



# Pressure Equipment Mandatory Requirements



A pressure vessel is a container that holds either gasses or liquids and is subject to internal or external pressure. It includes interconnecting parts and components, valves, gauges, and other fittings up to the first point of connection to the connection piping.

Every pressure vessel has a hazard level assigned to them as assessed using the criteria in Australian Standard AS4343- Pressure Equipment- Hazard Levels. Pressure vessels are rated from hazard level A to E, A being the most hazardous and E being the least hazardous. There are a number of factors that contribute to a pressure vessel hazard level, which include-

- Volume
- Pressure
- Contents type
- Hazardous contents
- Location
- Boiler/ vessel type

Examples of types of pressure equipment include- Steam boilers, hot water boilers, air receivers, refrigeration/ chiller vessels, gas storage tanks, sterilizers/ autoclaves.

Owners of pressure equipment must comply with current laws, legislation and Australian Standards relating to pressure equipment and can be fined if they fail to do so.



## Vessel Compliance

All boilers and pressure vessels categorized as Hazard Level A,B,C or D must have a current design registration number.(WHS regulation 2017 Schedule 5 Part 1)

***It is against the law for anyone to operate an item of pressure equipment Hazard Level A,B,C or D without correct and current design registration.***

Under the Work Health & Safety Regulation 2017 Schedule 5 It is an offence for a vessel Manufacturer, Importer or Supplier to supply

Document Name	Pressure Equipment- Mandatory Requirements		Created date	22/5/2013	
Document No	ABV1-1008	Revision No	2	Last modified/ Revised date	11/7/2018
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equipment that does not have design registration with penalties of up to \$30,000.

Only design registration numbers supplied by a regulatory authority within Australia (eg Workcover NSW, Worksafe Vic, Worksafe SA) is acceptable.

\*(Extract from Work Health & Safety Regulation 2017)-

**Schedule 5 Registration of plant and plant designs**

(Clauses 243 and 246)

**Part 1 Plant requiring registration of design**

**1 Items of plant requiring registration of design**

- 1.1 Pressure equipment, other than pressure piping, and categorised as hazard level A, B, C or D according to the criteria in Section 2.1 of AS 4343-2005 (*Pressure equipment—hazard levels*).

**A design registration number is mandatory in accordance with the work Health & Safety Regulation 2017 with fines of up to \$30,000 for non compliance**

**Inspection**

All boilers and pressure vessels categorized as Hazard Level A,B or C must be inspected at regular intervals by a competent person and assessed as being safe to operate Under the Work Health & Safety Regulation 2017 Part 5.3 Division 2 and Division 4

***It is against the law for anyone to operate an item of pressure equipment Hazard Level A,B or C unless the vessel has been certified Safe To Operate and is registered with Safework/ Worksafe.***

It is the responsibility of the vessel owner to ensure that inspections are carried out

Inspections should be carried out in accordance with Australian standard AS3788- Pressure Equipment- In- Service Inspection. Inspection of pressure equipment is required –

- At commissioning or re commissioning
- Following repairs
- Pressure relief/ safety valves- are subject to regular inspection and overhaul/ bench testing to ensure that they are in a safe working condition.



Document Name	Pressure Equipment- Mandatory Requirements		Created date	22/5/2013	
Document No	ABV1-1008	Revision No	2	Last modified/ Revised date	11/7/2018
Copyright ABV Inspections Pty Ltd			Page Sequence	Page 2 of 6	



- During Service- Periodic In- service Inspection- Internal and external periodic inspections. Inspection frequencies are defined in AS3788 Table 4.1



Common Periodic In- Service inspection frequencies from AS3788 Table 4.1 are as follows-

- Steam Boilers- 1 year
- Air Receivers- 2 years\*
- Refrigeration vessels- 2 years\*
- Hot Water Boilers- 2 years\*

\*(Note- for 2 yearly inspections requirements may apply for annual checking/ testing of pressure relief/ safety devices for 2 yearly certificates to remain valid)

\*(Extract from Work Health & Safety Regulation 2017)-



<b>224 Pressure equipment</b>
(1) The person with management or control of pressure equipment at a workplace must ensure that:
(a) the equipment is inspected on a regular basis by a competent person, and
(b) any gas cylinder that is inspected is marked with a current inspection mark showing the date of the most recent inspection.
Maximum penalty:
(a) in the case of an individual—\$3,600, or
(b) in the case of a body corporate—\$18,000.

**Inspection of pressure equipment is mandatory in accordance with the work Health & Safety Regulation 2017 with fines of up to \$18,000 for non compliance**

## Registration/ De- registration

All boilers and pressure vessels categorized as Hazard Level A,B or C must be registered with the regulatory authority (Workcover NSW/ Worksafe Victoria) -WHS regulation 2017 Schedule 5 Part 1 Under the Work Health & Safety Regulation 2017

It is the responsibility of the vessel owner to ensure that pressure equipment is correctly registered including notifying the regulatory authority if the unit is relocated or decommissioned.

The regulatory Authority in each State sets out registration renewal frequency, but it is generally an annual renewal

Document Name	Pressure Equipment- Mandatory Requirements		Created date	22/5/2013	
Document No	ABV1-1008	Revision No	2	Last modified/ Revised date	11/7/2018
Copyright ABV Inspections Pty Ltd			Page Sequence	Page 3 of 6	



\*(Extract from Work Health & Safety Regulation 2017)-

## Part 2 Items of plant requiring registration

### 3 Items of plant requiring registration

- 3.1 Boilers categorised as hazard level A, B or C according to criteria in Section 2.1 of AS 4343-2005 (*Pressure equipment—Hazard levels*).
- 3.2 Pressure vessels categorised as hazard level A, B or C according to the criteria in Section 2.1 of AS 4343-2005 (*Pressure equipment—Hazard levels*), except:
  - (a) gas cylinders, and
  - (b) LP Gas fuel vessels for automotive use, and
  - (c) serially produced vessels.



