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**GOVERNMENT NOTICE**

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**DEPARTMENT OF LABOUR**

No. R. 79

3 February 2012

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993  
INCORPORATION OF HEALTH AND SAFETY STANDARDS INTO THE  
PRESSURE EQUIPMENT REGULATIONS, 2009**

I, M N Oliphant, 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.

**M N OLIPHANT**  
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 ℓ and a combined water capacity not exceeding 3 000 ℓ 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 ℓ

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 air-conditioning 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**

**Guidance Notes to the Pressure Equipment Regulations July 2009**

**Department of Labour**

**Occupation health and safety Act, 1993**

**Revision 0**

### Foreword

These notes are meant to help and guide users, manufacturers, importers and approved inspection authorities in the application of the Pressure Equipment Regulations.

**INTRODUCTION****PURPOSE**

These guidance notes are intended to help, users, manufactures, approved inspection authorities and importers of Pressure Equipment to understand the content as well as to assist with the interpretation and implementation of the Pressure Equipment Regulations but cannot substitute the Regulations.

## REGULATION 1 – DEFINITIONS

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);

**Notes:**

*None*

“**appliance**” means an appliance as defined in SANS 1539;

**Notes:**

*(a) Definition out of SANS 1539: complete operating unit that uses LPG and Natural Gas as operational fuel*

*(b) Refer also to the definition of gas system and reticulation*

“**ASME**” means the American Society of Mechanical Engineers;

**Notes:**

*None*

“**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;

**Notes:**

*None*

“**certificate**” means a written declaration of conformance to these Regulations;

**Notes:**

*None*

“**construction**” includes materials, design, fabrication, modification, repair, installation, examination, inspection, testing and certification;

**Notes:**

*None*

“**dangerous substance**” means a substance defined and classified as such in terms of SANS 10228;

**Notes:**

*(a) Saturated steam and superheated steam is also classified as dangerous substances.*



**“design pressure”** means the gauge pressure used in the design formulae to determine the dimensions of the component parts of the pressure equipment;

**Notes:**

- (a) *When equipment is subjected primarily to static head and the applied pressure above the liquid level of the equipment is less than 50kPa, then such equipment is excluded from the PER.*
- (b) *PER does not regulate external pressure (vacuum)*

**“design temperature”** means the temperature used in the design formulae to determine the dimensions of the component parts of the pressure equipment;

**Notes:**

*None*

**“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;

**Notes:**

- (a) *Independent process to run separate calculations to confirm correctness of the original design. Refer to SANS 10227*

**“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;

**Notes:**

*None*

**“fluid”** means gases, liquids, vapours in pure phase and mixtures thereof and may contain solids in suspension;

**Notes:**

*None*

**“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;

**Notes:**

- (a) *For example: Liquid water at 300°C at elevated pressure is defined as a gas.*
- (b) *When containment is lost and the fluid changes from liquid to gas (flashes), then the fluid is defined as a gas.*

**“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;

**Notes:**

- (a) *Reticulation is defined in the Regulations*
- (b) *A refrigeration system is a gas 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;

**Notes:**

*None*

**“manufacturer”** means any person who has overall control and is responsible for the construction of the pressure equipment;

**Notes:**

*None*

**“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

**Notes:**

*None*

**“modify”** has a corresponding meaning;

**Notes:**

*None*

**“non-metallic”** means glass, thermoplastic or thermosetting polymeric reinforced and un-reinforced materials or combinations thereof;

**Notes:**

*None*

**“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;

**Notes:**

None

**“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;

**Notes:**

*(a) Instrument tubing is included in the Regulations*

**“pressure accessory”** means devices with an operational function having pressure-bearing housing;

**Notes:**

*(a) Some examples include but are not limited to: pressure gauges, level gauges, valves, strainers and magnetic level indicators*

**“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 hot-water geyser and hyperbaric chambers;

**Notes:**

None

**“pressure vessel”** means a housing designed and manufactured to contain a fluid under a design pressure equal to or greater than 50 kPa;

