie (1), (2), (3) of (4) enige swakheid of defek blootlê waardeur die veiligheid van persone in gevaar gestel mag word, moet die persoon wat die ondersoek of toets doen die swakheid of defek onmiddellik aan die gebruiker rapporteer en die gebruiker moet onverwyld die gebruik van die stoomketel, drukhouer, drukvaste stelsel of gas brandstofstelsel staak totdat sodanige swakheid of defek tot die bevrediging van die betrokke goedgekeurde inspeksie-owerheid of die persoon wat die inspeksie uitgevoer het, na gelang van die geval, reggestel is.

#### **Rekordhouding**

14. Enige gebruiker van 'n houer onder druk moet op die perseel rekords byhou wat toeganklik moet wees vir inspeksie deur 'n inspekteur en waarin die resultate van alle inspeksies, toetse, veranderings en herstelwerk deur die bevoegde persoon aangeteken, gedateer en onderteken moet word.

#### **Instandhouding**

15. (1) Geen gebruiker mag 'n houer onder druk of gas brandstofstelsel, met inbegrip van alle outomatiiese kontroles, aanwysers en toebehore, gebruik nie, of vereis of toelaat dat dit gebruik word nie tensy dit ten alle tye in 'n veilige werkende toestand gehou word en dat die doeltreffendheid daarvan deur gereelde toetsing gestaaf word.
- (2) Geen gebruiker mag 'n houer onder druk gebruik, vereis of toelaat dat dit gebruik word nie tensy dit skoongehou word en vry is van enige-
- (a) verkoolde olie of ander vlambare stof wat kan ontvlam;
  - (b) substansie wat korrosie kan veroorsaak; of
  - (c) substansie wat vatbaar is vir 'n chemiese reaksie wat moontlik aanleiding kan gee tot 'n onbeheerbare styging in druk.

## Modifikasie en herstelwerk

16. (1) Enige persoon wat van voorneme is om 'n stoomketel, drukhouer of verplaasbare gashouer te modifiseer of herstel, moet toesien dat sodanige modifikasie of herstelwerk onder toesig van 'n goedgekeurde inspeksie-owerheid uitgevoer word, soos bedoel in regulasie 17(1)(b).
- (2) Enige modifiseerder of hersteller wat enige modifikasie of herstelwerk, soos bedoel in subregulasie (1), uitvoer, moet 'n sertifikaat uitreik waarin die omvang van die modifikasie of herstelwerk beskryf word en sertificeer dat sodanige werk in oorstemming is met 'n gesondheids- en veiligheidstandaard ingelyf by hierdie regulasies: Met dien verstande dat sodanige sertifikaat deur die goedgekeurde inspeksie-owerheid mede-onderteken word as bewys dat die ontwerp van sodanige modifikasie of herstelwerk geverifieer is en dat dit onder hul toesig in ooreenstemming met vermelde gesondheids- en veiligheidstandaard gemodifiseer of herstel en getoets is.
- (3) Wanneer dit ookal uit 'n inspeksie of toets blyk dat 'n stoomketel of drukhouer nie veilig teen die maksimum toelaatbare werksdruk gebruik kan word nie en die gebruiker daarvan weier om die nodige vernuwings of herstelwerk te laat doen, moet die gebruiker toesien dat -
- (a) 'n goedgekeurde inspeksie-owerheid 'n nuwe verminderde maksimum toelaatbare werksdruk vasstel; en
  - (b) die stoomketel of drukhouer nie teen 'n druk hoër as die nuwe verminderde druk gebruik word nie.
- (4) Die gebruiker sal toesien dat die verminderde maksimum toelaatbare werksdruk soos bepaal in gevolge subregulasie (3)(a), aangetoon word op die vervaardigersplaat waarop die goedgekeurde inspeksie-owerheid ook sy merk moet aanbring en geen gebruiker mag daarna vereis of toelaat dat sodanige stoomketel of drukhouer gebruik word teen 'n druk wat hoër is as sodanige verminderde werksdruk nie: Met dien verstande dat in die geval van 'n stoomketel die registrasiesertifikaat tesame met 'n kopie van die goedgekeurde inspeksie-owerheid se verslag aan die provinsiale direkteur vir wysiging deurgestuur sal word.

