



**INDUSTRIAL SAFETY DIVISION**  
**DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH MALAYSIA**

**APPLICATION GUIDE FOR DESIGN VERIFICATION OF IMPORTED PRESSURE  
VESSEL**

**2025**

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## **1.0 INTRODUCTION**

This application guide serves as a reference for applicants submitting online application of imported 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 vesselsApplications submitted in the MySKUD system must accurately reflect the vessel category.
- ii. The application for design verification of imported pressure vessels is only applicable to pressure vessel that is new, never been used and never suffered from any deterioration.
- iii. The application for imported pressure vessels is divided into two categories:
  - a) Imported Pressure Vessels (Exceeding or equal to 3000psig.in)
    - Pressure vessels where the inside diameter (inch) x design pressure (psig)  $\geq$  3000psig.in.

- b) Imported Pressure Vessels (Less than 3000psig.in)
  - Pressure vessels where the inside diameter (inch) x design pressure (psig) < 3000psig.in

#### 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**. Any translations must be done by the manufacturer or an official translation institution.
- ii. Applications can be made by any party related to the pressure vessel.
- iii. Any pressure vessel before entering Malaysia must obtain design verification by submitting technical documents specified in the Fifth Schedule, Occupational Safety And Health (Plant Requiring Certificate Of Fitness) Regulations 2024 to the Department, provided that:
  - a) The vessel is new and unused;
  - b) Has never suffered from any deterioration.
  - c) Ensure that the design, substance, construction, performance quality, inspection and testing of the pressure vessel comply with recognized standards (design code) according to the latest edition or amendments as listed in the Fourth Schedule, Occupational Safety And Health (Plant Requiring Certificate Of Fitness) Regulations 2024.
- iv. Design drawings and design calculations or analyses must be carried out according to the latest edition of recognized standards by the Department and certified by the origin manufacturer and an authorized inspecting body (if necessary).
- v. For pressure vessels designed using ASME Sec VIII Div 2 or ASME Sec VIII Div 3 design codes, the design of the vessel must be verified by an authorized inspecting body.
- vi. For pressure vessels with an inside diameter (inch) x design pressure (psig)  $\geq$  3000psig.in, a declaration from an authorized inspecting body as per the Annex must be submitted to meet the requirements in item 5 (iii).

## 6.0 INSTRUCTION FOR FILLING OUT APPLICATION DETAILS

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

DETAILS	NOTES
<b>VESSEL TYPE</b>	
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
<b>APPLICANT INFORMATION</b>	
2) Applicant's Name*	Applications can be made by any party related to the pressure vessel
3) Applicant's Address*	The address of the party making the application
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
<b>MANUFACTURER INFORMATION</b>	
8) Manufacturer Name*	Name of the company manufacturing the pressure vessel Example: KNZH Sdn. Bhd.
9) Manufacturer Address*	Address of the company mentioned above

DETAILS	NOTES
<b>VESSEL INFORMATION</b>	
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
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 <sup>3</sup> )*	Fill in the total volume capacity of the pressure vessel
19) Design Drawing No.*	Fill in design drawing numbers as attached.
20) ID x DP Information*	Select whether the ID x DP exceeds or equals 3000 psig.inch.
21) Total ID x DP*	Fill in the information for the product of inner diameter (inch) and design pressure (psig)

DETAILS	NOTES
<b>DESIGN PRESSURE AND TESTING INFORMATION</b>	
22) 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.
23) Design Temperature	Fill in the design temperature information as indicated in the design drawing
24) Authorized inspecting body	Select the authorized inspecting body recognized by the Department as listed in the First Schedule, Occupational Safety And Health (Plant Requiring Certificate Of Fitness) Regulations 2024. Enter (-) if not applicable.
25) Design Pressure (kPa)*	Fill in the design pressure in kilopascal (kPa) units as indicated in the design drawing
26) Type of pressure test*	Select the type of pressure test as listed in the MYSKUD system
27) Test Pressure (kPa)*	Fill in the test pressure information in kilopascal (kPa) units based on calculation.
<b>OWNER INFORMATION</b>	
28) Owner's Name*	Fill in the owner's name for the pressure vessel
29) Owner's Address*	Fill in the owner's address for the pressure vessel
<b>ESSENTIAL FITTINGS INFORMATION</b>	
30) Pressure Relief Valve*	Fill in the nozzle number information for the Pressure Relief Valve connection by referring to the design drawing number
31) Pressure Gauge*	Fill in the nozzle number information for the Pressure Gauge connection by referring to the design drawing number