**Notes:**

- (a) Storage vessels (tanks) with a design pressure equal to or greater than 50 kPa gauge are regulated by the Regulations.*
- (b) Transportable gas container is not a pressure vessel, but has its own definition in the Regulations.*
- (c) Process heating equipment for other than steam or hot water generation such as fired heaters in chemical or similar process plants shall be defined as pressure vessels.*

**“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;

**Notes:**

None

**“re-certification”** means activities undertaken to determine appropriate design parameters for pressure equipment where such data is unknown or unavailable;

**Notes:**

(a) See PER 9 note (c)

**“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;

**Notes:**

None

**“re-rating”** means any change in the design parameters of pressure equipment which affects the certification;

**Notes:**

(a) Re-rating includes up-rating and down-rating

(b) See PER 9 note (d).

**“reticulation”** means the conveyance of gas by pipeline with a general operating pressure of no more than 200 kPa to the ultimate points of consumption;

**Notes:**

(a) This does not include transmission or distribution systems.

(b) Definition out of the Gas Act, 2001: “transmission” means the bulk transportation of gas by pipeline supplied between a source of supply and a distributor, reticulator, storage company or eligible customer, or any other activity incidental thereto, and “transmit” and “transmitting” have corresponding meanings

(c) Definition out of the Gas Act, 2001: “distribution” means the distribution of bulk gas supplies and the transportation thereof by pipelines with a general operating pressure of more than 2 bar gauge (200 kPa) and less than 15 bar gauge (1500 kPa) or by pipelines with such other operating pressure as the Gas Operator may permit according to criteria prescribed by regulation to points of ultimate consumption or to reticulation systems, and any other activity incidental thereto, and “distribute” and “distributing” have corresponding meanings

**“risk-based inspection”** means an inspection scope based on the results of a formal risk assessment, including inspection and test intervals;

**Notes:**

None

**“safety accessory”** means a device designed to protect pressure equipment;

**Notes:**

- (a) *For example pressure relief valves or bursting disks*
- (b) *This excludes non-pressurised safety accessories*

**“SANS 151”** means the Standard Specification for fixed electric storage water heaters, SANS 151, published by the South African Bureau of Standards;

**Notes:**

*None*

**“SANS 347”** means the Standard Specification for categorisation and conformity assessment criteria for all pressure equipment, SANS 347, published by the South African Bureau of Standards;

**Notes:**

*None*

**“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;

**Notes:**

*None*

**“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;

**Notes:**

*None*

**“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;

**Notes:**

*None*

**“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;

**Notes:**

*None*

**“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;

**Notes:**

- (a) *Note that only steam generators with a design pressure equal to or greater than 50kPa are included in the Regulations*

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

**Notes:**

*None*

**“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;

**Notes:**

- (a) *Transportable gas container has the same meaning as the term “pressure receptacle” as defined in SANS 10019.*
- (b) *Transportable gas containers smaller than 0.5 litres are not regulated but shall be manufactured to a relevant health and safety standard when available.*
- (c) *Non refillable refrigerant, LP gas, butane and propane pressure receptacles compliant to SANS10019 are deemed to be included in this definition.*
- (d) *Where LP gas, butane or propane is used as propellants only, within non refillable pressure receptacles these are excluded from the regulations.*
- (e) *Mobile or transportable pressure vessels containing air are deemed not to be transportable gas containers but pressure vessels.*

**“unique mark”** means the mark and accreditation reference number of the approved inspection authority.

**Notes:**

- (a) *Accreditation reference number is the PER number (approval number) issued by the Department of Labour*

## REGULATION 2 - SCOPE OF APPLICATION

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
    - (i) housing for electrical machinery such as switchgear, control gear, transformers and rotating machines;
    - (j) tyres and flexible pressurised casings used for recreational purposes;
    - (k) 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.

