Green Award Foundation

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Annex 3c: Green Award Requirements (LNG carrier) Version 2023

Checklists for Office Audits and Ship Surveys

Effective as of 1 March 2023

Annex 3c: Green Award Requirements (LNG carrier)

LNG carriers

Table of contents

Legend for Checklists

0	Indicates which crew/employee may be interviewed/questioned.
	Shows that a certain item is complied.
	Shows that a certain item is not complied.
0	Indicates that an alternative is used, hence the score for that item is a "0".
	The checklist was filled in incorrectly, thus shows "error".
0	Indicates that the whole element did not reach the minimum score, hence a finding is issued. The number shows the scores obtained.
	Shows which elements are minimum = maximum. Hence scores on all items is required to fully comply.
	Indicates that the minimum score for the relevant element is "0", hence a finding will not be issued.

* for detailed interpretations of the colours and the usage of the checklist, please refer to the pdf-file named "Instruction Notes" located on www.greenaward.org under "Certification/Download".

Revision codes

RN	Item/question is renumbered
RR	Rating score of item/question is changed
N	New item or question
D	Item/question is deleted
M	Text of item/question is modified

APPENDIX 1

CHECKLIST - BASIC CRITERIA - OFFICE AUDIT - LNG CARRIER

(LMC-06)

CHECKLIST - BASIC CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

BASIC
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	*NOT APPLICABLE*
	100	MANAGEMENT ELEMENTS																					
	101	**GENERAL**			o		o		o		o		o		o				o		o		
	101.1	Are the Management System (MS) Manuals maintained and updated?																					
	102	**SAFETY AND ENVIRONMENTAL PROTECTION POLICY**			o		o		o		o		o		o								
	102.1	Is a company policy concerning safety and the environment and which is signed by the Man. Dir., available?																					
	102.2	Are objectives concerning safety and the environment described?																					
	102.3	Is this policy maintained and implemented at all shore-based levels as well as all ship-based levels ?																					
	103	**COMPANY RESPONSIBILITIES AND AUTHORITY**			o		o		o		o		o		o				o		o		
	103.1	Is the entity who is responsible for the operations of the ship clearly defined ? (Owner or entity)																					
	103.2	Are shore-ship communications, defined levels of authority and lines of communication documented and working effectively ?																					
	103.3	Are responsibilities and authorities of all office personnel clearly defined ?																					
	103.4	Is the designated person provided with shore-based support and adequate resources?																					
	104	**DESIGNATED PERSONS**	o		o																		
	104.1	Is/are (a) designated person(s) assigned in the office?																					
	104.3	Is objective evidence available that the safety and environmental aspects of the operation of each ship is monitored and that the required adequate resources and shore-based support is applied?																					
	105	**MASTER'S RESPONSIBILITY AND AUTHORITY**			o		o		o		o		o		o						o		
	105.1	Is the responsibility of the master clearly defined and documented?																					
	105.6	Does the company have the overriding authority of the master clearly defined? (ISM Code 2002 5.2)																					
	105.7	Are master's reviews reported and evaluated?																					

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	106	**RESOURCES AND PERSONNEL AND STCW**			o						o												
	106.1	Does the company have a procedure to verify the integrity of the sea staff certification and medical fitness before being assigned to the ship?																					
	106.2	Have the owners/managers established/documented policies concerning shore/ship personnel?																					
	106.3	Has the level of competency been defined and documented for office personnel performing functions pertinent to safety and the environment?																					
	106.4	Do arrangements include a provision for masters and officers to receive an adequate introduction and continuous update of the company's safety and environmental system?																					
	106.5	Do arrangements include training and an introduction to the quality system for the executive management ?																					
	106.6	Do office personnel receive training/courses with regard to the ISM Code and are they consistent with the MS manuals?																					
	106.7	Are records of this training/courses available?																					
	106.8	Are internal audits held on board the ships?																					
	106.9	Is standard composition of crew documented in company policy?																					
	106.10	Is personnel promotion policy (ship & office) documented in company procedures?																					
	106.11	Is the working language between the office and the vessels defined?																					
	106.12	Are all senior and deck officers conversant with the English language for maritime communication?																					
	106.13	Are operational instructions on board written in a language understood by officers and shipboard personnel?																					
	106.14	Is the working language monitored and checked by the ship's staff and verified during internal audits?																					
	106.17	Is the Master of a vessel fully conversant with the Company's Management Systems?																					
	107	**DEVELOPMENT OF PLANS FOR SHIPBOARD OPERATIONS**			o		o		o		o		o		o						o		
	107.1	Does the company have procedures for the preparation of plans and instructions for key shipboard operations concerning safety of the ship and prevention of pollution?																					
	107.3	Are tasks, qualifications and responsibilities defined in the manuals and in the job descriptions?																					
	108	**EMERGENCY PREPAREDNESS**	o		o		o		o		o		o		o				o		o		
	108.1	Does the system cover the arrangements needed to ensure that the company, day and night, is prepared to respond effectively to hazards, accidents or emergencies involving their ships?																					
	108.2	Are tasks, qualifications and responsibilities described in the manuals and in the job descriptions?																					
	108.3	Is communication with media included in the emergency procedures?																					
	108.4	Are procedures for an "Emergency room" in the office defined?																					

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	109	**REPORTS AND ANALYSES OF NON-CONFORMATIES, ACCIDENTS AND HAZARDOUS OCCURENCES**			o		o		o		o		o		o						o		
	109.1	Are safety and environmental inspections carried out, documented and reported?																					
	109.2	Does the company have instructions/procedures for the reporting of non-conformities/ near misses?																					
	109.3	Are non-conformities, accidents and hazardous occurrences reported to the office?																					
	109.4	Are corrective and/or preventive actions taken ?																					
	109.5	Does the company have objective evidence to show their support of the shipboard personnel in reporting of non-conformities / near misses?																					
	110	**MAINTENANCE OF THE SHIP AND EQUIPMENT**			o		o		o														
	110.1	Are ship inspections held at defined intervals? (minimum of twice a year or equivalent)																					
	110.2	Are non-conformities reported including their possible cause?																					
	110.3	Is appropriate corrective action taken?																					
	110.4	Are records of these activities maintained?																					
	110.5	Does the MS require ship-critical equipment and systems to be identified?																					
	110.6	Does the MS provide for specific measures aimed at promoting the reliability of ship-critical equipment and systems?																					
	111	**DOCUMENTATION**			o																		
	111.1	Does the company have procedures to control documents and data relevant to the Man.System?																					
	111.2	Are valid documents available at all relevant locations?																					
	111.3	Are changes to documents reviewed and approved by authorised personnel?																					
	111.4	Are obsolete documents removed promptly?																					
	112	**COMPANY VERIFICATION, REVIEW AND EVALUATION**	o		o		o		o		o		o		o		o		o		o		
	112.1	Are internal audits carried out to verify whether safety and pollution-prevention activities, and other procedures, comply with the Management System (MS)?																					
	112.2	Does the company periodically evaluate the efficiency of the MS and review the MS, in accordance with procedures established by the company, when necessary?																					
	112.3	Is a management review done?																					
	112.4	Are the results of audits and reviews brought to the attention of all personnel having responsibility in the area involved?																					
	112.5	Have the management personnel, responsible for the area involved, taken timely corrective actions on deficiencies found?																					

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		IMO ELEMENTS																					
	200	**SOLAS 1974**																					
	201	**SOLAS, General Provisions**					o		o														
	201.1	Compliance with General Provisions																					
	201.2	Compliance with IGC Code																					
	212	**SOLAS Certificates**					o		o														
	212.1	Is an overview of the valid certificates per ship available and is the overview updated?																					
	217	**Safety of Navigation / SOLAS chart carriage requirements**							o				o										
		ECDIS (Compulsory carriage of ECDIS)																					
	217.1	If carriage of ECDIS is compulsory, is it a company policy for the ECDIS to be type-approved according to Res A 817(19) as amended by MSC 64 (67) and MSC 86 (70) or MSC.232(82)?																					
	217.3	Is it a company policy that an acceptable back-up arrangement is in place? (an independent type-approved ECDIS with an independent position fixing system using official Electronic Navigational Charts (or a combination of official ENCs and Raster Navigational Charts) or a full / reduced folio of up-to-date paper charts, as relevant to the ship's voyage)																					
		Training & Onboard Use of ECDIS (Compulsory carriage of ECDIS)																					
	217.5	Is it a company policy that all officers and masters that use ECDIS for primary navigation are to complete generic training based on IMO model course 1.27?																					
	217.7	Is it a company policy that a risk assessment is carried out for the operation of ECDIS which identifies and controls the hazards when using ENCs and (if used) when ECDIS is in RCDS mode?																					
	217.9	Is the risk assessment and relevant onboard procedures + instructions reviewed on a regular basis (at least once a year or if circumstances require a review) ?																					
	218	**Noise Levels On Board Ships**																					
		(Only applicable to new ships (ships contracted to build on or after 1st July 2014) of a gross tonnage of 1,600 and above.)																					
	218.1	Is it company policy that the ships are surveyed for the measurement of noise level and the results recorded in the noise survey report in accordance with the Res MSC.337(91)?																					
	218.2	Is it company policy to identify areas of the vessels based on the noise levels and to place relevant visible warning notices at the entrance to these areas? (IMO noise symbols)																					

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	300	**MARPOL 73/78**																					
	301	**Provisions concerning Reports on Incidents Involving Harmful Substances (Protocol 1)**			o				o				o										
	301.1	Does the company have a procedure in order to report an incident to the nearest coastal state in the event of the ship being abandoned or if a report from the ship is incomplete or unobtainable?																					
	310	**Prevention of pollution by oil**			o				o				o										
	310.1	Is a shipboard oil pollution emergency plan developed?																					
	310.3	Is training and testing of the oil pollution emergency plan done?																					
	310.4	Is the plan reviewed? (periodic and event review)																					
	310.5	Is an updated list of persons to be contacted available? (coastal States, port contacts, company interest contacts)																					
	310.6	Is office personnel familiar with the shipboard oil pollution emergency plan?																					
	310.7	Does the company have a policy concerning the retention and disposal of oil residues (sludge)?																					
	350	**Prevention of pollution by garbage**			o		o		o														
	350.2	Has the company developed a ship specific garbage management plan detailing the specific ship's equipment, arrangements and procedures for the handling of garbage?																					
	350.4	Is it a company policy to designate a person responsible for execution of the garbage management onboard?																					

APPENDIX 2

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER

(LMC-07)

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	1000	GENERAL																							
	1200	**Enclosed Space Entry & Hot Work**					o		o																
	1200.1	Is there an Enclosed Space Entry and Hot Work permit to work system, taking account of IMO and industry guidelines and where relevant local port / terminal requirements?																						0	10
	1200.6	Is company approval of the Hot Work permit required before work can begin?																						0	10
	1200.7	Is an evaluation of the Hot Work permit made (permit shows the appropriate safety precautions relevant to the location of work)?																						0	20
	1200.12	Is the HSQ Manager designated to authorise hot work?																						0	20
	1200.2	Is crew on board provided with suitable personal protective equipment and suitable equipment for testing the atmosphere of an enclosed space? (e.g. breathing apparatus, protective clothing and approved + calibrated atmosphere testing equipment)																						0	5
	1200.8	Are all personnel entering an enclosed space provided with a personal gas detector which can measure HC, oxygen and relevant toxic vapours?																						0	10
	1200.9	Is it company policy that a safety meeting, attended by all personnel involved, is held prior to entering the space or commencement of hot work in order to review procedures and PPE (including those specific for the intended work) ?																						0	10
	1200.10	Does the company require a responsible officer to be designated for all aspects of the operation?																						0	5
	1200.3	Is ship's crew trained and drilled periodically according to enclosed space entry procedures ?																						0	5
	1200.4	Does training also include rescue and first aid?																						0	5
	1200.5	Is there a procedure to identify the operational spaces (e.g. side-passages or compressor rooms) which need to be subjected to enclosed space entry procedures?																						0	10
																							Total score	0	110
																							Minimum ranking score required for element 1200 = 110		
	1300	**Compressor for the refilling of air cylinders for breathing apparatus or Alternative,** Additional Green Award requirement					o		o																
	1300.1	Is it company policy that the vessels have a compressor for the refilling of air cylinders for breathing apparatus?																						0	20
	1300.2	**Alternative to 1300.1:** sufficient number of air cylinders for the sole purpose of safety drills.																						0	10
																							Total score	0	20
																							Minimum ranking score required for element 1300 = 10		

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	1400	**Control of drugs & alcohol onboard**					O								
	1400.2	Are all seafarers subject to an unannounced alcohol testing on board as initiated by the office? (Approved test equipment to be available on board)												0	10
	1400.1	Are all seafarers subject to shore-based drug and alcohol testing at least once in last 12 months?												0	15
	1400.5	Are all fleet vessels subject to unannounced drug and alcohol testing at least once every year (not exceeding 18 months between two consecutive tests) by an external organisation?												0	10
	1400.6	**Alternative to 1400.1 & 1400.5**: In case crew members are not subject to shore-based drug and alcohol testing at least once in last 12 months, are all fleet vessels subject to unannounced drug and alcohol testing at least twice in 12 months by an external organisation?												0	25
	1400.7	Does the company contract an external drug and alcohol test organization to monitor fleet vessels for next due vessel tests such that the organization can appropriately decide themselves location and date of attendance?												0	10
													Total score	0	45
				Minimum ranking score required for element 1400 = 20											
	1500	**Emergency Response System**				O		O							
	1500.4	Are company vessels in receipt of an evaluation report of an annual drill between company, ERS service provider (class) and a company vessel ?												0	10
	1500.5	Is an annual ERT drill performed at the office which includes participation by the ERS service provider (class) and one company vessel ?												0	15
	1500.9	Is an updated list of national & local authorities, as required in the SOPEP & the emergency response plan, available in the office ?												0	10
	1500.10	Do relevant ERT member(s) participate in an ERS training course as provided by the ERS service provider (class) ?												0	10
													Total score	0	45
				Minimum ranking score required for element 1500 = 25											
	1510	**Emergency Oil Recovery**													
	1510.1	Does the company equip its vessels (GA-certified) with a system providing emergency access to cargo tanks and bunker tanks (for example, from the vessel deck), should the vessel be submerged?												0	5
	1510.2	Does the company ensure that its ships (GA-certified) carry an oil skimmer or a similar device that can be used in an emergency situation of oil spill overboard?												0	5
													Total score	0	10
				Minimum ranking score required for element 1510 = 0											

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	1600	**Computer Systems, Networks, Data Security and Training.** GA requirement		0							0				
	1600.1	Are arrangements for shore and vessel systems documented ? (configuration scheme)												0	10
	1600.2	Are adequate system back-up's for office administrative PC systems made (where applicable) and are procedures for this documented ?												0	5
	1600.7	Is there a policy that system back-ups for vessel computer-based systems are made (where applicable)?												0	5
	1600.8	Is there a policy that system back-ups for vessel administrative PC systems are made?												0	5
	1600.3	Is training provided at a level required to effectively operate and maintain the system and cover normal, abnormal and emergency conditions?												0	10
	1600.4	Is the internal audit scheme applicable to the IT department?												0	10
	1600.5	Are computer systems, in relation to IMO MSC/Circ.891, certified by a recognised organisation?												0	10
	1600.6	Is a system administrator designated for administrative PC systems in the office ?												0	10
								Total score						0	65
				Minimum ranking score required for element 1600 = 40											
	1610	**Cyber Risk Management**													
	1610.1	Does the company have plans and procedures of cyber risk management (cyber risk policy) incorporated within its Safety Management System (SMS)?												0	20
	1610.3	Does the cyber risk policy differentiate between IT (information technology) and OT (operational technology) systems?												0	10
	1610.4	Does the cyber risk policy focus on elements such as third-party access and bring your own device (BYOD) in the office?												0	5
	1610.5	Does the company designate and train personnel as appropriate to identify and respond to cyber threats to the company's information technology systems?												0	5
	1610.6	Does the company have a policy in place to build new ships equipped with cyber secure systems and components?												0	5
	1610.7	Does the company have a set of clear and unambiguous cyber risk requirements that reflect the company's expectations to vendors and agents?												0	5
	1610.8	Does the company have a policy to carry out cyber risk assessments on its ships (at an interval deemed suitable by the company) using either of the following: - self-assessments followed by third party risk assessments - penetration tests of critical IT and OT infrastructure performed by external experts simulating cyber attacks?												0	5
	1610.9	Does the company provide its ships with contingency plans and related information in a non-electronic form that need to be followed in the event of a cyber attack?												0	5
	1610.10	Is it a company policy to involve IT department while preparing to purchase OT systems for ships?												0	5
	1610.11	Does the company use the information from investigations of previous identified cyber incidents to improve the technical and procedural protection measures and response plans on board and ashore?												0	5
	1610.12	Does the company forbid remote access by technicians and manufacturers to on-board systems without authorization by the vessel's senior leadership team (For example, by following a two-step digital authorization process)?												0	5
								Total score						0	75
				Minimum ranking score required for element 1610 = 35											

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	1700	**Noise and Vibration Management**																							
		Noise/Vibration Monitoring and Measures																							
	1700.1	Is it company policy to verify the noise survey report every 5 years?																						**0**	**15**
	1700.2	Is it company policy that the crew entering spaces where noise levels exceed 85db(a) should wear hearing protectors which meet the requirements of the HML(High-Medium-Low) method (ISO 4869-2:1994)?																						**0**	**5**
	1700.3	Is it company policy to periodically inspect the noise and vibration of all machinery equipment and rectify any abnormalities?																						**0**	**5**
	1700.4	Is it company policy to take appropriate measures in order to protect the crew from cargo handling equipment noise if it exceeds 85db(a) (by taking into account technical solutions and/or exposure limits)?																						**0**	**10**
		Noise Mitigation and Health Hazards																							
	1700.5	Does the SMS include the following? 1.Hearing protection; 2.Exposure limits; 3.Training regarding noise and health hazards.																						**0**	**5**
	1700.6	Does the company provide the crew with a hearing conservation programme which includes the following: 1.Hazards of high and long duration of noise exposure; 2.Maintenance of audiometric test records; 3.Periodic analysis of records and hearing acuity of individuals with high hearing loss.																						**0**	**5**
	1700.7	Does the company assess the risks associated with distractions to onboard operations, communication and rest hours caused by exposure to high levels of noise?																						**0**	**10**
	1700.8	Is it company policy to determine the noise exposure level of each rating/officer by taking into account the job profile, time spent by each crew member in different work spaces? (ISO 9612:2009 procedure)																						**0**	**10**
																							Total score	**0**	**65**
					Minimum ranking score required for element 1700 = 25																					
	1710	**Underwater Noise and Vibration Management**																							
	1710.1	Is it company practice to design a newbuild ship in such a manner to attenuate/reduce underwater noise?																						**0**	**10**
	1710.2	Does the company take any of the following measures to reduce underwater noise and vibration: 1.Installation of state of art propellers (With reduced cavitation); 2.Wake conditioning devices; 3.Installation of air injection propeller; 4.Vibration isolators mounted on the diesel generators; 5. Installation of propeller boss cap with fins; 6. Others = *fill during audit*?																						**0**	**10**
		If others =	*fill during audit*?																						
	1710.3	Does the company take any additional maintenance routines (e.g. polishing/coating) to reduce cavitation from the propeller?																						**0**	**5**
	1710.4	Does the company opt for re-routing or slow steaming where possible and practicable to protect whale sensitive areas?																						**0**	**5**
																							Total score	**0**	**30**
					Minimum ranking score required for element 1710 = 0																					

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RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	1800	**Social Dimension / Sustainability**																							
		A. Good Health & Well-Being																							
	1800.1	Does the company ensure that all vessels under its control have an ITF or similar agreement in place?																						0	10
	1800.2	Does the company have procedure regarding relieving shipboard personnel on compassionate grounds? (For example, in case of a family emergency)																						0	5
	1800.3	Is the company subscribed to any digital platform (web or app) that can be referred to by shipboard staff for seeking medical advice?																						0	5
	1800.4	Does the company ensure that the shipboard staff is aware of platforms (online/offline) providing access to emotional support networks to tackle mental health issues?																						0	5
	1800.5	Does the company provide access to the internet at all times for shipboard personnel on board all ships under its control?																						0	5
		B. Reduced Inequalities / Equal Opportunities / Diversity																							
		B.1 General																							
	1800.6	Does the company have a policy focusing on subjects such as equal opportunities, equality and diversity, inclusion, anti-discrimination, anti-harassment, etc. to prevent and eliminate discrimination at workplace (office and ship)?																						0	10
	1800.7	Does the company have confidential reporting procedures enabling all employees to report harassment & discrimination?																						0	5
	1800.8	Does the company take steps to create awareness among its staff (on shore & off shore) and to ensure effective implementation of its policies focusing on subjects such as equal opportunities, equality and diversity, inclusion, anti-discrimination, anti-harassment, etc.?																						0	5
		B.2 Gender-specific																							
	1800.10	Does the company take steps to promote and achieve gender diversity/equality at office and on board vessels (at all levels)?																						0	10
	1800.11	Does the company provide the following specific facilities for its women seafarers: – feminine hygiene items (in bonded stores) & separate disposal facilities on board – separate washrooms with sanitary facilities on board – suitable sized (gender specific) safety and protective clothing on board – access to medical supplies without having to consult male colleagues on board																						0	5
		C. Sustainability Reporting																							
	1800.12	Does the company prepare and publish its performance on environmental, social and governance criteria annually (in line with internationally recognised frameworks, such as GRI, IIRC and SASB standards)?																						0	20
																							Total score	0	85

Minimum ranking score required for element 1800 = 15

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	2000	NAVIGATION / BRIDGE OPERATIONS																							
	2100	**Navigation**							O				O												
	2100.6	Does the company have a contract for automatic supply of new hydrographic publications?																						0	10
	2100.7	Does the company have a contract for electronic update of hydrographic publications? (eg. Temporary and Preliminary NtM)																						0	10
	2100.8	Is it a company policy to include navigational equipment in electronic Planned Maintenance System?																						0	10
	2100.9	Are masters entitled to use non-compulsory pilot services? (must be stated in a company procedure)																						0	10
	2100.12	Is the company aware of the vessel´s critical areas transiting?																						0	10
	2100.13	Does the company use weather routing services for ships on long haul voyages?																						0	10
	2100.18	Is it a company policy to enroll the vessels in a meteorological & oceanographic service in a form of a software application?																						0	10
	2100.19	**Alternative to 2100.18**: Do the vessels have a capability to receive comprehensive weather information from the office or from coastal stations / platforms?																						0	5
	2100.14	Does the company have instructions for navigating in sensitive areas? (IMO SN/Circulars)																						0	10
	2100.15	Is it a company policy to equip vessels with the multi constellation GNSS receivers?																						0	10
	2100.16	Is it a company policy to equip vessels with the eLoran receivers?																						0	10
	2100.17	Is it a company policy that the position for all stages of voyage is compared with a different method of positioning than GPS?																						0	20
			Total score																					0	120
			Minimum ranking score required for element 2100 = 50																						

GA Code: Certificate Holder name: Date of Office Audit:

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	2111	**Electronic chart display & information systems / ECDIS**																							
		Applicable to the companies with ships for which carriage of ECDIS is compulsory																							
	2111.3	Does the company provide navigational procedures concerning the use of ECDIS?																						0	10
	2111.4	Is it a company policy to list ECDIS as critical equipment and integrate into PMS? (hardware and software)																						0	5
	2111.5	Is it a company policy that ECDIS is tested according to IHO ECDIS data presentation and performance check with a use of test data set after every update of the software (including back up)?																						0	5
	2111.6	Is it a company policy that regardless of the generic training the crew is familiarised with the ECDIS unit(s) installed onboard according to the Industry Recommendations for ECDIS Familiarisation?																						0	15
	2111.7	Is it a company policy to provide structured ECDIS training(s) for all officers on top of the generic training (besides the familiarization onboard in R2111.6)?																						0	5
	2111.8	Does the company have a contract / agreement with ECDIS manufacturer in relation to the maintenance of the software?																						0	5
	2111.11	Does the company have a standard for display settings (layers) of ECDIS for various navigation conditions (arrival / departure - coastal - deep sea)?																						0	5
	2111.12	Is it a company policy that the vessels have a basic folio of paper charts (in case second ECDIS is a back up system)?																						0	10
																								Total score	0	60
					Minimum ranking score required for element 2111 = 35																					
	2120	**Fuel Change Over / Ballast Water Exchange**			O				O				O													
	2120.1	Is it company policy that the voyage plan (checklist) include when fuel change over should be carried out?																						0	10
	2120.2	Is it company policy that the voyage plan (checklist) include when ballast water exchange can be carried out?																						0	10
																								Total score	0	20
					Minimum ranking score required for element 2120 = 20																					
	2300	**Mooring Operations**							O																	
	2300.1	Does the company have procedures/instructions for mooring/unmooring operations?																						0	10
																								Total score	0	10
					Minimum ranking score required for element 2300 = 10																					

GA Code: Certificate Holder name: Date of Office Audit:

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

Revision Code	Norm item	RANKING Office - LNG	GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	3000	MACHINERY / ENGINE OPERATIONS																							
	3100	**Bunker Operations**					O						O												
	3100.1	Does the company MS specify a safe-maximum percentage fill for bunker tanks? (max. limit 95%)																						0	10
	3100.2	Is a checklist used for bunker operations (company format) ?																						0	10
	3100.3	Does the bunker procedure include a bunker plan (company format) ?																						0	10
	3100.4	Are there procedures/instructions for the internal transfer of fuel oil between main storage tanks?																						0	10
	3100.5	Is there an instruction that all persons involved are to be familiar with the intended bunker operation and/or internal transfer operation and their duties?																						0	10
			Total score																					0	50
			Minimum ranking score required for element 3100 = 50																						