## Goedgekeurde inspeksie-owerhede

17. (1) Die hoofinspekteur mag enige organisasie goedkeur wat geakkrediteer is in gevolge -
- (a) SABS 0227 Deel 1 om die funksies met betrekking tot die sertifisering van nuwe houers onder druk, inspeksies en toetse uit te voer; of
  - (b) SABS 0227 Deel 2 om die funksies met betrekking tot die sertifisering van gemodifiseerde of herstelde drukhouers, inspeksie en toetse, as 'n goedgekeurde inspeksie-owerheid, uit te voer.
- (2) 'n Aansoek om goedkeuring vir 'n organisasie soos bedoel in subregulasie (1), moet vergesel word van 'n geldige sertifikaat uitgereik deur die Suid-Afrikaanse Buro vir Standaarde in gevolge SABS 0227 Deel 1 en of Deel 2.

(4) Die hoofinspekteur mag te eniger tyd enige goedkeuring van 'n goedgekeurde inspeksie-owerheid terugtrek, onderworpe aan die voorbehoude van regulasie 35 van die Wet.

#### Misdrywe en strawwe

18. Enige persoon wat enige bepaling van regulasie 3(1), 4, 5(1), 5(2), 5(4), 5(5) 5(7), 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 of 16 oortree of versuim om daaraan te voldoen, is aan 'n misdryf skuldig en is by skuldigbevinding strafbaar met 'n boete of met gevangenisstraf vir 'n tydperk van hoogstens twaalf maande, en, in die geval van 'n aanhoudende misdryf, met 'n bykomende boete van R200 vir elke dag waarop die misdryf voortduur of bykomende gevangenisstraf van een dag vir elke dag waarop die misdryf voortduur: Met dien verstande dat die tydperk van sodanige bykomende gevangenisstraf nie 90 dae mag oorskry nie.

#### Herroeping van regulasies en aanhangsels

19. Die volgende regulasies, kennisgewings en aanhangsels word hierby herroep:
- (a) Kennisgewing van die inlywing van die veiligheidstandaard gepubliseer by Goewermentskennisgewing No. R. 2357, gedateer 25 November 1988;
  - (b) Regulasies vir Houers Onder Druk, 1992, Aanhanglel 1 en die bylae, gepubliseer by Goewermentskennisgewing No. R. 2919, gedateer 23 Oktober 1992; en
  - (c) Wysigingskennisgewing gepubliseer by Goewermentskennisgewing No. R. 78 gedateer 22 Januarie 1993.

#### Kort titel

20. Hierdie regulasies heet die Regulasies vir Houers Onder Druk, 1996.

**AANHANGSEL 1**  
**WET OP BEROEPSGESONDHEID EN VEILIGHEID, 1993**  
[Regulasie 5 (2) van die Regulasies vir Houers Onder Druk]

**REGISTRASIE VAN 'N STOOMKETEL**

**A. AANSOEK OM 'N STOOMKETEL TE REGISTREER/DUPLIKAATSERTIFIKAAT**

Aan: Provinciale Direkteur  
Departement van Arbeid  
.....  
.....  
.....

Van: (Posadres)  
.....  
.....

Tel. ....  
Faks. ....

Ek (gebruiker) (regspersoon)..... doen hierby aansoek om registrasie/duplicaatsertifikaat van 'n stoomketel, waarvan die besonderhede in Deel B hieronder uiteengesit is.

