1. Course Title: Advanced training for oil tanker cargo operation

2. Scope With reference to convention Imo Model Course:

This course is designed to equip individual with skills, knowledge and attitudes required to -

- Contribute to safe cargo operation of oil tankers
- Take precautions to prevent hazards
- Meet with Rules and Regulations
- Contribute to Tank-cleaning Operations
- Contribute to oil tanker Design and Cargo Containment
- Actions to be taken following collision, grounding, or spillage
- Contribute to safe operation of deck equipment and machinery
- Apply occupational health and safety precautions & measures.
- Apply precautions and contribute to the prevention of pollution of the marine environment.
- Carry out firefighting operations
- Respond to emergencies
- Take precautions to prevent pollution of the environment from the release of oil

in accordance with maritime industry standards.

3. Objective:

After completing the course, the candidates should be able to acquire the knowledge, skills and attitude for the safe cargo operation of oil tankers, Tank-cleaning Operations, oil Chemical tanker Design and Cargo Containment, Knowledge and understanding of relevant provisions of the International Convention for the Prevention of Pollution from Ships (MARPOL), precautions to prevent hazards, prevention of pollution, firefighting operations, emergencies, precautions to prevent pollution of the environment from the release of oil.

4. Course Outline Shore base & On board Training:

Sl No	**Knowledge, understanding and proficiency**	**Total hours for lectures**	**Total hours for practical**
1	Knowledge of oil tanker design, systems and equipment (*)	8.0	3.0
2	Knowledge of pump theory and characteristics, including types of cargo pumps and their safe operation	3.0	0.5
3	Proficiency in tanker safety culture and implementation of safety-management system(**)	3.0	---
4	Knowledge and understanding of monitoring and safety systems, including the emergency shutdown	1.5	---
5	Loading, unloading, care and handling of cargo	1.5	1.5
6	Knowledge of the effect of bulk liquid cargoes on trim, stability and structural integrity(*)	---	3.0
7	Knowledge and understanding of oil cargo related operations	9.5	3.0
8	Development and application of cargo-related operation plans, procedures and checklists (**)	1.5	---
9	Ability to calibrate and use monitoring and gas-detection systems, instruments and equipment (#)	1.0	1.5
10	Ability to manage and supervise personnel with cargo-related responsibilities	0.5	---
11	Knowledge and understanding of the physical and chemical properties of oil cargoes	3.0	1.5
12	Knowledge and understanding of the hazards and control measures associated with oil tanker cargo operations	4.0	---

13	Knowledge and understanding of safe working practices, including risk assessment and personal shipboard safety relevant to oil tankers:	1.5	---
14	Knowledge and understanding of oil tanker emergency procedures	1.25	---
15	Actions to be taken following collision, grounding, or spillage	0.25	---
16	Knowledge of medical first aid procedures on board oil tankers	1.5	---
17	Understanding of procedures to prevent pollution of the atmosphere and the environment	1.5	---
18	Knowledge and understanding of relevant provisions of the International Convention for the Prevention of Pollution from Ships (MARPOL), as amended, and other relevant IMO instruments, industry guidelines and port regulations as commonly applied	1.5	
19	Case Studies	1.5	
20	Test and Discussion	0.5	
	Subtotals	**46h**	**14h**
	Total for the course		**60h**