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	3200	**Fuel oil management**																							
		A. Contracting / Procurement																							
	3200.14	**N/A in case charterer is responsible for supplying bunkers (for all GA ships)** Is it company procedure that bunker purchasing contracts state that the fuel oil be supplied with reference to ISO 8217 specifications (**latest edition is recommended**)?																						0	10
	3200.15	**N/A in case owner / manager or third party ship manager is responsible for purchasing bunkers (for all GA ships)** Is it company procedure that the technical requirements of the ship and optimal fuel oil specifications are communicated to the charterer for their consideration?																						0	10
	3200.13	Is an evaluation of all fuel oil suppliers carried out to identify "quality-oriented fuel oil suppliers" before signing the bunker purchasing contract with a chosen supplier and are the negative results brought to the attention of the charterer (where applicable)?																						0	10
		B. Sampling & Testing																							
		B.1 MARPOL delivered fuel oil sampling																							
	3200.11	Is it company policy that fuel oil sampling (during bunkering) is carried out using an automatic sampler (time or flow proportional) in accordance with Marpol Annex VI?																						0	10
		B.2 In-use fuel oil sampling																							
	3200.16	Is it company policy that fuel oil samples are drawn from the following designated sampling points at least once every four months for testing of catalytic fines & separator efficiency at a recognized fuel analysis organization ashore? 1. at engine inlet 2. before separator 3. after separator																						0	10
		B.3 Testing																							
	3200.1	Is it company procedure that bunkered fuel oil is **always** tested (before use onboard) by a recognized fuel analysis organization ashore in accordance with the requirements of ISO 8217 standard (same edition for which the fuel was ordered)?																						0	40
		C. Operational procedures																							
	3200.17	Does the company prohibits its ships to commingle two different bunkers (even of the same grade of fuel)?																						0	10
	3200.18	For the situations where commingling of two different fuels is unavoidable, does the company have commingling procedure explaining the steps to be followed to determine the compatibility of two bunkers (including the reference test methods)?																						0	5
		D. Additional questions																							
	3200.5	Are global bunker quality alerts received from company fleet experience and fuel analysis organisation shared with relevant ships by issuing technical bulletins or circulars?																						0	10
	3200.19	Is it company procedure that bunker suppliers are asked to provide the copies of the product's valid certificate of quality (COQ) and associated laboratory analysis reports verifying the details on the COQ?																						0	5
																							Total score	0	120
					Minimum ranking score required for element 3200 = 60																					

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN. Doc. & Impl.	QUALITY DEPT. Doc. & Impl.	TECHNICAL DEPT. Doc. & Impl.	NAUTICAL DEPT. Doc. & Impl.	PERSONNEL DEPT. Doc. & Impl.	OPER./CHART DEPT. Doc. & Impl.	PURCHASING DEPT. Doc. & Impl.	FINANCIAL DEPT. Doc. & Impl.	IT DEPT. Doc. & Impl.	INS- / CLAIM DEPT. Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	4000	CARGOES / CARGO OPERATIONS													
	4100	**LNG Carrier Cargo Operations & Additional Green Award requirements**				O		O							
	4100.1	Is it company procedure that the ship shore safety checklist has to be used before loading/unloading operations?												0	10
	4100.3	Does the company have instructions for smoking areas on board?												0	10
	4100.4	Does the company have procedures/instructions in relation to the entire cargo tank operations?												0	10
	4100.7	Are there procedures to ensure that a sufficient number of personnel is available in case of emergency during port stay?												0	10
	4100.17	Is it company policy that CTS documents are taken before commencing and after completion of cargo operations?												0	10
			Total score											0	50
			Minimum ranking score required for element 4100 = 50												
	4200	**Ship to Ship Transfer Operations**			O			O							
	4200.5	Is it company policy to verify with the STS-operator that approved equipment is used for the intended STS operation?												0	40
			Total score											0	40
			Minimum ranking score required for element 4200 = 40												

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	5000	PREVENTION OF POLLUTION																							
	5100	**Biofouling Management**																							
	5100.5	Does the company have ship-specific procedures/instructions (according to IMO guidelines) for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species?																						0	10
	5100.6	Does the company define frequency and timing of in-water inspection and proactive hull cleaning in consultation with coatings manufacturer and/or coatings consultant for each ship under its management?																						0	5
	5100.7	Is it a company policy to define potential trigger points for reactive hull cleaning – based on performance monitoring or other relevant datasets (such as increased drag or increased friction)?																						0	5
	5100.8	Is it a company policy to use in-water cleaning only in combination with capture and filtration of the cleaned material and subsequent waste treatment and disposal, when made available in ports?																						0	10
																							Total score	0	30
					Minimum ranking score required for element 5100 = 5																					

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN. Doc. & Impl.	QUALITY DEPT. Doc. & Impl.	TECHNICAL DEPT. Doc. & Impl.	NAUTICAL DEPT. Doc. & Impl.	PERSONNEL DEPT. Doc. & Impl.	OPER./CHART DEPT. Doc. & Impl.	PURCHASING DEPT. Doc. & Impl.	FINANCIAL DEPT. Doc. & Impl.	IT DEPT. Doc. & Impl.	INS- / CLAIM DEPT. Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	5200	**Waste Management / Garbage Handling Onboard**		O	O	O									
		A. General procedures													
	5200.17	Does the company have a policy to reduce garbage at source? For example, bulk packaging of consumable items.												0	5
M	**5200.22**	Is it a company policy that recyclable material such as paper, plastic, metal (for example, tin cans), glass, bottles, crockery & similar refuse, and dunnage are always delivered to the port reception facilities?												0	5
		B. Garbage types													
		B.3 Ashes and clinkers													
	5200.25	Is it a company policy that all incinerated ashes and clinkers are always delivered to the port reception facilities?												0	10
		B.4 Cleaning agents & additives													
	5200.28	Is it a company policy to use non harmful (MARPOL Annex V compliant) cleaning agents and additives for cleaning the deck / external surfaces?												0	10
		B.5 Plastics													
	5200.20	Is it a company policy that plastic is never incinerated?												0	10
	5200.38	Does the company have a policy to reduce the use of disposable and single-use plastics on board (at least focusing on plastic cutlery, dishes & straws and beverages & mineral water bottles in bonded stores)?												0	10
	5200.41	Does the company have a policy to avoid procuring food items in single servings of plastics pots (for example, replacing small yoghurt pots with decanted supplies in large containers)?												0	5
	5200.42	Does the company combat micro-plastics in the laundry system by adding a fine filtering mesh to ship's washing machine's outlets to prevent fibers reaching the ocean?												0	5
M	**5200.43**	Does the company have a procedure that clearly stipulates there should be no dumping of old plastic ropes and mooring lines at sea and encourage to retain them on board until landed ashore for correct disposal?												0	5
		C. Additional questions													
	5200.16	Does the company provide training / education programme for the crew in order to create awareness in relation to garbage management?												0	5
	5200.18	Does the company participate in national / international Marine Litter Monitoring Programs?												0	5
	5200.19	Does the company have a reporting system on lack of availability of reception facilities for certain types of garbage? (such as GISIS by IMO or equivalent)												0	5
													Total score	0	80
				Minimum ranking score required for element 5200 = 30											
	5300	**Cargo Vapour Emission Control Systems**		O	O	O									
	5300.13	Does the company have additional procedures in place to avoid the venting of Boil-Off Gas to atmosphere?												0	20
	5300.14	Are annual quantities of incidental Boil-Off Gas to atmosphere as well as Boil-Off Gas to Gas Combustion Unit monitored for the fleet for continual improvement?												0	20
													Total score	0	40
				Minimum ranking score required for element 5200 = 20											

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	5410	**NOx Emissions**			O		O																		
		A. Emission Monitoring																							
	5410.10	Does the company use a continuous emission monitoring system (in-situ or extractive) for monitoring and recording NOx emissions?																						**0**	**10**
		B. Emission Reduction																							
	5410.20	Does the company use any one of the following measures on board one or more of its vessels to reduce NOx emissions from main and/or auxiliary engines?																						**0**	**30**
		Measures taken to reduce NOx emissions	**If YES, choose from below options**																						
		Direct Water Injection																							
		Fuel Water Emulsification																							
		Intake Air Humidification																							
		Slow Steaming																							
	5410.21	Is it company policy to implement regulated slow steaming on some or all of the vessels within their fleet in an effort to reduce NOx emissions?																						**0**	**10**
		C. Additional Questions																							
		Exhaust Gas Recirculation (EGR)																							
	5410.22	Are negative results from the continuous monitoring of exhaust gas recirculation bleed-off discharge water collected from the ship and addressed by the company? **The guidelines set out in MEPC.259 (68) are applicable to EGR bleed-off discharge water as well.*																						**0**	**10**
	5410.24	Does the company's PPE matrix include handling of caustic soda for exhaust gas recirculation?																						**0**	**5**
	5410.25	Does the company provide the relevant crew with manufacturer training for the EGR unit? **The manufacturer training should cover the normal operation of the EGR system including bunkering of any chemicals (consumables), calibration of sensors, routine maintenance as well as the procedures to be followed in case of system failure and deviation from normal operation.*																						**0**	**5**
		Selective Catalytic Reduction (SCR)																							
	5410.26	Does the company install a monitoring unit which monitors and measures any formation of ammonia slip? **The monitoring unit should be capable of issuing a warning in the event of ammonia formation.*																						**0**	**10**
	5410.27	Does the company take adequate measures to avoid the breakdown of the SCR unit? Measures should include (all of) the following: 1. Requisition's of materials 2. Redundancy 3. Effects of back pressure 4. Maintenance regimes of the SCR 5. Monitoring the condition of the catalyst.																						**0**	**10**
	5410.28	Does the company provide the relevant crew with manufacturer training for the SCR unit? **The manufacturer training should cover the normal operation of the SCR unit including bunkering of any chemicals (consumables), calibration of sensors, routine maintenance as well as the procedures to be followed in case of system failure and deviation from normal operation.*																						**0**	**5**
																							Total score	**0**	**95**
					Minimum ranking score required for element 5410 = 35																					

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	5420	**SOx Emissions**			O		O								O										
		A. Emission Monitoring																							
	5420.11	Does the company use a continuous emission monitoring system (in-situ or extractive) for monitoring and recording SOx emissions?																						**0**	**10**
		B. Emission Reduction																							
	5420.12	Main and auxiliary engines: Does the company <u>voluntarily</u> burn low Sulphur fuel (max. 0.10% Sulphur) or use equivalent methodology **during the ship's stay at every port?** *(If exhaust gas cleaning system is used, Sulphur content is measured with SO2:CO2 ratio. Ratio of max 4.3 is equal to 0.10% Sulphur content)*																						**0**	**50**
		C. Additional Questions																							
		Exhaust Gas Cleaning System (EGCS)																							
	5420.13	Does the company use the requirements of Scheme B* (continuous emission monitoring with parameter checks) for testing, survey, certification and verification of EGC systems on board all its ships having such systems (EGC)? ** Under scheme B, the SOx emissions compliance plan (SECP) should present how the continuous monitoring of ship exhaust gas emissions will demonstrate that the total SO2(ppm)/CO2(%) ratio is comparable to the requirements of 14.1 and/or 14.4 of MARPOL Annex 6.* ** Ships should be in possession of EGC technical manual, scheme B (ETM-B).*																						**0**	**20**
	5420.14	Are negative test results from the continuous monitoring of wash water discharge collected from the ship and addressed by the company? **The wash water discharge criteria have been set out in MEPC.259 (68).*																						**0**	**10**
	5420.16	Does the company take adequate measures to avoid breakdown of the EGCS unit? Measures should include (all of) the following: 1. Material requisitions 2. Redundancy 3. Risk of condensation 4. Safety process regarding handling and storage of caustic soda. 5. Noise prevention 6. Contingency plan for failure 7. Remote monitoring 8. Technical support from the manufacturer (Telephone helpline)																						**0**	**20**
	5420.20	Does the company's PPE matrix include handling of caustic soda for closed-loop scrubbers?																						**0**	**5**
	5420.21	Does the company provide relevant crew with manufacturer training course for the EGC unit?																						**0**	**5**
																							Total score	**0**	**120**
				Minimum ranking score required for element 5420 = 20																					

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN. Doc. & Impl.	QUALITY DEPT. Doc. & Impl.	TECHNICAL DEPT. Doc. & Impl.	NAUTICAL DEPT. Doc. & Impl.	PERSONNEL DEPT. Doc. & Impl.	OPER./CHART DEPT. Doc. & Impl.	PURCHASING DEPT. Doc. & Impl.	FINANCIAL DEPT. Doc. & Impl.	IT DEPT. Doc. & Impl.	INS- / CLAIM DEPT. Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	5430	**Particulate Matter (PM) Emissions**			O										
	5430.10	Does the company use any one of the following measures on board one or more of its vessels to reduce PM emissions from main and/or auxiliary engines?												0	30
		Measures taken to reduce PM emissions	**If YES, choose from below options**												
		Diesel Particulate Filter													
		Diesel Oxidation Catalyst													
		Electrostatic Precipitator													
							Total score							0	30
			Minimum ranking score required for element 5430 = 0												
	5440	**Greenhouse Gas (GHG) Emissions - CO_2 Emissions**													
		A. Emission Monitoring													
	5440.10	Does the company use flow meters for monitoring and recording of fuel consumption? (Flow meter is to be calibrated and certified by for example a classification society)												0	10
	5440.6	Is an energy efficiency baseline measured for each ship? *Using a calculation of fuel consumption (Unit = Fuel consumption per transport work expressed in grams per tonne-nautical mile or other relevant unit as applicable to relevant ship category) (or) *Using measurement of CO2 emissions from emission monitoring equipment (grams CO2 per tonne nautical mile or other relevant units as applicable to relevant ship category) (Baseline is a measurement of the ships average (operational) energy efficiency under normal operating conditions before energy efficient measures or policies are implemented).												0	5
	5440.14	Does the company use a ship performance monitoring software to monitor and reduce energy consumption by operational measures for their entire fleet?												0	20
		B. Emission Reduction													
		Short term goals (CO_2 reduction through energy efficiency measures)													
	5440.15	(Design and operational based measures) Energy efficiency measures implemented on-board company vessels?												0	20
		For ease of use, measures are grouped according to the GLOMEEP Energy efficiency technologies information portal.	**If YES, choose from below options and fill-in supplement CO_2 - GloMEEP tab**												
		Measures related to Machinery													
		Measures related to Propulsion and Hull Improvements													
		Measures related to Energy Consumers													
		Measures related to Energy Recovery													
		Measures related to Technical Solutions for optimizing the operations													
	5440.16	Has the company achieved an annual average reduction of at least 2.0% in CO2 emissions per transport work (gCO2/tnm) since 1st Jan 2013?												0	30
	5440.17	**Alternative to 5440.16**: Has the company achieved an annual average reduction of at least 1.0% in CO2 emissions per transport work (gCO2/tnm) since 1st Jan 2013?												0	15

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
		Mid term goals (CO_2 reduction through the use of low carbon fuels)																							
	5440.18	**Main engines:** Does the company have any vessels within their fleet which use low carbon fuels such as:																						**0**	**15**
		Low carbon fuels	**If YES, choose from below options**																						
		LNG (Liquefied Natural Gas)																							
		LPG (Liquefied Petroleum Gas)																							
		GTL (Gas to liquid) fuel																							
		Bio-diesel																							
		Bio-LNG (Bio-methane)																							
		Methanol																							
		Ethanol																							
		Dimethyl Ether																							
		Other: *fill during audit*																							
		If others =																							
	5440.19	**Auxiliary engines:** Does the company have any vessels within their fleet which use low carbon fuels such as:																						**0**	**15**
		Low carbon fuels	**If YES, choose from below options**																						
		LNG (Liquefied Natural Gas)																							
		LPG (Liquefied Petroleum Gas)																							
		GTL (Gas to liquid) fuel																							
		Bio-diesel																							
		Bio-LNG (Bio-methane)																							
		Methanol																							
		Ethanol																							
		Dimethyl Ether																							
		Other: *fill during audit*																							
		If others =																							

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
		Long term goals (CO_2 neutral operation through zero carbon fuels)																							
	5440.20	**Main engines:** Does the company have any vessels within their fleet which use zero carbon fuels such as:																						**0**	**25**
		Zero carbon fuels	**If YES, choose from below options**																						
		Anhydrous Ammonia																							
		Hydrogen																							
		Fuel Cells (Powered by ammonia or hydrogen)																							
		Batteries																							
		Nuclear																							
		Other: *fill during audit*																							
		If others =																							
	5440.21	**Auxiliary engines:** Does the company have any vessels within their fleet which use zero carbon fuels such as:																						**0**	**25**
		Zero carbon fuels	**If YES, choose from below options**																						
		Anhydrous Ammonia																							
		Hydrogen																							
		Fuel Cells (Powered by ammonia or hydrogen)																							
		Batteries																							
		Nuclear																							
		Other: *fill during audit*																							
		If others =																							
	5440.22	Does the company have any vessels within their fleet which use renewable energy sources for energy production such as:																						**0**	**25**
		Renewable Energy source	**If YES, choose from below options**																						
		Wind *fill during audit*																							
		Solar																							
		Other: *fill during audit*																							
		Wind =																							
		If others =																							
	5440.24	Does the company take steps to facilitate JIT Arrival of ships (for example, use of BIMCO's Virtual Arrival Clause for Voyage Charter Parties or speed decisions taken by the Master of owned ships to ensure JIT Arrival or implement measures from Port Information Manual by International Taskforce Port Call Optimization or other such measures)?																						**0**	**10**
			Total score																					**0**	**200**
			Minimum ranking score required for element 5440 = 0																						

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	5441	**Greenhouse Gas (GHG) Emissions - Methane (CH_4) Emissions - Main Propulsion**																							
		B. Emission Reduction																							
		Gas Turbine or High Pressure Dual Fuel engine																							
	5441.2	Does the company ensure that at least one of its LNG-powered ships operate on low (or no) Methane Slip technology, for example, Gas Turbine or High Pressure Dual Fuel (HPDF) Engine?																						**0**	**20**
		Other Engine Types																							
	5441.3	Does the company take measures and is able to achieve annual reduction in Methane Slip from LNG-fueled engines fitted on board its fleet of ships?																						**0**	**10**
		A. Emission Monitoring																							
	5441.1	Does the company use a continuous emission monitoring system (in-situ or extractive) for monitoring and recording Methane Slip?																						**0**	**10**
		C. Additional questions																							
	5441.4	Does the company provide awareness training to shipboard personnel on methane emissions from LNG-fueled engines?																						**0**	**5**
	5441.5	Does the company collaborate with engine manufacturers on research & development projects aiming to improve methane emissions from LNG-fueled engines?																						**0**	**10**
																							Total score	**0**	**55**
					Minimum ranking score required for element 5441 = 0																					
	5460	**Environmental Ship Index (ESI)**			O		O																		
	5460.1	Is it company policy for ships to participate in the Environmental Ship Index, where applicable? (The ESI is a project from the World Port Climate Initiative; its aim is to recognise ships whose air emissions are below regulatory limits and in doing so contribute to improvements in air quality and reduction of greenhouse gas emissions in the shipping sector).																						**0**	**50**
																							Total score	**0**	**50**
					Minimum ranking score required for element 5460 = 0																					

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	5500	**Sewage Management**																							
		Sewage Treatment Plant																							
	5500.1	Is it company policy to treat the sewage with a sewage treatment plant which uses minimal or no harmful chemicals?																						0	10
	5500.2	Is it company policy to sample and monitor the discharged effluent periodically (at least annually) for lab testing ashore to check the compliance with: 1. MEPC 159(55) for plants installed after 1st Jan 2010; 2. MEPC 227(64) for plants installed after 1st Jan 2016.																						0	10
	5500.4	Does the company have a procedure to monitor and address any non-compliance in the effluent standards?																						0	10
N	5500.10	**Alternative to 5500.1, 5500.2 & 5500.4 (applicable ONLY for short-haul vessels)** Is it company policy to ensure that ships deliver all their sewage / sewage sludge (regardless of treated or untreated) to port reception facilities (where available)?																						0	30
		For all ships: Sewage Holding Tank																							
	5500.6	Did the company perform a risk assessment to calculate the capacity of the holding tank?																						0	20
																							Total score	0	50
					Minimum ranking score required for element 5500 = 20																					
	5510	**Grey Water Management**																							
	5510.1	Is it company policy to install a sewage treatment plant capable of treating grey water?																						0	15
	5510.2	Is it company policy to not discharge grey water within coastal and port areas?																						0	10
																							Total score	0	25
					Minimum ranking score required for element 5510 = 0																					
	5700	**Ballast Water Management**																							
		For ships required to follow D-1 standard (as per International Ballast Water Management Certificate (IBWMC))																							
	5700.5	Are tasks & responsibilities of shipboard personnel assigned to ballast water exchange operations defined, documented & controlled ?																						0	5
	5700.6	Does the office support the master in cases where the ship cannot reasonably be expected to carry out ballast water exchange?																						0	5
	5700.10	Does the company ensure that relevant ships voluntarily comply with D-2 ballast water management standard using a type-approved ballast water treatment system (BWTS)?																						0	10
		For ships required to follow D-2 standard (as per International Ballast Water Management Certificate (IBWMC))																							
	5700.11	Does the company develop ship-specific contingency plans taking into account system design limitations, for example, - the UV-based BWTS cannot operate correctly in ports where the water is very muddy, - when operating in low salinity ports, the crew should plan to carry enough salt water or brine in order for the electrochlorination BWTS to function effectively.																						0	10
	5700.12	Does the company ensure the following in order to keep the BWT systems on board in operable condition: - maintain full inventory of manufacturer recommended spare parts list on board - define & maintain safe-margin stock of consumables on board (such as chemicals with short shelf-life, UV lamps, etc. as required by the installed system)																						0	5
	5700.14	Does the company train relevant crew to operate ship-specific BWT systems, for example, by means of computer-based training, training at the makers facilities or on a simulation BWMS that mimics real BWTS operations?																						0	10
	5700.15	Does the company conduct on-board familiarization of relevant crew for the operation of the BWTS installed on board?																						0	10
	5700.16	In addition to the relevant crew, does the company include shore-based management (ship managers/superintendents/port engineers) in the BWMS training programs?																						0	5
																							Total score	0	60
					Minimum ranking score required for element 5700 = 20																					

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	5801	**Protection of fuel oil tanks, lube oil tanks and hull**																							
		For Owner / Managers only (Not applicable to 3rd-party ship managers)																							
	5801.4	Does the company require ship building yards to use advanced shipbuilding plates (highly ductile steel) or structural features to build (a part of) hull structure and/or fuel tanks of new ships (for example, sandwich plate structure)?																						0	30
																							Total score	0	30
																							Minimum ranking score required for element 5801 = 0		
		Lubrication and Use of Oils (Element nr.: 5810, 5811 & 5812)																							
	5810	**Stern tube lubrication**					O								O										
	5810.1	Does the company install a class approved stern tube water lubricated system which uses sea water as a lubricant? (system includes water conditioning and monitoring equipment)																						0	60
	5810.6	**Alternative for 5810.1 & 5810.3:** Does the company install a class approved stern tube water lubricated system which uses fresh water as a lubricant? (system includes water and conditioning and monitoring equipment) *Additives used to maintain the condition of the water should be environmentally friendly.																						0	50
	5810.3	**Alternative for 5810.1 & 5810.6:** Is there a company policy to fit vessels with a class approved stern tube lubrication system with an air type or void space seal?																						0	25
																							Total score	0	60
																							Minimum ranking score required for element 5810 = 0		
	5811	**Mooring wire lubrication**					O								O										
	5811.1	Is it company policy to use a mooring wire lubricant / grease that is certified according to the EEL?																						0	20
																							Total score	0	20
																							Minimum ranking score required for element 5811 = 0		
	5812	**Deck equipment lubrication (use of oils)**					O								O										
	5812.1	Is it company policy to use grease that is certified according to the EEL (all deck equipment)?																						0	15
	5812.2	Is it company policy to use gear oil that is certified according to the EEL (all deck equipment)?																						0	10
	5812.3	Is it company policy to use hydraulic oil that is certified according to the EEL in mooring and anchor appliances?																						0	10
	5812.4	Is it company policy to use hydraulic oil that is certified according to the EEL in crane appliances?																						0	10
	5812.6	Due to characteristics of environmentally friendly lubricants (EEL certified) are extra measures taken into account for the applicable system if needed? (e.g. condition of seals & filters, temperature & condition of oil, prevention of humidity ingress etc.)																						0	10
																							Total score	0	55
																							Minimum ranking score required for element 5812 = 0		

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	5820	**Management of bilge water and sludge handling onboard**			O		O		O		O		O												
	5820.3	Is it company policy to familiarize engine room personnel with on board sludge and bilge water management procedures?																						0	10
	5820.4	Is it company policy to ensure that all engine room personnel are familiar with the system layout, drawings and manuals?																						0	5
	5820.5	Is it company policy to include Sludge/Bilge and Soot collection tanks in the PMS for regular cleaning / inspection?																						0	5
	5820.6	Is it company policy to build vessels with bilge and sludge handling system in accordance with the MEPC.1/Circ. 642 guidelines?																						0	5
			Total score																					0	25
			Minimum ranking score required for element 5820 = 15																						
	5821	**Outfitting of bilge water system**			O		O		O		O		O												
		A. Clean Drains (Drains that are <u>normally not</u> contaminated by oil)																							
	5821.1	Does the company have a policy that bilge water from the Clean drain tank (for the collection of "clean drains", as per MEPC.1/Circ.642) passes through 15 ppm oil content meter and alarm?																						0	5
	5821.17	Does the company have a policy of logging discharges from the Clean drain tank (tank used for the collection of "clean drains", as per MEPC.1/Circ.642) in the engine room logbook?																						0	5
		B. Soot Collection Tank arrangement																							
	5821.2	Are management instructions regarding disposal of soot and soot-water mixtures available onboard for ships equipped with Soot separation / collection tank?																						0	5
		C. Oily bilge water tank arrangement																							
	5821.4	Is it company policy to install Clean Water Tank (to enable Oily Bilge Water to be processed while in port and special areas)?																						0	10
	5821.5	Is it company policy to pump Oily bilge water from the Oily bilge water holding tank through the Oily Water Separator to the Clean water tank (rather than overboard discharge)?																						0	5
		D. Oily water separator / Oil content meter																							
	5821.6	**<u>N/A for vessels keel laid after 2005</u>** Is it company policy to install an oil content meter with an automatic stopping device capable of measuring the difference in emulsifying particles and oil, as per IMO resolution MEPC.107(49)																						0	5
	5821.7	Are instructions available in the management system to avoid that the Oil Content Meter is flushed/diluted with clean water during Oily Water Separator operation or is an equipment or a protection system installed (e.g. White Box) to prevent illegal discharges of bilge water from machinery spaces?																						0	10
	5821.8	**<u>N/A for vessels keel laid after 2005</u>** Is it company policy to equip the Oily Water Separator with a re-circulating facility for testing purposes as per IMO resolution MEPC.107(49) 6.1.1. ?																						0	5
		<u>5821.9 is an alternative to 5821.1 - 5821.8 & 5821.17 (all the above)</u>																							
	5821.9	Is it a company policy to always deliver all bilge water to reception facilities?																						0	50
			Total score																					0	50
			Minimum ranking score required for element 5821 = 20																						