Handtekening van applikant  
.....  
Applikant se naam (In Blokletters)

Datum  
.....  
Hoedanigheid van applikant

**B. BESONDERHEDE VAN STOOMKETEL**

1. Fisiese adres van installasie .....
2. Tipe stoomketel .....
3. Naam van vervaardiger .....
4. Land van oorsprong .....
5. Jaar van vervaardiging .....
6. Reeksnommer van vervaardiger .....
7. Naam, nommer en datum van die ontwerpstandaard .....
8. Ontwerp meterdruk in pascal .....
9. Maksimum toelaatbare werksdruk in pascal .....
10. Bedryfstemperatuur .....
11. Bron van energie (olie, steenkool, gas, elektrisiteit of kernkrag) .....
12. Stoomkapasiteit van stoomketel ..... kg stoom per uur van en teen 100 °C
13. Naam van goedgekeurde inspeksie-owerheid (tydens vervaardiging) .....
14. Afskrif van vervaardiger se sertikaat moet aangeheg word .....
15. Afskrif van goedgekeurde inspeksie-owerheid se ingebruiksnameingsverslag moet aangeheg word .....

**SLEGS VIR AMPTELKE GEbruIK**

**C. REGISTRASIESERTIFIKAAT VIR STOOMKETEL**

Die stoomketel ten opsigte waarvan besonderhede in Deel B hierbo verskyn, is op hierdie dag ..... geregistreer met amptelike nommer ..... Toestemming word hiermee verleen om die stoomketel te gebruik teen 'n maksimum toelaatbare werksdruk van ..... kPa.

AMPTELIKE STEMPYL

HANDTEKENING VAN INSPEKTEUR

**UITREIKING VAN DUPLIKAAT REGISTRASIESERTIFIKAAT VIR STOOMKETEL**

BELASTINGSEËLS VIR  
DUPLIKAATSERTIFIKAAT

Datum .....

HANDTEKENING VAN INSPEKTEUR

Raadpleeg regulasie 5 (5) vir bedrag betaalbaar vir 'n duplikaat registrasiesertikaat vir 'n stoomketel.

**No. R. 1625****4 October 1996****OCCUPATIONAL HEALTH AND SAFETY ACT, 1993****INCORPORATION OF HEALTH AND SAFETY STANDARDS:  
VESSELS UNDER PRESSURE REGULATIONS**

Under section 44 of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), I, Tito Titus Mboweni, Minister of Labour, after consultation with the Advisory Council for Occupational Health and Safety, hereby incorporate in the Vessels under Pressure Regulations, 1996, the health and safety standards specified in the Schedule.

**T. T. MBOWENI**  
**Minister of Labour**

**SCHEDULE****1. Regulation 3 (1) (a).****AUSTRALIA****Australian Standards, standard specifications**

<b>AS 1200</b>	<b>Boilers and pressure vessels</b>
<b>AS 1210</b>	<b>Unfired pressure vessels - Advanced design and construction</b>
<b>AS 1228</b>	<b>Boilers: water tube type</b>
<b>AS 1777</b>	<b>Aluminium cylinders for compressed gases - seamless 0.1 kg to 130 kg.</b>
<b>AS 1797</b>	<b>Boilers: Fire tube, shell and miscellaneous</b>
<b>AS 2470</b>	<b>Steel cylinders for compressed gases welded 11 kg to 150 kg.</b>
<b>AS 2527</b>	<b>Cylinders for dissolved acetylene</b>
<b>AS 2873</b>	<b>Carbon-manganese steel cylinders for compressed gases, seamless: 0.1 kg to 500 kg.</b>
<b>AS 2874</b>	<b>High tensile Carbon-manganese steel cylinders for compressed gases, seamless: 0.1 kg to 500 kg.</b>
<b>AS 2875</b>	<b>Alloy steel cylinders for compressed gases, seamless: 0.1 kg to 500 kg.</b>
<b>AS 2971</b>	<b>Serially produced pressure vessels</b>
<b>AS 3577</b>	<b>Steel cylinders for compressed gases, welded: 150 kg to 500 kg.</b>
<b>AS B10</b>	<b>High carbon steel cylinders for the storage and transport of permanent gases.</b>
<b>AS B11</b>	<b>High carbon steel cylinders for the storage and transport of high pressure liquefiable gases.</b>
<b>AS B12</b>	<b>Low carbon steel cylinders for the storage and transport of medium pressure liquefiable gases.</b>
<b>AS B111</b>	<b>Manganese steel cylinders for the storage and transport of high pressure liquefiable gases.</b>