5. Competence Standard/Course Syllabus Checked with up-to-date STCW/IMO Model Course:

	Knowledge, understanding and proficiency	**Total hours for lectures**	**Total hours for practical's**
1	**Knowledge of oil tanker design, systems and equipment** (*)		3.0
1.1	General arrangement and construction (*)	0.5	
1.2	Pumping arrangement and equipment (*)	0.5	
1.3	Tank arrangement, pipeline system and tank venting arrangement (*)	0.5	
1.4	Gauging systems and alarms (*)	0.5	
1.5	Cargo heating systems (*)	0.5	
1.6	Tank cleaning, inerting and Gas freeing systems (*)	0.5	
1.7	Ballast system (*)	0.5	
1.8	Cargo area venting and accommodation ventilation (*)	0.5	
1.9	Slop arrangements (*)	0.5	
1.10	Vapour recovery systems (*)	0.5	
1.11	Cargo-related electrical and electronic control system (*)	0.5	
1.12	Environmental protection equipment, including Oil Discharge Monitoring Equipment (ODME) (*)	0.5	
1.13	Tank coating	0.5	
1.14	Tank temperature and pressure control systems (*)	0.5	
1.15	Fire-fighting systems	1.0	
2	**Knowledge of pump theory and characteristics, including types of cargo pumps and their safe operation**		
2.1	Pump theory and characteristics including types of cargo pumps	2.5	
2.2	Pressure Surge	0.5	

3	**Proficiency in tanker safety culture and implementation of safety-management system(**)**	3.0	
4	**Knowledge and understanding of monitoring and safety systems, including the emergency shutdown**	1.5	
5	**Loading, unloading, care and handling of cargo**	1.5	1.5
5.1	Ability to perform cargo measurements and calculations(#)		
6	**Knowledge of the effect of bulk liquid cargoes on trim, stability and structural integrity(*)**		3.0
7	**Knowledge and understanding of oil cargo related operations**		
7.1	Loading and unloading plans (*)	3.0	3.0
7.2	Ballasting and Deballasting (*)	1.5	
7.3	Tank cleaning operations (*)	1.5	
7.4	Inerting (*)	---	1.5
7.5	Gas-freeing (*)	1.0	
7.6	Ship-to-ship transfers	1.5	
7.7	Load on top (*)	0.5	
7.8	Crude oil washing (*)	0.5	1.0
8	**Development and application of cargo-related operation plans, procedures and checklists** (**)	1.5	
9	**Ability to calibrate and use monitoring and gas-detection systems, instruments and equipment** (#)	1.0	0.5
10	**Ability to manage and supervise personnel with cargo-related responsibilities**	0.5	
11	**Knowledge and understanding of the physical and chemical properties of oil cargoes**		
11.1	Physical Properties	1.5	
11.2	Chemical Properties	1.5	
11.3	Understanding the information contained in a Material Safety Data Sheet (MSDS)(#)		0.5
12	**Knowledge and understanding of the hazards and control measures associated with oil tanker cargo operations**		
12.1	Toxicity	0.5	
12.2	Flammability and Explosion	0.5	
12.3	Health Hazards	0.5	
12.4	Inert Gas Composition	0.5	
12.5	Electrostatic Hazards	0.5	
12.6	Oxygen deficiency	0.5	
12.7	Knowledge and understanding of dangers of non-compliance with relevant rules / regulations	1.0	
13	**Knowledge and understanding of safe working practices, including risk assessment and personal shipboard safety relevant to oil tankers:**		
13.1	Precautions to be taken when entering enclosed spaces, including correct use of different types of breathing apparatus (**).	0.5	
13.2	Precautions to be taken before and during repairs and maintenance work	0.25	
13.3	Precautions for hot and cold work	0.25	

13.4	Precautions for electrical safety	0.25	
13.5	Use of appropriate Personal Protective Equipment.(PPE)(#)	0.25	
14	**Knowledge and understanding of oil tanker emergency procedures**		
14.1	Ship emergency response plan	0.25	
14.2	Cargo Operations emergency shut down	0.12	
14.3	Actions to be taken in the event of failure of systems or services essential to cargo	0.12	
14.4	Fire fighting on oil tankers(**)	0.25	
14.5	Enclosed space Rescue	0.25	
14.6	Use of Material Safety data sheet (MSDS)	0.25	
15	**Actions to be taken following collision, grounding, or spillage**	0.25	
16	**Knowledge of medical first aid procedures on board oil tankers**	1.5	
17	**Understanding of procedures to prevent pollution of the atmosphere and the environment**		
17.1	Pollution prevention requirements of Ship's construction and equipment	0.30	
17.2	Controlled operational pollution at sea	0.30	
17.3	Prevention of pollution In port	0.30	
17.4	Importance of the Oil Record Book (ORB) for pollution prevention	0.30	
17.5	Air pollution	0.30	
18	**Knowledge and understanding of relevant provisions of the International Convention for the Prevention of Pollution from Ships (MARPOL), as amended, and other relevant IMO instruments, industry guidelines and port regulations as commonly applied**	1.5	
19	**Case Studies**	1.5	
20	**Test and Discussion**	0.5	
	Subtotals	**46**	**14**
	Total for the course		**60**