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	5822	**Outfitting of sludge handling system**			o		o		o				o												
	5822.1	Is it company policy to install a sludge collecting pump as per MEPC.1/Circ.642? (with the sole purpose of collecting the sludge from different ER tanks to the Oil Residue (Sludge) Tank)?																						0	5
	5822.2	Is it company policy to install a separate sludge discharge pump with the purpose of discharging the sludge to reception facility?																						0	5
	5822.3	Is it company policy to improve the efficiency and capacity of the sludge handling system by installing: - a tank or system with the sole purpose of removing large quantities of water from the sludge? - a separate tank or system with the sole purpose of evaporating water from the sludge? - a separate tank or system with the purpose of mixing the sludge while incinerated (in incinerator or boiler)																						0	5
	5822.6	Is it a company selection process to assign ships that always deliver all sludge to reception facilities?																						0	5
																							Total score	0	20
																							Minimum ranking score required for element 5822 = 10		
	5900	**Ship Recycling - Inventory of Hazardous Materials**	o		o		o																		
		New buildings - For Owner / Managers and 3rd-party Ship Managers For 5900.1, 5900.12 and 5900.2																							
	5900.1	Does the company require the shipyard to develop an "Inventory of Hazardous Materials" (Part I) at the stage of design and/or construction? (requirement to be part of the building contract)																						0	40
	5900.12	Does the company require the shipyard to have procedures to require equipment-/machinery-suppliers to provide a "Material Declaration"? (used by the yard to develop the Inventory Part I) (requirement to be part of the building contract)																						0	10
	5900.2	Does the company require the shipyard to include in these procedures that the "Material Declaration" contains information on the safe removal of hazardous materials? (requirement to be part of the building contract)																						0	10
		Existing ships - For Owner / Managers and 3rd-party Ship Managers For 5900.10 and 5900.13																							
	5900.10	Is each Green Award-certified company vessel in the possession of an "Inventory of Hazardous Materials" (Part I completed)?																						0	40
	5900.13	**Alternative to 5900.10:** Has the company started the process to prepare Part I of the "Inventory of Hazardous Materials" with a target completion date for each Green Award certified vessel in the fleet?																						0	20
N	**5900.14**	Does the company use a software tool on board its ships to support the IHM maintenance process, for example, for the collection of Material Declarations (MDs) & SDoCs for all purchased items that fall into the scope of IHM Part I?																						0	20
																							Total score	0	120
																							Minimum ranking score required for element 5900 = 40		

GA Code: Certificate Holder name: Date of Office Audit:

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	5910	**Ship Recycling - Policy for ships due to be recycled**	0		0		0																		
		For Owner / Managers only (Not applicable to 3rd-party ship managers)																							
	5910.8	Has a company policy been implemented within the Management System that end-of-life vessels will only be recycled at a recycling facility either compliant with the requirements of the Hong Kong Convention or on the EU-list? (regardless of being sold directly to a recycling facility or to a cash buyer)?																						0	20
	5910.2	Has a company procedure been implemented within the Management System to audit a recycling facility before concluding a "contract of sale"?																						0	10
	5910.4	Has a company policy been implemented that the "contract of sale" will include the requirement to develop a "Ship Recycling Plan" by the recycling facility (in consultation with the owner) or does the "contract of sale" with the cash buyer include the obligation to request such a plan upon sale to the recycling facility?																						0	20
	5910.5	Has a company procedure been implemented within the Management System that a Final Survey, by an independent organization, will be carried out on the "Inventory of Hazardous Materials" (Part I, Part II and Part III) before delivery to either the recycling facility or cash buyer?																						0	20
	5910.6	(Preparation of vessel before delivery) Has a company procedure been implemented to ensure that the vessel's cargo spaces & other compartments where possible, will be delivered to either the recycling facility or cash-buyer in a "gas-free & safe for entry and hot work" condition?																						0	20
	5910.7	(Preparation of vessel before delivery) Has a company procedure been implemented to clearly mark all compartments which could have an oxygen deficient or dangerous atmosphere? (e.g. cofferdams, fuel oil tanks, waste oil tanks, black/grey water tanks, etc.)																						0	20
	5910.9	Does the company disclose it's ship recycling policy in a public domain (such as company website) or via an environmental initiative such as SRTI (Ship Recycling Transparency Initiative)?																						0	10
		Policy regarding monitoring the recycling of company vessels																							
	5910.10	Has a company procedure been implemented within the Management System to deploy a full-time personnel at the recycling facility for the entire duration of recycling of the company vessels (to monitor and report the recycling process)?																						0	20
	5910.11	**Alternative to 5910.10 & 5910.12** Has a company procedure been implemented within the Management System to hire third-parties (consultants or cash buyers) for continuous monitoring and reporting of the recycling process employed by the recycling facility to dismantle the company vessels?																						0	10
	5910.12	**Alternative to 5910.10 & 5910.11** Has a company procedure been implemented within the Management System to audit the recycling facility during the recycling of the company vessels?																						0	5
																							Total score	0	140
					Minimum ranking score required for element 5910 = 60																				

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	6000	MAINTENANCE / SURVEYS																							
	6100	**Programme of Inspections**					●		●																
	6100.1	Has the company developed an internal technical inspection programme?																						0	10
	6100.2	Does the company have relevant previous survey and internal technical inspection reports?																						0	10
	6100.3	Does the company have a repair history on each vessel?																						0	10
	6100.4	Does the company have procedures/instructions for hull / ship's construction condition-inspections to be carried out by ship's personnel?																						0	20
	6100.6	Does the company have information regarding the relevant maintenance level of the vessel?																						0	10
	6100.7	Is an owner's inspection report available?																						0	10
																							Total score	0	70
					Minimum ranking score required for element 6100 = 60																					
	6110	**Critical and Stand-by Equipment**	●		●		●																		
	6110.1	Is the risk assessment carried out in order to create a list of critical equipment for every ship after intermediate survey (at least every 2.5 years)?																						0	10
	6110.2	Does the list of critical equipment include and specify stand-by equipment for every ship?																						0	10
	6110.3	Is the feedback from the ship considered in the process of creating a list of critical equipment? (eg. PMS reports)																						0	10
	6110.4	Is it company policy to categorize the ship into departments as per TMSA (OCIMF) in the process of creating a list of critical equipment?																						0	5
	6110.5	Is it company policy to install a Computer Based Program to register failures, break downs and near misses in order to have a constant event report on the systems?																						0	10
	6110.6	Are those event reports considered in creating a list of critical equipment?																						0	10
	6110.7	Is it company policy to install a Computer Based Program for spare parts management of critical equipment and stand-by equipment?																						0	10
	6110.8	Is it company policy to have safety stock inventory reports for critical equipment and stand-by equipment?																						0	10
																							Total score	0	75
					Minimum ranking score required for element 6110 = 30																					

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	6200	**Mooring Equipment**																							
	6200.1	Does the company have instructions for carrying out winch brake tests (to be carried out at least once a year or after an excessive load)?																						0	10
	6200.2	Does the company provide the ship with a winch brake test kit?																						0	5
	6200.5	Are inspection, maintenance and discard criteria for mooring wires and tails / fibre ropes established and carried out by a competent person? (time interval for inspection should be in the PMS)																						0	10
	6200.8	Do these criteria take manufacturer's recommendations into account ?																						0	10
	6200.9	Does the company give guidance for an additional examination after unusual events such as long periods of inactivity, excessive loads, heat exposure, loading/discharge at swell ports, etc.?																						0	5
	6200.10	Does the company give instructions for internal inspections and do these inspections take manufacturer's recommendations into account?																						0	10
	6200.11	Are the lubricants & cleaning products compatible with the wire and approved by the wire manufacturer?																						0	5
	6200.6	Is a log for "workingdays" of mooring wires and tails / fibre ropes maintained? (to predict the point of discard & for evaluation of wire/rope performance)																						0	10
	6200.7	Does the company provide the ship(s) with an automatic wire rope lubricator?																						0	10
	6200.12	**Alternative to 6200.7:** (for fibre ropes) Are there procedures for care of fibre ropes?																						0	10
																								0	75
	6300	**Corrosion Prevention of Seawater Ballast Tanks**																							
	6300.8	Is it company policy that ballast tanks of vessels delivered after 01-07-2012, are coated with a hard coating of a light colour?																						0	20
	6300.1	**For existing vessels:** Are ballast tanks coated with a hard coating of a light colour?																						0	10
	6300.6	**For existing vessels:** Are ballast tanks coated with dark epoxy maintained with a modified epoxy coating of a light colour, after safety benefit assessment is carried out?																						0	5
	6300.7	Is the coating approved according to the IMO performance standard? (type approval or statement of compliance according to Res. MSC 215(82) in Coating Technical File)																						0	20
	6300.4	Does the company have a system which ensures an adequate level of corrosion prevention of the seawater ballast tanks? (Protective coatings provided in ballast tanks has to be in a GOOD condition)																						0	10
	6300.5	Does the company require the corrosion prevention system to be part of the vessel maintenance system?																						0	10
																								0	75

Total score

Minimum ranking score required for element 6200 = 45

Minimum ranking score required for element 6300 = 40

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	6400	**Condition Assessment Program, Maintenance** Additional Green Award requirements	0				0																		
		For Owner/Managers																							
	6400.1	Is it company policy that a condition assessment for Hull will be carried out on vessels more than 20 years old, or by the end of the 4th special survey, whichever is earlier?																						0	25
	6400.8	Is it company policy that a condition assessment for Cargo Systems will be carried out on vessels more than 20 years old, or by the end of the 4th special survey, whichever is earlier?																						0	20
	6400.9	Is it company policy that a condition assessment for Machinery will be carried out on vessels more than 20 years old, or by the end of the 4th special survey, whichever is earlier?																						0	20
		6400.10, 6400.11 & 6400.12 are alternatives to 6400.1, 6400.8 & 6400.9 **For 3rd-party Ship Managers**																							
	6400.10	Is it company policy to request ship owners to carry out condition assessment for Hull on vessels more than 20 years old, or by the end of the 4th special survey, whichever is earlier?																						0	25
	6400.11	Is it company policy to request ship owners to carry out condition assessment for Cargo Systems on vessels more than 20 years old, or by the end of the 4th special survey, whichever is earlier?																						0	20
	6400.12	Is it company policy to request ship owners to carry out condition assessment for Machinery on vessels more than 20 years old, or by the end of the 4th special survey, whichever is earlier?																						0	20
	6400.3	Is it company policy that maintenance meetings are carried out on board? (e.g. each month and at (all) sections on board)																						0	10
	6400.4	Is a maintenance checklist used regarding the (monthly) maintenance inspection?																						0	10
	6400.5	Is an evaluation report of vessel's performance sent to the company?																						0	20
	6400.6	Is an annual technical report made by the Company's superintendent?																						0	15
																							Total score	0	120

Minimum ranking score required for element 6400 = 60

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	7000	CREW																							
	7100	**Employment of Personnel**									0														
	7100.1	Is it company policy to employ all ship-personnel on a permanent basis?																						0	30
		Alternative to 7100.1 (7100.2 - 7100.4)																							
	7100.2	Is it company policy to employ senior officers on a permanent basis?																						0	10
	7100.3	Is it company policy to employ officers on a permanent basis?																						0	10
	7100.4	Is it company policy to employ ratings on a permanent basis?																						0	10
																							Total score	0	30
					Minimum ranking score required for element 7100 = 0																					
	7200	**Extra Personnel**, Additional Green Award Requirement					0				0														
	7200.1	Is it company policy to employ extra deck officers onboard in addition to what is required by minimum safe manning document?																						0	10
	7200.7	Is it company policy to employ extra engine officers onboard in addition to what is required by minimum safe manning document?																						0	10
	7200.2	Is it company policy to employ extra deck ratings onboard in addition to what is required by minimum safe manning document?																						0	10
	7200.8	Is it company policy to employ extra engine ratings onboard in addition to what is required by minimum safe manning document?																						0	10
	7200.3	Is it company policy to have a ship administrator onboard ? (In addition to the standard complement and extra deck-officers and -ratings above)?																						0	10
	7200.4	Is it company policy to employ riding squads to carry out extensive maintenance jobs ?																						0	10
	7200.9	Is it company policy that manufacturer service engineers routinely attend the vessel or provide remote monitoring assistance for maintenance/repair of technical equipment or systems ?																						0	10
	7200.5	Is it a company policy to employ a gas engineer on board?																						0	10
	7200.6	Is it company policy to hire an electrical officer in addition to the engine officers required by the safe manning document?																						0	10
																							Total score	0	90
					Minimum ranking score required for element 7200 = 40																					

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	7300	**Training / Courses for Personnel,** Additional Green Award Requirements & IMO Model Courses																							
	7300.1	Is it company policy that the 2nd officer (deck) must complete an approved advanced training for liquefied gas tanker cargo operations? (As a minimum, the program should comply with STCW 2010 including Manila amendments Reg V/1-2)																						0	5
	7300.2	Is it company policy that all onboard personnel are trained and qualified according to the approved basic training for liquefied gas tanker cargo operations? (as STCW 2010 including Manila amendments Reg V/1-2) (If training comprises at least 3 months approved seagoing service on tankers (instead of an approved tanker familiarisation course) this should include onboard computer-based training (CBT) and a documented system showing participation and qualifications).																						0	5
	7300.4	Is it company policy to provide a training for advanced fire fighting to the lower ranking deck officers (IMO 2.03) ?																						0	5
	7300.18	Is it company policy to provide a training for advanced fire fighting to the lower ranking engine officers (IMO 2.03) ?																						0	5
	7300.5	Does the company provide "onboard assessment/train the trainer" courses for the onboard management (IMO 1.30) ?																						0	10
	7300.6	Does the company provide simulator training /courses for officers involved in cargo and ballast handling (IMO 1.36) ?																						0	15
	7300.7	Does the company provide "Marine Environmental Awareness" course (IMO 1.38) for all the ship personnel?																						0	10
	7300.21	Does the company provide "Marine Environmental Awareness" course (IMO 1.38) to the technical superintendents?																						0	5
	7300.22	Does the company provide "Marine Environmental Awareness" (IMO 1.38) to the HSQE manager ?																						0	5
	7300.8	Does the company provide bridge team management/ bridge resource management training / course for all deck officers (IMO 1.22) ?																						0	5
	7300.19	Does the company provide engine room resource management training/courses for all engine officers ?																						0	5
	7300.20	Alternative for 7300.8 & 7300.19 Does the company provide maritime resource management course for all officers ?																						0	10
	7300.9	Does the company have a structured program for refresher and updated training at suitable intervals for office and shipboard personnel?																						0	15
	7300.10	Is it company policy to employ cadets by providing training and education in order to recruit future officers?																						0	15
	7300.12	Is it company policy that all senior officers (Master, Chief Officer, Chief Engineer, 2nd Engineer and Gas Engineer) have completed the Liquid Cargo Operations Simulator (LICOS) course as recommended by SIGTTO for senior officers and relevant to cargo containment type (Membrane or Spherical)?																						0	10
	7300.13	Is it company policy that all junior officers (2nd Officer, 3rd Officer, 3rd Engineer and 4th Engineer) have completed the Liquid Cargo Operations Simulator (LICOS) course as recommended by SIGTTO for junior officers and relevant to cargo containment type (Membrane or Spherical)?																						0	20
	7300.14	Does the company have a system in place to monitor officers' competence, training, time in rank and use it as a basis for promotion?																						0	10
	7300.15	Is the system as meant in 7300.14 audited and certified by an IACS member classification society?																						0	20
	7300.17	Is it company policy that all the officers are to complete Security Awareness Training ?																						0	5
																							Total score	0	170
																							Minimum ranking score required for element 7300 = 90		

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN. Doc. & Impl.	QUALITY DEPT. Doc. & Impl.	TECHNICAL DEPT. Doc. & Impl.	NAUTICAL DEPT. Doc. & Impl.	PERSONNEL DEPT. Doc. & Impl.	OPER./CHART DEPT. Doc. & Impl.	PURCHASING DEPT. Doc. & Impl.	FINANCIAL DEPT. Doc. & Impl.	IT DEPT. Doc. & Impl.	INS- / CLAIM DEPT. Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	7400	**Familiarisation,** Additional Green Award Requirement				o	o								
	7400.1	Is it company policy that the shipboard crew after a period of absence or leave has been provided with familiarization of changes with regard to the operations/machinery which is related to their position ?												**0**	**20**
	7400.2	Is it company policy that newly employed personnel are provided with familiarization with regard to operations/machinery which is related to their position ?												**0**	**20**
	7400.3	Is it company policy that senior officers are retained to sail on the same type of vessel (Membrane or Spherical)?												**0**	**10**
	7400.6	Is it company policy that Junior officers are retained to sail on the same type of vessel (Membrane or Spherical)?												**0**	**10**
	7400.4	Is a formal handover procedure implemented for all officers onboard?												**0**	**10**
														Total score **0**	**70**
				Minimum ranking score required for element 7400 = 50											
	7500	**Safe Manning and Fatigue Management**					o								
		A. General - managing work/rest hours													
	7500.1	Is it a company policy that the work/rest hours performed by the individual seafarer are recorded using a software program and such records are accessible and regularly updated?												**0**	**5**
	7500.4	Are reports of work/rest hours reviewed on regular basis ?												**0**	**10**
	7500.2	Is there a company policy to monitor and address non compliance on STCW 2010 Manila amendments of work/rest hours ?												**0**	**10**
		B. Fatigue management													
	7500.5	Is there a company specific fatigue mitigation and control strategy (or similar document) available within the Safety Management System (SMS) to ensure the health and wellbeing of the seafarers?												**0**	**30**
	7500.9	Does the fatigue mitigation and control strategy consist of the following (both): - framework to assess the hazards associated with fatigue (hazard assessment) - strategies to mitigate the risk of fatigue (risk mitigation)												**0**	**15**
	7500.10	Does the company ensure that any one of the following fatigue management tools (as described in IMO MSC.1/Circ1598) is used on board GA certified ships: - Sleep Diary - Self-monitoring through fatigue and sleepiness ratings - Fatigue self-assessment tool - Fatigue event reporting												**0**	**15**
		C. Additional questions - reporting, training & awareness													
	7500.7	Does the company have a system in which crew members are able to report to a designated person on fatigue related issues **without fearing any action against them for such communication**?												**0**	**5**
	7500.11	Does the company conduct fatigue management training and awareness campaigns for shipboard crew on an initial and recurrent basis?												**0**	**5**
														Total score **0**	**95**
				Minimum ranking score required for element 7500 = 60											

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

RANKING
Office - LNG

Revision Code	Norm item		GENERAL MAN.	Doc. & Impl.	QUALITY DEPT.	Doc. & Impl.	TECHNICAL DEPT.	Doc. & Impl.	NAUTICAL DEPT.	Doc. & Impl.	PERSONNEL DEPT.	Doc. & Impl.	OPER./CHART DEPT.	Doc. & Impl.	PURCHASING DEPT.	Doc. & Impl.	FINANCIAL DEPT.	Doc. & Impl.	IT DEPT.	Doc. & Impl.	INS- / CLAIM DEPT.	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	9000	REQUIREMENTS ACCORDING TO ISO STANDARDS																							
	9421	**ISO Certification**																							
	9421.1	Is the company certified for the latest edition of ISO 9001 (quality management systems)?																						0	10
	9421.2	Is the company certified for the latest edition of ISO 10015 (quality management – guidelines for competence management and people development)?																						0	10
	9421.3	Is the company certified for the latest edition of ISO 14001 (environmental management systems)?																						0	10
	9421.4	Is the company certified for the latest edition of ISO 22301 (societal security – business continuity management systems)?																						0	10
	9421.5	Is the company certified for the latest edition of ISO 27001 (information security management systems)?																						0	10
	9421.6	Is the company certified for the latest edition of ISO 30401 (knowledge management systems – requirements)?																						0	10
	9421.7	Is the company certified for the latest edition of ISO 45001 (occupational health and safety management systems)?																						0	10
	9421.8	Is the company certified for the latest edition of ISO 50001 (energy management systems)?																						0	10
	9421.9	Does the company perform audits at planned intervals to demonstrate the conformity to the requirements of the EnMS (Energy management system) in accordance with ISO 50001:2011?																						0	10
	9421.10	Has the company established an energy baseline using the methodology from ISO 50001:2011 with the aim to reduce the energy consumption of the organisation?																						0	5
																							Total score	0	95
					Minimum ranking score required for element 9421 = 0																					

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

TOTAL SCORE REVIEW
OFFICE AUDIT - LNG CARRIER

Norm item		OFFICE RANKING SCORE	MAXIMUM OBTAINABLE RANKING SCORE	MINIMUM RANKING SCORE REQUIRED	ELEMENTS WITH NO MINIMUM SCORE
1000	GENERAL				
1200	Enclosed Space Entry & Hot Work	0	110	110	
1300	Compressor for the refilling of air cylinders for breathing apparatus or Alternative, Additional Green Award requirement	0	20	10	
1400	Control of drugs & alcohol onboard	0	45	20	
1500	Emergency Response System	0	45	25	
1510	Emergency Oil Recovery	0	10	0	
1600	Computer Systems, Networks, Data Security and Training. GA requirement	0	65	40	
1610	Cyber Risk Management	0	75	35	
1700	Noise and Vibration Management	0	65	25	
1710	Underwater Noise and Vibration Management	0	30	0	
1800	Social Dimension / Sustainability	0	85	15	
2000	NAVIGATION / BRIDGE OPERATIONS				
2100	Navigation	0	120	50	
2111	Electronic chart display & information systems / ECDIS	0	60	35	
2120	Fuel Change Over / Ballast Water Exchange	0	20	20	
2300	Mooring Operations	0	10	10	
3000	MACHINERY / ENGINE OPERATIONS				
3100	Bunker Operations	0	50	50	
3200	Fuel oil management	0	120	60	
4000	CARGOES / CARGO OPERATIONS				
4100	LNG Carrier Cargo Operations & Additional Green Award requirements	0	50	50	
4200	Ship to Ship Transfer Operations	0	40	40	
5000	PREVENTION OF POLLUTION				
5100	Biofouling Management	0	30	5	
5200	Waste Management / Garbage Handling Onboard	0	80	30	
5300	Cargo Vapour Emission Control Systems	0	40	20	
5410	NOx Emissions	0	95	35	
5420	SOx Emissions	0	120	20	
5430	Particulate Matter (PM) Emissions	0	30	0	
5440	Greenhouse Gas (GHG) Emissions - CO2 Emissions	0	200	0	
5441	Greenhouse Gas (GHG) Emissions - Methane (CH4) Emissions - Main Propulsion	0	55	0	
5460	Environmental Ship Index (ESI)	0	50	0	
5500	Sewage Management	0	50	20	
5510	Grey Water Management	0	25	0	
5700	Ballast Water Management	0	60	20	
5801	Protection of fuel oil tanks, lube oil tanks and hull	0	30	0	
5810	Stern tube lubrication	0	60	0	

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LNG CARRIER - VERSION 2023

TOTAL SCORE REVIEW
OFFICE AUDIT - LNG CARRIER

Norm item		OFFICE RANKING SCORE	MAXIMUM OBTAINABLE RANKING SCORE	MINIMUM RANKING SCORE REQUIRED	ELEMENTS WITH NO MINIMUM SCORE
5811	Mooring wire lubrication	0	20	0	
5812	Deck equipment lubrication (use of oils)	0	55	0	
5820	Management of bilge water and sludge handling onboard	0	25	15	
5821	Outfitting of bilge water system	0	50	20	
5822	Outfitting of sludge handling system	0	20	10	
5900	Ship Recycling - Inventory of Hazardous Materials	0	120	40	
5910	Ship Recycling - Policy for ships due to be recycled	0	140	60	
6000	MAINTENANCE / SURVEYS				
6100	Programme of Inspections	0	70	60	
6110	Critical and Stand-by Equipment	0	75	30	
6200	Mooring Equipment	0	75	45	
6300	Corrosion Prevention of Seawater Ballast Tanks	0	75	40	
6400	Condition Assessment Program, Maintenance Additional Green Award requirements	0	120	60	
7000	CREW				
7100	Employment of Personnel	0	30	0	
7200	Extra Personnel, Additional Green Award Requirement	0	90	40	
7300	Training / Courses for Personnel, Additional Green Award Requirements & IMO Model Courses	0	170	90	
7400	Familiarisation, Additional Green Award Requirement	0	70	50	
7500	Safe Manning and Fatigue Management	0	95	60	
9000	REQUIREMENTS ACCORDING TO ISO STANDARDS				
9421	ISO Certification	0	95	0	
	TOTAL SCORES	0	3340	1365	

LEGEND

0	Indicates which crew/employee may be interviewed/questioned.
	Shows that a certain item is complied.
	Shows that a certain item is *not* complied.
0	Indicates that an alternative is used, hence the score for that item is a "0".
	The checklist was filled in incorrectly, thus shows "error".
0	Indicates that the whole element did not reach the minimum score, hence a finding is issued. The number shows the scores obtained.
	Shows which elements are minimum = maximum. Hence scores on all items is required to fully comply.
	Indicates that the minimum score for the relevant element is "0", hence a finding will *not* be issued.