<b>DETAILS</b>	<b>NOTES</b>
32) 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 imported pressure vessel design verification as follows:

No.	Documents	Requirements	
		ID x DP $\geq$ 3000psig.in	ID x DP < 3000psig.in
1	Design Drawing *Please ensure that the design drawing uploaded is in landscape orientation	Must be verified by an authorized inspecting body	Verification by an authorized inspecting body if required by recognized standards or owner's requirements
2	Design calculation / analysis was conducted in accordance with the latest design code		
3	Supporting Documents	Declaration from an authorized inspecting body as in Annex	

## 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 IMPORTED PRESSURE VESSEL APPLICATION

No.	Items	Available	Not Available	NA
<b>1.</b>	<b>Information on application</b>			
	<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"> <li>● Manufacturer's name</li> <li>● Model (if available)</li> <li>● Year of manufacture</li> <li>● Recognized standard (design code) according to the latest edition or amendment</li> <li>● Design pressure and test pressure</li> <li>● Volume (m<sup>3</sup>) *overall volume of each chamber shall be added up</li> <li>● Working media *working media for every chamber shall be declared (e.g.: Shell: Water; Tube: Steam)</li> </ul>			
<b>2.</b>	<b>Design drawing</b>			
	<p>a) Document Criteria</p> <ul style="list-style-type: none"> <li>● Clear and readable</li> <li>● Uploaded in landscape orientation</li> <li>● Nameplate drawing</li> <li>● In Malay/English language</li> <li>● Size should be appropriate and not too crowded</li> </ul> <p>b) Design data</p> <ul style="list-style-type: none"> <li>● Recognized standard (design code) according to the latest edition or amendment</li> <li>● Design pressure, Design temperature</li> <li>● Operating pressure, Operating temperature</li> <li>● Test pressure and Type of Pressure Test</li> <li>● Working medium, volume, corrosion</li> </ul>			

	<p>allowance (CA), flange rating</p> <ul style="list-style-type: none"> <li>• Joint efficiency, minimum design metal temperature (MDMT), maximum allowable working pressure (MAWP), Post Weld Heat Treatment (PWHT), Radiographic Testing (RT) Degree</li> </ul> <p>c) Bill of Material:</p> <ul style="list-style-type: none"> <li>• Construction Material Specifications</li> <li>• Size and Dimensions</li> <li>• Quantity</li> <li>• Nozzle and Flange Schedule</li> </ul> <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>			
<b>3.</b>	<b>Design Calculations</b>			
	Referring to the recognized standard (design code) according to the latest edition or amendment used in the design drawing			
<b>4.</b>	<b>Other criteria that need to be complied with:</b>			
	<p>a) For pressure vessels with product of internal diameter and design pressure equal to or greater than three thousand pounds per square inch, the design drawing and design calculations must be verified by an authorized inspecting body. (ID x DP ≥ 3000 psig.in)</p> <p>b) Working medium must be detailed and understandable (Example: Ammonia)</p> <p>c) Unspecified equivalent materials are not allowed in the bill of material (Example: SA-36 or EQ)</p> <p>d) Calculations for non-standard flanges shall be submitted</p> <p>e) Design Verification information for Quick</p>			

	Opening/Clutch Door must be stated in the design drawing (if applicable)			
f)	Calculations for nozzle reinforcement exceeding 3 inches and above shall be submitted			
g)	Working media using lethal substances must be declared in the design drawing.			

12.0 ANNEX

OCCUPATIONAL SAFETY AND HEALTH (PLANT REQUIRING CERTIFICATE OF FITNESS) REGULATIONS 2024

DECLARATION BY AUTHORIZED INSPECTING BODY

I, ..... being a Member / Surveyor of ..... an Authorized Inspecting Body named in First Schedule to the Occupational Safety And Health (Plant Requiring Certificate Of Fitness) Regulations 2024, Malaysia, hereby certify that pressure vessel with Serial No. .... was constructed by Messrs..... for..... in accordance with their drawing number ..... and design pressure of .....kPA was surveyed during construction by me in accordance with recognized standard of..... as specified in the Fourth Schedule, to the Occupational Safety And Health (Plant Requiring Certificate Of Fitness) Regulations 2024 and found its performance quality and workmanship to be good.

Samples of all materials used in its construction were tested or witnessed by Inspectors of this Company and found to comply with the provisions of the above-mentioned recognized standard. It was stamped by me as follows:

.....  
.....

Dated on: .....

.....  
Member/Surveyor Signature

.....  
Authorized Inspecting Body

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