



KEMENTERIAN PERHUBUNGAN REPUBLIK INDONESIA  
DIREKTORAT JENDERAL PERHUBUNGAN LAUT



MINISTRY OF TRANSPORTATION OF THE REPUBLIC OF INDONESIA  
DIRECTORATE GENERAL OF SEA TRANSPORTATION

**SERTIFIKAT KETERAMPILAN**  
**CERTIFICATE OF PROFICIENCY**

Nomor Seri / Serial No.

**CP6138130**

Dengan ini dinyatakan bahwa

*This is to certify that*

Nama

*Name*

**:: LUDI TITISIANO SUDIRWAN**

Tempat dan tanggal lahir : **JAKARTA , 09 August 1980**

*Place and date of birth*

telah menyelesaikan pelatihan dan lulus evaluasi :

*has completed approved training and passed the assessment of*

**ADVANCED TRAINING FOR CHEMICAL TANKER CARGO OPERATIONS Revalidation**

yang dilaksanakan oleh **PT. ETSI HUTAMA MARITIM (HUMPUSS TRILOGI MTC)**  
*which has held by*

di **Jakarta**

at **11 October 2018 to 25 September 2018**

Sesuai ketentuan STCW 1978 beserta dengan amandemennya, Peraturan Chapter V, Section A-V/1-1-3 STCW 2010  
*in accordance with the provisions of STCW 1978 as amended, Regulation*

yang telah mendapat pengesahan dari Direktorat Jenderal Perhubungan Laut selaku Administrasi.  
*which has been approved by the Directorate General of Sea Transportation as Administration.*

**Jakarta, 21 November 2023**

  
Tandatangan Pemilik  
*Signature of the Holder*



**Capt. MALTUS J. KAPISTRANO, S.Si., M.Si.**

Sertifikat ini berlaku untuk 5 (lima) tahun sejak tanggal diterbitkan  
***This Certificate is valid for 5 (five) years commenced from the date of issuance***

# **ADVANCED TRAINING FOR CHEMICAL TANKER CARGO OPERATIONS**

## **Subject Area**

**Based on Reg. V/1-1 STCW 2010 Code Section A-V/1-1.3**

### **1. Ability to safely perform and monitor all cargo operations**

- 1.1 Knowledge of chemical tanker designs, systems, and equipment
- 1.2 Knowledge of pump theory and characteristics, including types of cargo pumps and the safe operation
- 1.3 Proficiency in tanker safety culture and implementation of safety management system
- 1.4 Knowledge and understanding of monitoring and safety systems, including the emergency shutdown system
- 1.5 Ability to perform cargo measurements and calculations
- 1.6 Knowledge of the effect of bulk liquid cargo on trim and stability and structural integrity
- 1.7 Knowledge and understanding of chemical cargo-related operations
- 1.8 Development and application of cargo – related operation plans, procedures and checklists
- 1.9 Ability to calibrate and use monitoring and gas - detection systems, instruments and equipment
- 1.10 Ability to manage and supervise personnel with cargo - related responsibilities

### **2. Familiarity with physical and chemical properties of chemical cargoes**

- 2.1 Knowledge and understanding of the chemical and the physical properties of noxious liquid substances
- 2.2 Understanding the information contained in a Material Safety Data Sheet (MSDS)

### **3. Take precautions to prevent hazards**

- 3.1 Knowledge and understanding of the hazards and control measures associated with chemical tanker cargo operations
- 3.2 Knowledge and understanding of dangers of non-compliance with relevant rules/regulations

### **4. Apply occupational health and safety precautions**

- 4.1 Knowledge and understanding of safe working practices, including risk assessment and personal ship board safety relevant to chemical tankers

### **5. Respond to emergencies**

- 5.1 Knowledge and understanding of chemical tanker emergency procedures
- 5.2 Actions to be taken following collision, grounding, or spillage
- 5.3 Knowledge of medical first aid procedures on board chemical tankers, with reference to the Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAG)

### **6. Take precautions to prevent pollution of the environment**

- 6.1 Understanding of procedures to prevent pollution of the atmosphere and the environment

### **7. Monitor and control compliance with legislative requirements**

- 7.1 Knowledge and understanding of relevant provision of the International Convention for the Prevention of Pollution from Ships (MARPOL) and other relevant IMO instruments, industry guidelines and port regulations as commonly applied
- 7.2 Proficiency in the use of the IBC Code and related documents

### **8. Assessment and Evaluation**