* for detailed interpretations of the colours and the usage of the checklist, please refer to the pdf-file named "Instruction Notes" located on www.greenaward.org under "Certification/ Download".

ENERGY EFFICIENCY TECHNOLOGIES INFORMATION PORTAL
TECHNOLOGY GROUPS
IMO GLOMEEP Website

GA Code:
Certificate Holder name:
Date of Office Audit:

MACHINERY TECHNOLOGIES

This technology group includes measures that improve the energy efficiency of main and auxiliary engines. These include measures such as auxiliary systems optimization, optimizing heat exchangers, waste heat recovery systems, electronic auto-tuning, batteries and other solutions.

Y?	NAME	FUNCTION	TECHNICAL MATURITY*	APPLICABILITY
	Auxiliary systems optimization	Optimizing auxiliary systems to actual operational profiles, not design conditions	Semi-mature	All vessels
	Engine de-rating	De-rating an engine for reduction of the vessel's maximum speed to increase its efficiency by limiting the potential power output	Semi-mature	Vessels sailing 10-15% slower than design speed
	Engine performance optimization (automatic)	Automatic increase of engine efficiency through testing and tuning according to actual operational load and conditions	Semi-mature	Mainly for two stroke engines
	Engine performance optimization (manual)	Manual increase of engine efficiency through testing and tuning according to actual operational load and conditions	Mature	All vessels
	Exhaust gas boilers on auxiliary engines	Exhaust gas boilers recover the heat from the exhaust gas of auxiliary engines to generate steam, hot water or heat for process heating	Semi-mature	Vessels without shaft generator
	Hybridization (plug-in or conventional)	Use of electricity to replace various modes of power consumption	Semi-mature	Vessels with large fluctuations in power output (ferries, offshore vessels, tugs)
	Improved auxiliary engine load	Increase of the auxiliary engines' load and efficiency by reducing the number of auxiliary engines running	Semi-mature	All vessels
	Shaft generator	Produce electricity from the main propulsion engine	Mature	All vessels with high power needs and long transits
	Shore power	Use of cold ironing in ports to reduce fuel consumption on power producing engines	Semi-mature	For smaller vessels and in ports with developed solutions for larger vessels
	Steam plant operation improvement	Improve operations and maintenance of steam plant system saving fuel on oil fired boiler	Mature	Mainly crude and product tankers
	Waste heat recovery systems	Recover thermal energy from the exhaust gas and convert it into electrical energy	Semi-mature	All vessels with engines above 10 MW

SUPPLEMENT TO 5440 GHG EMISSIONS - CO2

PROPULSION AND HULL IMPROVEMENTS

Technologies in this group focus on improving the hydrodynamic performance of the vessel. This includes solutions that reduce the resistance of the vessel and/or also improve the propulsive efficiency of the vessel. Examples include measures such as propeller polishing, hull cleaning, PIDs (Propulsion Improving Devices), air lubrication and more.

Y?	NAME	FUNCTION	TECHNICAL MATURITY*	APPLICABILITY
	Air cavity lubrication	Use of air injection on the wetted hull surfaces to improve a ship's hydrodynamic performance	Semi-mature	Most vessels in deep sea trade
	Hull cleaning	Removal of fouling on the hull to increase the vessel's hydrodynamic performance	Mature	All vessels
	Hull coating	Reduction of the hull's resistance through water	Mature	All vessels
	Hull form optimization	Optimizing the hull for lower resistance through water	Mature	All vessels
	Hull retrofitting	Retrofitting of the bulbous bow, optimizing thruster tunnels or bilge keel to reduce resistance	Mature	All vessels
	Propeller polishing	Removal of fouling on the propeller	Mature	All vessels
	Propeller retrofitting	Retrofitting the propeller to increase efficiency	Semi-mature	All vessels
	Propulsion Improving Devices (PIDs)	Installation of propulsion improving devices	Mature	All vessels

ENERGY CONSUMERS

Consumers are equipment or devices that use energy when operated. Technologies in this group focus on minimizing the energy consumption by improving the device or optimizing the utilization of the device. Examples of measures in this group are frequency controllers, cargo handling systems, low energy lighting and more.

Y?	NAME	FUNCTION	TECHNICAL MATURITY*	APPLICABILITY
	Cargo handling systems (Cargo discharge operation)	Reduction of energy consumption while discharging crude oil by use of model-based studies of the discharge operation	Semi-mature	Tankers
	Energy efficient lighting system	Use of energy efficient lighting equipment, such as LED light, to increase efficiency and remove heat loss from light devices	Mature	All vessels
	Frequency controlled electric motors	Regulating the frequency of the motors in order to adapt the motor optimized load	Mature	All vessels

SUPPLEMENT TO 5440 GHG EMISSIONS - CO2

ENERGY RECOVERY

Technologies in this group focus on capturing energy from the surroundings of the vessel and using or transforming this to useful energy for the vessel. This involves measures such as application of kites, fixed sails or wings, Flettner rotors, or solar panels.

Y?	NAME	FUNCTION	TECHNICAL MATURITY*	APPLICABILITY
	Fixed sails or wings	Use sails or wings to replace some of the propulsion power needed	Not mature	Vessels with enough place on deck (general cargo, tankers, bulkers)
	Flettner rotors	Use Flettner rotors to generate power from wind energy	Not mature	Dependent on trading area and sufficient free deck-surface
	Kite	Use a kite to replace some of the propulsion power needed	Not mature	All vessels
	Solar panels	Install solar panels for conversion of solar energy to electricity	Not mature	Dependent on trading area and sufficient free deck-surface

TECHNICAL SOLUTIONS FOR OPTIMIZING OPERATION

Technologies in this group focus on improving the operation of the vessel more than improving the vessel itself. The list of suggested measures includes both technologies and suggestions for best practice (without direct application of a technology). Measures in this group include trim and draft optimization, speed management, autopilot adjustment and use, combinator optimizing, and others.

Y?	NAME	FUNCTION	TECHNICAL MATURITY*	APPLICABILITY
	Autopilot adjustment and use	Use of an automatic system to control the vessel's rudder in a more energy efficient manner	Mature	All vessels
	Combinator optimizing	Use of optimized pitch settings and propeller speed for optimized efficiency of propulsion system	Mature	For vessels with controllable pitch propeller
	Efficient DP Operation	Optimize the operation in DP mode	Semi-mature	Vessels with DP mode
	Speed management	Management of the vessel's speed in the most efficient manner	Semi-mature	All vessels
	Trim and draft optimization	Optimizing the trim and draft to reduce the vessel's water resistance	Semi-mature	All vessels
	Weather routing	Including weather conditions when planning a voyage	Mature	All vessels

Definitions of maturity levels according to uptake across the maritime industry, and degree of proven technology/principle

Mature	Proven, new or existing technology/principle, with high uptake across the industry.
Semi-mature	Proven, new or existing technology/principle, but with limited uptake across the industry.
Not mature	New unproven-, unproven existing- , or proven existing technology/principle but with very few installations and little to no operational experience.

*This Information Portal is still under development and further images will be added.

This Energy Efficiency Technologies Information Portal was developed in cooperation with DNV GL.

This webpage serves as an Information Portal for Energy Efficiency Technologies for Ships. IMO does not make any warranties or representations as to the accuracy or completeness of the information provided.

View disclaimer

APPENDIX 3

CHECKLIST - BASIC CRITERIA - SHIP SURVEY - LNG CARRIER

(LMC-08)

CHECKLIST - BASIC CRITERIA - SURVEY - LNG CARRIER - VERSION 2023

BASIC
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	NOT APPLICABLE
	100	MANAGEMENT ELEMENTS																	
	101	**GENERAL**	o																
	101.1	Are the Management System (MS) Manuals maintained and updated?																	
	102	**SAFETY AND ENVIRONMENTAL PROTECTION POLICY**	o		o		o		o		o		o		o		o		
	102.1	Is the company policy concerning safety and the environment available, posted and implemented at all levels?																	
	103	**COMPANY RESPONSIBILITIES AND AUTHORITY**	o		o		o		o		o		o		o		o		
	103.1	Are the responsibilities and authorities of all shipboard personnel clearly defined and implemented?																	
	103.2	Are shore-ship communications, defined levels of authority and lines of communication documented and working effectively ?																	
	104	**DESIGNATED PERSONS**	o		o		o		o		o		o		o		o		
	104.2	Is (are) (a) designated person(s) known on board?																	
	104.3	Is objective evidence available that safety and environmental aspects of the operation of the ship are monitored and that the required adequate resources and shore-based support is applied ?																	
	105	**MASTER'S RESPONSIBILITY AND AUTHORITY**	o																
	105.1	Is the responsibility of the master clearly defined and documented?																	
	105.2	Does the master implement the Company's safety and environmental-protection policy on board?																	
	105.3	Does the master motivate the crew in the observation of that policy?																	
	105.4	Does the master verify that specified requirements are observed?																	
	105.5	Does the master review the MS and are its deficiencies reported to the shore-based management?																	
	106	**RESOURCES AND PERSONNEL AND STCW**	o								o								
	106.1	Does the company have a procedure for the Master to ensure that assigned sea staff are in possession of necessary certificates when joining the vessel?																	
	106.4	Are shipboard personnel informed about new/revised rules, regulations, codes and guidelines?																	
	106.6	Does ship's personnel receive training/courses which are required in support of the MS?																	
	106.11	Is the working language between the office and the vessels defined?																	
	106.12	Are all senior and deck officers conversant in the English language for maritime communication?																	
	106.13	Is relevant information on the MS written in a working language or languages understood by officers and shipboard personnel?																	
	106.14	Is the working language monitored and checked by the ship's staff?																	
	106.15	Are new personnel and personnel transferred to new assignments, given proper familiarisation with their duties?																	
	106.16	Are instructions, which are essential prior to sailing, identified, documented and given to the new personnel?																	
	106.17	Is the Master fully conversant with the Company's Management Systems?																	

GA Code: Ship name: Date of Ship Survey:

CHECKLIST - BASIC CRITERIA - SURVEY - LNG CARRIER - VERSION 2023

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	107	**DEVELOPMENT OF PLANS FOR SHIPBOARD OPERATIONS**	O		O						O						O		
	107.2	Are plans and instructions for key shipboard operations concerning safety of the ship and prevention of pollution, evaluated and reviewed?																	
	107.3	Are tasks, qualifications and responsibilities defined in the manuals and in the job descriptions?																	
	108	**EMERGENCY PREPAREDNESS**	O		O		O		O		O		O		O		O		
	108.1	Does the system cover the arrangements needed to ensure that the company, day and night, can be notified if a hazard, accident or emergency involving the ship occurs ?																	
	108.2	Are tasks, qualifications and responsibilities evaluated during drills and exercises as described in the emergency procedures?																	
	108.3	Is communication with media described in the emergency procedures and is shipboard personnel aware of these instructions?																	
	108.5	Is the shipboard personnel prepared to respond to emergency shipboard situations?																	
	109	**REPORTS AND ANALYSES OF NON-CONFORMATIES, ACCIDENTS AND HAZARDOUS OCCURENCES**	O		O						O						O		
	109.1	Are safety and environmental inspections carried out, documented and reported?																	
	109.2	Does the ship have instructions/procedures for the reporting of non-conformities/ near misses?																	
	109.3	Are non-conformities, accidents and hazardous occurrences reported to the office?																	
	109.4	Are corrective and/or preventive actions taken?																	
	109.5	Does the company have objective evidence to show their support of the shipboard personnel in reporting of non-conformities / near misses?																	
	110	**MAINTENANCE OF THE SHIP AND EQUIPMENT**	O		O						O						O		
	110.1	Are ship inspections held at defined intervals? (minimum of twice a year or equivalent)																	
	110.2	Are non-conformities reported including their possible cause?																	
	110.3	Is appropriate corrective action taken?																	
	110.4	Are records of these activities maintained?																	
	110.5	Are ship-critical equipment and technical systems identified?																	
	110.6	Does the MS provide for specific measures aimed at promoting the reliability of critical equipment and systems ?																	
	111	**DOCUMENTATION**	O		O						O								
	111.1	Does the company have procedures to control documents and data relevant to the MS?																	
	111.2	Are valid documents available at all relevant locations?																	
	111.3	Are changes to documents reviewed and approved by authorised personnel?																	
	111.4	Are obsolete documents promptly removed ?																	

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CHECKLIST - BASIC CRITERIA - SURVEY - LNG CARRIER - VERSION 2023

BASIC
Ship - LNG

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	112	**COMPANY VERIFICATION, REVIEW AND EVALUATION**	O		O						O								
	112.1	Are internal audits carried out to verify whether safety and pollution-prevention activities, and other procedures, comply with the MS?																	
	112.4	Are results of the audits and reviews brought to the attention of all shipboard personnel having responsibility in the area involved?																	
		IMO ELEMENTS																	
	200	**SOLAS 1974**																	
	201	**SOLAS General Provisions**	O								O								
	201.1	Compliance with General Provisions																	
	201.2	Compliance with IGC Code																	
	213	**Certificates and documents on board**	O								O								
	213.1	Are all regulatory certificates valid ?																	
	216	**Maritime security**	O																
	216.1	Does the ship have a valid (interim) International Ship Security Certificate?																	
	216.2	Is the ship's crew familiarised in general with the principles of the ISPS Code (ship related) ?																	

CHECKLIST - BASIC CRITERIA - SURVEY - LNG CARRIER - VERSION 2023

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	217	**Safety of Navigation / SOLAS chart carriage requirements**	O				O												
		Alternative 1 (217.1 - 217.4) : Compulsory carriage of ECDIS, with full official ENC coverage																	
	217.1	Is the ECDIS type-approved according to Res A 817(19) as amended by MSC 64 (67) and MSC 86 (70) or MSC.232(82)?																	
	217.3	Is an acceptable back-up arrangement in place? (an independent type-approved ECDIS with an independent position fixing system using official Electronic Navigational Charts (ENC's), or a full / reduced folio of up-to-date paper charts as relevant to the ship's voyage)																	
	217.4	Are all official ENCs up-to-date?																	
		Alternative 2 (217.1 - 217.4): Compulsory carriage of ECDIS, Navigation with official ENCs where available and official RNCs where ENCs are not available																	
	217.1	Is the ECDIS type-approved according to Res A817 (19) as amended by MSC 64 (67) and MSC 86 (70) or MSC.232(82)?																	
	217.2	Is the supplementary folio of paper charts acceptable for that part of the voyage where official RNCs are used ?																	
	217.3	Is an acceptable back-up arrangement in place? (an independent type-approved ECDIS with an independent position fixing system using official ENCs and Raster Navigational Charts where needed, or a full / reduced folio of up-to-date paper charts, as relevant to the ship's voyage)																	
	217.4	Are all official ENCs and RNCs up-to-date?																	
		Training & Onboard Use of ECDIS (Compulsory carriage of ECDIS)																	
	217.5	Have all deck officers and the master completed generic training in the use of ECDIS based on the IMO model course 1.27?																	
	217.7	Is a risk assessment carried out for the operation of ECDIS which identifies and controls the hazards when using ENCs and (if used) when ECDIS is in RCDS mode?																	
	217.8	Are results from the assessment evident in the onboard procedures + instructions for ECDIS?																	
	217.9	Is the risk assessment and relevant onboard procedures + instructions reviewed on a regular basis (at least once a year or if circumstances require a review) ?																	
	218	**Noise Levels On Board Ships**																	
		(Only applicable to new ships (ships contracted to build on or after 1st July 2014) of a gross tonnage of 1,600 and above.)																	
	218.1	Is the noise survey report available onboard?																	
	218.2	Are noise areas marked by placing relevant visible warning notices at the entrance to these areas? (IMO noise symbols)																	

CHECKLIST - BASIC CRITERIA - SURVEY - LNG CARRIER - VERSION 2023

BASIC
Ship - LNG

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	300	**MARPOL 73/78**																	
	301	**Provisions concerning Reports on Incidents Involving Harmful Substances (Protocol 1)**	O		O														
	301.1	Does the Master have a procedure in order to report an incident to the nearest coastal state?																	
	310	**Prevention of pollution by oil**	O		O		O		O		O		O		O		O		
	310.2	Is the shipboard oil pollution emergency plan maintained and updated?																	
	310.5	Are updated contact lists of coastal States, port contacts and ship interest contacts available?																	
	310.6	Does the company have a policy concerning the retention and disposal of oil residues (sludge)?																	
	310.8	Are actions and responsibilities of the shipboard personnel clearly described in the SOPEP ?																	
	310.9	Does the plan provide procedures for the removal of oil spilled and contained on deck?																	
	310.10	Does the plan provide guidance to ensure proper disposal of removed oil and clean-up materials?																	
	310.11	Does the plan include a list of information required for making damage stability and damage longitudinal strength assessments?																	
	350	**Prevention of pollution by garbage**	O		O		O		O		O		O		O		O		
	350.2	Does the vessel have a ship specific garbage management plan detailing the specific ship's equipment, arrangements and procedures for the handling of garbage?																	
	350.3	Are records kept according to the garbage management plan?																	
	360	**Marpol NOx emission limits**									O								
	360.1	(For ships keel laid on or after 1 January 2000): Are all diesel engines with power > 130 kW certified to comply with NOx limits in Marpol Annex VI Regulation 13 3) a) ?																	
	400	**Specialised LNG Carrier Training**	O																
	400.2	Have the Master, CO, CE, + 2nd Engineer completed an approved advanced training for liquefied gas tanker cargo operations? (As a minimum, the program should comply with STCW 2010 including Manila amendments Reg V/1-2)																	

APPENDIX 4

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER

(LMC-09)

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	1000	GENERAL																			
	1200	**Enclosed Space Entry & Hot Work**			O		O		O		O		O								
	1200.1	Is there an Enclosed Space Entry and Hot Work permit to work system, taking account of IMO and industry guidelines and where relevant local port / terminal requirements?																		0	10
	1200.6	Is company approval of the Hot Work permit required before work can begin?																		0	10
	1200.7	Does the Hot Work permit show the appropriate safety precautions to be taken relevant to the location of work?																		0	5
	1200.2	Is crew on board provided with suitable personal protective equipment and suitable equipment for testing the atmosphere of an enclosed space? (e.g. breathing apparatus, protective clothing and approved + calibrated atmosphere testing equipment)																		0	5
	1200.8	Are all personnel entering an enclosed space provided with a personal gas detector which can measure HC, oxygen and relevant toxic vapours?																		0	10
	1200.9	Is a safety meeting, attended by all personnel involved, held prior to entering the space or commencement of hot work in order to review procedures and PPE (including those specific for the intended work) ?																		0	10
	1200.10	Is a responsible officer designated for all aspects of the operation?																		0	5
	1200.3	Is ship's crew trained and drilled periodically according to enclosed space entry procedures ?																		0	5
	1200.4	Does training also include rescue and first aid?																		0	5
	1200.11	Is a rescue / back-up team assigned and ready for immediate action upon call?																		0	5
	1200.5	Are operational spaces (e.g. side-passages or compressor rooms) identified which are subject to enclosed space entry procedures?																		0	10
																			Total score	0	80
																			Minimum ranking score required for element 1200 = 80		
	1300	**Compressor for the refilling of air cylinders for breathing apparatus or Alternative,** Additional Green Award requirement									O										
	1300.1	Does the vessel have a compressor for the refilling of air cylinders for breathing apparatus?																		0	20
	1300.2	**Alternative to 1300.1**: sufficient number of air cylinders for the sole purpose of safety drills.																		0	10
																			Total score	0	20
																			Minimum ranking score required for element 1300 = 10		

GA Code: Ship name: Date of Ship Survey:

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
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	1400	**Control of drugs & alcohol onboard**	O						O				O				O				
	1400.2	Is evidence of an unannounced alcohol testing initiated by the office available on board? (Approved test equipment to be available on board)																		0	10
	1400.1	Have all current crew members been subjected to shore-based drug and alcohol testing at least once in last 12 months?																		0	15
	1400.5	Has the vessel been subjected to unannounced drug and alcohol testing at least once every year (not exceeding 18 months between two consecutive tests) by an external organisation?																		0	10
	1400.6	**Alternative to 1400.1 & 1400.5:** In case crew members are not subject to shore-based drug and alcohol testing at least once in last 12 months, has the vessel been subjected to unannounced drug and alcohol testing at least twice in 12 months by an external organisation?																		0	25
			Total score																	0	35
					Minimum ranking score required for element 1400 = 20																
	1500	**Emergency Response System**	O		O		O				O		O								
	1500.4	Is the vessel in receipt of evaluation reports of the annual ERS drill(s) between company, (class) and vessel?																		0	5
	1500.11	Is the evaluation report of the annual ERS drill discussed in a safety meeting?																		0	10
	1500.5	Is an annual drill performed on board which includes ERS-procedures?																		0	15
			Total score																	0	30
					Minimum ranking score required for element 1500 = 10																
	1510	**Emergency Oil Recovery**																			
	1510.1	Is the vessel equipped with a system providing emergency access to cargo tanks and bunker tanks (for example, from the vessel deck), should the vessel be submerged?																		0	5
	1510.2	Does the ship carry an oil skimmer or a similar device that can be used in an emergency situation of oil spill overboard?																		0	5
			Total score																	0	10
					Minimum ranking score required for element 1510 = 0																

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	1600	**Computer Systems, Networks, Data Security and Training.** GA requirement	O								O										
	1600.1	Are arrangements for vessel systems documented ? (configuration scheme)																		0	10
	1600.7	Are adequate system back-up's for vessel computer-based systems made (where applicable) and are procedures for this documented ?																		0	5
	1600.8	Are adequate back-ups for administrative PC systems made and are procedures for this documented ?																		0	5
	1600.3	Is training provided at a level required to effectively operate and maintain the system and cover normal, abnormal and emergency conditions?																		0	10
	1600.4	Is the internal audit scheme applicable to the IT elements and vessel computer-based systems?																		0	10
	1600.5	Are computer systems, in relation to IMO MSC/Circ.891, certified by a recognised organisation?																		0	10
	1600.6	Is a system administrator designated onboard for administrative PC systems on the ship?																		0	10
			Total score																	0	60
					Minimum ranking score required for element 1600 = 30																
	1610	**Cyber Risk Management**																			
	1610.1	Is shipboard crew aware of plans and procedures of cyber risk management (as described in SMS) and their implementation on board?																		0	10
	1610.4	Does the cyber risk policy focus on elements such as third-party access and bring your own device (BYOD) in the office?																		0	5
	1610.5	Is there a designated shipboard crew member on board appropriately trained to identify and respond to cyber threats to the ship's information and operational technology systems?																		0	5
	1610.8	Does the vessel undergo cyber risk assessment (at an interval deemed suitable by the company) by means of either of the following: - self-assessment followed by third party risk assessment - penetration tests of critical IT and OT infrastructure performed by external experts simulating cyber attacks?																		0	5
	1610.9	Does the vessel have access to contingency plans and related information in a non-electronic form that need to be followed in the event of a cyber attack?																		0	5
	1610.12	Are on-board systems forbidden to be remotely accessed by technicians and manufacturers without authorization by the vessel's senior leadership team (For example, by following a two-step digital authorization process)?																		0	5
			Total score																	0	35
					Minimum ranking score required for element 1610 = 15																

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

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	1700	**Noise and Vibration Management**																			
		Noise/Vibration Monitoring and Measures																			
	1700.2	Is the crew wearing hearing protectors which meet the requirements of the HML(High-Medium-Low) method (ISO 4869-2:1994) when entering spaces where noise levels exceed 85db(a)?																	**na**	**0**	**0**
	1700.3	Does the PMS have the routine to inspect and rectify any abnormalities in terms of noise and vibration from a machinery equipment ?																		**0**	**5**
	1700.4	Are appropriated measures implemented onboard in order to protect the crew from cargo handling equipment noise if the noise exceeds 85db(a) (by taking into account technical solutions and/or exposure limits)?																		**0**	**10**
		Noise Mitigation and Health Hazards																			
	1700.8	Is the noise exposure limit of each rating/officer recorded and available onboard?																		**0**	**5**
	1700.9	Is the crew restricted towards prolonged exposure in spaces where noise limits exceed 110 db(a)?																		**0**	**5**
	1700.10	Are all engine exhaust pipes insulated with ship specific suitable silencers to attenuate noise?																		**0**	**5**
	1700.11	Is the ship installed with noise cancelling equipment such as active mufflers/mounts, resilient mounts, vibration dampers where practically possible?																		**0**	**10**
	1700.12	Are noise cancelling measures such as mineral wool/silencers being installed in the ventilation ducts or fan rooms to reduce the noise level?																		**0**	**10**
			Total score																	**0**	**50**
					Minimum ranking score required for element 1700 = 15																
	1710	**Underwater Noise and Vibration Management**																			
	1710.1	Were any measures implemented periodically to reduce cavitation from propeller?																		**0**	**5**
	1710.4	Does the ship opt for re-routing or slow steaming where possible and practicable to protect whale sensitive areas?																		**0**	**5**
			Total score																	**0**	**10**
					Minimum ranking score required for element 1710 = 0																