- AS B113** High tensile carbon-manganese steel cylinders for the storage and transport of permanent gases and high pressure liquefiable gases.
- AS B114** Alloy steel cylinders for the storage and transport of permanent gases and high pressure liquefiable gases.
- AS B239** Welded steel cylinders for compressed gases of capacity over 10 litres up to and including 130 litres.

## CANADA

Canadian Transport Commission Regulations.

- TC 4BA** Welded or Brazed cylinders made of definitely prescribed steels.
- TC 4BW** Welded steel cylinders made of definitely prescribed steels with electric-arc welded longitudinal seam.

## FRANCE

- NFE 31-001** Boilers operating with solid, liquid or gases fuels
- NFA 49-901** Gas cylinders - seamless steel cylinders for compressed, liquefied or dissolved gases.
- NC :1969** French code for the manufacture of unfired pressure vessels: Design rules

## GERMANY

German Institute of Standards, standard specifications

- DIN 2918** Stationary shell boilers of welded construction. (Other than water tube boilers.)
- DIN 4661** Gas cylinders, welded steel gas cylinders, at test pressure 30 atm.
- DIN 4663** Compressed gas containers; seamless aluminium alloy cylinders, rated for 250 Bars and 300 Bar test pressure.
- DIN 4664** Compressed gas containers; seamless steel gas cylinders.
- DIN 4680** Steel fixed size pressure vessels for LPG; For above ground installations, dimensions and equipment.
- DIN 28020** Horizontal pressure vessels of 0.63 up to 25 cubic metres capacity.
- DIN 28021** Horizontal pressure vessels of 6,3 up to 100 cubic metres storage capacity.
- DIN 28022** Vertical pressure vessels; vessels for intermediate storage 0,063 up to 25 cubic metres for use in chemical process engineering.

## AD-MERKBLAETTER

Technical Rules for Pressure Vessels (TRB), Druckbehvo and all sections  
 Technical Rules for Steam Boilers (TRD), Dampfkv and all sections

## INTERNATIONAL

International Standards Organisation, standard specifications

- ISO 831** Rules for the construction of stationary boilers.
- ISO 3807** Dissolved Acetylene cylinder - Basic Requirements.
- ISO 4705** Refillable seamless steel gas cylinders.

ISO 4706	Refillable welded steel gas cylinders.
ISO 5730	Stationary shell boilers of welded construction. (Other than water tube boilers.)
EEC 87-404	Directive for the construction of simple pressure vessels.
EEC 84-525	Directive for the construction of seamless, steel gas cylinders.
EEC 84-526	Directive for the construction of seamless, unalloyed aluminium and aluminium alloy gas cylinders.
EEC 84-527	Directive for the construction of welded unalloyed steel gas cylinders.
EN 50 052	Cast Aluminium Alloy Enclosures for Gas filled High Voltage Switchgear and Control gear
EN 286-1	Simple unfired pressure vessels designed to contain air nitrogen; Part 1 Design and manufacture of simple pressure vessels.
EN 303-PT 1	Heating Boilers - Heating boilers with forced draught burners - Terminology, general requirements, testing and marking.
EN 303-PT2	Heating Boilers - Heating boilers with forced draught burners - Special requirements for boilers with atomising oil burners.

#### Luxfer Limited, standard specification

Luxint Luxfer gas cylinder specification: For the manufacture of aluminium cylinders.

#### ITALY

Higher Institute for Accident Prevention and Safety at Work {*Istituto Superiore per la Prevenzione e la Sicurezza del Lavoro*} ISPESL rules

VSR Rules	Collection (Raccolta VSR) concerning design rules for pressure vessels.
VSG Rules	Collection (Raccolta VSG) concerning design rules for boilers.