**Notes:**

- (a) Order placement means the date that the contract is placed by the user for basic engineering design
- (b) Any standards in SANS 347 may be used as if they were incorporated in Vessels under Pressure Regulations.
- (c) The intention of 2(3)(a) was to exclude piping and pipelines used for the transport of water.
- (d) The intention was to exclude only piping and pipe lines used for the transport of water, but not to exclude gas filled accumulators used for the regulation of pressure surges.
- (e) Locomotives (steam generators on rail or road) were not intended to be excluded.
- (f) Pressure Equipment that were regulated under VUP may be repaired and modified under the rules of the VUP.
- (g) Existing equipment that was not regulated under VUP but could now fall within the scope of the PER does not need to comply to PER provided that a modification will not classify the vessel as a vessel under pressure (as defined in the VUP) according to the Vessel Under Pressure Regulations. If the vessel is now classified as a vessel under pressure (as defined in the VUP) after the modification, the vessel needs to comply to the PER requirements.
- (h) Equipment categorized as SEP as per the relevant SANS 347 graphs are excluded  
but shall be manufactured to SEP rules as required in SANS 347
- (i) PER does not regulate external pressure (vacuum.)
- (j) PER only regulates pressure equipment with a design pressure equal to or greater than 50 kPa irrespective of any contradictory definition given in these Regulations.
- (k) Pressurised road tankers, rail tankers, intermediate bulk containers (IBC's), ISO container and multi element gas containers are regulated by the Regulations.
- (l) Equipment manufactured prior to 23 October 1992 and which was designed, constructed and manufactured in accordance with regulations in force at that time do not require a certificate of manufacture.(See regulation 2 of VUP). Re-certification to the current regulation is not a requirement.
- (m) Hydraulic and pneumatic cylinders, or actuators meeting the requirements of sub regulation 2.(3).(d) are not regulated
- (n) Pressure equipment categorised as SEP (sound engineering practice) in SANS 347 are not regulated



### **REGULATION 3 – GENERAL REQUIREMENTS**

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.

#### **Notes:**

- (a) Existing equipment which was regulated under VUP rules needs not to be categorized provided full AIA involvement is maintained during repairs or modifications as was required under the VUP rules (typical of Module G approach).*
- (b) The relevant health and safety standards are not listed in section 44 of the act but in Annex A in SANS 347 and the Schedule under the PER.*
- (c) Requests for the inclusion of additional health and safety standards into SANS 347 shall be submitted to the DOL (Occupational Health and Safety Department, private bag X117 Pretoria 0001) with motivation and copy of the relevant Health and Safety Standard in English.*

### **REGULATION 4 - DUTIES OF MANUFACTURERS**

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 this Regulation 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.

**Notes:**

- (a) *The certificate of manufacture must declare conformance to the Pressure Equipment Regulations. The Certificate of Manufacture is equivalent to the Certificate of Conformity as stated in SANS 347.*
- (b) *Categorization may be done by another party (for example the user) provided the manufacturer formally accepts such categorisation and maintains full responsibility for compliance.*
- (c) *The certificate of manufacture has the same meaning as certificate of conformity, manufacturer's data report and declaration of conformity.*

**REGULATION 5 - DUTIES OF IMPORTERS AND SUPPLIERS**

1. Importers and suppliers shall ensure that pressure equipment sold complies with the requirements of this Regulation.
2. The importer shall assume the liability of the manufacturer in terms of this Regulation.
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 Regulation under section 44 of the Act.

**Notes:**

- (a) *The importer is the entity which imports pressure equipment for use and/or resale in South Africa. The importer must be a juristic person in RSA.*
- (b) *The importer of pressure equipment into the RSA assumes the liability of the manufacturer and must declare conformance to the PER. This conformity assessment review shall be countersigned by an AIA as applicable. The AIA shall only verify conformity assessment reviews for imported pressure vessels, steam generators and assemblies for category 2 equipment and higher. Category 1 equipment and below does not require conformity assessment review by the AIA...*
- (c) *Where users or their agents appoint entities to manage procurement and construction of imported pressure equipment, this entity is in overall control and is deemed the importer.*
- (d) *The permit referenced in PER (5).(3) is applicable to fire extinguishers in accordance with SANS 1475.*
- (e) *Importer shall verify that the foreign inspection bodies meets the requirements of regulation 7.(3).(b). with respect to ISO 17020 accreditation and scope of accreditation together with the applicable health and safety standard.*

**REGULATION 6 - DUTIES OF USERS**

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.