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	1800	**Social Dimension / Sustainability**																			
		A. Good Health & Well-Being																			
	1800.1	Does the vessel have an ITF or similar agreement in place?																		0	10
	1800.3	Is an electronic device available on board specifically to access digital platform (web or app) subscribed by the company for seeking medical advice?																		0	5
	1800.4	Has the shipboard staff been familiarized with platforms (online/offline) providing access to emotional support networks to tackle mental health issues?																		0	5
	1800.5	Do all shipboard personnel have access to the internet at all times?																		0	5
		B. Reduced Inequalities / Equal Opportunities / Diversity																			
		B.1 General																			
	1800.7	Have all ship board personnel been made aware of confidential reporting procedures to report harassment & discrimination?																		0	5
	1800.8	Have steps been taken to create awareness among shipboard staff and to ensure effective implementation of policies focusing on subjects such as equal opportunities, equality and diversity, inclusion, anti-discrimination, anti-harassment, etc.?																		0	5
		B.2 Gender-specific																			
	1800.10	Does the vessel have women seafarer(s) working either as officers or ratings?																		0	10
	1800.11	Is the ship equipped with the following specific facilities for women seafarers: – feminine hygiene items (in bonded stores) & separate disposal facilities – separate washrooms with sanitary facilities – suitable sized (gender specific) safety and protective clothing – access to medical supplies without having to consult male colleagues																		0	5
			Total score																	0	50
					Minimum ranking score required for element 1800 = 10																

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	2000	**NAVIGATION / BRIDGE OPERATIONS**																			
	2100	**Navigation**	o		o		o														
	2100.3	Does the voyage or passage plan include contingency planning?																		0	10
	2100.6	Is the vessel automatically supplied with new hydrographic publications?																		0	10
	2100.7	Is the vessel electronically updated for hydrographic publications? (eg. Temporary and Preliminary NtM)																		0	10
	2100.8	Is navigational equipment included in the electronic Planned Maintenance System?																		0	10
	2100.9	Are masters entitled to use non-compulsory pilot services? (must be stated in a company procedure)																		0	20
	2100.13	Is the vessel using weather routing services while on long haul voyage?																		0	10
	2100.18	Is the vessel enrolled in a meteorological & oceanographic service in a form of a software application?																		0	10
	2100.19	**Alternative to 2100.18**: Does the vessel have a capability to receive comprehensive weather information from the office or from coastal stations / platforms?																		0	5
	2100.15	Is the vessel equipped with the multi constellation GNSS receiver?																		0	10
	2100.16	Is the vessel equipped with the eLoran receiver?																		0	10
	2100.17	Is the position for all stages of voyage compared with a different method of positioning than GPS?																		0	20
			Total score																	0	120
					Minimum ranking score required for element 2100 = 40																
	2111	**Electronic chart display & information systems / ECDIS**																			
		Applicable to ships for which carriage of ECDIS is compulsory																			
	2111.4	Is ECDIS hardware maintained and software updated?																		0	5
	2111.5	Is ECDIS tested according to the IHO ECDIS data presentation and performance check with a use of test data set after every update of the software (including back up)?																		0	5
	2111.6	Is the crew regardless of the generic training familiarized with the ECDIS unit(s) installed onboard according to the Industry Recommendations for ECDIS Familiarisation?																		0	15
	2111.7	Have all the officers completed structured ECDIS training(s) on top of the generic training (besides the familiarization onboard in R2111.6)?																		0	5
	2111.10	Does the voyage planning include checking if all needed charts are up-to-date (latest edition official chart updated an corrected to the latest available updates and NtM)?																		0	5
	2111.11	Does the ECDIS procedure suggest display settings (layers) of ECDIS for various navigation conditions (arrival / departure - coastal - deep sea)?																		0	10
	2111.12	Does the vessel have a basic folio of paper charts (in case second ECDIS is a back up system)?																		0	10
			Total score																	0	55
					Minimum ranking score required for element 2111 = 30																

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	2120	**Fuel Change Over / Ballast Water Exchange**	O		O		O														
	2120.1	Does the voyage plan (checklist) include when fuel change over should be carried out?																		0	10
	2120.2	Does the voyage plan (checklist) include when ballast water exchange can be carried out?																		0	10
																			Total score	0	20
					Minimum ranking score required for element 2120 = 20																
	2200	**Helicopter / Ship Operations**					O		O												
	2200.1	Are crew members who are involved in helicopter/ship operations trained in standards and procedures?																		0	10
	2200.2	Is an action plan in case of a helicopter accident available?																		0	10
																			Total score	0	20
					Minimum ranking score required for element 2200 = 20																
	2300	**Mooring Operations**	O		O				O												
	2300.1	Does the company give procedures/instructions for mooring/unmooring operations?																		0	10
	2300.2	Is new crew familiar with the operation and capabilities of the ship's mooring equipment?																		0	10
	2300.3	Are specific mooring plans which have been used at certain terminals recorded?																		0	20
	2300.4	Is a drawing of the mooring arrangement readily available on the bridge?																		0	10
																			Total score	0	50
					Minimum ranking score required for element 2300 = 30																

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	3000	MACHINERY / ENGINE OPERATIONS																			
	3100	**Bunker Operations**					o				o		o		o						
	3100.1	Does the company MS specify a safe-maximum percentage fill for bunker tanks? (max. limit 95%)																		0	10
	3100.2	Is a checklist used for bunker operations (company format) ?																		0	10
	3100.3	Does the bunker procedure include a bunker plan (company format) ?																		0	10
	3100.4	Are there procedures/instructions for the internal transfer of fuel oil between main storage tanks?																		0	10
	3100.5	Is there an instruction that all persons involved are to be familiar with the intended bunker operation and/or internal transfer operation and their duties?																		0	10
																			Total score	0	50
																			Minimum ranking score required for element 3100 = 50		
	3200	**Fuel oil management**																			
		B.Sampling & Testing																			
		B.1 MARPOL delivered fuel oil sampling																			
	3200.11	Is all fuel oil sampling (during bunkering) carried out using an automatic sampler (time or flow proportional) in accordance with MARPOL Annex VI?																		0	10
		B.2 In-use fuel oil sampling																			
	3200.16	Are fuel oil samples drawn from the following designated sampling points at least once every four months for testing of catalytic fines & separator efficiency at a recognized fuel analysis organization ashore? 1. at engine inlet 2. before separator 3. after separator																		0	10
		B.3 Testing																			
	3200.1	Is bunkered fuel oil **always** tested (before use onboard) by a recognized fuel analysis organization ashore in accordance with the requirements of ISO 8217 standard?																		0	40
		C. Operational procedures																			
	3200.17	Is the commingling of two different bunkers (even of the same grade of fuel) prohibited?																		0	10
	3200.18	For the situations where commingling of two different fuels is unavoidable, does the relevant ship crew implement the company prescribed **commingling procedure** to determine the compatibility of two bunkers (including the reference test methods)?																		0	5
		D. Additional questions																			
	3200.19	Are the copies of valid certificate of quality (COQ) and associated laboratory analysis reports for the recently bunkered fuel oil available on board?																		0	5
																			Total score	0	80
																			Minimum ranking score required for element 3200 = 40		

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	4000	CARGOES / CARGO OPERATIONS																			
	4100	**LNG Carrier Cargo Operations & Additional Green Award requirements**	O		O																
	4100.1	Is it company procedure that the ship shore safety checklist has to be used before loading/unloading operations?																		0	5
	4100.4	Does the company give procedures/instructions in relation to the entire cargo operations?																		0	5
	4100.7	Are there procedures to ensure that a sufficient number of personnel is available in case of emergency during port stay?																		0	10
	4100.10	Is there an effective deck watch in attendance on deck during cargo operations?																		0	5
	4100.11	Is a plan for the intended cargo operations available?																		0	5
	4100.12	Is a terminal emergency plan available on board? (CCR)																		0	5
	4100.13	Are pre-arrival checks completed 2 days and 1 day before, and upon arrival at load-port or discharge-port?																		0	20
	4100.14	Are the two ESD1 tests carried out before commencing cargo operations (one test activated by ship & one test activated from shore)?																		0	10
	4100.15	Are cool down operations performed to procedure?																		0	10
	4100.16	Are CTS documents taken before commencing and after finishing cargo operations?																		0	5
			Total score																	0	80
			Minimum ranking score required for element 4100 = 70																		
	4200	**Ship to Ship Transfer Operations**	O		O						O		O								
	4200.1	Is a STS safety drill carried out not more than seven days preceding a STS transfer operation?																		0	10
	4200.4	**Alternative to 4200.1: (for vessels not engaged in regular STS operations)** In case the ship is ordered to lighter, are there procedures / guidelines in the SMS to familiarise relevant crew members with the STS safety drill & is there an instruction to carry out the drill not more than 7 days before commencing operations?																		0	10
	4200.2	Also for vessels not engaged in regular STS operations in case the ship is ordered to lighter : Are the checklists as described in the Ship to Ship Transfer Guide available for use?																		0	10
	4200.3	Also for vessels not engaged in regular STS operations in case the ship is ordered to lighter : Are company guidelines available to develop (or assess) a STS contingency plan, including all possible risks and actions to be taken to avoid emergencies? (Plan should take the geographical location of the operation, local requirements & support in local area into account. Plan must be agreed between both vessels and local organisers)																		0	10
			Total score																	0	30
			Minimum ranking score required for element 4200 = 30																		
	4400	**Additional Green Award Requirements (tank alarms, coatings, etc.)**			O																
	4400.1	Is the measuring system for cargo, bunker and ballast tanks on line with the loadicator?																		0	20
	4400.2	Are all cargo tanks' measuring system fitted with high and high-high level alarms?																		0	20
	4400.3	Is each cargo tank fitted with an independent overfill alarm?																		0	10
			Total score																	0	50
			Minimum ranking score required for element 4400 = 40																		
	4700	**LNG Sloshing Load Monitoring System**	O		O																
	4700.1	Does the vessel have an LNG sloshing load monitoring system which provide real-time information with readouts both in the CCR and on the bridge?																		0	50
			Total score																	0	50
			Minimum ranking score required for element 4500 = 0																		

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	5000	PREVENTION OF POLLUTION																			
	5100	**Biofouling Management**																			
	5100.5	Are there ship-specific procedures/instructions (according to IMO guidelines) for the control and management of ship's biofouling to minimize the transfer of invasive aquatic species?																		0	10
	5100.6	Does the ship undergo in-water inspections and proactive hull cleanings as per the frequency and timing defined in consultation with coatings manufacturer and/or coatings consultant?																		0	5
	5100.7	Does the ship communicate to the office data points that are pre-defined as indicators for reactive hull cleaning (For example, based on performance monitoring or other relevant datasets such as increased drag or increased friction)?																		0	5
	5100.9	Is the vessel's hull coated with non-toxic hard coating to mitigate bio-fouling?																		0	10
			Total score																	0	30
					Minimum ranking score required for element 5100 = 5																

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	5200	**Waste Management / Garbage Handling Onboard**			O						O						O				
		A. General procedures																			
	5200.31	Are all collection garbage receptacles for all categories of garbage labelled/marked and color coded?																		0	5
	5200.9	Is there a designated space for long term stowage of garbage (except food waste)?																		0	10
	5200.4	Is the vessel equipped with compactor to reduce the volume of garbage?																		0	5
	5200.37	Is the vessel equipped with a waste shredder?																		0	5
M	**5200.22**	Are all recyclable material such as paper, plastic, metal (for example, tin cans), glass, bottles, crockery & similar refuse, and dunnage always delivered to the port reception facilities?																		0	5
		B. Garbage types																			
		B.1 Food waste																			
	5200.11	Is the vessel equipped with grinder/comminutor for food waste ?																		0	5
	5200.32	Is the grinder / comminutor also used beyond 12 nautical miles (and operating outside special areas) from the nearest shore as they hasten assimilation into the marine environment ?																		0	10
	5200.33	Is the discharge from comminutors directed to a dedicated holding tank while the vessel is operating in special areas?																		0	5
	5200.34	Is the vessel equipped with a refrigerated sack compactor or freezer space for food waste storage?																		0	5
	5200.35	Is the vessel equipped with a grease interceptors (grease traps)?																		0	5
		B.3 Ashes and clinkers																			
	5200.25	Are all incinerated ashes and clinkers always delivered to the port reception facilities?																		0	10
		B.4 Cleaning agents & additives																			
	5200.28	Are <u>non harmful</u> (MARPOL Annex V compliant) cleaning agents and additives used for cleaning the deck / external surfaces?																		0	10
		B.5 Plastics																			
	5200.20	Are the crew aware that plastic should not be incinerated?																		0	10
	5200.39	Are plastic cutlery, dishes & straws banned on board?																		0	5
	5200.40	Are beverages and mineral water bottles in bonded store replaced by better sustainable alternatives such as beverages in tin cans and large water barrels in a dispenser?																		0	5
	5200.41	Are single food servings in small plastic pots not used on board (for example, small yoghurt pots are replaced with decanted supplies in large containers)?																		0	5
	5200.42	Is fine filtering mesh installed to the ship's washing machine's outlets to prevent micro-plastic fibres reaching the ocean?																		0	5
M	**5200.43**	Is the crew **<u>aware</u>** that old ropes and mooring lines are forbidden to be dumped at sea and must be retained on board until landed ashore for correct disposal?																		0	5
		C. Additional questions																			
	5200.16	Has the crew completed training / education programme in relation to garbage management?																		0	5
											Total score									0	120
					Minimum ranking score required for element 5200 = 50																	

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	5300	**Cargo Vapour Emission Control Systems**			0		0														
	5300.6	Is there documented instruction for operational use of the installed system(s)?																		0	10
	5300.7	Is the crew familiarised with the system(s)?																		0	20
	5300.8	Is the vessel capable to use Boil-Off Gas as fuel for main-propulsion?																		0	20
	5300.9	Is the vessel fitted with Gas Combustion Unit to process excess Boil-Off Gas?																		0	10
	5300.10	Is the vessel's cargo weather decks and tank domes painted in a light colour to reduce Boil-Off Gas?																		0	20
	5300.11	Is the vessel's staff aware of vessel's critical speed vs UKC which can increase Boil-Off Gas?																		0	5
	5300.12	Does the company have additional procedures in place to avoid venting of Boil-Off Gas to atmosphere?																		0	20
			Total score																	0	105
					Minimum ranking score required for element 5300 = 70																

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	5410	**NOx Emissions**									O										
		A. Emission Monitoring																			
	5410.10	Does the ship use a continuous emission monitoring system (in-situ or extractive) for monitoring and recording NOx emissions?																		0	10
		B. Emission Reduction																			
		For ships keel laid between 01-01-2000 and 31-12-2010 (Tier I mandatory ships)																			
	5410.11	Does the ship reach the NOx tier 2 limits on the **main engines**?																		0	10
	5410.12	Does the ship reach the NOx tier 2 limits on the **auxiliary engines**?																		0	10
		For ships keel laid on / after 01-01-2011 (5410.13 - 5410.18)																			
	5410.13	Does the ship reach NOx emissions 15% below the tier 2 limits on their **main engine**?																		0	5
	5410.15	**ALTERNATIVE 1 to 5410.13** Does the ship reach NOx emissions 30% below the tier 2 limits on their **main engine**?																		0	10
	5410.17	**ALTERNATIVE 2 to 5410.13** Does the ship reach NOx emissions 50% below the tier 2 limits on their **main engine**?																		0	15
	5410.14	Does the ship reach NOx emissions 15% below the tier 2 limits on their **auxiliary engine**?																		0	5
	5410.16	**ALTERNATIVE 1 to 5410.14** Does the ship reach NOx emissions 30% below the tier 2 limits on their **auxiliary engine**?																		0	10
	5410.18	**ALTERNATIVE 2 to 5410.14** Does the ship reach NOx emissions 50% below the tier 2 limits on their **auxiliary engine**?																		0	15
		For ALL ships (5410.19)																			
	5410.19	Do all the ship's engines (main and auxiliary) **ALWAYS** operate at NOx Tier 3 levels in all ports and contiguous zones (24 nm from the nearest land)?																		0	30
		C. Additional Questions																			
		Exhaust Gas Recirculation (EGR)																			
	5410.22	Does the ship communicate negative test results from the continuous monitoring of exhaust gas recirculation bleed-off discharge water to the company? ** The guidelines set out in MEPC.259 (68) are applicable to EGR bleed-off discharge water as well.*																		0	10
	5410.23	Is the treated wash water discharged from the EGR unit as bleed-off water collected for sampling periodically and communicated communication made to the company for the below parameters? 1. Heavy metals 2. Wash water additives. **Above two values are on top of the mandatory monitoring of pH, PAH, turbidity values set by IMO.*																		0	15
	5410.24	Is appropriate PPE being used by the crew during the handling of caustic soda which is used as an additive for EGR?																		0	5
		Selective Catalytic Reduction (SCR)																			
	5410.26	Does the shipboard crew monitor the catalyst condition continuously to make sure injected urea is fully utilized to avoid ammonia slip?																		0	20
																			Total score	0	140

Minimum ranking score required for element 5410 = 35

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	5420	**SOx Emissions**									O										
		A. Emission Monitoring																			
	5420.11	Does the ship use a continuous emission monitoring system (in-situ or extractive) for monitoring and recording SOx emissions?																		0	10
		B. Emission Reduction																			
	5420.12	**Main and auxiliary engines:** Does the ship voluntarily burn low sulphur fuel (max. 0.10% sulphur) or use equivalent methodology during the ship's stay at every port? *(If exhaust gas cleaning system is used, sulphur content is measured with SO2:CO2 ratio. Ratio of max 4.3 is equal to 0.10% sulphur content)*																		0	30
		C. Additional Questions																			
		Exhaust Gas Cleaning System (EGCS)																			
	5420.13	Is the ship fitted with an EGC system which is tested, surveyed, certified and verified under the requirements of Scheme B* (continuous emission monitoring with parameter checks)? ** Under scheme B, the SOx emissions compliance plan (SECP) should present how the continuous monitoring of ship exhaust gas emissions will demonstrate that the total SO2(ppm)/CO2(%) ratio is comparable to the requirements of 14.1 and/or 14.4 of MARPOL Annex 6.* ** The ship should be in possession of EGC technical manual, scheme B (ETM-B).*																		0	10
	5420.14	Does the ship communicate negative test results from the continuous monitoring of wash water discharge to the company? **The wash water discharge criteria have been set out in MEPC.259 (68).*																		0	10
	5420.15	Is the treated wash water discharged from the EGC unit collected for sampling periodically and communication made to the company for the below parameters? 1.Heavy metals 2.Wash water additives **Above two are on top of the mandatory monitoring of pH, PaH, turbidity values set by IMO.*																		0	15
	5420.18	Does the ship have an EGC unit that is capable of operating **only** in closed-loop mode?																		0	10
	5420.17	**ALTERNATIVE TO 5420.18** Does the ship have an EGC unit that is capable of operating both in open and closed-loop mode (hybrid)?																		0	5
	5420.19	Is the EGC unit capable of operating in zero discharge mode*? **Applicable only for vessels fitted with EGCS capable of operating in closed-loop mode.*																		0	15
	5420.20	Is appropriate PPE being used by the crew during handling of caustic soda which is used as an additive for closed-loop scrubbers?																		0	5
																			Total score	0	105
					Minimum ranking score required for element 5420 = 15																	

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	5430	**Particulate Matter (PM) Emissions**	O								O										
	5430.7	Does the ship have a Diesel Particulate Filter (DPF) for both main and auxiliary engines?																		0	10
	5430.8	Does the ship have a Diesel Oxidation Catalyst (DOC) for both main and auxiliary engines?																		0	10
	5430.9	Does the ship have an Electrostatic Precipitator (ESP) for both main and auxiliary engines?																		0	10
			Total score																	0	30
			Minimum ranking score required for element 5430 = 0																		
	5440	**Greenhouse Gas (GHG) Emissions - CO_2 Emissions**									O										
		A. Emission Monitoring																			
	5440.10	Does the ship use flow meters for monitoring and recording of fuel consumption? (Flow meter is to be calibrated and certified by for example a classification society)																		0	10
	5440.11	Applicable to ships contracted for building on or after 1st January 2013, or delivered on or after 1st July 2015: Is the "attained EEDI" data for the ship available onboard?																		0	5
		Attained EEDI of the ship =																			
	5440.14	Does the ship use a ship performance monitoring software to monitor and reduce energy consumption by operational measures on-board?																		0	5
		B. Emission Reduction																			
		Short term goals (CO_2 reduction through energy efficiency measures)																			
	5440.15	(Design and operational based measures) Energy efficiency measures implemented on-board the vessel?																		0	20
		For ease of use, measures are grouped according to the GLOMEEP Energy efficiency technologies information portal.	**If YES, choose from below options and fill-in supplement CO_2 - GloMEEP tab**																		
		Measures related to Machinery																			
		Measures related to Propulsion and Hull Improvements																			
		Measures related to Energy Consumers																			
		Measures related to Energy Recovery																			
		Measures related to Technical Solutions for optimizing the operations																			

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
		Mid term goals (CO_2 reduction through the use of low carbon fuels)																			
	5440.18	**Main engines:** Does the ship burn low carbon fuels such as:																		**0**	**15**
		Low carbon fuels	**If YES, choose from below options**																		
		LNG (Liquefied Natural Gas)																			
		LPG (Liquefied Petroleum Gas)																			
		GTL (Gas to liquid fuel)																			
		Bio-diesel																			
		Bio-LNG (Bio-methane)																			
		Methanol																			
		Ethanol																			
		Dimethyl Ether																			
		Other: *fill during survey*																			
		If Other=																			
	5440.19	**Auxiliary engines:** Does the ship burn low carbon fuels such as:																		**0**	**15**
		Low carbon fuels	**If YES, choose from below options**																		
		LNG (Liquefied Natural Gas)																			
		LPG (Liquefied Petroleum Gas)																			
		GTL (Gas to liquid fuel)																			
		Bio-diesel																			
		Bio-LNG (Bio-methane)																			
		Methanol																			
		Ethanol																			
		Dimethyl Ether																			
		Other: *fill during survey*																			
		If Other=																			

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
		Long term goals (CO_2 neutral operation through zero carbon fuels)																			
	5440.20	**Main engines:** Does the ship use zero carbon fuels such as:																		0	25
		Zero carbon fuels	**If YES, choose from below options**																		
		Anhydrous Ammonia																			
		Hydrogen																			
		Fuel Cells (Powered by ammonia or hydrogen)																			
		Batteries																			
		Nuclear																			
		Other: *fill during survey*																			
		If Other=																			
	5440.21	**Auxiliary engines:** Does the ship use zero carbon fuels such as:																		0	25
		Zero carbon fuels	**If YES, choose from below options**																		
		Anhydrous Ammonia																			
		Hydrogen																			
		Fuel Cells (Powered by ammonia or hydrogen)																			
		Batteries																			
		Nuclear																			
		Other: *fill during survey*																			
		If Other=																			
	5440.22	Does the ship use renewable energy sources for energy production such as:																		0	25
		Renewable Energy source	**If YES, choose from below options**																		
		Wind: *fill during survey*																			
		Solar																			
		Other: *fill during survey*																			
		Wind=																			
		If Other=																			
		C. Additional Questions																			
	5440.23	Have shipboard personnel received training for energy efficiency measures and related monitoring systems on board?																		0	10
			Total score																	0	155
			Minimum ranking score required for element 5440 = 15																		

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	5441	**Greenhouse Gas (GHG) Emissions - Methane (CH_4) Emissions - Main Propulsion**																			
		B. Emission Reduction																			
		Alternative 1 - Gas Turbine or High Pressure Dual Fuel Engine																			
	5441.2	Is the ship powered by low (or no) Methane Slip technology, for example, Gas Turbine or High Pressure Dual Fuel (HPDF) Engine?																		0	20
		Alternative 2 - Other Engine Types																			
	5441.3	Has the ship achieved annual reduction in Methane Slip on its LNG-fuelled engines?																		0	10
		A. Emission Monitoring																			
	5441.1	Does the ship use a continuous emission monitoring system (in-situ or extractive) for monitoring and recording Methane Slip?																		0	10
		C. Additional questions																			
	5441.4	Have shipboard personnel received awareness training on methane emissions from LNG-fuelled engines?																		0	5
			Total score																	0	35
			Minimum ranking score required for element 5441 = 0																		
	5460	**Environmental Ship Index (ESI)**																			
	5460.2	Does the ship participate in the Environmental Ship Index (ESI) and are ESI points above 30?																		0	20
	5460.3	Does the ship participate in the Environmental Ship Index (ESI) and are ESI points above 40?																		0	20
	5460.4	Does the ship participate in the Environmental Ship Index (ESI) and are ESI points above 50?																		0	20
			Total score																	0	60
			Minimum ranking score required for element 5460 = 0																		

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	5500	**Sewage Management**																			
		Sewage Treatment Plant																			
	5500.1	Is the sewage treated with a sewage treatment plant which uses minimal or no harmful chemicals?																		0	10
	5500.2	Are samples of treated discharged effluent from the sewage treatment plant collected periodically (at least annually) for lab testing ashore to check the compliance with relevant MEPC standards?																		0	10
	5500.3	Is the ship in possession of the periodical sample testing report/certificate from a laboratory ashore confirming the compliance with the relevant MEPC standards?																		0	10
	5500.8	Is the sewage treatment plant regularly checked and maintained as per manufacturer's guidelines?																		0	5
N	**5500.10**	**Alternative for 5500.1, 5500.2, 5500.3 & 5500.8 (applicable ONLY for short-haul vessels)** Does the ship deliver all its sewage / sewage sludge (regardless of treated or untreated) to port reception facilities (where available)?																		0	35
		For all ships: Sewage Holding Tank																			
	5500.7	Is the sewage holding tank regularly checked and maintained?																		0	20
			Total score																	0	55
					Minimum ranking score required for element 5500 = 20																
	5510	**Grey Water Management**																			
	5510.1	Is the sewage treatment plant capable of treating grey water before being discharged?																		0	15
	5510.2	Is the grey water never discharged within the coastal and port areas?																		0	10
			Total score																	0	25
					Minimum ranking score required for element 5510 = 0																