6. Entry Standard, Selection Criteria of Students:

Trainees or students wishing to gain entry into this course should possess the following requirements:

- **Age:** be not less than 16 years of age.
- **Education & Training:** must have valid seafaring documents.

7. Intake limitation, with specific mention Instructor-student ratio:

The number of trainees should not exceed 24 and the practical training should be undertaken in small groups of more than eight.

8. Qualification and experience of instructors:

Minimum qualification of any instructor or assessor must be Class- I Deck/Engine Officers with tanker knowledge.

9. Qualification and experience of assessors:

Minimum qualification of any instructor or assessor must be Class- I Deck/Engine Officers with tanker knowledge.

10. Details Facilities & Equipment, materials and resources available for the training; Visual aids lecture Notes, Library facilities, Rental documents, Workshops Training Equipment: Navigational, Engineering, Communication, Seamanship etc:

- Projectors and slides
- Multimedia and videos
- Advanced audio visual systems
- Tanker simulator
- Dummy tanker ships, tank lid, manifold
- Pump model Room

11. Conduct of Training with number of classroom lectures, practical work use of simulator, video etc:

Period → Day ↓	0900-0945	0945-1030	1030-1115	1115-1145	1145-1230	1230-1315	1315-1400	1400-1500	1500-1545	1545-1630
1st Day	Knowledge of oil tanker design, systems and equipment			Tea Break	Knowledge of oil tanker design, systems and equipment			Launch Break	Knowledge of pump theory and characteristics, including types of cargo pumps and their safe operation	
2nd Day	Knowledge of oil tanker design, systems and equipment				Loading, unloading, care and handling of cargo				Proficiency in tanker safety culture and implementation of safety-management system	
3rd Day	Knowledge and understanding of oil cargo related operations				Knowledge of oil tanker design, systems and equipment				Knowledge and understanding of monitoring and safety systems	
4th Day	Knowledge and understanding of oil cargo related operations				Knowledge and understanding of oil cargo related operations				Development and application of cargo-related operation	
5th Day	Knowledge and understanding of the physical and chemical properties of oil cargoes				Knowledge and understanding of oil cargo related operations				Ability to calibrate and use monitoring and gas-detection systems	
6th Day	Hazards and control measures associated with oil tanker cargo operations				Actions to be taken following collision, grounding, or spillage		MARPOL		Ability to manage and supervise personnel with cargo-related responsibilities	
7th Day	Hazards and control measures associated with oil tanker cargo operations				Knowledge of pump theory and characteristics, including types of cargo pumps and their safe operation		Loading, unloading, care and handling of cargo		Knowledge of the effect of bulk liquid cargoes on trim, stability and structural integrity	
8th Day	Knowledge of medical first aid procedures on board oil tankers		MARPOL		Proficiency in tanker safety culture and implementation of safety-management system		Physical and chemical properties of oil cargoes		safe working practices, including risk assessment and personal shipboard safety relevant to oil tankers:	
9th Day	Practical				Practical				Practical	
10th Day	Knowledge and understanding of monitoring and safety systems		Preventing pollution		Oil tanker emergency procedures		Preventing pollution		Assessment	