#### JAPAN

##### Japanese Industrial Standards

JIS B8201	Construction of steel boilers for land use.
JIS B8233	Refillable welded steel gas cylinders for liquefied petroleum gas.
JIS B8235	Refillable welded steel gas cylinders for liquefied fluoro carbon.
JIS B8240	Construction of pressure vessels for refrigeration.
JIS B8241	Seamless steel cylinders.
JIS B8243	Construction of pressure vessels.

#### UNITED KINGDOM

##### British Standards Institution, standard specifications

BS EN 286-1	Simple unfired pressure vessels designed to contain air or nitrogen - design, manufacture and testing.
BS 399	High carbon steel cylinders for the storage and transport of permanent gases.
BS 400	Low carbon steel cylinders for the storage and transport of permanent gases.
BS 401	Steel cylinders for the storage and transport of liquefied gases.
BS 537	Lancashire and Cornish boilers of riveted construction.

<b>BS 609</b>	Horizontal multitubular boilers of riveted construction.
<b>BS 665</b>	Vertical cross tube boilers of riveted construction.
<b>BS 761</b>	Vertical multitubular boilers of riveted construction.
<b>BS 779</b>	Specification for cast iron boilers for central heating and indirect hot water supply. (Rated output 44 kW and above)
<b>BS 1113</b>	Design and manufacture of water tube steam generating plant.
<b>BS 1307</b>	Gas-fired boilers and waste-heat boilers (with or without auxiliary firing).
<b>BS 1894</b>	Specification for the design and manufacture of electric boilers of welded construction.
<b>BS 1971</b>	Specification for corrugated furnaces for shell boilers.
<b>BS 2790</b>	Specification for design and manufacture of shell boilers of welded construction.
<b>BS 3023</b>	Corrugated furnaces and smoke tubes for marine boilers.
<b>BS 4994</b>	Specification of the Design and Construction of vessels and tanks in Reinforced Plastics.
<b>BS 5045</b>	Specification for seamless transportable gas containers. Parts: 1, 2 and 3.
<b>BS 5169</b>	Fusion welded steel air receivers.
<b>BS 5500</b>	Specification for unfired fusion welded pressure vessels.
<b>BS 6061</b>	Specification for transportable acetylene containers.
<b>BS 7005</b>	Specification for design and manufacture of carbon steel unfired pressure vessels for use in vapour compression refrigeration systems.
<b>BS 7122</b>	Specification for welded steel tanks for road transport of liquefied gases.

**Lloyds Register, standard specifications**

Lloyds Rules and Regulations for the design and construction or use of boilers, pressure vessels, pressurised systems or portable gas containers.

**UNITED STATES OF AMERICA****American Society of Mechanical Engineers, standard specifications**

<b>ASME Section I</b>	Power Boilers
<b>ASME Section III</b>	Rules for the construction of nuclear power plant components - code for concrete reactor vessels and containments
<b>ASME Section IV</b>	Low-pressure Heating Boilers
<b>ASME Section VIII</b>	Unfired Pressure Vessels (Divisions 1 and 2)
<b>ASME Section X</b>	Fibreglass-reinforced plastic pressure vessels
<b>ASME Part B31</b>	Pressurised piping systems: Part 1-Power piping. Part 3-Chemical plant and petroleum refinery piping. Part 4-Liquid transportation systems for hydrocarbons, liquid petroleum gas, anhydrous ammonia and alcohols. Part 5-Refrigeration piping. Part 8-Gas transmission and distribution piping systems.

**American Petroleum Institute, standard specifications**

**API 620** Design & construction of large, welded, low pressure storage tanks.

**United States, Department of Transport Regulations: Code of Federal Regulations, Title 49.**

DOT 4BW	Welded steel cylinders made of definitely prescribed steels with electric-arc welded longitudinal seam. Including DOT 4BA.
DOT 39	Non reusable - non refillable cylinder
DOT 8	Welded steel cylinders made of definitely prescribed steels for the transportation of acetylene.
DOT E-10-320	Welded steel cylinders made of definitely prescribed steels electric-arc welded longitudinal seam for the transportation of acetylene.
DOT 4E	Welded aluminium cylinders made of definitely prescribed aluminium.