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	5700	**Ballast Water Management**	O		O		O														
		For ships required to follow D-1 standard (as per International Ballast Water Management Certificate (IBWMC))																			
	5700.5	Are tasks & responsibilities of shipboard personnel assigned to ballast water exchange operations defined, documented & controlled ?																		0	5
	5700.6	Is the master aware of cases where the ship cannot reasonably be expected to carry out ballast water exchange?																		0	5
	5700.10	Does the ship voluntarily comply with D-2 ballast water management standard using a type-approved ballast water treatment system (BWTS)?																		0	10
		For ships required to follow D-2 standard (as per International Ballast Water Management Certificate (IBWMC))																			
	5700.11	Does the ship carry and implement ship-specific contingency plan prepared taking into account system design limitations, for example, - the UV-based BWTS cannot operate correctly in ports where the water is very muddy, - when operating in low salinity ports, the crew should plan to carry enough salt water or brine in order for the electrochlorination BWTS to function effectively.																		0	10
	5700.12	Does the ship undertake (both of) the following in order to keep the BWTS in operable condition: - maintain full inventory of manufacturer recommended spare parts list - maintain safe-margin stock of consumables (such as chemicals with short shelf-life, UV lamps, etc. as required by the installed system)																		0	5
	5700.13	Does relevant shipboard personnel make use of suitable personal protective equipment (PPE) for handling chemicals used to operate BWTS?																		0	10
	5700.14	Is relevant crew trained to operate specific BWT system installed on board, for example, by means of computer-based training, training at the makers facilities or on a simulation BWMS that mimics real BWTS operations?																		0	10
	5700.15	Is the relevant crew familiarized with the operation of the BWTS installed on board?																		0	10
		For all ships																			
	5700.7	Are sediment volumes monitored & recorded ?																		0	10
	5700.8	Does sediment disposal take place in port (to sediment reception facility) or at sea (more than 200nm from land and at depth greater than 200m) ?																		0	10
																			Total score	0	85
					Minimum ranking score required for element 5700 = 50																	

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	5800	**Accidental Bunker Oil Pollution Prevention Measures (overflow prevention systems)**									O										
	5800.5	Are **all** fuel oil bunker tanks fitted with a high-high level alarm?																		0	15
	5800.6	Are **all** fuel oil bunker tanks fitted with an overflow line that is connected to an overflow tank?																		0	5
	5800.7	Are overflow lines of **all** fuel oil bunker tanks arranged with a flow alarm?																		0	5
	5800.8	Are high level alarms and/or (over) flow alarms given on the location where the person in charge of the bunkering or transfer operation will normally be located?																		0	5
			Total score																	0	30
					Minimum ranking score required for element 5800 = 5																
	5801	**Protection of fuel oil tanks, lube oil tanks and hull**									O										
	5801.1	Are any tanks intended for fuel-oil or other substances, with a minimum capacity of 20m³, constructed at least B/15 or 2 metres above the keel level ?																		0	10
	5801.2	Are tanks for fuel oil protected by a double side ? (for ships below 20,000gt, width of double side to be at least 0.76m ; for 20,000gt and above, width to be at least 2 metres)																		0	40
	5801.3	Are all lubrication oil tanks constructed at least 0.76 metres above the keel line ?																		0	20
	5801.4	Is the ship's hull and/or fuel tanks are built of advanced shipbuilding plates (highly ductile steel) or structural features (for example, sandwich plate structure)?																		0	30
			Total score																	0	100
					Minimum ranking score required for element 5801 = 20																
		Lubrication and Use of Oils (Element nr.: 5810, 5811 & 5812)																			
	5810	**Stern tube lubrication**			O						O		O								
	5810.1	Is the vessel fitted with a class approved stern tube water lubricated system which uses sea water as a lubricant? (system includes water conditioning and monitoring equipment)																		0	60
	5810.6	**Alternative for 5810.1, 5810.3, 5810.4 and 5810.5** Is the vessel fitted with a class approved stern tube water lubricated system which uses fresh water as a lubricant? (system includes water conditioning and monitoring equipment) *Additives used to maintain the condition of the water should be environmentally friendly.																		0	50
	5810.3	**Alternative for 5810.1 and 5810.6:** Is the vessel fitted with a class approved stern tube lubrication system with an air type or void space seal?																		0	25
	5810.4	**Alternative for 5810.1 and 5810.6:** Does the vessel use a stern tube lubricant that is certified according to the EAL/EEL or equivalent?																		0	15
	5810.5	**Alternative for 5810.1 and 5810.6:** Is the crew aware of characteristics of the environmentally friendly stern tube lubricant (EAL/EEL certified or equivalent) with respect to maintenance & its effect on the system if needed? (e.g. condition of seals & filters, temperature & condition of oil etc.)																		0	5
			Total score																	0	60
					Minimum ranking score required for element 5810 = 15																

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	5811	**Mooring wire lubrication**									O		O								
	5811.1	Does the vessel use a mooring wire lubricant / grease that is certified according to the EEL?																		0	20
																			Total score	0	20
					Minimum ranking score required for element 5811 = 0																	
	5812	**Deck equipment lubrication (use of oils)**									O		O								
	5812.1	Does the vessel use grease that is certified according to the EEL (all deck equipment)?																		0	15
	5812.2	Does the vessel use gear oil that is certified according to the EEL (all deck equipment)?																		0	10
	5812.3	Does the vessel use hydraulic oil that is certified according to the EEL in mooring and anchor appliances?																		0	10
	5812.4	Does the vessel use hydraulic oil that is certified according to the EEL in crane appliances?																		0	10
	5812.6	Is the crew aware of characteristics of environmentally friendly lubricants (EEL certified) with respect to maintenance & their effect on the applicable system if needed? (e.g. condition of seals & filters, temperature & condition of oil, prevention of humidity ingress etc.)																		0	10
																			Total score	0	55
					Minimum ranking score required for element 5812 = 0																	
	5820	**Management of bilge water and sludge handling onboard**			O		O		O		O		O								
	5820.3	Are engine room personnel familiarized with on board sludge and bilge water management procedures?																		0	10
	5820.4	Are engine room personnel familiar with the system layout, drawings and manuals?																		0	5
																			Total score	0	15
					Minimum ranking score required for element 5820 = 15																	

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	5821	**Outfitting of bilge water system**			O		O		O		O		O								
		A. Clean Drains (Drains that are <u>normally not</u> contaminated by oil)																			
	5821.1	Does the bilge water from the Clean drain tank (for the collection of "clean drains" As per MEPC.1/Circ.642) pass through 15 ppm oil content meter and alarm?																		0	5
	5821.17	Does the engine room logbook logs discharges from the Clean drain tank (tank used for the collection of "clean drains", as per MEPC.1/Circ.642)?																		0	5
		B. Soot Collection Tank arrangement																			
	5821.10	Is washwater from the economizer/boilers collected in a Soot separation / collection tank?																		0	5
	5821.18	Is soot separation / collection tank decanted, remaining water transferred to bilge holding tank and solid soot particles collected for garbage disposal (reception facility)?																		0	10
	5821.11	Is an independent pump arrangement available for the discharge from the Soot separation / collection tank to overboard?																		0	5
	5821.2	Are management instructions regarding disposal of soot and soot-water mixtures available onboard?																		0	5
		C. Oily bilge water tank arrangement																			
	5821.12	Is all Oily bilge water from the bilge wells/drains transferred to the Bilge Primary Tank or pre-separation system for pre-separation of oil and water?																		0	5
	5821.5	Is Oily bilge water from the Oily bilge water holding tank pumped through the Oily Water Separator to the Clean water tank (rather than overboard discharge)?																		0	5
		D. Oily water separator / Oil content meter																			
	5821.6	**<u>N/A for vessels keel laid after 2005</u>** Is the oil content meter with an automatic stopping device capable of measuring the difference between emulsifying particles and oil installed , as per IMO resolution MEPC.107(49)?																		0	5
	5821.7	Is there an equipment or a protection system (e.g. White Box) installed that stops the Oily Water Separator from discharging overboard when the Oil Content Meter is flushed/diluted with clean water to prevent illegal discharges of bilge water from machinery spaces?																		0	10
	5821.15	Is the authority for operating and maintaining the Oily Water Separator and Oil Content Meter with the master or this is automatically logged in the system?																		0	5
	5821.16	**<u>Alternative to 5821.15</u>** Is the ship equipped with a system which would ensure that operation and maintenance of the Oily Water Separator and Oil Content Meter can only be started with the Master's permission (for example, Main/Master Switch on bridge)?																		0	5
	5821.8	**<u>N/A for vessels keel laid after 2005</u>** Is the Oily Water Separator equipped with a re-circulating facility for testing the device with the closed overboard discharge (As per IMO resolution MEPC.107(49) 6.1.1.) ?																		0	5
N	**5821.19**	Does the ship have in operation a Class-approved equipment that ensures that the oil content of the bilge water effluent without dilution does not exceed 5 parts per million?																		0	10
		<u>5821.9 is an alternative to 5821.1 - 5821.19 (all the above)</u>																			
	5821.9	Is all the bilge water from machinery spaces always delivered to reception facilities?																		0	80
																			Total score	0	80
					Minimum ranking score required for element 5821 = 20																	

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	5822	**Outfitting of sludge handling system**			O		O		O		O		O								
	5822.1	Is a sludge collecting pump installed (with the sole purpose of collecting the sludge from different ER tanks to the Oil Residue (Sludge) Tank)?																		0	5
	5822.2	Is a sludge discharge pump installed with the purpose of discharging the sludge to reception facilities (with sufficient capacity to discharge the sludge within 8 hrs)																		0	5
	5822.8	Is a tank or system installed with the sole purpose of removing large quantities of water from the sludge?																		0	5
	5822.9	Is a separate tank or system installed with the sole purpose of evaporating water from the sludge?																		0	5
	5822.10	Is a separate tank or system installed with the purpose of mixing the sludge while incinerated (in incinerator or boiler)																		0	5
	5822.6	**Alternative to 5822.8 - 5822.10** Is all the ship sludge always delivered to reception facilities?																		0	20
			Total score																	0	30
					Minimum ranking score required for element 5822 = 10																
	5900	**Ship Recycling - Inventory of Hazardous Materials**	O		O						O		O								
	5900.10	Does the vessel have an "Inventory of Hazardous Materials" (Part I completed)?																		0	110
	5900.13	**Alternative to 5900.10:** Has the process been started to prepare Part I of the "Inventory of Hazardous Materials" with a target completion date?																		0	40
N	**5900.14**	Is a software tool used to support the IHM maintenance process, for example, for the collection of Material Declarations (MDs) & SDoCs for all purchased items that fall into the scope of IHM Part I?																		0	20
			Total score																	0	130
					Minimum ranking score required for element 5900 = 40																

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
	6000	MAINTENANCE / SURVEYS																			
	6100	**Programme of Inspections**	o								o										
	6100.1	Does the ship have an internal technical inspection programme?																		0	10
	6100.2	Are relevant previous survey and internal technical inspection reports available on board?																		0	10
	6100.3	Does the ship have a repair history?																		0	10
	6100.4	Does the company issue procedures/instructions for hull / ship's construction condition inspections to be carried out by the ship's personnel?																		0	20
	6100.8	Is there a company procedure available for the assessment of cold-spots?																		0	10
			Total score																	0	60
			Minimum ranking score required for element 6100 = 60																		
	6110	**Critical and Stand-by Equipment**	o		o		o														
	6110.5	Is a Computer Based Program installed to register failures, break downs and near misses in order to have a constant event report on the systems?																		0	10
	6110.7	Is a Computer Based Program installed for spare parts management of critical equipment and stand- by equipment?																		0	10
	6110.8	Is a safety stock available for critical equipment and stand-by equipment?																		0	10
			Total score																	0	30
			Minimum ranking score required for element 6110 = 10																		
	6200	**Mooring Equipment**	o		o				o												
	6200.1	Are winch brake tests carried out and recorded at least once a year or after an excessive load?																		0	10
	6200.2	Is a winch brake test kit on board?																		0	5
	6200.3	Is an overview available with all details of mooring wires / fibre ropes, winches, inspections, maintenance, tests etc.?																		0	10
	6200.4	Is the ship provided with information on the design of the mooring system? (with examples to show the loads likely to be experienced under particular conditions and to illustrate those situations under which the limit of the system is likely to be reached)																		0	10
	6200.5	Are inspection, maintenance and discard criteria for mooring wires and tails / fibre ropes established and carried out by a competent person? (time interval for inspection should be in the PMS)																		0	10
	6200.8	Do these criteria take manufacturer's recommendations into account ?																		0	10
	6200.9	Does an additional examination take place after unusual events, such as long periods of inactivity, excessive loads, heat exposure, loading/discharge at swell ports, etc?																		0	5
	6200.10	Are internal inspections for wires + fibre ropes carried out & do these inspections take manufacturer's recommendations into account?																		0	10
	6200.11	Are the lubricants & cleaning products compatible with the wire and approved by the wire manufacturer?																		0	5
	6200.6	Is a log for "working days" of mooring wires and tails / fibre ropes maintained? (to predict the point of discard & for evaluation of wire/rope performance)																		0	10
	6200.7	Is an automatic wire rope lubricator in use on board?																		0	10
	6200.12	**Alternative to 6200.7:** (for fibre ropes) Are there procedures for care of fibre ropes?																		0	10
			Total score																	0	95
			Minimum ranking score required for element 6200 = 65																		

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

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	6300	**Corrosion Prevention of Seawater Ballast Tanks**			O						O										
	6300.1	Are ballast tanks of double-hulled vessels, coated with a hard coating of a light colour?																		0	20
	6300.6	**Alternative to 6300.1** Are ballast tanks coated with dark epoxy maintained with a modified epoxy coating of a light colour, after safety benefit assessment is carried out?																		0	10
	6300.7	Is the coating approved according to the IMO performance standard? (type approval or statement of compliance according to Res. MSC 215(82) in Coating Technical File)																		0	20
	6300.2	Are ballast tanks maintained in a good condition?																		0	20
	6300.3	Are manufacturer's technical product data sheets and job specifications of the coatings on board?																		0	5
	6300.5	Is the corrosion prevention system, other than coating, included in the maintenance system?																		0	5
																			Total score	0	70
																			Minimum ranking score required for element 6300 = 40		
	6400	**Condition Assessment Program, Maintenance** Additional Green Award requirements	O		O						O										
	6400.1	Does the ship hold a CAP rating for Hull with Rating / Grade 2 as a minimum? (When the vessel reaches 20 years of age, or by the end of the 4th special survey, whichever is earlier.)																		0	25
	6400.8	Does the ship hold a CAP rating for Cargo Systems with Rating / Grade 2 as a minimum? (When the vessel reaches 20 years of age, or by the end of the 4th special survey, whichever is earlier.)																		0	20
	6400.9	Does the ship hold a CAP rating for Machinery with Rating / Grade 2 as a minimum? (When the vessel reaches 20 years of age, or by the end of the 4th special survey, whichever is earlier.)																		0	20
	6400.2	**(Alternative to 6400.1, 6400.8 and 6400.9 above)** Is the ship less than 20 years of age or has not reached the end of the 4th special survey yet?																		0	25
	6400.3	Is it company policy that maintenance meetings are carried out on board? (e.g. each month and at (all) sections on board)																		0	10
	6400.4	Is a maintenance checklist used regarding the (monthly) maintenance inspection?																		0	10
	6400.5	Is an evaluation report of vessel's performance sent to the company?																		0	20
	6400.6	Is an annual technical report made by the Company's superintendent?																		0	15
																			Total score	0	120
																			Minimum ranking score required for element 6400 = 60		
	6500	**Certificates for Cargo Gear**	O		O						O										
	6500.1	Is a register of cargo handling gear and lifting appliances issued? (CG1)																		0	10
	6500.2	Is a certificate of test and thorough examination of lifting appliances issued? (CG2)																		0	10
	6500.3	Is a certificate of test and thorough examination of loose gear issued? (CG3)																		0	10
	6500.4	Is a certificate of test and thorough examination of wire rope issued? (CG4)																		0	10
																			Total score	0	40
																			Minimum ranking score required for element 6500 = 40		

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	7000	CREW																			
	7200	**Extra personnel,** Additional Green Award Requirement	o								o										
	7200.1	Are there extra deck officers onboard in addition to what is required by minimum safe manning document?																		0	10
	7200.7	Are there extra engine officers onboard in addition to what is required by minimum safe manning document?																		0	10
	7200.2	Are there extra deck ratings onboard in addition to what is required by minimum safe manning document?																		0	10
	7200.8	Are there extra engine ratings onboard in addition to what is required by minimum safe manning document?																		0	10
	7200.3	Is there a ship administrator onboard (In addition to the standard complement and extra deck-officers and -ratings above) ?																		0	10
	7200.5	Is there a gas engineer onboard?																		0	10
	7200.6	Is there an electrical officer onboard in addition to the engine officers required by the safe manning document?																		0	10
			Total score																	0	70
					Minimum ranking score required for element 7200 = 30																

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	7300	**Training / Courses for Personnel,** Additional Green Award Requirements & IMO Model Courses	O																		
	7300.1	Has the 2nd officer (deck) completed an approved advanced training for liquefied gas tanker cargo operations? (As a minimum, the program should comply with STCW 2010 including Manila amendments Reg V/1-2)																		0	20
	7300.2	Are all onboard personnel trained and qualified according to the approved basic training for liquefied gas tanker cargo operations? (as STCW 2010 including Manila amendments Reg V/1-2) (If training comprises at least 3 months approved seagoing service on tankers (instead of an approved tanker familiarisation course) this should include onboard computer-based training (CBT) and a documented system showing participation and qualifications.)																		0	10
	7300.4	Have the lower ranking deck officers completed advanced fire fighting (IMO2.03) ?																		0	5
	7300.18	Have the lower ranking engine officers completed advanced fire fighting (IMO2.03) ?																		0	5
	7300.5	Has the onboard management completed the onboard assessment/train the trainer course (IMO 1.30)?																		0	5
	7300.6	Have the officers involved in cargo and ballast handling completed a simulator based training/course (IMO 1.36) ?																		0	10
	7300.7	Have the ship personnel completed "Marine Environmental Awareness" course (IMO 1.38)?																		0	5
	7300.8	Have all the deck officers completed bridge team management/bridge resource management training course (IMO 1.22) ?																		0	5
	7300.19	Have all the engine officers completed engine room resource management training course?																		0	5
	7300.20	**Alternative to 7300.8 & 7300.19** Have all the officers completed maritime resource management course ?																		0	10
	7300.10	Is there a cadet currently onboard or has there been any in the last 6 months ?																		0	10
	7300.11	Has the gas engineer completed the advanced training for liquefied gas tanker cargo operations? (IMO 1.06)																		0	10
	7300.12	Have all the senior officers (Master, Chief Officer, Chief Engineer, 2nd Engineer and Gas Engineer) completed the Liquid Cargo Operations Simulator (LICOS) course as recommended by SIGTTO for senior officers and relevant to cargo containment type (Membrane or Spherical)?																		0	10
	7300.13	Have all the junior officers (2nd Officer, 3rd Officer, 3rd Engineer and 4th Engineer) completed the Liquid Cargo Operations Simulator (LICOS) course as recommended by SIGTTO for junior officers and relevant to cargo containment type (Membrane or Spherical)?																		0	20
	7300.17	Have all the officers completed Security Awareness Training?																		0	5
																			Total score	0	125

Minimum ranking score required for element 7300 = 60

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	7400	**Familiarisation,** Additional Green Award Requirement	O		O		O		O		O		O		O		O				
	7400.1	Have all the ship board crew after a period of absence or leave has been provided with familiarization of changes with regard to the operations/machinery which is related to their position ?																		0	20
	7400.2	Have all newly employed/engaged shipboard crew (first ship for that specific company) been provided with familiarization with regard to operations/machinery which is related to their position ?																		0	20
	7400.3	Are the senior officers retained to sail on the same vessel or the same type of vessel (Membrane or Spherical)?																		0	10
	7400.6	Are the junior officers retained to sail on the same vessel or the same type of vessel (Membrane or Spherical)?																		0	10
	7400.4	Are the company format handover reports from all off - signing officers available onboard?																		0	10
	7400.7	Are the on-signers aware of the content of the hand-over reports?																		0	10
																				0	80
					Minimum ranking score required for element 7400 = 50																
	7500	**Safe Manning and Fatigue Management**	O																		
		A. General - managing work/rest hours																			
	7500.1	Are work/rest hours performed by the individual seafarer recorded with the use of a software programme and the reports generated accessible for the office?																		0	5
	7500.2	Is the master provided with instruction/procedure to monitor and address non compliance on STCW 2010 Manila amendments on work/rest hours onboard ?																		0	10
		B. Fatigue management																			
	7500.5	Does the ship have fatigue mitigation and control strategy (or similar document) available within the Safety Management System (SMS) to ensure the health and well being of the seafarers?																		0	30
	7500.9	Does the fatigue mitigation and control strategy consist of the following (both): - framework to assess the hazards associated with fatigue (hazard assessment) - strategies to mitigate the risk of fatigue (risk mitigation)																		0	15
	7500.10	Does the Master implement the use of any one of the following fatigue management tools (as described in IMO MSC.1/Circ1598) by shipboard crew on board: - Sleep Diary - Self-monitoring through fatigue and sleepiness ratings - Fatigue self-assessment tool - Fatigue event reporting																		0	15
		C. Additional questions - reporting, training & awareness																			
	7500.7	Does the ship have a procedure in which crew members are able to report to a designated person on fatigue related issues **without fearing any action against them for such communication**?																		0	5
	7500.11	Do all shipboard crew members undergo company fatigue management training and awareness campaigns on an initial and recurrent basis?																		0	5
																				0	85
					Minimum ranking score required for element 7500 = 60																

GA Code: Ship name: Date of Ship Survey:

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023

RANKING
Ship - LNG

Revision Code	Norm item		MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.	ENGINEER OFFICER	Doc. & Impl.	ENGINEER RATING	Doc. & Impl.	CATERING PERSONNEL	Doc. & Impl.	*NOT APPLICABLE*	RANKING SCORE	RANKING MAX. SCORE
	9000	REQUIREMENTS ACCORDING TO ISO STANDARDS																			
	9421	**ISO Certification**																			
	9421.1	Is the ship certified for the latest edition of ISO 9001 (quality management systems)?																		0	10
	9421.2	Is the ship certified for the latest edition of ISO 10015 (quality management – guidelines for competence management and people development)?																		0	10
	9421.3	Is the ship certified for the latest edition of ISO 14001 (environmental management systems)?																		0	10
	9421.4	Is the ship certified for the latest edition of ISO 22301 (societal security – business continuity management systems)?																		0	10
	9421.5	Is the ship certified for the latest edition of ISO 27001 (information security management systems)?																		0	10
	9421.6	Is the ship certified for the latest edition of ISO 30401 (knowledge management systems – requirements)?																		0	10
	9421.7	Is the ship certified for the latest edition of ISO 45001 (occupational health and safety management systems)?																		0	10
	9421.8	Is the ship certified for the latest edition of ISO 50001 (energy management systems)?																		0	10
			Total score																	0	80
					Minimum ranking score required for element 9421 = 0																

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023					
Norm item	**TOTAL SCORE REVIEW** **SHIP SURVEY - LNG CARRIER**	SHIP'S RANKING SCORE	MAXIMUM OBTAINABLE RANKING SCORE	MINIMUM RANKING SCORE REQUIRED	ELEMENTS WITH NO MINIMUM SCORE
1000	GENERAL				
1200	Enclosed Space Entry & Hot Work	0	80	80	
1300	Compressor for the refilling of air cylinders for breathing apparatus or Alternative, Additional Green Award requirement	0	20	10	
1400	Control of drugs & alcohol onboard	0	35	20	
1500	Emergency Response System	0	30	10	
1510	Emergency Oil Recovery	0	10	0	
1600	Computer Systems, Networks, Data Security and Training. GA requirement	0	60	30	
1610	Cyber Risk Management	0	35	15	
1700	Noise and Vibration Management	0	50	15	
1710	Underwater Noise and Vibration Management	0	10	0	
1800	Social Dimension / Sustainability	0	50	10	
2000	NAVIGATION / BRIDGE OPERATIONS				
2100	Navigation	0	120	40	
2111	Electronic chart display & information systems / ECDIS	0	55	30	
2120	Fuel Change Over / Ballast Water Exchange	0	20	20	
2200	Helicopter / Ship Operations	0	20	20	
2300	Mooring Operations	0	50	30	
3000	MACHINERY / ENGINE OPERATIONS				
3100	Bunker Operations	0	50	50	
3200	Fuel oil management	0	80	40	
4000	CARGOES / CARGO OPERATIONS				
4100	LNG Carrier Cargo Operations & Additional Green Award requirements	0	80	70	
4200	Ship to Ship Transfer Operations	0	30	30	
4400	Additional Green Award Requirements (tank alarms, coatings, etc.)	0	50	40	
4700	LNG Sloshing Load Monitoring System	0	50	0	
5000	PREVENTION OF POLLUTION				
5100	Biofouling Management	0	30	5	
5200	Waste Management / Garbage Handling Onboard	0	120	50	
5300	Cargo Vapour Emission Control Systems	0	105	70	
5410	NOx Emissions	0	140	35	
5420	SOx Emissions	0	105	15	
5430	Particulate Matter (PM) Emissions	0	30	0	
5440	Greenhouse Gas (GHG) Emissions - CO2 Emissions	0	155	15	
5441	Greenhouse Gas (GHG) Emissions - Methane (CH4) Emissions - Main Propulsion	0	35	0	
5460	Environmental Ship Index (ESI)	0	60	0	
5500	Sewage Management	0	55	20	
5510	Grey Water Management	0	25	0	

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LNG CARRIER - VERSION 2023					
Norm item	**TOTAL SCORE REVIEW** **SHIP SURVEY - LNG CARRIER**	SHIP'S RANKING SCORE	MAXIMUM OBTAINABLE RANKING SCORE	MINIMUM RANKING SCORE REQUIRED	ELEMENTS WITH NO MINIMUM SCORE
5700	Ballast Water Management	0	85	50	
5800	Accidental Bunker Oil Pollution Prevention Measures (overflow prevention systems)	0	30	5	
5801	Protection of fuel oil tanks, lube oil tanks and hull	0	100	20	
5810	Stern tube lubrication	0	60	15	
5811	Mooring wire lubrication	0	20	0	
5812	Deck equipment lubrication (use of oils)	0	55	0	
5820	Management of bilge water and sludge handling onboard	0	15	15	
5821	Outfitting of bilge water system	0	80	20	
5822	Outfitting of sludge handling system	0	30	10	
5900	Ship Recycling - Inventory of Hazardous Materials	0	130	40	
6000	MAINTENANCE / SURVEYS				
6100	Programme of Inspections	0	60	60	
6110	Critical and Stand-by Equipment	0	30	10	
6200	Mooring Equipment	0	95	65	
6300	Corrosion Prevention of Seawater Ballast Tanks	0	70	40	
6400	Condition Assessment Program, Maintenance Additional Green Award requirements	0	120	60	
6500	Certificates for Cargo Gear	0	40	40	
7000	CREW				
7200	Extra personnel, Additional Green Award Requirement	0	70	30	
7300	Training / Courses for Personnel, Additional Green Award Requirements & IMO Model Courses	0	125	60	
7400	Familiarisation, Additional Green Award Requirement	0	80	50	
7500	Safe Manning and Fatigue Management	0	85	60	
9000	REQUIREMENTS ACCORDING TO ISO STANDARDS				
9421	ISO Certification	0	80	0	
	TOTAL SCORES	0	3305	1420	

LEGEND

o	Indicates which crew/employee may be interviewed/questioned.
	Shows that a certain item is complied.
	Shows that a certain item is *not* complied.
0	Indicates that an alternative is used, hence the score for that item is a "0".
	The checklist was filled in incorrectly, thus shows "error".
0	Indicates that the whole element did not reach the minimum score, hence a finding is issued. The number shows the scores obtained.
	Shows which elements are minimum = maximum. Hence scores on all items is required to fully comply.
	Indicates that the minimum score for the relevant element is "0", hence a finding will *not* be issued.

