



INDUSTRIAL SAFETY DIVISION

DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH MALAYSIA

APPLICATION GUIDE FOR DESIGN VERIFICATION OF LOCAL PRESSURE VESSEL

2025

Contents

1.0 INTRODUCTION	2
2.0 ENABLER	2
3.0 INTERPRETATION	2
4.0 SCOPE	2
4.1 SCOPE OF APPLICATION	2
4.2 NON-APPLICATION	3
5.0 APPLICATION REQUIREMENTS	3
6.0 INSTRUCTION FOR FILLING OUT APPLICATION DETAILS	3
7.0 APPLICATION DOCUMENTS	6
8.0 INFORMATION	6
9.0 FEES	7
10.0 CLIENT CHARTER	7
11.0 CHECKLIST	8

1.0 INTRODUCTION

This application guide serves as a reference for applicants submitting online application of local pressure vessel design verification via MySKUD system. This aims to provide applicants with clear and accurate guidance to help them meet all application requirements.

2.0 ENABLER

The Occupational Safety And Health (Plant Requiring Certificate Of Fitness) Regulations 2024 are provisioned under the Occupational Safety and Health Act 1994, Section 27B, whereby the Minister may specify any plant for which a certificate of fitness is required. These regulations **came into operation on 1 June 2024**.

The enabler power to application guide is pursuant to Section 27C of the Occupational Safety and Health Act 1994, whereby the Director-General may grant an approval subject to such terms and conditions as the Director General may impose.

3.0 INTERPRETATION

- i. Pressure vessel means an enclosed vessel with pressure greater or less than atmospheric pressure.
- ii. Fired pressure vessel (FPV) means a closed pressure vessel with pressure greater or less than atmospheric pressure that has any heating element that does not generate steam. Examples of FPV machinery include Hot Water Boilers, Fired Heaters, Electrical Heaters, and others.

4.0 SCOPE

4.1 SCOPE OF APPLICATION

- i. Applications for plant (pressure vessel) design verification are divided into two pressure vessel categories:
 - a. fired pressure vessels
 - b. unfired pressure vessels

Applications submitted in the MySKUD system must accurately reflect the vessel category.

- ii. The local pressure vessel design verification application only applies to:

- a) Every new pressure vessel that has never been used and has never suffered any deterioration; or
- b) Replacement of tube bundles for registered vessels; or
- c) Alteration (modification) involving eighty percent (80%) or more of the entire pressure vessel.

4.2 NON-APPLICATION

The scope of this application does not apply to pressure vessels specified in the Second Schedule, Occupational Safety And Health (Plant Requiring Certificate Of Fitness) Regulations 2024.

5.0 APPLICATION REQUIREMENTS

- i. Every document submitted must be in either **Malay or English**.
- ii. Applications are only for pressure vessels manufactured in Malaysia by a Competent Person (Company) Manufacturer for Pressure Vessel registered with the Department.
- iii. Design Verification applications must be submitted to the Department before the pressure vessel is constructed.
- iv. For pressure vessels designed using the ASME Sec. VIII Div. 2 or ASME Sec. VIII Div. 3 design code, the vessel design must be verified by an authorized inspecting body.

6.0 INSTRUCTION FOR FILLING OUT APPLICATION DETAILS

Required information for the Local Pressure Vessel Design Verification Application Form:

DETAILS	NOTES
VESSEL TYPE	
1) Vessel Type*	Select the type of vessel based on the interpretation of vessels, whether it is a fired pressure vessel or an unfired pressure vessel
APPLICANT INFORMATION	
2) Applicant's Name*	Applications can only be made by a Competent Person (Company) Manufacturer for Pressure Vessel.
3) Applicant's Address*	The address of the Competent Person (Company)

DETAILS	NOTES
4) Name of Contact Person	Name of the company officer who can be contacted
5) Phone Number*	Telephone number of the company officer mentioned above
6) Email*	Email of the company officer mentioned above
7) Technical Officer's Name*	Name of the technical officer who can be contacted
MANUFACTURER INFORMATION	
8) Manufacturer Name*	Name of the company that manufactures pressure vessels Example: KNZH Sdn. Bhd. Note: Fill in the company name as listed in the Competent Person (Company) Manufacturer for Pressure Vessel approved by the Department and still within the valid period.
9) Manufacturer Address*	Address of the company mentioned above
VESSEL INFORMATION	
10) Type of Pressure Vessel*	Select the type of pressure vessel information as stated in the MYSKUD system
11) About Pressure Vessels *	Fill in the name of the pressure vessel as shown in the design drawing
12) Model*	Fill in the model information of the pressure vessel as shown in the design drawing. Enter (-) if not applicable.
13) Year of Manufacture*	Select the manufacturing year of the pressure vessel
14) Serial No.*	Fill in the serial number of the pressure vessel. Enter (-) if not applicable.
15) Working Media*	Fill in the working media of the pressure vessel