**The Association of American Railroads****Section C, Part III - Specifications for Tank Cars, M1002****Hartford Steam Boiler Inspection and Insurance Company****HSB-ARS-86 Standard for air receivers.****Tubular Exchange Manufacturers Association, Inc. (TEMA) rules.****SOUTH AFRICA****South African Bureau of Standards, standard specifications**

SABS 50	The design and manufacture of seamless steel cylinders for high and low pressure service.
SABS 099	The construction of air receivers
SABS 219	The design and manufacture of welded steel cylinders for low pressure service.
SABS 220	Dissolved acetylene cylinders.
SABS 1571	Transportable rechargeable fire extinguishers.

**South African Bureau of Standards, codes of practice****SABS 019 Portable metal containers for compressed gases: Basic design criteria, use and maintenance.****2. Regulation 10****SOUTH AFRICA****South African Bureau of Standards, codes of practice****SABS 019 Portable metal containers for compressed gases: Basic design criteria, use and maintenance.****3. Regulation 11****SOUTH AFRICA****South African Bureau of Standards, standard specification**

SABS 810	Portable rechargeable fire extinguishers - Dry powder type extinguishers.
SABS 889	Portable rechargeable fire extinguishers - Water type extinguishers.
SABS 1151	Portable rechargeable fire extinguishers - Halogenated hydrocarbon type extinguishers.
SABS 1475	The production of reconditioned fire-fighting equipment.
SABS 1567	Portable rechargeable fire extinguishers - CO <sub>2</sub> type extinguishers.
SABS 1573	Portable rechargeable fire extinguishers - Foam type extinguishers.

#### South African Bureau of Standards, codes of practice

SABS 0105	The classification, use and routine maintenance of fire-fighting appliances. Part 1: Portable fire extinguishers
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#### 4. Regulation 12

#### UNITED STATES OF AMERICA

#### American Society of Mechanical Engineers, standard specifications

##### ASME Part B31 Pressurised piping systems:

- Part 3-Chemical plant and petroleum refinery piping.
- Part 4-Liquid transportation systems for hydrocarbons, liquid petroleum gas, anhydrous ammonia and alcohols.
- Part 8-Gas transmission and distribution piping systems.

#### American National Standards Institute

#### ANSI Z223.1 National Fuel Gas Code

#### SOUTH AFRICA

#### South African Bureau of Standards, codes of practice:

SABS 087	Handling, Storage and Distribution of Liquefied Petroleum Gas in Domestic, Commercial and Industrial Installations. Part I: Consumer Liquefied Petroleum Gas Cylinder Installations. Part II: Installations in Mobile Units and Small Non-Permanent Buildings. Part III: Bulk Liquefied Petroleum Gas Storage and Allied Facilities at Consumer's Premises. Part IV: Transportation of Liquefied Petroleum Gas in Bulk by Road. Part V: Liquefied Petroleum Gas as Engine Fuel. Part VII: Retail outlet and similar Liquefied Petroleum Gas Filling Sites for Small Containers. Part VIII: The Fuelling of Fork Lift Trucks and Other Liquefied Petroleum Gas Operated Vehicles.
SABS 1539	Appliances operating on liquefied petroleum gas - Portable and mobile appliances - Safety aspects.