12. Total duration of Training; Duration of Practical's:

Training period is of 07 days, (60 Hours)

a. Theory - 46 Hours

b. Practical - 14 Hours

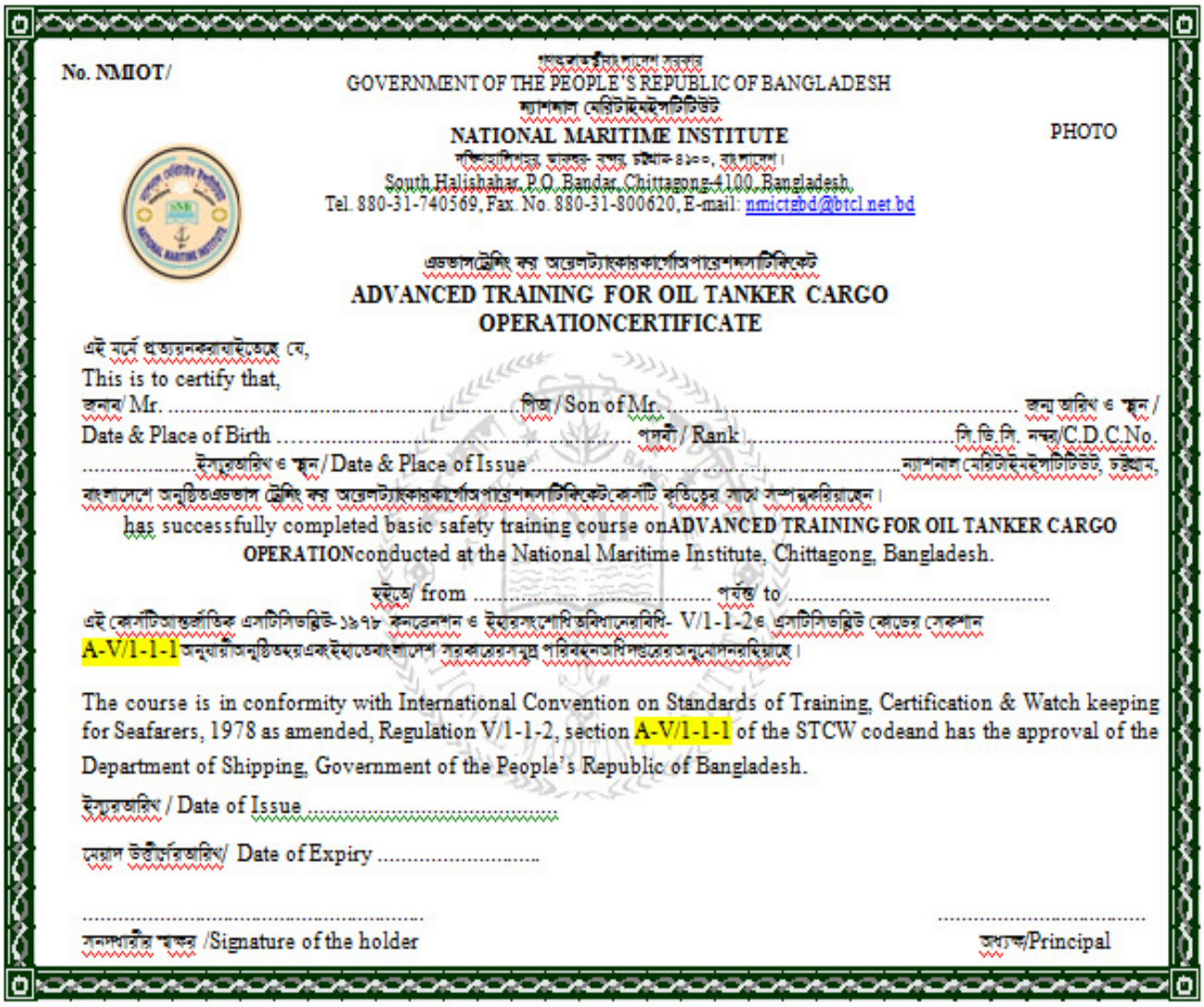
13. Assessment procedure, whether independent of instruction or continuous performance evaluation:

Course end assessment shall be carried out to ensure adequate knowledge, understanding & competence of the candidate.

A variety of source of evidence are used which include evidence of candidate's ability, under realistic condition. Short answers, multiple choice, fill in the blanks and true/false type questions in a written test are used for assessment includes direct observation, oral questioning and role play.

