

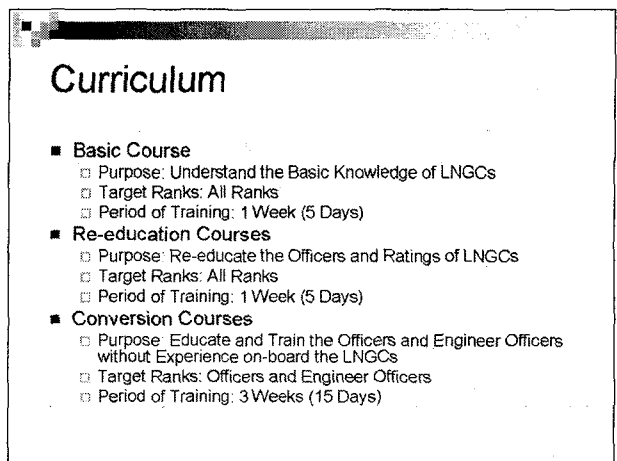
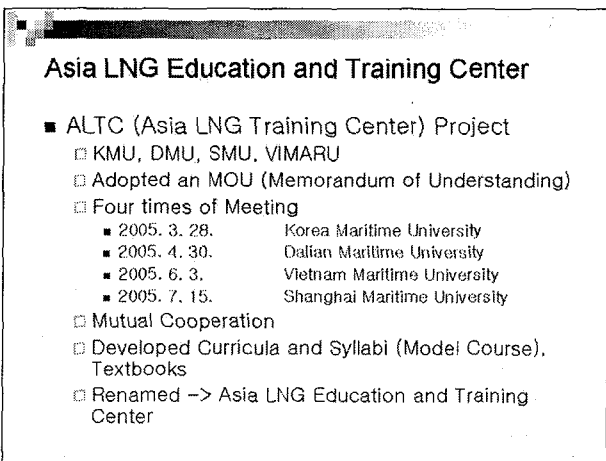
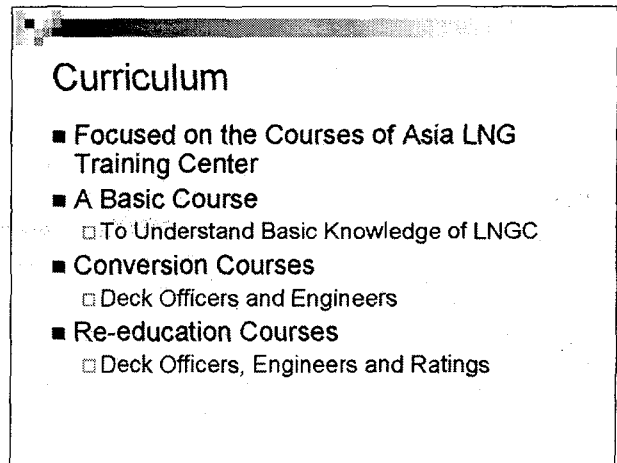
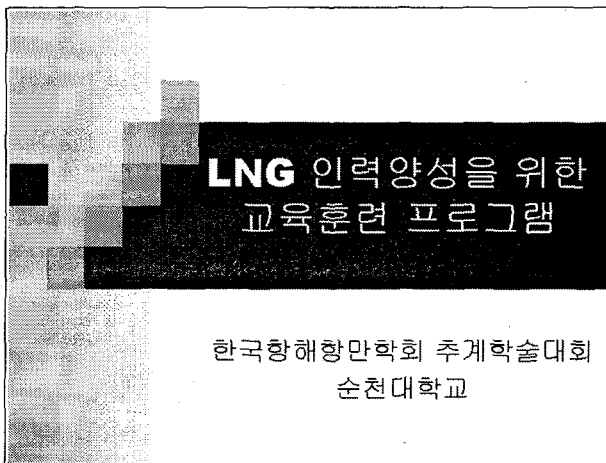
LNG 인력양성을 위한 교육훈련 프로그램

김 중성*

*한국해양대학교 운항훈련원 조교수

요 약 : 최근 LNG 선박에 승무할 인력의 심각한 부족이 예상되고 있는 가운데, 국내는 물론 국외에서도 인력양성을 위한 교육훈련센터의 개설 등 활발한 움직임이 보이고 있다. 그러나 이러한 LNG 교육훈련센터에서는 독자적으로 개발한 교육훈련 프로그램에 입각하여 교육생을 모집하고 있으며, 따라서 세계적으로 통일된 높은 수준의 교육훈련을 기대하기 어려운 실정이다. 이 발표에서는 국제해사대학연합의 LNG 활동의 일환으로 추진된 아시아 LNG 교육훈련센터의 개요와 센터에서 개발된 표준 교육훈련 프로그램에 대하여 설명하고자 하며, 이러한 교육훈련과정이 향후 전세계 LNG 교육훈련의 표준을 정립하는데 초석이 되도록 노력하고자 한다.

