



# FMM CERTIFICATE IN BOILERMAN (42<sup>ND</sup> BATCH)

**1** FEBRUARY 5, 6, 12 & 13, 2025

**9.00AM – 5.00PM** **FMM INSTITUTE, PERAK**

The FMM Certificate in Boilerman is specially developed to upgrade the Theoretical and Operational Skills of the current workforce in handling Steam Boilers in various sectors. Conducted in Bahasa Malaysia, the Certificate programme will provide the knowledge to upgrade the skills of Boiler Supervisors, Operators, Assistants and Apprentice on matters relating to Operations, Mounting and Fittings, Inspections and Maintenance of Boilers at the workplace.

Based on latest **Amendments to Factory & Machinery (Person-in-Charge) Regulations 2014**, the requirements are:

**1. Competent Boilerman is determined based on Size of Steam Boilers:**

Boiler Heating Surface	
≤ 100 sq.m.	Grade 2
> 100 sq.m.	Grade 1

**2. No. of Boilerman required:**

**Each Boilerman is only allowed to handle 2 Steam Boilers regardless of size during each Shift.**

## ...COURSE CONTENTS...

**1. ACTS AND REGULATIONS**

- Occupational Safety and Health Act, 1994 (Act 514) Version 2024
- Petroleum Act (Safety Measures) 1984 (Act 302)

**2. TYPES OF STEAM BOILERS**

- Fire and Water Tube Boilers
- Specifications of Boilers

**3. BOILER OPERATION (THEORY)**

- Piping Systems
- Start-Up Procedures / Shut-Down Procedures
- Trouble Shooting

**4. ESSENTIAL FITTINGS AND MOUNTINGS**

- Various Fittings and Mountings
- Functions of Each Fittings and Mountings

**5. PREPARATION FOR PERIODICAL INSPECTION**

- Preparation of Boiler for Inspection by DOSH / Licensed Person
- Time Based Inspection
- Risk Based Inspection
- Confine Space Procedures / LOTO

**6. VARIOUS TEST RELATED TO STEAM BOILERS**

- Hydrostatic Test
- Steam Test

- Non-Destructive Testing
- Destructive Testing

**7. BOILER HOUSE/ROOM REQUIREMENTS**

- Log Sheet / Book
- Responsibilities of Boilerman
- Serious Misconduct
- Dangerous Occurrences

**8. BOILER CONSTRUCTION**

- Fabrication Process
- Plain Tube / Stay Tube / Stay Bar / Gusset Stay

**9. BOILER WATER TREATMENT**

- Purpose of Treatment
- Internal Treatment
- External Treatment

**10. BOILER MAINTENANCE**

- Regular Preventive Maintenance on Fire and Water Sides
- Boiler Storage

**11. BOILER ACCESSORIES**

- Various Accessories
- Function of the Accessories

**12. ORAL REVISION**

## ...OBJECTIVES...

The course is designed to meet the following objectives :

- ▶ upgrade the knowledge and skills of current personnel's handling and operating Steam Boilers and to further upgrade the skills of Boilerman Grade 2 Certificate holders
- ▶ establish a level of sound theoretical and practical knowledge and skills pertaining to Boilers in order to efficiently manage and handle steam boilers towards better work performance
- ▶ create opportunities for career advancement; and
- ▶ prepare participants to sit for the Boilerman Grade 2 or Grade 1 Examinations conducted by Jabatan Keselamatan Dan Kesihatan (JKKP/DOSH).

## ...TRAINER...

**MR G. MOHANA KRISHNAN** holds a Master of Science (Mechanical Engineering) from Universiti Sains Malaysia, a Bachelor in Engineering (Naval Architecture and Shipbuilding), University of Newcastle, UK as well as a Diploma in Mechanical Engineering from Universiti Teknologi Malaysia. He has been a Technical Lecturer with the Department of Marine Engineering, Politeknik Ungku Omar, Perak from 1982 – 2002. Subsequently, he was the Head of Mechanical Engineering Department at Politeknik Sultan Azlan Shah, Behrang, Perak. Currently he is a Senior Technical Lecturer at one of the Premier Politekniks in Malaysia.

**MR. MOHANA** specialty is in areas such as Mathematics, Mechanics of Machine, Naval Architecture, Engineering Design, Strength of Materials and Steam Boilers and has experience supervising the operation of Steam Boilers at the Politeknik. In addition, he has also been the main facilitator of FMM Institute's Certificate in Boilerman Course for both Grade 1 and Grade 2 levels, since 1995 and lectures the Safe Operations of Pressurized Equipment module for FMM Institute's Certificate in Safety and Health Officer. He is also a member of the Board of Engineers Malaysia (BEM) and Malaysian Society of Engineering and Technology (MSET).