**No. R. 1626****4 October 1996****NOTICE OF EXEMPTION IN TERMS OF SECTION 40 (1) OF THE  
OCCUPATIONAL HEALTH AND SAFETY ACT, 1993**

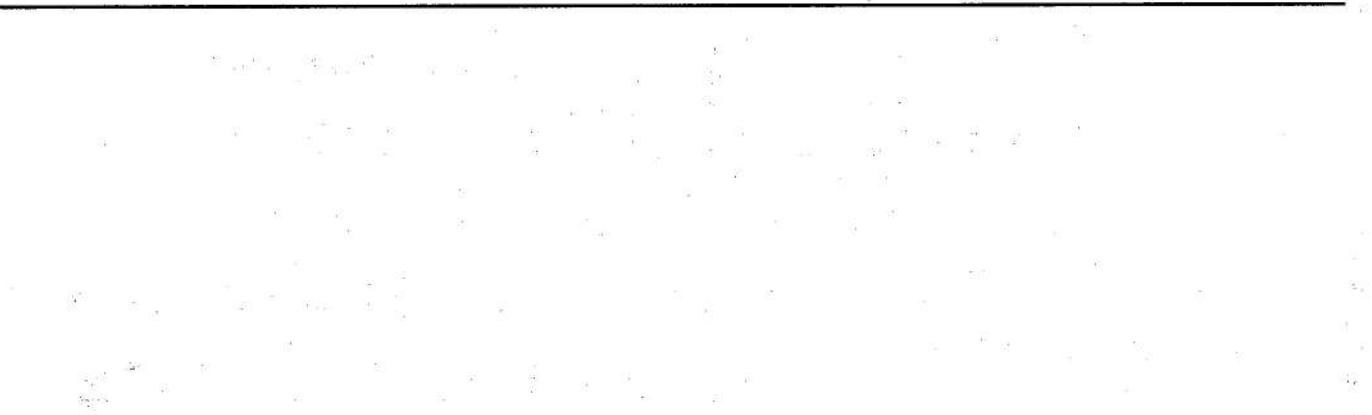
Under section 40 (3) (b) of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), I, Faiza Salie, appointed as chief inspector in terms of section 27 (1) of the said Act, and by virtue of the power delegated to me by the Minister of Labour in terms of section 42 (1) of the Act, hereby grant exemption in terms of section 40 (1) to persons presently occupied with the activities described under regulation 11 (2) of the Vessels under Pressure Regulations, 1996, published under Government Notice No. R. 1591 of 4 October 1996, from the obligation of being holders of a permit issued by the South African Bureau of Standards in terms of SABS 1475 for a period of twelve (12) months, from the date of the commencement of the said regulations: Provided that such persons submit a written application for the required permit to the South African Bureau of Standards within six (6) months from the date of this notice.

**F. SALIE****Chief Inspector**

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**No. R. 1626****4 Oktober 1996****KENNISGEWING VAN VRYSTELLING INGEVOLGE ARTIKEL 40 (1) VAN DIE  
WET OP BEROEPSGESONDHEID EN VEILIGHEID, 1993**

Onder artikel 40 (3) (b) van die Wet op Beroeps gesondheid en Veiligheid, 1993 (Wet No. 85 van 1993), verleen ek, Faiza Salie, aangestel as hoofinspekteur ingevolge artikel 27 (1) van die genoemde Wet, en kragtens die mag aan my gedelegeer deur die Minister van Arbeid ingevolge artikel 42 (1) van die Wet, hiermee vrystelling ingevolge artikel 40 (1) aan persone wat tans bedrywig is met die aktiwiteite soos beskryf in regulasie 11 (2) van die Regulasies vir Houers onder Druk, 1996, gepubliseer by Goewermentskennisgewing No. R. 1591 van 4 Oktober 1996, van die verpligting om in besit te wees van 'n permit uitgereik deur die Suid-Afrikaanse Buro vir Standaarde ingevolge SABS 1475 vir 'n tydperk van twaalf (12) maande vanaf die datum van inwerkingtreding van genoemde regulasies: Met dien verstande dat sodanige persone skriftelik aansoek sal doen vir die vereiste permit by die Suid-Afrikaanse Buro vir Standaarde binne ses (6) maande vanaf die datum van hierdie kennisgewing.

**F. SALIE****Hoofinspekteur**

# Keep South Africa Clean



**Throw trash where it belongs**

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