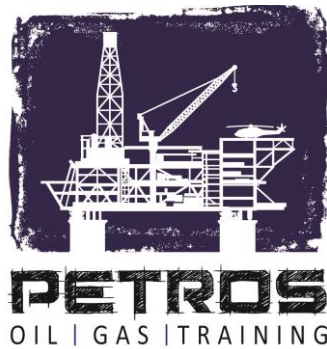


Certificate No : 2022-PTR-FPSD-WIKA-011

Date : March 29<sup>th</sup> , 2022



# CERTIFICATE OF ACCOMPLISHMENT

This is to certify that

**MUHAMMAD NURDIN MUCHLISH**

has completed training

**FIRE PROTECTION SYSTEM DESIGN & ENGINEERING**

**TRAINER :**  
**MERIZAL, SKM**  
**PRINCIPAL FIRE SAFETY ENGINEER**

Held by **Petros Oil Gas Training** on March 28<sup>th</sup> & 29<sup>th</sup> , 2022  
covering the subjects as listed on the back page



A handwritten signature in black ink, appearing to be "Heru Prasadja".

**Heru Prasadja, ST**  
Director

# FIRE PROTECTION SYSTEM DESIGN & ENGINEERING

## **SUBJECTS :**

- Introduction fire engineering and system design
- Fire risk assessment
- Active fire protection system design
  - Portable fire extinguisher system (NFPA 10)
  - Fire hydrant, hose reel, fire monitor (NFPA 14)
  - Water spray system (NFPA 15)
  - Foam system (NFPA 11)
- Fire pump system design (NFPA 10)
- Sprinkler system design (NFPA 13)
- Fire alarm and gas detection system (NFPA 72)
- Passive fire protection
- Fire proofing design (API 2218)
- Inspection, testing, and maintenance fire water system (NFPA 25)