**Notes:**

- (a) *The user shall ensure that the prescribed information is provided to the manufacturer.*
- (b) *The intention was that in PER 6(2)(e) a "gas system" should be a "gas reticulation system".*
- (c) *The certificate required in PER 6(2)(d) above is the pre-commissioning inspection certificate as required in PER 11(1)(a)*
- (d) *The certificate required in PER 6(2)(e) is the certificate in Annexure 1 and shall be issued by an authorised person and not by an IPE.*
- (e) *For transportable gas containers which are rented out by the owner, the duties of the user remain with the owner (i.e. certificate of manufacture remains with the owner).*
- (f) *In respect to 6 (2)(b), filled transportable gas containers imported from an overseas supplier, for a dedicated user with the intent to return the transportable gas container when empty to the overseas supplier, these shall be deemed compliant based on the transportable gas container having been manufactured to a listed "Health and Safety Standard" incorporated into these Regulations under section 44 of the Act and SANS 347 Appendix A.*
- (g) *In respect to the duties of the user in relation to privately owned transportable gas containers up to and including 150L water capacity, the certificate of manufacture referred to in 6 (2)(b) may be retained by the Importer or the Supplier*
- (h) *For transportable gas containers which are privately owned the certificate of manufacture remains with the manufacturer. The owner may request the certificate of manufacture from the manufacturer / importer).*

**REGULATION 7 – APPROVAL AND DUTIES OF APPROVED INSPECTION AUTHORITY**

1. Only the 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 sub regulations (1) shall include the applicant's proof of accreditation prescribed by paragraph (a) or (b) of sub regulations (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 Regulation.
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 sub regulation (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 sub-regulation (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 this Regulation within its scope of accreditation and the relevant health and safety standard.

**Notes:**

- (a) *Regulation 7(4) states that imported pressure equipment stamped by an ASME authorized manufacturer in compliance with the full ASME code of construction shall be deemed to meet the requirements of these regulations. The intent was that such certification is deemed to be meeting the requirements of the Health and Safety Standard, however any additional requirements of the PER, e.g. Marking, shall also be complied with. This may require the application of an additional name plate meeting the PER requirements e.g. units of measure and categorisation. Equipment is to be categorised for future repair, modification and in-service inspection requirements. Equipment manufactured by an ASME accredited manufacturer or that are CE marked in accordance with a Health and Safety Standard do not need to comply to the requirement in SANS 347 for approval by a Professional Engineer.*
- (b) *Locally manufactured pressure equipment by an ASME accredited manufacturer meets the requirements of regulation 7(4). See additional requirements of Note (a) above.*
- (c) *Foreign inspection bodies with applicable scope of work will be accepted with or without ISO 17020 accreditation until 31 December 2011. From 1 January 2012 all foreign inspection bodies shall be accredited to ISO 17020. If these requirements are met no submission to DoL for approval is required. NBIC authorised agencies are approved unconditionally. The Importer shall verify compliance to regulation 5 guide note (e) when conducting the conformity assessment review on imported pressure equipment. For pressure equipment where an AIA is required, the AIA shall verify compliance to the accreditation requirements of the foreign inspection bodies.*
- (d) *In-service inspection authority scope is limited to the duties as listed in PER 11(1)(c) and (d) only. The scope of inspection determined by the RBI study conducted under Regulation 12 shall be conducted by the in-service inspection authority. All other duties as required by an Approved Inspection Authority shall be performed by a manufacturing AIA as stipulated in SANS 10227 5.1.(c).*

## **REGULATIONS 8 – REGISTRATION OF A STEAM GENERATOR**

1. No user may use a steam generator unless such user is in possession of a certificate of registration issued in terms of sub regulations (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 sub regulations 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 sub regulations (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 uncanceled revenue stamps to such an application.
6. On receipt of an application in terms of sub regulations (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 sub regulations (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.