## ...ENTRY REQUIREMENTS...

A candidate **must** have the following entry requirements to **register** for this course and **sit** for the **Examinations**:

<b>Grade 2</b>	<ul style="list-style-type: none"><li>• <b>Malaysian citizen with at least 21 years of age</b></li><li>• <b>at least 2 years</b> working experience as a Boiler Asst. / Attendant (<b>directly handling Boilers</b>) <b>OR</b></li><li>• <b>at least 3 years</b> working experience as an Apprentice / Fitter (<b>indirectly handling Boilers</b>).</li></ul>
<b>Grade 1</b>	<ul style="list-style-type: none"><li>• holds a <b>Boilerman Grade 2 Certificate</b></li><li>• as a Competent Boilerman Grade 2 Certificate holder, he has <b>at least 18 months</b> working experience in <b>handling Steam Boilers having a heating surface of NOT less than 47 sq. m.</b></li></ul>

## ...CERTIFICATION...

1. Participants are required to attend all scheduled classes of the course. There is a minimum requirement of **75% attendance** before participants can be considered for the **Certificate of Attendance** issued by FMM Institute Perak.
2. The **Certificate of Competency** as a Boilerman Grade 2 or Grade 1 will be issued by **JKKP** only to those participants who **PASS** the **Boilerman Grade 2** or **Grade 1 Examination** respectively.

## ...EXAMINATION...

The **Examination** for the Certificate of Competency as a Boilerman Grade 2 and Grade 1 will be **conducted** by **Jabatan Keselamatan dan Kesihatan Pekerjaan** (JKKP / DOSH) after the completion of the course. The Examination will consist of an Oral Examination.

## ...TIME TABLE...

- ⇒ Day 1 : February 5, 2025 (Wednesday)
- ⇒ Day 2 : February 6, 2025 (Thursday)
- ⇒ Day 3 : February 12, 2025 (Wednesday)
- ⇒ Day 4 : February 13, 2025 (Thursday)

## ...ADMINISTRATIVE DETAILS...

Date **February 5, 6, 12 & 13, 2025**  
Duration **4 days (28 hours)**  
Time **9.00am – 5.00pm**  
Venue **FMM Institute Perak, No 1, Lorong Raja DiHilir, 30350 Ipoh, Perak**  
Medium of Instruction **B.Malaysia**  
Fees **FMM Members RM1,944.00/pax**  
**Non-Members RM2,592.00/pax**  
**Self-Sponsored RM1,944.00/pax** (For Self Sponsored : Installment – RM972 x 2)  
(Fees inclusive of Service Tax at 8%, Course Materials, Refreshment, Lunch and Certificate of Attendance. However, its excluding **DOSH Examination Fee.**)

**Closing Date:**  
**JANUARY 28, 2025**

### DISCLAIMER

The FMM Institute Perak reserves the right to change the facilitator, date and to vary/cancel the programme should unavoidable circumstances arise. All efforts will be taken to inform participants of the changes.

### REGISTRATION

- Upon **Faxing / Mailing** the completed **Registration Form** to FMM institute Perak, you are **deemed** to have read and **accepted** the terms and conditions. The course would also be **deemed** as **confirmed** unless informed otherwise.
- For **HRD Corp Claimable**, employer's **HRD Corp grant Approval** must be forwarded to FMM Institute Perak **at least 3 days before the Training date.**

### PAYMENT

- For **HRD Corp Claimable** Scheme, an **Attendance of 100%** is a **MUST**, in any case, **employers will be billed** in full.
- Cheques must be made in favour of **'FMM Institute'**.
- FMM Institute SST Registration No: **W10-1901-32000105**

### CANCELLATION / DISCONTINUATION

Must be in Writing with Reasons **■ 7 days** before the course commences – **No payment charged ■ 3 – 6 days** before the course commences – **50% payment charged ■ < 3 days** before the course commences – **Full payment charged ■ Participants who did not turn-up will be charged full payment ■** Replacements can be accepted at no additional cost. **■ For discontinuation, payment made will be forfeited.**

~ Registration Form ~

# FMM CERTIFICATE IN BOILERMAN

FMM Institute  
No 1, Lorong Raja DiHilir, 30350 Ipoh, Perak Fax: 05-5488221

Dear Sir / Madam,  
please register the following participant(s) for the above programme.

1.	Name			
	Designation			
	NRIC		Age	
	Qualification			
	Experience	Years		
	HP No		Grade (please ✓)	1
	Email			2

2.	Name			
	Designation			
	NRIC		Age	
	Qualification			
	Experience	Years		
	HP No		Grade (please ✓)	1
	Email			2

(Please attach a separate list if space is insufficient)

We hereby confirmed that (Please tick (✓) in appropriate box):-

- We will be claiming from **HRD Corp** and full payment would made to FMM Institute in the event that no disbursement from HRD Corp under any circumstances
- We will **NOT BE CLAIMING** from **HRD Corp**. Enclosed cheque/bank draft No \_\_\_\_\_ for RM \_\_\_\_\_ being payment for \_\_\_\_\_ participant(s) made in favour of the **"FMM Institute"**.

Submitted by:

Name:
Designation:
Company:
Address:
Tel:
Fax:
Email:
FMM Membership No

Enquiries – please contact **Ms Vaani / Pn Eda**  
☎ (05) 548 8660 ☎ (05) 548 8221  
✉ [fmm\\_institute\\_perak@fmm.org.my](mailto:fmm_institute_perak@fmm.org.my)