**Correct Vessel item registration is mandatory in accordance with the work Health & Safety Regulation 2017 with fines of up to \$100,000 for non compliance**

## Repairs

All repairs, alterations and modifications to pressure equipment must be-

- Competently designed
- Carried out by a competent person
- Tested to ensure that they meet required standards

Where repairs are required to a vessel shell, strict repair and testing procedure must be followed including developing a welding procedure, ensuring qualified welding personnel, hydrostatic testing, NDT- Non Destructive testing and inspection and post weld heat treatment.

**ABV Inspections can assist your company with any of the above with regard to pressure equipment.**

If you require any further information or assistance, please contact our office on-

ABV Inspections Pty Ltd  
PO Box 7261  
Mt Annan NSW 2567  
Ph- (02) 4647 7698  
[info@abvinspections.com.au](mailto:info@abvinspections.com.au)  
[www.abvinspections.com.au](http://www.abvinspections.com.au)

Document Name	Pressure Equipment- Mandatory Requirements		Created date	22/5/2013	
Document No	ABV1-1008	Revision No	2	Last modified/ Revised date	11/7/2018
Copyright ABV Inspections Pty Ltd			Page Sequence	Page 4 of 6	



**Sample Safework NSW  
Plant Item Registration  
Certificate-**  
Mandatory for all items of  
Pressure Equipment Hazard  
Level A,B,C (AS4343-  
Pressure Equipment- hazard  
Levels

**CERTIFICATE OF  
PLANT ITEM  
REGISTRATION**



Occupational Health & Safety Act 2000  
Occupational Health & Safety Regulation 2001

ABN: 77 682 742 966  
Phone: (02) 4321 5498

Registration No: (SAMPLE) Issue Date: 14/10/2015 Expiry Date: 13/10/2016  
Controller: (SAMPLE) ABN: 12345678910  
Postal  
Address:

Item Type: Pressure Vessel

**Description of Item:**

Chamber 1 Hazard Level	B
Chamber 1 Contents	Non Harmful
Chamber 1 Volume (l)	2973
Chamber 1 Design Pressure (kPa)	1240
Chamber 1 Fluid Type	Gas
Manufacturer	
Model	UNKNOWN
Serial Number	
Pressure Vessel	Air receiver

**Location:**

(If mobile plant, this is the location where usually stored or maintained)

**Special Conditions:**

**CONDITIONS:**

1. This registration applies only to the item described above which has been notified to WorkCover NSW in accordance with the OHS Regulation 2001.
2. This certificate of registration (or a copy) must be kept in the vicinity of the item of plant to which it refers. For mobile plant, the Registration number must be displayed on the item in a prominent location and be of a permanent nature and clearly legible.
3. This Registration is automatically invalidated if the item is altered in any way that is different to the original design specification, or changes the capacity of the item. This does not include routine maintenance, painting or changes equivalent to original design specifications.
4. The Registration Number should be quoted in all correspondence to WorkCover regarding this item. Any queries should be addressed to WorkCover's Licensing Unit.

Total Fee Paid: 65.26 Receipt No:

Document Name	Pressure Equipment- Mandatory Requirements		Created date	22/5/2013	
Document No	ABV1-1008	Revision No	2	Last modified/ Revised date	11/7/2018
Copyright ABV Inspections Pty Ltd			Page Sequence	Page 5 of 6	



**Sample Safework NSW  
Plant Design Registration  
Certificate-**  
Mandatory for all items of  
Pressure Equipment Hazard  
Level A,B,C,D (AS4343-  
Pressure Equipment- hazard  
Levels



**CERTIFICATE OF PLANT  
DESIGN REGISTRATION**

Work Health & Safety Act 2011  
Work Health & Safety Regulation 2011

ABN: 77 682 742 966  
Phone: (02) 4321 5496  
Fax: (02) 4325 5094

**Registration No:** (SAMPLE)      **ABN:** 12345678910      **Issue Date:** 29/01/2015

**Registration Holder:** (SAMPLE)

**Postal Address:**

**Plant Type:**      Pressure Vessel Original

**Model Number/ Trade Name:**      N/A

**Technical Standard :**      ASME VIII DIV 1, 2004

**Engineering Principles:**      No

**Design Description:**

Quality System	No
Hazard Level	D
Contents	Non Harmful
Chamber 1 Volume (l)	110
Chamber 1 Design Pressure (kPa)	400
Chamber 1 Temperature (°C)	-10 TO 60
Chamber 1 Fluid Type	Liquid
Chamber 2 Volume (l)	48
Chamber 2 Design Pressure (kPa)	1920
Chamber 2 Temperature (°C)	-10 TO 204
Chamber 2 Fluid Type	Gas
Drawing Number & Revisions	453286 REV 11
Pressure Vessel	Other
Other Type	PROCESS VESSEL (INCLUDING CORROSIVE)
Number of Chambers	2

Note: The design of an item of plant registered under the Occupational Health and Safety Regulation immediately before the repeal of that regulation is deemed to have been registered under part 5.3 of the WHS Regulation.

**Fee Paid:** \$ 259.03

**Receipt Date:** 22/01/2015

**Receipt No:**

WC0951 0202

Document Name	Pressure Equipment- Mandatory Requirements	Created date	22/5/2013
Document No	ABV1-1008	Revision No	2
Copyright ABV Inspections Pty Ltd		Last modified/ Revised date	11/7/2018
		Page Sequence	Page 6 of 6