**Notes:**

- (a) *All existing registered steam generators do not need to be re-registered under the new regulations. If there are any changes to the design criteria of the steam generator, the user is responsible to get the revised certificate of registration issued by the provincial director.*
- (b) *The revenue stamps are not applicable. All required payments shall be made at a relevant Provincial Labour Office.*
- (c) *For the re-issuing of steam generator registration certificates, application shall be made to the relevant Provincial Labour Office.*

**REGULATIONS 9 – PRESSURE EQUIPMENT MARKING**

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;
  - (i) 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 sub regulations (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 these Regulations or wilfully damage or alter the particulars marked thereon, except as provided in these Regulations.
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.

**Notes:**

- (a) *For imported pressure equipment not meeting the Pressure Equipment Regulations marking requirements, the importer shall affix an additional data plate containing the missing information.*
- (b) *The AIA shall verify compliance to the PER for Category 2 and higher imported pressure vessels, steam generators and assemblies.*

- (c) *Re-certification of a steam generator or pressure vessel is required where the equipment is unidentified due to unavailability of required documentation, nameplate or data plate, unknown or unconfirmed history or where equipment that was imported does not meet the requirements of the Occupational Health and Safety Act or the Minerals Act as applicable at time of manufacture or import. A duplicate nameplate may be applied by the user if all information required on the nameplate is available and can be positively linked to the vessel such as hard stamping evidence of serial number or equipment number and shall be verified by an AIA.*
- (d) *Equipment that has been re-rated to operate at different design conditions shall be re-certified by an AIA.*
- (e) *Pressure equipment other than steam generators and pressure vessels may be marked in Bar, only where regulated by the Health and Safety Standard.*

### **REGULATIONS 10 – PRESSURE AND SAFETY ACCESSORIES**

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 sub regulations (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 unauthorized person.
5. The number and capacity of the safety valve referred to in sub regulations (4) shall comply with the requirements of the design standard for the steam generator or pressure vessel or as required in terms of sub regulations (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.

**Notes:**

- (a) *Sub-regulation 10(1) allows the user to use system protection where the health and safety standard allows it and sub regulation 10.(4) is superfluous.*
- (b) *Pressure indicating device does not need to be located directly on the equipment but may be remotely displayed for example on distributed control systems.*
- (c) *The pressure measuring device shall be located such that it is representative of the highest pressure in the system. It shall not be possible to isolate any of the equipment with the pressure measuring device from other equipment relying on that pressure measuring device in the system while in operation. The intent is to have control over the pressure in the pressure equipment.*
- (d) *Pressure and safety accessories on steam generators or pressure vessels may be installed according to the Regulation at the time of commissioning of the equipment. For example pressure equipment manufactured under the VUP can have system protection as allowed by the PER.*

## **REGULATIONS 11 – INSPECTION AND TEST**

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 re-installed 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 in-service inspection appointed by the user in writing;
  - (d) every pressure vessel and steam generator, excluding those referred to in sub regulations (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 regulations 1 of the General Machinery Regulations, 1988.
2. Where it is impracticable to use a liquid for the hydraulic pressure test referred to in sub regulations (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 sub regulations (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.

**Notes:**

- (a) *No qualifications for the user is defined in order to inspect category I and lower equipment, but the person should have knowledge of and experience in the requirements of the Pressure Equipment Regulations and the applicable health and safety standard.*
- (b) *Witnessed inspections and tests, means that the person performing the inspection is present during the pressure test required by sub-regulation and performs the internal and external inspections.*
- (c) *Sub-regulation 11(1)(b) requires the manufacture who does the final assembly to inspect and issue a Certificate of Manufacture, co-signed by AIA where applicable and verify that the installation meets the PER requirements. This does*

*not require a manufacturer who manufactures and certifies a pipe section which will be installed by the user to inspect and test the pipe before commissioning. The user shall take accountability for the installation (bolt-on) and certifies that the installation meets the requirements of the PER.*