14. Formats of certificate to be issued with correct reference to STCW and reference to approval and authorization by the Department of Shipping and contact point of the issuing institution for verifying authenticity:

Annex- 02



No. NMIOT/

গণপ্রজাতন্ত্রীবাংলাদেশসরকার
GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
ন্যাশনাল মেরিটাইমইন্সটিটিউট
NATIONAL MARITIME INSTITUTE
দক্ষিণহালিশহর, ডাকঘর- বন্দর, চট্টগ্রাম-৪১০০, বাংলাদেশ।
South Halishahar, P.O. Bandar, Chittagong-4100, Bangladesh.
Tel. 880-31-740569, Fax. No. 880-31-800620, E-mail: nmictebd@btcl.net.bd

PHOTO

এডভান্সট্রেনিং ফর অয়েলট্যাংকারকার্গোঅপারেশন্সসার্টিফিকেট
ADVANCED TRAINING FOR OIL TANKER CARGO OPERATIONCERTIFICATE

এই মর্মে প্রত্যয়নকরাযাইতেছে যে,
This is to certify that,
জনাব/ Mr. ..... পিতা/ Son of Mr. ..... জন্ম তারিখ ও স্থান/
Date & Place of Birth ..... পদবী/ Rank ..... সি.ডি.সি. নম্বর/C.D.C No.
..... ইস্যুরতারিখ ও স্থান/ Date & Place of Issue ..... ন্যাশনাল মেরিটাইমইন্সটিটিউট, চট্টগ্রাম,
বাংলাদেশে অনুষ্ঠিতএডভান্স ট্রেনিং ফর অয়েলট্যাংকারকার্গোঅপারেশন্সসার্টিফিকেটকোর্সটি কৃতিত্বের সাথে সম্পন্নকরিয়াছেন।
has successfully completed basic safety training course onADVANCED TRAINING FOR OIL TANKER CARGO OPERATIONconducted at the National Maritime Institute, Chittagong, Bangladesh.

হইতে/ from ..... পর্যন্ত/ to .....
এই কোর্সটিআন্তর্জাতিক এসটিসিভন্বিউই-১৯৭৮ কনভেনশন ও ইহারসংশোধিতবিধানেরবিধি- V/1-1-2ও এসটিসিভন্বিউই কোডের সেকশন A-V/1-1-1 অনুযায়ীঅনুষ্ঠিতহয়এবংইহাতেবাংলাদেশ সরকারেরনৌপরিবহনঅধিদপ্তরেরঅনুমোদনরহিয়াছে।

The course is in conformity with International Convention on Standards of Training, Certification & Watch keeping for Seafarers, 1978 as amended, Regulation V/1-1-2, section A-V/1-1-1 of the STCW codeand has the approval of the Department of Shipping, Government of the People's Republic of Bangladesh.

ইস্যুরতারিখ / Date of Issue .....

মেয়াদ উত্তীর্ণেরতারিখ/ Date of Expiry .....

....
ধারকেরস্বাক্ষর /Signature of the holder অধ্যক্ষ/Principal

15. Maintenance of records in Data-base for facilitation of checking including assessments:

NMI will maintain a data-base of all the students who have completed the course. The following records for each individual will be kept so as to ensure that the certificate is issued to a candidate who has met the requirements as laid down by the governing authority regarding issuance of a certificate on Bridge Resource Management.

- Application form
- Assessment papers after completion of course
- Attendance Sheet
- Attested Xerox copy of the issued certificates & licenses
- A registered data-base in hard copy and soft form

16. Internal Quality Standard System if any. Students Impressions, past results:

The institute maintains quality standard system ISO 9001:2008, Certified by DNV GL

17. Course notice served, course conducted as per course notice, progression report served:

Will be complied as per DOS Instruction.

18. Attendance of Students and Instructors:

Students and Instructor attendance sheet attached.

Annex- 03

NATIONAL MARITIME INSTITUTE

TRAINING RECORD

Instructor:

Venue:

Subject:

Brief description on training material:

Attendance:

Name & rank	Sign	Name & rank	Sign	Name & rank	Sign

Signature
Management Representative

Signature
Principal