핵심용어 : LNG 선박 승무원, 아시아 LNG 교육훈련센터, 기초교육훈련과정, 상급교육훈련과정, 전환교육과정



* 대표저자 : 김중성(중신회원) kjsung@hhu.ac.kr

Basic Course

	0900~ 0950	1000~ 1050	1100~ 1150	1200~ 1250	1400~ 1450	1500~ 1550	1600~ 1650	1700~ 1750
Day 1	Introduction			Chemical Nature of LNG				
Day 2	Thermodynamic Nature of LNG							
Day 3	Cryogenic Materials for LNGC				Fire Prevention & Fire Fighting			
Day 4	Health Problem & Emergency Care				Basic Structure of LNGC			
Day 5	Cargo Equipment of LNGC							

Re-education (Ratings)

	0900~ 0950	1000~ 1050	1100~ 1150	1200~ 1250	1400~ 1450	1500~ 1550	1600~ 1650	1700~ 1750
Day 1	Introduction			LNGC Safety Regulation				
Day 2	The Type of LNGC and Characteristics				Cargo-related Works during Laden Voyage			
Day 3	Cargo Works (Loading)				Cargo Works (Unloading)			
Day 4	Cargo Machinery System				Cargo Piping & Valve System			
Day 5	Cargo Handling Simulator (Before Docking-in)				Cargo Handling Simulator (After Docking-out)			

Re-education (Deck)

	0900~ 0950	1000~ 1050	1100~ 1150	1200~ 1250	1400~ 1450	1500~ 1550	1600~ 1650	1700~ 1750
Day 1	Introduction			Spillage & Fire of LNG				
Day 2	Health Problem & Emergency Care				Maintenance & Operation of Cargo Machinery			
Day 3	Maintenance & Operation of Cargo Machinery				Cargo Operation (Loading & Unloading)			
Day 4	Cargo Handling Simulator (Loading & Unloading)				Cargo Handling Simulator (Cooling Down)			
Day 5	Cargo Handling Simulator (Before Docking-in)				Cargo Handling Simulator (After Docking-out)			

Conversion Course (Deck Officers 1)

	0900~ 0950	1000~ 1050	1100~ 1150	1200~ 1250	1400~ 1450	1500~ 1550	1600~ 1650	1700~ 1750
Day 1	Introduction			Cargo-piping & Valve System				
Day 2	Cargo Machinery System				IAS Operation			
Day 3	IAS Operation				LNG Loading			
Day 4	Cargo-related Works during Laden Voyage				Total BOG System			
Day 5	LNG Unloading				Cargo Tank Management During Laden Voyage			

Re-education (Engine)

	0900~ 0950	1000~ 1050	1100~ 1150	1200~ 1250	1400~ 1450	1500~ 1550	1600~ 1650	1700~ 1750
Day 1	Introd uction	Outline of Turbine Plant			Start-up/stop Turbo Generator and Water Supply Pump			
Day 2	IAS Operation							
Day 3	Plant Start-up							
Day 4	Plant Start-up							
Day 5	Emergency Operation							

Conversion Course (Deck Officers 2)

	0900~ 0950	1000~ 1050	1100~ 1150	1200~ 1250	1400~ 1450	1500~ 1550	1600~ 1650	1700~ 1750
Day 6	Emergency Discharging				Special Works (Before Docking-in)			
Day 7	Special Works (After Docking-in)				Special Works (After Docking-out)			
Day 8	Spillage and Fire of LNG				Health Problem & Emergency Care			
Day 9	Technical Tour to LNGC Building Site (or LNG Terminal)							
Day 10	FMSS (Berthing)				FMSS (Unberthing)			

Conversion Course (Deck Officers 3)

	0900~ 0950	1000~ 1050	1100~ 1150	1200~ 1250	1400~ 1450	1500~ 1550	1600~ 1650	1700~ 1750
Day 11	Cargo Handling Simulator (LNG Loading)							
Day 12	Cargo Handling Simulator (LNG Unloading)							
Day 13	Cargo Handling Simulator (Cooling-down Cargo Tanks)							
Day 14	Cargo Handling Simulator (Before Docking-in)							
Day 15	Cargo Handling Simulator (After Docking-out)							

Conversion Course (Engineer Officers 2)

	0900~ 0950	1000~ 1050	1100~ 1150	1200~ 1250	1400~ 1450	1500~ 1550	1600~ 1650	1700~ 1750
Day 6	Structure of Boiler and Auxiliary Machinery				Boiler ACC & BMS			
Day 7	Works on Arrival & Departure							
Day 8	Making up the Sequence for the Starting-up of Plant							
Day 9	Cargo Machinery							
Day 10	Special Works for Docking-in and out							

Conversion Course (Engineer Officers 1)

	0900~ 0950	1000~ 1050	1100~ 1150	1200~ 1250	1400~ 1450	1500~ 1550	1600~ 1650	1700~ 1750
Day 1	Introduction	Outline of Turbine Plant						
Day 2	Piping System (Engine Department)							
Day 3	Piping System (Engine Department)				Cargo Piping System			
Day 4	IAS Operation							
Day 5	Structure of Main Turbine and Auxiliary Machinery				Remote Control System for Main Turbine			

Conversion Course (Engineer Officers 3)

	0900~ 0950	1000~ 1050	1100~ 1150	1200~ 1250	1400~ 1450	1500~ 1550	1600~ 1650	1700~ 1750
Day 11	Exercise – Arrival & Departure							
Day 12	Exercise – Boiler & Main Turbine Operation							
Day 13	Exercise - Start-up/stop Turbo Generator and Water Supply Pump							
Day 14	Exercise – Plant Start-up							
Day 15	Exercise – Emergency Operation							