- (d) "Critical Weld – are deemed to be all tube sheets to shell welds that were not made as full penetration welds or other welds whose failure can result in catastrophic incident. The critical welds in fire-tube boilers are Shell – to Endplates, Furnace to Endplates, Access tube to Endplates and Ash Drop out chutes to Furnace and Shell. These welds are specified in Guidelines for the examination of Boiler Shell to End plate and Furnace to Endplate and Welded joints published by Safety Assessment Federation Limited, London, UK"*
- (e) Waste heat steam generators are not deemed to be fire tube steam generators.*
- (f) The intent of sub-regulation 11(1) (d) is to provide two routes for extension of in-service inspections for equipment not subject to deterioration processes: For deterioration mechanisms resulting in predictable material loss only, the extension may be granted based on proven history to a maximum of 9 years (the corrosion allowance may not be consumed within 20 years); and for all other deterioration mechanisms Regulation 12 applies. This extension may not be granted by the in-service inspection authority.*
- (g) In sub-regulation 11(1) (e) the competent person, as defined in GMR 1, shall be a person competent in his field of activity. The GMR 2.1 shall appoint a person to perform these inspections and test after confirming that they have appropriate knowledge and experience.*
- (h) As per sub regulation 11(1)(e) all existing piping and pipelines need to be inspected in accordance with relevant in-service health and safety standards inspection requirements. Risk assessment approach is required and not a full RBI as per Regulation 12.*
- (i) Pressure and safety accessories do not need to be attached during in-service inspection and tests but are required during pre-commissioning inspections. Safety accessories shall be maintained in accordance with the requirements of an appropriate Health and Safety Standard or to a maximum inspection interval equivalent to the pressure equipment it protects.*
- (j) Non flammable gas such as air may be used in lieu of inert gas for pneumatic testing.*
- (k) SAQCC CP Boiler and SAQCC CP Vessel inspectors have to do inspection under control of the quality control system of an AIA for in-service inspection. Free lance inspectors are not allowed to inspect equipment as from the 1 April 2011.*
- (l) Equipment that were previously exempted from inspection and testing under VUP rules such as in refrigeration plants and gas installations inspections may only be dispensed with up to 9 years. Implementation of an RBI management system as stipulated in PER 12 is required to extend intervals beyond 9 years.*

*Alternatively exemptions need to be applied for by the relevant users or industry bodies from the DOL. Exemptions issued to industry bodies will only be valid for the members of the relevant body.*

- (m) The intent of the pre-commissioning inspection by the AIA is to verify that the user is in full compliance with the PER prior to commissioning of the pressure equipment among other, compliance to PER 10, 15 etc. It is not the intention that complex equipment such as heat exchangers etc. be split or stripped to perform internal inspections but rather to verify where pressure equipment, while being transported, erected or worked on was not damaged, that no unauthorized hot work was performed without AIA verification etc. Internal inspections will typically be required where on site internal work is being performed such as installation of internal etc. Safety and pressure accessories susceptible to damage during the pressure test need not be fitted during the pressure test.*
- (n) Existing equipment regulated under VUP regulations may retain the existing inspection intervals until the first inspection after the PER came into affect. There after full compliance to the inspection interval requirements of the PER shall be adhered to including the implementation of RBI.*
- (o) PER 11.(2) also applies to PER 11.(1). (a)*
- (p) Where reference is made in the Regulation to AIA, it refers to manufacturing AIA. Reference to the In-service AIA is for the in-service inspection function only. See guide note under PER 9.*
- (q) Pressure equipment categorised as SEP (sound engineering practice) in SANS 347 are not regulated.*

#### **REGULATIONS 12 – RISK BASED INSPECTION**

1. The user may, as an alternative to the in-service inspection and testing interval requirements referred to in regulations 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.