* for detailed interpretations of the colours and the usage of the checklist, please refer to the pdf-file named "Instruction Notes" located on www.greenaward.org under "Certification/ Download".

GA Code: Ship name: Date of Ship Survey:

SUPPLEMENT TO 5410 - NOx EMISSIONS

DATA FROM "**SUPPLEMENT TO ENGINE INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE -- RECORD OF CONSTRUCTION, TECHNICAL FILE, AND MEANS OF VERIFICATION**"

Keel Laid (DD/MM/YYYY) (available on supplement to IAPP certificate)	
Vessel assigned to NOx Tier-3 ECA route (Y/N)	
Main propulsion type	DIESEL ENGINE
Electricity generation	DIESEL ENGINE
TIER	NA
Questions applicable (from 5410.11 - 5410.18)	NA

For DIESEL-ELECTRIC & DUAL FUEL (LNG / LPG) data, use "OTHER ENGINE" modules below

MAIN ENGINE 1	**NA→**		**RPM**	
		Tier 1	**Tier 2**	**Tier 3**
Applicable NOx emission limit (g/kWh)				
Engine's actual NOx emission value (g/kWh)				
Percentage reduction		NA	NA	NA
GA Compliance				

MAIN ENGINE 2	**NA→**		**RPM**	
		Tier 1	**Tier 2**	**Tier 3**
Applicable NOx emission limit (g/kWh)				
Engine's actual NOx emission value (g/kWh)				
Percentage reduction		NA	NA	NA
GA Compliance				

AUXILIARY ENGINE 1	**NA→**		**RPM**	
		Tier 1	**Tier 2**	**Tier 3**
Applicable NOx emission limit (g/kWh)				
Engine's actual NOx emission value (g/kWh)				
Percentage reduction		NA	NA	NA
GA Compliance				

AUXILIARY ENGINE 2	**NA→**		**RPM**	
		Tier 1	**Tier 2**	**Tier 3**
Applicable NOx emission limit (g/kWh)				
Engine's actual NOx emission value (g/kWh)				
Percentage reduction		NA	NA	NA
GA Compliance				

AUXILIARY ENGINE 3	**NA→**		**RPM**	
		Tier 1	**Tier 2**	**Tier 3**
Applicable NOx emission limit (g/kWh)				
Engine's actual NOx emission value (g/kWh)				
Percentage reduction		NA	NA	NA
GA Compliance				

AUXILIARY ENGINE 4	**NA→**		**RPM**	
		Tier 1	**Tier 2**	**Tier 3**
Applicable NOx emission limit (g/kWh)				
Engine's actual NOx emission value (g/kWh)				
Percentage reduction		NA	NA	NA
GA Compliance				

GA Code: Ship name: Date of Ship Survey:

SUPPLEMENT TO 5410 - NOx EMISSIONS

DATA FROM "**SUPPLEMENT TO ENGINE INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE -- RECORD OF CONSTRUCTION, TECHNICAL FILE, AND MEANS OF VERIFICATION**"

Keel Laid (DD/MM/YYYY) (available on supplement to IAPP certificate)	
Vessel assigned to NOx Tier-3 ECA route (Y/N)	
Main propulsion type	DIESEL ENGINE
Electricity generation	DIESEL ENGINE
TIER	NA
Questions applicable (from 5410.11 - 5410.18)	NA

For DIESEL-ELECTRIC & DUAL FUEL (LNG / LPG) data, use "OTHER ENGINE" modules below

OTHER ENGINE	NA→			RPM	
			Tier 1	**Tier 2**	**Tier 3**
Applicable NOx emission limit (g/kWh)					
Engine's actual NOx emission value (g/kWh)					
Percentage reduction			NA	NA	NA
GA Compliance					

OTHER ENGINE	NA→			RPM	
			Tier 1	**Tier 2**	**Tier 3**
Applicable NOx emission limit (g/kWh)					
Engine's actual NOx emission value (g/kWh)					
Percentage reduction			NA	NA	NA
GA Compliance					

OTHER ENGINE	NA→			RPM	
			Tier 1	**Tier 2**	**Tier 3**
Applicable NOx emission limit (g/kWh)					
Engine's actual NOx emission value (g/kWh)					
Percentage reduction			NA	NA	NA
GA Compliance					

ENERGY EFFICIENCY TECHNOLOGIES INFORMATION PORTAL
TECHNOLOGY GROUPS
IMO GLOMEEP Website

GA Code:
Ship name:
Date of Ship Survey:

MACHINERY TECHNOLOGIES

This technology group includes measures that improve the energy efficiency of main and auxiliary engines. These include measures such as auxiliary systems optimization, optimizing heat exchangers, waste heat recovery systems, electronic auto-tuning, batteries and other solutions.

Y?	NAME	FUNCTION	TECHNICAL MATURITY*	APPLICABILITY
	Auxiliary systems optimization	Optimizing auxiliary systems to actual operational profiles, not design conditions	Semi-mature	All vessels
	Engine de-rating	De-rating an engine for reduction of the vessel's maximum speed to increase its efficiency by limiting the potential power output	Semi-mature	Vessels sailing 10-15% slower than design speed
	Engine performance optimization (automatic)	Automatic increase of engine efficiency through testing and tuning according to actual operational load and conditions	Semi-mature	Mainly for two stroke engines
	Engine performance optimization (manual)	Manual increase of engine efficiency through testing and tuning according to actual operational load and conditions	Mature	All vessels
	Exhaust gas boilers on auxiliary engines	Exhaust gas boilers recover the heat from the exhaust gas of auxiliary engines to generate steam, hot water or heat for process heating	Semi-mature	Vessels without shaft generator
	Hybridization (plug-in or conventional)	Use of electricity to replace various modes of power consumption	Semi-mature	Vessels with large fluctuations in power output (ferries, offshore vessels, tugs)
	Improved auxiliary engine load	Increase of the auxiliary engines' load and efficiency by reducing the number of auxiliary engines running	Semi-mature	All vessels
	Shaft generator	Produce electricity from the main propulsion engine	Mature	All vessels with high power needs and long transits
	Shore power	Use of cold ironing in ports to reduce fuel consumption on power producing engines	Semi-mature	For smaller vessels and in ports with developed solutions for larger vessels
	Steam plant operation improvement	Improve operations and maintenance of steam plant system saving fuel on oil fired boiler	Mature	Mainly crude and product tankers
	Waste heat recovery systems	Recover thermal energy from the exhaust gas and convert it into electrical energy	Semi-mature	All vessels with engines above 10 MW

SUPPLEMENT TO 5440 GHG EMISSIONS - CO2

PROPULSION AND HULL IMPROVEMENTS

Technologies in this group focus on improving the hydrodynamic performance of the vessel. This includes solutions that reduce the resistance of the vessel and/or also improve the propulsive efficiency of the vessel. Examples include measures such as propeller polishing, hull cleaning, PIDs (Propulsion Improving Devices), air lubrication and more.

Y?	NAME	FUNCTION	TECHNICAL MATURITY*	APPLICABILITY
	Air cavity lubrication	Use of air injection on the wetted hull surfaces to improve a ship's hydrodynamic performance	Semi-mature	Most vessels in deep sea trade
	Hull cleaning	Removal of fouling on the hull to increase the vessel's hydrodynamic performance	Mature	All vessels
	Hull coating	Reduction of the hull's resistance through water	Mature	All vessels
	Hull form optimization	Optimizing the hull for lower resistance through water	Mature	All vessels
	Hull retrofitting	Retrofitting of the bulbous bow, optimizing thruster tunnels or bilge keel to reduce resistance	Mature	All vessels
	Propeller polishing	Removal of fouling on the propeller	Mature	All vessels
	Propeller retrofitting	Retrofitting the propeller to increase efficiency	Semi-mature	All vessels
	Propulsion Improving Devices (PIDs)	Installation of propulsion improving devices	Mature	All vessels

ENERGY CONSUMERS

Consumers are equipment or devices that use energy when operated. Technologies in this group focus on minimizing the energy consumption by improving the device or optimizing the utilization of the device. Examples of measures in this group are frequency controllers, cargo handling systems, low energy lighting and more.

Y?	NAME	FUNCTION	TECHNICAL MATURITY*	APPLICABILITY
	Cargo handling systems (Cargo discharge operation)	Reduction of energy consumption while discharging crude oil by use of model-based studies of the discharge operation	Semi-mature	Tankers
	Energy efficient lighting system	Use of energy efficient lighting equipment, such as LED light, to increase efficiency and remove heat loss from light devices	Mature	All vessels
	Frequency controlled electric motors	Regulating the frequency of the motors in order to adapt the motor optimized load	Mature	All vessels

SUPPLEMENT TO 5440 GHG EMISSIONS - CO2

ENERGY RECOVERY

Technologies in this group focus on capturing energy from the surroundings of the vessel and using or transforming this to useful energy for the vessel. This involves measures such as application of kites, fixed sails or wings, Flettner rotors, or solar panels.

Y?	NAME	FUNCTION	TECHNICAL MATURITY*	APPLICABILITY
	Fixed sails or wings	Use sails or wings to replace some of the propulsion power needed	Not mature	Vessels with enough place on deck (general cargo, tankers, bulkers)
	Flettner rotors	Use Flettner rotors to generate power from wind energy	Not mature	Dependent on trading area and sufficient free deck-surface
	Kite	Use a kite to replace some of the propulsion power needed	Not mature	All vessels
	Solar panels	Install solar panels for conversion of solar energy to electricity	Not mature	Dependent on trading area and sufficient free deck-surface

TECHNICAL SOLUTIONS FOR OPTIMIZING OPERATION

Technologies in this group focus on improving the operation of the vessel more than improving the vessel itself. The list of suggested measures includes both technologies and suggestions for best practice (without direct application of a technology). Measures in this group include trim and draft optimization, speed management, autopilot adjustment and use, combinator optimizing, and others.

Y?	NAME	FUNCTION	TECHNICAL MATURITY*	APPLICABILITY
	Autopilot adjustment and use	Use of an automatic system to control the vessel's rudder in a more energy efficient manner	Mature	All vessels
	Combinator optimizing	Use of optimized pitch settings and propeller speed for optimized efficiency of propulsion system	Mature	For vessels with controllable pitch propeller
	Efficient DP Operation	Optimize the operation in DP mode	Semi-mature	Vessels with DP mode
	Speed management	Management of the vessel's speed in the most efficient manner	Semi-mature	All vessels
	Trim and draft optimization	Optimizing the trim and draft to reduce the vessel's water resistance	Semi-mature	All vessels
	Weather routing	Including weather conditions when planning a voyage	Mature	All vessels

Definitions of maturity levels according to uptake across the maritime industry, and degree of proven technology/principle

Mature	Proven, new or existing technology/principle, with high uptake across the industry.
Semi-mature	Proven, new or existing technology/principle, but with limited uptake across the industry.
Not mature	New unproven-, unproven existing- , or proven existing technology/principle but with very few installations and little to no operational experience.

*This Information Portal is still under development and further images will be added.

This Energy Efficiency Technologies Information Portal was developed in cooperation with DNV GL.

This webpage serves as an Information Portal for Energy Efficiency Technologies for Ships. IMO does not make any warranties or representations as to the accuracy or completeness of the information provided.

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APPENDIX 5

CHECKLIST - VISUAL INSPECTION - LNG CARRIER STEAM TURBINE

(LMC-10)

GREEN AWARD VISUAL INSPECTION - LNG - STEAM TURBINE		
Norm item		Inspection Focus
8100	**Machinery**	
8101	**Reports**	
8101.1	Classification reports	Survey reports with recommendations and conditions of class, repairs
8101.2	State Authority reports	Survey reports, recommendations
8101.3	Company Reports	Inspection, repair, maintenance, planning, dry-dock reports by ship's staff and superintendents
8101.4	Inspection guidelines	Guidelines on the means of access to structures for inspection and maintenance of oil tankers and bulk carriers, MSC/Circ.686
8101.5	Other reports	Vetting reports by chartering companies and independent surveyors
8102	**Engine Room**	
8102.1	Overall tidiness of E.R. space	Unsecured and loose material, tools and E.R. spare-parts
8102.2	General cleanliness of E.R.	Oil- & gas-free environment
8102.3	Storage E.R. equipment	Equipment stored at designated places
8102.4	Handling of general E.R. waste	General waste stored & handled properly
8102.5	Indication of E.R. emergency escapes	Clearly visible and not obstructed
8102.6	Savealls	Oil, liquid and dirt free
8102.7	Workshop	Safety instructions near machinery (Grindstone, Lathe etc)
8103	**Main Propulsion**	
8103.1	Steam supply and exhaust	Leakage / condition of lagging, black spots and stripes / loose lagging
8103.2	Boiler and auxiliary machinery fuel lines Gas, H.P. & L.P.	Fuel pipes condition, protective devices, protecting pipe/cover, L.P. pipes check leakage and heating tracings
8103.3	Cleanliness of turbine	Valves, manouvering valves, hydraulic actuator and safety systems free from leakage and defects. Instrumentation operational.
8103.4	Instructions on emergency stand	Are there clear instructions available for changing over from normal to emergency conditions
8103.5	Condition of controllers / thermo couples & wiring	Loose wires, open doors of controllers
8103.6	Gas and Fuel oil system	Gas lines and protective systems free from defect. Fuel oil system filters for leakage, purifiers cleanness, area around purifiers
8103.7	Lub. oil system	Filters and safealls, purifiers condition
8103.8	Auxiliary generator starting air system	Condition of starting air lines and valves
8103.9	Cooling water system	Condition of expansion bellows
8104	**Auxiliary Engines**	
8104.1	General performance	
8104.2	Leakage, condition of fuel oil, lub. oil lines	Cracks, corrosion and / or pipes connections not tight
8104.3		Oil-, water-, corrosion- and dirt-free
8104.4	Emergency Generator	Condition and date last tested
8105	**Boilers**	
8105.1	Steam	
8105.2	Condition of burner front	Gas lines inspected and protective devices operational, oil fires free from leakage and air leakage. IR and UV detection system satisfactory.
8105.3	Lagging / isolation of fuel and steam lines	Condition of lagging
8105.4		Check possible leakages bellows / quick closing valves
8105.5	Boiler bilge / Saveall	Oil-, water-, corrosion- and dirt-free

GREEN AWARD VISUAL INSPECTION - LNG - STEAM TURBINE		
Norm item		Inspection Focus
8100	**Machinery**	
8106	**Bilge System**	
8106.1	Cleanliness of bilges on every platform	Presence of oil, water, corrosion and / or dirt
8106.2	Bilge separator, position of all valves	
8106.3	In port overboard valve sealed	
8106.4	Condition and record regarding oily-bilge separator	Check Oil Record Book - Machinery Space Operations
8106.5	Bilge alarms	Alarms high level & high-high level in good condition
8106.6	Emergency Bilge Suction valve	Check condition / last time tested
8106.7	Double bottom sounding pipes	Check functioning self closing valves
10107	**Ballast Pumps**	
10107.1	Condition of pumps	Check functioning of pumps
10107.2	Condition of ballast system	Functioning of all pumps combined
10107.3	Condition of supports	Corrosion, cracks, deformation of pump-supports
8107	**Piping Systems**	
8107.1	General condition	Check for leakage and / or temporary repairs
8107.2	Condition of piping supports	Check for corroded, broken and / or missing supports
8108	**General Service Air Systems**	
8108.1	Condition of air and oil drains	Check good working
8108.2	Condition of pipe lines	Check for leakage and / or temporary repairs
8108.3	Condition of safety valves	Check free movement
8109	**Chemicals**	
8109.1	Sufficient Personal Protecting Equipment available	Near storage place and users place
8109.2	Sufficient signboards available	Near storage place and users place
8109.3	Storage of chemicals according safety rules	According makers safety instructions
8110	**Electrical**	
8110.1	Generator inspections during operation max. load	
8110.2	Examination of cables without attachments	Cable supports bulkhead and deck penetrations
8110.3	Electrical equipments in acc. with danger zones	Zeners barriers etc.
8111	**Inert Gas Plant**	
8111.1	Inert Gas system fully operational	
8111.2	Condition of all instrumentation	Special O2 meter
8111.3	Condition of all alarms and trips	High and low level alarms etc.
8112	**Sewage Plant**	
8112.1	Sewage Plant fully operational	Alarms, level switches etc.
8112.2	Position of valves correct	Check if the by-pass valves are closed
8113	**Fire Pumps**	
8113.1	Position of fire pump valves	Are instructions available for position of valves
8113.2	General check of emergency fire pump	Position of fuel valve, content of fuel tank etc.
8114.3	Operating instructions of fire pump and drive unit	Clear instruction board available
8114	**Emergency Electrical Stops**	
8114.1	Emergency stops of general service pumps	Last time tested
8114.2	Emergency stops of steering gear pumps	Last time tested
8114.3	Emergency stops of fans	Last time tested
8114.4	Independent level ESD	Last time tested
8114.5	EMERGENCY ESD	Last time tested
8115	**Quick Closing Valves**	
8115.1	Condition of closing valve station	Check for clear instructions
8115.2	Condition of closing valves E.R.	Check for obstructions or other objects

GREEN AWARD VISUAL INSPECTION - LNG - STEAM TURBINE		
Norm item		Inspection Focus
8100	**Machinery**	
8116	**Gauge Glasses Class**	
8116.1	Condition of gauge glasses closing valves	Check proper working and if they are normal closed
8116.2	Condition of gauge glasses lub. oil tanks	Check proper working and if they are normal closed
8116.3	Condition of gauge glasses chemical tanks	Check proper working and if they are normal closed
8116.4	Condition of gauge glasses fuel tanks	Check proper working and if they are normal closed
8117	**Ventilation**	
8117.1	Fire flaps in trunks engine room	Check markers open/close and proper working
8117.2	Fire flaps	Check proper working
8118	**Exhaust gases of machinery**	
8118.1	Emission of main engines	Content NOX en SOX
8200	**Steering Gear**	
8201	**SOLAS requirements**	
8201.1	Steering gear unit complies with SOLAS	
8201.2	Steering gear room complies with SOLAS	
8202.3	Steering gear unit - and room cleanness	Check for hydraulic leaks, presence of water and / or oil in drip-trays
8203	**Change over procedures**	
8203.1	Emergency steering gear change over procedures	Signs posted with instructions for emergency change-over
8203.2	Procedures for emergency change over visible	Clearly visible near controls of steering gear unit
8204	**Testing**	
8204.1	Emergency steering tested recently	Check records in engine / deck logbook
8204.2	Steering Gear	Check records in engine / deck logbook. Testing before arrival and departure.
8205	**Charging emergency header tank**	
8205.1	Emergency header tank fully charged	Tankers over 10.000 GT must have fixed tank with sufficient capacity to recharge min. one unit
8205.2	Fixed storage tank installed	
8206	**Compass**	
8206.1	Compass present in steering gear room	
8206.2	Compass clearly visible from control-station	
8207	**Bridge Communications**	
8207.1	Satisfactory communications with bridge	
8207.2	Telephone available and working	
8207.3	Sound powered telephone available and working	
8207	**Visibility of Rudder Angle Indicator**	
8207.1	Rudder angle indicator present	
8207.2	Rudder angle indicator visible at steering position	
8208	**Access to Steering Gear**	
8208.1	Entrance door to steering gear room closed	Door to be kept closed at all times and not lashed or blocked in open position
8208.2	Access to steering gear unit unobstructed	Steering gear room should be uncluttered with easy access to all components of the system
8208.3	Safety and protection measures fitted	Vessels > 10.000 GT should have railings around the steering gear and deck non-slip surface
8208.4	Bilge alarms	Alarms high level & high-high level in good condition

GREEN AWARD VISUAL INSPECTION - LNG - STEAM TURBINE		
Norm item		Inspection Focus
8300	**Cargo / Ballast System**	
8301	**Drawings / Diagrams in Cargo Control Room**	
8301.1	All relevant drawings and diagrams available	Pipeline diagrams, mimic diagrams etc should be available in CCR
8301.2	Drawings visible inside CCR	Drawings clearly visible and understandable for operation
10301.3	Loading manual / history reports	Check for typical loading / unloading sequences
8302	**Functioning of Cargo systems and Ballast Pumps**	
8302.1	Ballast pumps working	
8302.2	Main Cargo and stripping pumps with temperature sensors readout in CCR	
8302.3	Tank protection and containment systems monitored with readout in CCR	
8302.4	High duty compressor systems fitted with monitoring and safety systems. Running condition monitored in CCR	
8302.5	Tank pressure control system fitted with monitoring, control and safety devices. Running condition monitored and controlled from CCR	
8302.6	Fuel gas delivery system fitted with control, monitoring and safety devices. Running condition monitored from CCR and/or ECR	
8302.7	Is all equipment combined working	Malfunctioning often indicator
8303	**Functioning Pump Controls/Turbine Controls**	
8303.1	Pump controls functioning	
8303.2	Pump alarms functioning	
8303.3	Turbine trips functioning	N/A
8303.4	Regular tests conducted	
8303.5	Tests recorded	
8304	**Gauges and Tachometers**	
8304.1	Cargo / Ballast pump gauges operational	
8304.2	Cargo / Ballast pump tachometers operational	
8305	**Engine / Pump Room Seals**	
8306	**Cargo Control Room Communications**	
8306.1	Communication satisfactory	Communication between Cargo Control Room / ECR
8306.2	Communication operational	
8300	**Cargo / Ballast System**	
8307	**Meters / Displays Inside Compressor House and E.R.**	
8307.1	Suction,discharge, temperature and control instruments.	
8307.2	Continuous monitoring of gases	
8307.3	Ballast equipment bearings / pump casing instrumentation	
8307.4	Bilge alarms in ER, cofferdams and side passage ways	
8308	**Electrical Equipment**	
8308.1	Equipment installed explosion-proof	Light,control equipment, cargo machinery interlocks etc
8308.2	Ventilation and cargo system interlocked	Ventialtion stops with failure of ventilation.
8308.3	Condition of electrical safety barriers	Intrinsically safe barrier interface
8309	**Oil Discharge Monitoring Equipment**	
8309.1	Oil discharge monitor	N/A
8309.2	Recorder	N/A
8310	**Vapour return system**	
8310.1	Cargo vapour return system	According IMO guidelines

GREEN AWARD VISUAL INSPECTION - LNG - STEAM TURBINE		
Norm item		Inspection Focus
8400	**Structural**	
8401	**Drawings**	
8401.1	Review of all relevant structural drawings	Overview structural design and scantlings
8402	**Reports**	
8402.1	Classification reports	Survey reports with thickness readings, recommendations and conditions of class, repairs
8402.2	State Authority reports	Survey reports, recommendations
8402.3	Company Reports	Inspection reports, repair, maintenance and dry-dock reports by ship's staff and superintendents
8402.4	Inspection guidelines	Guidelines on the means of access to structures for inspection and maintenance of oil tankers and bulk carriers, MSC/Circ.686
8402.5	Other reports	Vetting reports by chartering companies and independent surveyors
8403	**External Hull**	
8403.1	Shell plating	Check for indents, cracks, corrosion, pitting, paint condition, local rust and / or cargo stripes
8404	**Cargo Tanks**	
8404.1	Structural integrity	Docking inspection. Cold spot at sea
8404.2	Corrosion condition	Cold spot inspection
8404.3	Corrosion protection system	Condition of coating and / or sacrificial anodes
8404.4	Pipelines and valves	Condition pipes, supports, coupling, flanges, deformations and leakages
8404.5	Miscellaneous equipment	Condition of cargo control, heating systems and access facilities
8405	**Ballast Tanks**	
8405.1	Structural integrity	Deformations, cracks, leakages of bulkheads, stringers, webs, girders
8405.2	Corrosion condition	Corrosion and / or corrosion pattern of structural design
8405.3	Corrosion protection system	Condition of coating and / or sacrificial anodes
8405.4	Pipelines and valves	Condition pipes, supports, coupling, flanges, deformations and leakages
8405.5	Miscellaneous equipment	Condition ballast pumps, ballast control, access facilities
8406	**Void spaces / Cofferdams**	
8406.1	Structural integrity	Deformations, cracks, leakages of bulkheads, stringers, webs, girders
8406.2	Corrosion condition	Corrosion and / or corrosion pattern of structural design
8406.3	Corrosion protection system	Condition of coating and / or sacrificial anodes
8406.4	Pipelines and valves	Condition pipes, supports, coupling, flanges, deformations and leakages
8404.5	Miscellaneous equipment	Condition emergency pumps / controls, access facilities
8409	**Pump Room / UNDER PASSAGE SPACES**	
8409.1	Structural integrity	Condition check, deformation, cracks, corrosion
8409.2	Sea-inlet boxes	N/A
8409.3	Pipelines, valves, couplings, overboard connection	Check corrosion, working conditions and leakages
8409.4	Bilge level monitoring devices and bilge alarms installed	
8409.5	Ventilation system	Condition fans, trunking and closing devices

