

Certificate No: HVO-2017-007

MCA Approval Certificate Number: 058/062/HV(O)4936

## CERTIFICATE OF TRAINING

### HIGH VOLTAGE TRAINING OPERATIONAL LEVEL

This is to certify that

*Kwang Hyun Ryu*

Date of Birth: 21<sup>st</sup> October 1984 Discharge Book Number / Other National ID: 841021-1912011

From: 12<sup>th</sup> November 2017 To: 12<sup>th</sup> November 2017

has successfully completed a programme of approved training required to :

**Operate High voltage systems**

and has met the requirements laid down in:

**The Knowledge, Understanding and Proficiencies for High Voltage installations set out in Tables A-III/1 (part) of the STCW Convention and Code 1978, as amended**

and has also met the additional criteria specified in the STCW Convention, applicable to the issue of this certificate.

This Certificate is issued under the authority of the Maritime and Coastguard Agency of the United Kingdom of Great Britain and Northern Ireland, an executive agency of the Department for Transport.



Prof. Dr. JIN SEOK, OH  
(Director of OTTI-KMOU)



*K.H. Ryu.*

Signature of Candidate

Date Issued: 12<sup>th</sup> November 2017

## HIGH VOLTAGE – OPERATIONAL LEVEL – LEARNING OUTCOMES

### Course Outcomes

**Outcome 1:** The learner knows the arrangement and protection of high voltage installations on board a vessel.

**Outcome 2:** The learner knows the safety requirements necessary for high voltage installations.

The learner has successfully demonstrated the knowledge and understanding necessary to:

- State what is considered to be high voltage and typical voltages found on board ship.
- Outline the reasons why modern vessels are equipped with high voltage generators.
- State which circuits will operate at high voltage.
- Explain the function of the protection device and their sequence of operation.
- Describe the hazards associated with high voltage.
- Outline the requirements outlined in the HSE publication “Electricity at Work” safe working practices.
- Explain the terms Authorized & Competent person.
- Identify the difference between an ordinary and a high voltage Permit to Work.
- Describe the isolation process required to produce a high voltage Permit to Work.
- Explain the importance of a Circuit Main Earth.