#### **Notes:**

- (a) ISO 17021 applies to certification bodies and ISO 17020 applies to inspection bodies. The functions required for Risk Base Inspection process and implementation requires the use of ISO 17021 and not ISO 17020 since criteria are different.*
- (b) The new inspection interval shall also be approved by an approved inspection authority as in PER 11.(1). (d) and frequencies in excess of 9 years can be approved provided it meets the RBI management system criteria.*
- (c) Users who wish to implement a risk-based inspection management system need to apply to the DOL prior to implementation of such a system. Such application shall include proof that the user has applied to a Certification Body for accreditation.*

**REGULATIONS 13 - REPAIRS AND MODIFICATIONS**

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.

**Notes:**

- (a) *Any person who intends to modify or repair any pressure equipment must comply with the relevant hazard category as determined by SANS 347. Existing equipment regulated under VUP rules need not be categorized provided full AIA involvement is maintained during repairs or modifications. (module G approach)*
- (b) *AIA to supervise, if applicable any pressure equipment ~~to~~ requiring re-certification. See regulation 9 for re-certification criteria.*
- (c) *Pressure Equipment previously excluded under the VUP Regulations is excluded from these requirements. See note (g) under Regulation 2 for further clarification.*
- (d) *Pressure equipment compliant to the standards enforced at the time of manufacture, i.e name plate stamped by AIA but without documentation of construction details, may be modified after calculations and necessary*

*verifications and tests have been performed in accordance with an appropriate health and safety standard.*

- (e) Pressure equipment compliant to the standards enforced at the time of manufacture, i.e name plate stamped by AIA but without documentation of construction details, may be repaired after necessary verifications and tests have been performed in accordance with an appropriate health and safety standard.*

#### **REGULATIONS 14 - RECORDS**

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.

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

#### **Notes:**

- (a) The user shall keep all records as defined for the period in use. Further clarification is that the user is not necessarily the owner.*
- (b) The records of the original manufacturing of the pressure equipment shall be kept by the manufacture for a minimum of 12 years; enabling a technical review of the construction of the equipment should a failure or a dispute arise. Typical documentation should include, but not limited to, design calculations, approved manufacturing drawings, approved fabrication records, pressure test certificate, Certificate of manufacture as well as a copy of the marking (if applicable).*
- (c) The importer will assume the role of the manufacturer in PER 14 and shall maintain or make available relevant records and information as required in lie of the original manufacturer.*

- (d) *Equipment manufactured prior to 23 October 1992 and which was designed, constructed and manufactured in accordance with regulations in force at that time do not require a certificate of manufacture. (See regulation 2 of VUP)*

## **REGULATIONS 15 - ACCESS**

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.

**Notes:**

*"access". -the word "access" can also mean:*

*for internal inspection: remote access e.g. small vessels*

*for external inspection: accessibility for inspection activities e.g. pressure accessories*

- (a) *The Approved Inspection Authority shall verify compliance of above requirement during the pre-commissioning inspection activity.*

## **REGULATIONS 16 – DOOR INTERLOCKS**

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.

**Notes:**

*None*

## **REGULATIONS 17 – GAS RETICULATION EQUIPMENT AND SYSTEMS**

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;
  - (c) 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 sub regulations (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.

**Notes:**

- (a) *The intent of Regulation 17 is to ensure safety in the general light industrial and domestic gas market applications where the competence is needed for correct material and component selection, installation and commissioning as currently fulfilled by the SAQCC-Gas Installers Certification Scheme. This scheme assures quality of installations. For refineries, pipeline systems and gas storage facilities installation, compliance are verified by Approved Inspection Authorities to typical process piping Health and Safety standards.*
- (b) *“health and safety standard incorporated into these Regulations under section 44 of the Act” - also see SANS 347 Appendix A*
- (c) *The definition of the gas system in these regulations also treats Utility air as a non-dangerous gas installation and needs to be categorised in accordance to SANS 347 and need not to be inspected or certified by an Authorised Person for gas reticulation systems as defined in the PER.*
- (d) *The definition of the gas system in these regulations also treats Nitrogen as a dangerous gas and shall be categorised in accordance with SANS 347. Nitrogen used for process equipment for blanketing purpose does not have to be inspected and certified by an Authorised Person for gas reticulation systems as defined in the PER.*
- (e) *An Authorised Person shall only issue certificate of conformity for reticulation systems (Pressure below 200kPa). For all other gas systems or gas installations an Approved Inspection Authority shall issue a certificate of conformity according to SANS 347 where applicable.*

**REGULATIONS 18 – TRANSPORTABLE GAS CONTAINERS**

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 sub regulations (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.