DETAILS	NOTES
16) Dimension (mm)*	Fill in the dimensions such as length, width, and height of the pressure vessel Enter (-) if not applicable.
17) Diameter (mm)*	Fill in the internal and external diameters of the pressure vessel
18) Volume (m ³)*	Fill in the total volume capacity of the pressure vessel
19) Design Drawing No.*	Fill in design drawing numbers as attached.
DESIGN PRESSURE AND TESTING INFORMATION	
20) Recognized standard*	Fill in the recognized standard (design code) information according to the latest edition or amendment as listed in the Fourth Schedule, Occupational Safety And Health (Plant Requiring Certificate Of Fitness) Regulations 2024.
21) Design Temperature	Fill in the design temperature information as indicated in the design drawing
22) Design Pressure (kPa)*	Fill in the design pressure in kilopascal (kPa) units as indicated in the design drawing
23) Type of pressure test*	Select the type of pressure test as listed in the MYSKUD system
24) Test Pressure (kPa)*	Fill in the test pressure information in kilopascal (kPa) units based on calculation.
OWNER INFORMATION	
25) Owner's Name*	Fill in the owner's name for the pressure vessel
26) Owner's Address*	Fill in the owner's address for the pressure vessel
ESSENTIAL FITTINGS INFORMATION	
27) Pressure Relief Valve*	Fill in the nozzle number information for the Pressure Relief Valve connection by referring to the design drawing number

DETAILS	NOTES
28) Pressure Gauge*	Fill in the nozzle number information for the Pressure Gauge connection by referring to the design drawing number
29) Manufacturer's Name Plate*	Fill in the design drawing number containing the manufacturer's name plate drawing Enter (-) if the applicant submits a rubbing nameplate.

7.0 APPLICATION DOCUMENTS

Please upload the required documents for the application of local pressure vessel design verification as follows:

- i. Design drawings.
- ii. Design calculations using the latest edition of the recognized standard.

8.0 INFORMATION

- i. The Department reserves the right to reject the application or withdraw design verification approval at any time if it is found that:
 - a) It does not comply with or violates any terms and conditions stipulated by the Director General under Section 27C.(3), Occupational Safety and Health Act 1994 as stated in the verification letter; or
 - b) It falsifies application documents and information; or
 - c) It has violated any other terms and conditions issued by the Department from time to time.
- ii. Each pressure vessel shall be tested as specified in the design verification before being operated and witnessed by an authorized inspecting body recognized by the Department as listed in the First Schedule, Occupational Safety And Health (Plant Requiring Certificate Of Fitness) Regulations 2024.

9.0 FEES

Every application of pressure vessel design verification shall be accompanied with a processing fee as follow:

NO.	MATTER	FEE (RM)
1.	Capacity less than 1 cubic meter	300
2.	Capacity of 1 cubic meter and above but less than 5 cubic meters	600
3.	Capacity of 5 cubic meters and above	1,000

Any fee paid for this pressure vessel design verification application shall not be refundable.

10.0 CLIENT CHARTER

Applications submitted with complete documents will be processed within 15 working days from the date of receipt of the application.

11.0 CHECKLIST



**DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH MALAYSIA
CHECKLIST FOR DESIGN VERIFICATION OF LOCAL PRESSURE VESSEL
APPLICATION**

No.	Items	Available	Not Available	NA
1.	Information on application			
	<p>a) The information in the design drawing / nameplate shall be the same as in the MySKUD system:</p> <ul style="list-style-type: none"> ▪ Manufacturer's name ▪ Model (if available) ▪ Year of manufacture ▪ Recognized standard (design code) according to the latest edition or amendment ▪ Design pressure and test pressure ▪ Volume (m³) ▪ Working media 			
2.	Design drawing			
	<p>a) Document Criteria</p> <ul style="list-style-type: none"> ▪ Clear and readable ▪ Uploaded in landscape orientation ▪ Nameplate drawing ▪ In Malay/English language ▪ Size should be appropriate and not too crowded <p>b) 'Design data'</p> <ul style="list-style-type: none"> ● Recognized standard (design code) according to the latest edition or amendment ● Design pressure, Design temperature ● Operating pressure, Operating temperature ● Test pressure and Type of Pressure Test ● Working medium, volume, corrosion allowance (CA), flange rating ● Joint efficiency, minimum design metal temperature (MDMT), maximum allowable 			

	<p>working pressure (MAWP), post weld heat treatment (PWHT), Radiographic Testing (RT) Degree</p> <p>c) Bill of Material:</p> <ul style="list-style-type: none"> ▪ Construction Material Specifications ▪ Size and Dimensions ▪ Quantity ▪ Nozzle and Flange Schedule <p>d) Detailed drawings of main pressure vessel components. Example: Nozzle, Flange, Tubesheet</p> <p>e) Weld details (LW, CW, nozzle weld). Example: weld symbol, minimum weld size, and others.</p> <p>f) Main dimensions and information on skirt/support/lug.</p>			
3.	Design Calculations			
	Referring to the recognized standard (design code) according to the latest edition or amendment used in the design drawing			
4.	Other criteria that need to be complied with:			
	<p>a) Working medium must be detailed and understandable (Example: Ammonia)</p> <p>b) Unspecified equivalent materials are not allowed in the bill of material (Example: SA-36 or EQ)</p> <p>c) Calculations for non-standard flanges shall be submitted</p> <p>d) Design Verification information for Quick Opening/Clutch Door must be stated in the design drawing (if applicable)</p> <p>e) Calculations for nozzle reinforcement exceeding 3 inches and above shall be submitted</p> <p>f) Working media using lethal substances must be declared in the design drawing.</p>			

**Pressure Vessel Unit
Design Approval Section
Industrial Safety Division
Department of Occupational Safety and Health
Reference: 5/2025 (Updated)**