GREEN AWARD VISUAL INSPECTION - LNG - STEAM TURBINE		
Norm item		Inspection Focus
8400	**Structural**	
8407	**Main Deck & Fittings**	
8407.1	Deck plating - Deformations	May indicate problems from underneath, stiffeners or underneath deck-plating
8407.2	Deck plating - Fractures	May indicate substantial corrosion and / or local stress areas
8407.3	Deck plating - Damages	Caused by collisions and / or under-/overpressure cargo tanks
8407.4	Deck plating - Corrosion	If substantial indicate pattern, density and locations
8407.5	Tank entrances and deck openings	Condition check of covers and closing devices
8407.6	Pipeline couplings, flanges, branches and supports	Condition check, deformation, cracks, corrosion, thightness
8407.7	Ventilation - pipes / ducts	Condition check of covers, closing devices, flame screens, floating locks
8407.8	Inert Gas valves, non return valves, P/V breaker, mast riser	Condition check
8407.9	P/V valves on every separate tank	Condition check and check double means for P/V
8407.10	Bunker connections fwd & aft at SB & PS cargo-manifold	
8407.11	Emergency stop at cargo manifold	Condition check
8407.12	Permanent drip-trays on open deck where spills may occur	
8407.13	Are these drip-trays clean and properly closed	
8407.14	Distance presentation flanges - ship's side > 4,6 mtr	
8407.15	Manifold spill-tank length extending beyond bunker connection	
8407.16	Manifold spill-tank 1,8 mtr. in width and reaching 1,2 mtr beyond reducer presentation flanges	
8407.17	Manifold spill-tank minimum depth of 300 mm	
8407.18	Suitable means provided for draining manifold spill-tank	
8407.19	Manifold spill-tank clean and empty	
8407.20	Manifold spill-tank well maintained	
8407.21	Continuous deckedge fishplate height / deck scupper closing devices	
8407.22	Emergency pump fixed or portable	
8407.23	Dropvalves from spill-tanks to sloptanks on deck	
8407.24	Arrangements for continuous draining of rain water	
8407.25	Hose handling, stores handling	Check certificates and working order
8407.26	Sufficient tank-openings for portable COW to reach all shadow areas	In accordance with shadow diagram class
8407.27	Safe access to bow and main deck railing	Check condition and compliance new rules
8407.28	Adequate supports installed abeam of manifold for cargo-hoses	Fitting of cargo hose rail
8407.29	Bunker and oil tank derating pipes	Check flame screens and coamings
8410	**Accomodation & Machinery Spaces**	
8410.1	Structural integrity	General condition, damages & defects
8410.2	Doors, windows, ventilation ducts, closing devices	Condition check and water tightness
8410.3	Stairs and platforms	Condition check, corrosion / deformations
8410.4	Pipelines, valves, couplings, overboard connection	Condition check
8410.5	Safety equipment	Condition check CO2, Halon system, extinguishers, fire hoses, alarms etc.
8410.6	Certificates for safety equipment	
8411	**Mooring equipment**	
8411.1	Mooring lines	Condition mooring lines
8411.2	Winches	Foundation bolts firm, casing crack-, corrosion-free, no leakages and saveall
8411.3	Condition winch-brakes	Check last test report and thickness linings
8412	**Anchoring equipment**	
8412.1	Anchors, anchor shackles and chain	Wear, corrosion, clearances inside hawser pipe
8412.2	Anchor winch and associated gear	Foundation, no leakages, condition of brakes, hinges and hinge plates
8412.3	Anchor securing	Condition and workable
8413	**Emergency towing system**	
8413.1	Condition emergency towing equipment aft ship	Check wires etc.
8413.2	Condition emergency towing equipment fore ship	

GREEN AWARD VISUAL INSPECTION - LNG - STEAM TURBINE		
Norm item		Inspection Focus
8500	**Safety / Rescue**	
8501	**Safety equipment**	
8501.1	Certificates	Check certificates, reports and safety drills
8501.2	Safety plan	Check available and clearly visible
8502	**Rescue equipment**	
8502.1	Life boat + davits	Check condition (incl. Cathodic wear) and working order
8502.2	Rescue boat + davits	Check condition (incl. Cathodic wear) and working order
8502.3	Life rafts + release system	Check condition (incl. Cathodic wear) and working order
8502.4	Accommodation ladders, pilot ladders and gangway	Check condition and working order
8502.6	Life jackets	Check condition and working order
8502.7	Life buoys	Check condition (incl. Cathodic wear) and working order
8503	**Fire fighting**	
8503.1	CO2 / Halon system	Pressure gauges / indicators on bottles / pipelines / nozzles
8503.2	Foamtank	Content / Filling
8503.3	Foam monitors on deck	Check condition and working order
8503.4	Fire control plans	Check available and clearly visible
8503.5	Portable fire extinguishers	Check ready for use, last check date
8503.6	Fireman's outfit	Check ready for use, easy accessable
8503.7	Breathing Apparatus charging compressor	Check ready for use, easy accessable
8503.8	International Ship/Shore Fire connection	Check available both sides
8503.9	Fire alarm system and detectors	Check test records, condition in accommodation, ER and boiler room
8503.10	Fire flaps and vent stops	Check condition on deck, accommodation, ER and boiler room and clearly marked
8503.11	Fire lines	Check condition on deck, accommodation, ER and boiler room
8503.12	Fire hoses	Check condition on deck, accommodation, ER and boiler room
8503.13	Fire system for scavenging air receiver and boiler front	Check condition and working order separate fire fighting system
8504	**Escape routes**	
8504.1	Free access	Check free access without obstructions
8504.2	Indicators	Check clear markers / positioning
8504.3	Emergency lighting	Check clear markers / positioning
8505	**Oil Spill Response Equipment**	
8505.1	Oil Pollution Emergency Plan	Check availability
8505.2	Emergency equipment	Check content and working order

APPENDIX 6

CHECKLIST - VISUAL INSPECTION -
LNG CARRIER MOTOR WITH RELIQUEFICATION

(LMC-10)

GREEN AWARD VISUAL INSPECTION - LNG - MOTOR WITH RELIQUEFICATION		
Norm item		**Inspection Focus**
8100	**Machinery**	
8101	**Reports**	
8101.1	Classification reports	Survey reports with recommendations and conditions of class, repairs
8101.2	State Authority reports	Survey reports, recommendations
8101.3	Company Reports	Inspection, repair, maintenance, planning, dry-dock reports by ship's staff and superintendents
8101.4	Inspection guidelines	Guidelines on the means of access to structures for inspection and maintenance of oil tankers and bulk carriers, MSC/Circ.686
8101.5	Other reports	Vetting reports by chartering companies and independent surveyors
8102	**Engine Room**	
8102.1	Overall tidiness of E.R. space	Unsecured and loose material, tools and E.R. spare parts
8102.2	General cleanliness of E.R.	Oil- & gas-free enviroment
8102.3	Storage E.R. equipment	Equipment stored at designated places
8102.4	Handling of general E.R. waste	General waste stored & handled properly
8102.5	Indication of E.R. emergency escapes	Clearly visible and not obstructed
8102.6	Savealls	Oil, liquid and dirt free
8102.7	Workshop	Safety instructions near machinery (Grindstone, Lathe etc)
8103	**Main Propulsion**	
8103.1	Exhaust gas lines	Leakage / condition of lagging, black spots and stripes / loose lagging
8103.2	Fuel lines H.P. & L.P.	H.P. pipes condition of protecting pipe/cover, L.P. pipes check leakage and heating tracings
8103.3	Cleanliness of cylinder heads	Fuel oil, cooling water, lub. oil and exhaust gas leaks
8103.4	Instructions on emergency stand	Are there clear instructions available for changing over from normal to emergency conditions
8103.5	Condition of controllers / thermo couples & wiring	Loose wires, open doors of controllers
8103.6	Fuel oil system	Filters for leakage, purifiers cleannes, area around purifiers
8103.7	Lub. oil system	Filters and safealls, purifiers condition
8103.8	Starting air system	Condition of starting air lines and valves
8103.9	Cooling water system	Condition of expansion bellows
8104	**Auxiliary Engines**	
8104.1	General performance	
8104.2	Leakage, condition of fuel oil, lub. oil lines	Cracks, corrosion and / or pipes connections not tight
8104.3		Oil-, water-, corrosion- and dirt-free
8104.4	Emergency Generator	Condition and date last tested
8105	**Boilers**	
8105.1	Steam or Thermal oil	
8105.2	Condition of burner front	Oil leakage, and air leakage
8105.3	Lagging / isolation of fuel and steam lines	Condition of lagging
8105.4	Thermal Oil	Check possible leakages bellows / quick closing valves
8105.5	Boiler bilge / Saveall	Oil-, water-, corrosion- and dirt-free
8106	**Bilge System**	
8106.1	Cleanlines of bilges on every platform	Presence of oil, water, corrosion and / or dirt
8106.2	Bilge separator, position of all valves	
8106.3	In port overboard valve sealed	
8106.4	Condition and record regarding oily-bilge separator	Check Oil Record Book - Machinery Space Operations
8106.5	Bilge alarms	Alarms high level & high-high level in good condition
8106.6	Emergency Bilge Suction valve	Check condition / last time tested
8106.7	Double bottom sounding pipes	Check functioning self closing valves

GREEN AWARD VISUAL INSPECTION - LNG - MOTOR WITH RELIQUEFICATION		
Norm item		**Inspection Focus**
8100	**Machinery**	
10107	**Ballast Pumps**	
10107.1	Condition of pumps	Check functioning of pumps
10107.2	Condition of ballast system	Functioning of all pumps combined
10107.3	Condition of supports	Corrosion, cracks, deformation of pump supports
8107	**Piping Systems**	
8107.1	General condition	Check for leakage and / or temporary repairs
8107.2	Condition of piping supports	Check for corroded, broken and / or missing supports
8108	**General Service Air Systems**	
8108.1	Condition of air and oil drains	Check good working
8108.2	Condition of pipelines	Check for leakage and / or temporary repairs
8108.3	Condition of safety valves	Check free movement
8109	**Chemicals**	
8109.1	Sufficient Personal Protecting Equipment available	Near storage place and users place
8109.2	Sufficient signboards available	Near storage place and users place
8109.3	Storage of chemicals according safety rules	According makers safety instructions
8110	**Electrical**	
8110.1	Generator inspections during operation max. load	
8110.2	Examination of cables without attachments	Cable supports bulkhead and deck penetrations
8110.3	Electrical equipments in acc. with danger zones	Zeners barriers etc.
8111	**Inert Gas Plant**	
8111.1	Inert Gas system fully operational	
8111.2	Condition of all instrumentation	Special O2 meter
8111.3	Condition of all alarms and trips	High and low level alarms etc.
8112	**Sewage Plant**	
8112.1	Sewage Plant fully operational	Alarms, level switches etc.
8112.2	Position of valves correct	Check if the by-pass valves are closed
8113	**Fire Pumps**	
8113.1	Position of fire pump valves	Are instructions available for position of valves
8113.2	General check of emergency fire pump	Position of Fuel valve, Content of fuel tank etc.
8114.3	Operating instructions of fire pump and drive unit	Clear instruction board available
8114	**Emergency Electrical Stops**	
8114.1	Emergency stops of general service pumps	Last time tested
8114.2	Emergency stops of steering gear pumps	Last time tested
8114.3	Emergency stops of fans	Last time tested
8114.4	Independent level ESD	Last time tested
8114.5	EMERGENCY ESD	Last time tested
8115	**Quick Closing Valves**	
8115.1	Condition of closing valve station	Check for clear instructions
8115.2	Condition of closing valves E.R.	Check for obstructions or other objects
8116	**Gauge Glasses Class**	
8116.1	Condition of gauge glasses closing valves	Check proper working and if they are normal closed
8116.2	Condition of gauge glasses lub. oil tanks	Check proper working and if they are normal closed
8116.3	Condition of gauge glasses chemical tanks	Check proper working and if they are normal closed
8116.4	Condition of gauge glasses fuel tanks	Check proper working and if they are normal closed

GREEN AWARD VISUAL INSPECTION - LNG - MOTOR WITH RELIQUEFICATION		
Norm item		**Inspection Focus**
8117	**Ventilation**	
8117.1	Fire flaps in trunks engine room	Check markers open/close and proper working
8117.2	Fire flaps	Check proper working
8118	**Exhaust gases of machinery**	
8118.1	Emission of main engines	Content NOX en SOX
8200	**Steering Gear**	
8201	**SOLAS requirements**	
8201.1	Steering gear unit complies with SOLAS	
8201.2	Steering gear room complies with SOLAS	
8202.3	Steering gear unit - and room cleanness	Check for hydraulic leaks, presence of water and / or oil in drip-trays
8203	**Change over procedures**	
8203.1	Emergency steering gear change over procedures	Signs posted with instructions for emergency change-over
8203.2	Procedures for emergency change over visible	Clearly visible near controls of steering gear unit
8204	**Testing**	
8204.1	Emergency steering tested recently	Check records in engine / deck logbook
8204.2	Steering Gear	Check records in engine / deck logbook. Testing before arrival and departure.
8205	**Charging emergency header tank**	
8205.1	Emergency header tank fully charged	Tankers over 10.000 GT must have fixed tank with sufficient capacity to recharge min. one unit
8205.2	Fixed storage tank installed	
8206	**Compass**	
8206.1	Compass present in steering gear room	
8206.2	Compass clearly visible from control-station	
8207	**Bridge Communications**	
8207.1	Satisfactory communications with bridge	
8207.2	Telephone available and working	
8207.3	Sound powered telephone available and working	
8207	**Visibility of Rudder Angle Indicator**	
8207.1	Rudder angle indicator present	
8207.2	Rudder angle indicator visible at steering position	
8208	**Access to Steering Gear**	
8208.1	Entrance door to steering gear room closed	Door to be kept closed at all times and not lashed or blocked in open position
8208.2	Access to steering gear unit unobstructed	Steering gear room should be uncluttered with easy access to all components of the system
8208.3	Safety and protection measures fitted	Vessels > 10.000 GT should have railings around the steering gear and deck non-slip surface
8208.4	Bilge alarms	Alarms high level & high-high level in good condition

GREEN AWARD VISUAL INSPECTION - LNG - MOTOR WITH RELIQUEFICATION		
Norm item		**Inspection Focus**
8300	**Cargo / Ballast System**	
8301	**Drawings / Diagrams in Cargo Control Room**	
8301.1	All relevant drawings and diagrams available	Pipeline diagrams, mimic diagrams etc should be available in CCR
8301.2	Drawings visible inside CCR	Drawings clearly visible and understandable for operation
10301.3	Loading manual / history reports	Check for typical loading / unloading sequences
8302	**Functioning of Cargo systems and Ballast Pumps**	
8302.1	Ballast pumps working	
8302.2	Main Cargo and stripping pumps with temperature sensors readout in CCR	
8302.3	Tank protection and containment systems monitored with readout in CCR	
8302.4	High duty compressor systems fitted with monitoring and safety systems. Running condition monitored in CCR	
8302.5	Tank pressure control system fitted with monitoring, control and safety devices. Running condition monitored and controlled from CCR	
8302.6	Gas burning system (GCU) fitted with control, monitoring and safety devices. Running condition monitored from CCR and/or ECR	
8302.7	Is all equipment combined working	Malfunctioning often indicator
8300	**Cargo / Ballast System**	
8303	**Functioning Pump Controls/Turbine Controls**	
8303.1	Pump controls functioning	
8303.2	Pump alarms functioning	
8303.3	Turbine trips functioning	N/A
8303.4	Regular tests conducted	
8303.5	Tests recorded	
8304	**Gauges and Tachometers**	
8304.1	Cargo / Ballast pump gauges operational	
8304.2	Cargo / Ballast pump tachometers operational	
8305	**Engine / Pump Room Seals**	
8306	**Cargo Control Room Communications**	
8306.1	Communictaion satisfactory	Communication between Cargo Control Room / ECR
8306.2	Communication operational	
8307	**Meters / Displays Inside Compressor House and E.R.**	
8307.1	Suction,discharge, temperature and control instruments	
8307.2	Continouos monitoring of gases	
8307.3	Ballast equipment bearings / pump casing instrumentation	
8307.4	Bilge alarms in ER, cofferdams and side passage ways	
8308	**Electrical Equipment**	
8308.1	Equipment installed explosion-proof	Light,control equipment, cargo machinery interlocks etc
8308.2	Ventilation and cargo system interlocked	Ventialtion stops with failure of ventilation.
8308.3	Condition of electrical safety barriers	Intrinsically safe barrier interface
8309	**Oil Discharge Monitoring Equipment**	
8309.1	Oil discharge monitor	N/A
8309.2	Recorder	N/A
8310	**Vapour return system**	
8310.1	Cargo vapour return system	According IMO guidelines

GREEN AWARD VISUAL INSPECTION - LNG - MOTOR WITH RELIQUEFICATION		
Norm item		**Inspection Focus**
8400	**Structural**	
8401	**Drawings**	
8401.1	Review of all relevant structural drawings	Overview structural design and scantlings
8402	**Reports**	
8402.1	Classification reports	Survey reports with thickness readings, recommendations and conditions of class, repairs
8402.2	State Authority reports	Survey reports, recommendations
8402.3	Company Reports	Inspection reports, repair, maintenance and dry-dock reports by ship's staff and superintendents
8402.4	Inspection guidelines	Guidelines on the means of access to structures for inspection and maintenance of oil tankers and bulk carriers, MSC/Circ.686
8402.5	Other reports	Vetting reports by chartering companies and independent surveyors
8403	**External Hull**	
8403.1	Shell plating	Check for indents, cracks, corrosion, pitting, paint-condition, local rust and / or cargo stripes
8404	**Cargo Tanks**	
8404.1	Structural integrity	Deformations, cracks, leakages of bulkheads, stringers, webs, girders
8404.2	Corrosion condition	Corrosion and / or corrosion pattern of structural design
8404.3	Corrosion protection system	Condition of coating and / or sacrificial anodes
8404.4	Pipelines and valves	Condition pipes, supports, coupling, flanges, deformations and leakages
8404.5	Miscellaneous equipment	Condition cargo pumps, cargo control, tank cleaning / tank heating systems, access facilities
8400	**Structural**	
8405	**Ballast Tanks**	
8405.1	Structural integrity	Deformations, cracks, leakages of bulkheads, stringers, webs, girders
8405.2	Corrosion condition	Corrosion and / or corrosion pattern of structural design
8405.3	Corrosion protection system	Condition of coating and / or sacrificial anodes
8405.4	Pipelines and valves	Condition pipes, supports, coupling, flanges, deformations and leakages
8405.5	Miscellaneous equipment	Condition ballast pumps, ballast control, access facilities
8406	**Void spaces / Cofferdams**	
8406.1	Structural integrity	Deformations, cracks, leakages of bulkheads, stringers, webs, girders
8406.2	Corrosion condition	Corrosion and / or corrosion pattern of structural design
8406.3	Corrosion protection system	Condition of coating and / or sacrificial anodes
8406.4	Pipelines and valves	Condition pipes, supports, coupling, flanges, deformations and leakages
8404.5	Miscellaneous equipment	Condition emergency pumps / controls, access facilities
8409	**Pump Room / UNDER PASSAGE SPACES**	
8409.1	Structural integrity	Condition check, deformation, cracks, corrosion
8409.2	Sea-inlet boxes	N/A
8409.3	Pipelines, valves, couplings, overboard connection	Check corrosion, working conditions and leakages
8409.4	Bilge level monitoring devices and bilge alarms installed	
8409.5	Ventilation system	Condition fans, trunking and closing devices

GREEN AWARD VISUAL INSPECTION - LNG - MOTOR WITH RELIQUEFICATION		
Norm item		**Inspection Focus**
8407	**Main Deck & Fittings**	
8407.1	Deck plating - Deformations	May indicate problems from underneath, stiffeners or underneath deck-plating
8407.2	Deck plating - Fractures	May indicate substantial corrosion and / or local stress areas
8407.3	Deck plating - Damages	Caused by collisions and / or under-/overpressure cargo tanks
8407.4	Deck plating - Corrosion	If substantial indicate pattern, density and locations
8407.5	Tank entrances and deck openings	Condition check of covers and closing devices
8407.6	Pipeline couplings, flanges, branches and supports	Condition check, deformation, cracks, corrosion, thightness
8407.7	Ventilation - pipes / ducts	Condition check of covers, closing devices, flame screens, floating locks
8407.8	Inert Gas valves, non return valves, P/V breaker, mast riser	Condition check
8407.9	P/V valves on every separate tank	Condition check and check double means for P/V
8407.10	Bunker connections fwd & aft at SB & PS cargo-manifold	
8407.11	Emergency stop at cargo manifold	Condition check
8407.12	Permanent drip-trays on open deck where spills may occur	
8407.13	Are these drip-trays clean and properly closed	
8407.14	Distance presentation flanges - ship's side > 4,6 mtr	
8407.15	Manifold spill-tank length extending beyond bunker connection	
8407.16	Manifold spill-tank 1,8 mtr. in width and reaching 1,2 mtr beyond reducer presentation flanges	
8407.17	Manifold spill-tank minimum depth of 300 mm	
8407.18	Suitable means provided for draining manifold spill-tank	
8407.19	Manifold spill-tank clean and empty	
8407.20	Manifold spill-tank well maintained	
8407.21	Continuous deckedge fishplate height / deck scupper closing devices	
8407.22	Emergency pump fixed or portable	
8407.23	Dropvalves from spill-tanks to slop tanks on deck	
8407.24	Arrangements for continuous draining of rain water	
8407.25	Hose handling, stores handling	Check certificates and working order
8407.26	Sufficient tank-openings for portable COW to reach all shadow areas	In accordance with shadow diagram class
8407.27	Safe access to bow and main deck railing	Check condition and compliance new rules
8407.28	Adequate supports installed abeam of manifold for cargo-hoses	Fitting of cargo hose rail
8407.29	Bunker and oil tank derating pipes	Check flame screens and coamings
8410	**Accomodation & Machinery Spaces**	
8410.1	Structural integrity	General condition, damages & defects
8410.2	Doors, windows, ventilation ducts, closing devices	Condition check and water tightness
8410.3	Stairs and platforms	Condition check, corrosion / deformations
8410.4	Pipelines, valves, couplings, overboard connection	Condition check
8410.5	Safety equipment	Condition check CO2, Halon system, extinguishers, fire hoses, alarms etc.
8410.6	Certificates for safety equipment	
8411	**Mooring equipment**	
8411.1	Mooring lines	Condition mooring lines
8411.2	Winches	Foundation bolts firm, casing crack-, corrosion-free, no leakages and saveall
8411.3	Condition winch brakes	Check last test report and thickness linings

GREEN AWARD VISUAL INSPECTION - LNG - MOTOR WITH RELIQUEFICATION		
Norm item		**Inspection Focus**
8412	**Anchoring equipment**	
8412.1	Anchors, anchor shackles and chain	Wear, corrosion, clearances inside hawser pipe
8412.2	Anchor winch and associated gear	Foundation, no leakages, condition of brakes, hinges and hinge plates
8412.3	Anchor securing	Condition and workable
8413	**Emergency towing system**	
8413.1	Condition emergency towing equipment aft ship.	Check wires etc.
8413.2	Condition emergency towing equipment fore ship	
8500	**Safety / Rescue**	
8501	**Safety equipment**	
8501.1	Certificates	Check certificates, reports and safety drills
8501.2	Safety plan	Check available and clearly visible
8502	**Rescue equipment**	
8502.1	Life boat + davits	Check condition (incl. Cathodic wear) and working order
8502.2	Rescue boat + davits	Check condition (incl. Cathodic wear) and working order
8502.3	Life rafts + release system	Check condition (incl. Cathodic wear) and working order
8502.4	Accommodation ladders, pilot ladders and gangway	Check condition and working order
8502.6	Life jackets	Check condition and working order
8502.7	Life buoys	Check condition (incl. Cathodic wear) and working order
8503	**Fire fighting**	
8503.1	CO2 / Halon system	Pressure gauges / indicators on bottles / pipelines / nozzles
8503.2	Foamtank	Content / Filling
8503.3	Foam monitors on deck	Check condition and working order
8503.4	Fire control plans	Check available and clearly visible
8503.5	Portable fire extinguishers	Check ready for use, last check date
8503.6	Fireman's outfit	Check ready for use, easy accessable
8503.7	Breathing Apparatus charging compressor	Check ready for use, easy accessable
8503.8	International Ship/Shore Fire connection	Check available both sides
8503.9	Fire alarm system and detectors	Check test records, condition in accommodation, ER and boiler room
8503.10	Fire flaps and vent stops	Check condition on deck, accommodation, ER and boiler room and clearly marked
8503.11	Fire lines	Check condition on deck, accommodation, ER and boiler room
8503.12	Fire hoses	Check condition on deck, accommodation, ER and boiler room
8503.13	Fire system for scavenging air receiver and boiler front	Check condition and working order separate fire fighting system
8504	**Escape routes**	
8504.1	Free access	Check free access without obstructions
8504.2	Indicators	Check clear markers / positioning
8504.3	Emergency lighting	Check clear markers / positioning
8505	**Oil Spill Response Equipment**	
8505.1	Oil Pollution Emergency Plan	Check availability
8505.2	Emergency equipment	Check content and working order