**Notes:**

- (a) *The inspection and test for the transportable gas container shall be carried out by an approved testing station.*
- (b) *Proof of accreditation from an accepted Accreditation Body is needed for approval of a testing station by the DOL.*
- (c) *Transportable gas containers smaller than 0.5 litres are not regulated but shall be manufactured to a relevant health and safety standard.*
- (d) *Additional Health and Safety Standards are also listed in SANS 347.*

## **REGULATIONS 19 - FIRE EXTINGUISHER**

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 sub regulations 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.

**Notes:**

- (a) *Only an authorized person shall fill, recharge, recondition, modify, repair, inspect or test any fire extinguisher.*
- (b) *The permit must be issued by an organisation approved by the chief inspector.*
- (c) *High Pressure rechargeable containers which are used as CO<sub>2</sub> fire extinguishers, shall only be re-validated by an organisation which has been accredited to SANS 1825. Fire extinguisher test stations accredited to SANS 1425 are not allowed to inspect or test high pressure re-chargeable CO<sub>2</sub> fire extinguishers “.*

**REGULATIONS 20 – OFFENCES AND PENALTIES**

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.

**Notes:**

*None*

**REGULATIONS 21 – REPEAL OF REGULATIONS AND ANNEXURE**

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

**Notes:**

*None*

**REGULATIONS 22 – SHORT TITLE**

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.

**Notes:**

- (a) *The authorized person is a person who holds a valid SAQCC CP certification for either pressure vessels or steam generators as applicable.*
- (b) *Applications for accreditation as an In-service AIA shall be made to SANAS. (South African National Accreditation System) where-after approval shall be obtained from the DoL.*

**Annexure 1****CERTIFICATE OF CONFORMITY FOR GAS INSTALLATIONS****OCCUPATIONAL HEALTH AND SAFETY ACT, 1993  
Regulations 17(3) of the Pressure Equipment Regulations, 2009**

Certificate of conformity by an authorised person

I, \_\_\_\_\_, declare that I am an authorised person for gas installations with registration number \_\_\_\_\_ and ID number \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Telephone number (\_\_\_\_\_) \_\_\_\_\_

I further declare that I inspected and tested the installation at -

Street \_\_\_\_\_

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 on premises \_\_\_\_\_ kg

And that, in terms of regulations 17(3), the installation complies with the provisions of 17(2) and that the installation is safe.

I am aware that I am liable to prosecution in the case of a false declaration.

\_\_\_\_\_  
Signature\_\_\_\_\_  
Date

**Annexure 2****REGISTRATION OF A STEAM GENERATOR****OCCUPATIONAL HEALTH AND SAFETY ACT, 1993**  
Regulations 8(2) of the Pressure Equipment Regulations, 2009

## Registration of a steam generator

**A. APPLICATION FOR REGISTRATION OF A STEAM GENERATOR/DUPLICATE CERTIFICATE**To: Provincial Director  
Department of Labour\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

From: (Postal Address)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_Tel. \_\_\_\_\_  
Fax \_\_\_\_\_

I (user) (legal persona) \_\_\_\_\_ hereby apply for a registration/duplicate registration certificate of a steam generator, 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 STEAM GENERATOR**

1. Physical address of installation \_\_\_\_\_
2. Type of steam generator \_\_\_\_\_
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 steam generator \_\_\_\_\_ kg of steam per hour from and at 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 commissioning report attached \_\_\_\_\_

**FOR OFFICIAL USE ONLY****C. STEAM GENERATOR REGISTRATION CERTIFICATE**

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

\_\_\_\_\_  
Signature of inspector

Official stamp

Issue of duplicate steam generator registration certificate

Revenue stamps for duplicate

Date \_\_\_\_\_

Signature \_\_\_\_\_