

Green Award Foundation

Westerkade 7B | 3016 CL ROTTERDAM | The Netherlands | www.greenaward.org

Annex 3f: Green Award Requirements (LPG carrier) Version 2019

Checklists for Office Audits and Ship Surveys

Effective as of 1 April 2019



Annex 3f: Green Award Requirements LPG carrier)



LPG carriers

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Legend for Checklists

○	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 -
LPG CARRIER

(PMC-06)

CHECKLIST - BASIC CRITERIA - OFFICE AUDIT - LPG CARRIER- VERSION 2019																								
Revision Code	Norm item	 <div style="border: 1px solid black; padding: 10px; display: inline-block; text-align: center;"> <h2 style="margin: 0;">BASIC</h2> <h3 style="margin: 0;">Office - LPG</h3> </div>	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																							
101.1	Are the Management System (MS) Manuals maintained and updated?																							
102	SAFETY AND ENVIRONMENTAL PROTECTION POLICY																							
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																							
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																							
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																							
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?																							

CHECKLIST - BASIC CRITERIA - OFFICE AUDIT - LPG CARRIER- VERSION 2019																								
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			100	MANAGEMENT ELEMENTS (continued)																				
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?																							


CHECKLIST - BASIC CRITERIA - OFFICE AUDIT - LPG CARRIER- VERSION 2019																								
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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 and, in addition, are familiarized with the ECDIS unit(s) installed onboard?																						
	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																						
		<i>(Only applicable to new ships of a gross tonnage of 1,600 and above.)</i>																						
	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)															
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															
310.1	Does SMPEP include oil pollution emergency procedures?															
310.3	Is training and testing of the oil pollution emergency procedures done?															
310.4	Is the plan reviewed for oil pollution emergency procedures? (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 oil pollution emergency procedures?															
310.7	Does the company have a policy concerning the retention and disposal of oil residues (sludge)?															
320	Prevention of pollution by Cargo															
320.1	Is a shipboard marine pollution emergency plan developed? (SMPEP)															
320.2	Is training and testing of the pollution emergency plan done?															
320.3	Is the plan reviewed? (periodic and event review)															
320.4	Is office personnel familiar with the shipboard marine pollution emergency plan?															
350	Prevention of pollution by garbage															
350.2	Has the company developed a ship specific garbage management plan taking into account the number of people onboard, size/type and the trade area of the ship?															
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 -
LPG CARRIER

(PMC-07)


CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LPG CARRIER - VERSION 2019																										
Revision Code	Norm Item		<div style="border: 1px solid black; padding: 5px; text-align: center;"> <h1 style="margin: 0;">RANKING</h1> <h2 style="margin: 0;">Office - LPG</h2> </div>											GENERAL MAN.	QUALITY DEPT.	TECHNICAL DEPT.	NAUTICAL DEPT.	PERSONNEL DEPT.	OPER./CHART DEPT.	PURCHASING DEPT.	FINANCIAL DEPT.	IT DEPT.	INS- /CLAIM DEPT.	NOT APPLICABLE	RANKING SCORE	RANKING MAX. SCORE
			Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.													
1000	GENERAL																									
1100	Data Monitoring and Recording Equipment																									
1100.1	Is it company policy that the vessels constructed before 01/07/2002 are equipped with a "full" VDR?																						0	10		
1100.2	Is it a company policy that the vessels are equipped with a CCTV system, which has cameras located in <u>open deck spaces</u> ?																						0	5		
1100.6	Is it a company policy that the vessels are equipped with a CCTV system, which has cameras located in <u>engine room</u> ?																						0	5		
1100.7	Is it a company policy that the vessels are equipped with a CCTV system, which has cameras located in <u>cargo spaces</u> ?																						0	5		
1100.3	Is it company policy that the CCTV footage is recorded by VDR or backed-up by alternative means (minimum of 12 hours)?																						0	10		
Total score																							0	35		
Minimum ranking score required for element 1100 = 0																										
1200	Enclosed Space Entry & Hot Work																									
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 oxygen, flammable gases or vapours (% of LFL), carbon monoxide and hydrogen sulphide?																						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		
1200.16	Does the company provide ship specific lists that identify onboard enclosed spaces?																						0	5		
1200.17	Does the company specify PPE appropriate for low temperatures and liquefied gases cargoes?																						0	5		
Total score																							0	110		
Minimum ranking score required for element 1200 = 110																										


CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LPG CARRIER - VERSION 2019																											
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				1300	Compressor for the refilling of air cylinders for breathing apparatus or Alternative , Additional Green Award requirement					0		0															
	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 for 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																								
	1400	Control of drugs & alcohol onboard / Medical examination									0																
M/RR	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
M/RR	1400.1	Are all seafarers subject to shore-based drug and alcohol testing at least once in last 12 months?																								0	5
N	1400.5	Are all fleet vessels subject to unannounced drug and alcohol testing at least once in 12 months by an external organisation?																								0	5
N	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	10
N	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	15
RR	1400.4	Does the company have a procedure that a medical examination for crew members and office personnel regularly visiting ships includes testing on effects from carried cargoes?																								0	10
			Total score																				0	35			
			Minimum ranking score required for element 1400 = 20																								
	1500	Emergency Response System							0				0														
	1500.1	Is there a policy for implementation of an ERS for the tanker fleet? (an internal response system or an external service from an IACS class member)																								0	10
	1500.2	Are documents, procedures and instructions available?																								0	10
	1500.3	Are at least two of the emergency response team (ERT) members familiar with the ERS procedures?																								0	10
	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	75			
			Minimum ranking score required for element 1500 = 55																								

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LPG CARRIER - VERSION 2019																			
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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 asses 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																			


CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LPG CARRIER - VERSION 2019																		
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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	
M	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* If others = *fill during audit*															0	10
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																		
2000	NAVIGATION / BRIDGE OPERATIONS																	
2100	Navigation																	
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																		

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LPG CARRIER - VERSION 2019


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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	
																								0	60	
2120	Fuel Change Over / Ballast Water Exchange			0					0					0												
2120.1	Is it company policy that the voyage plan (checklist) include when fuel change over <u>should</u> be carried out?																							0	10	
2120.2	Is it company policy that the voyage plan (checklist) include when ballast water exchange <u>can</u> be carried out?																							0	10	
																								0	20	
2300	Mooring Operations								0																	
2300.1	Does the company have procedures/instructions for mooring/unmooring operations?																							0	10	
																								0	10	


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5000	PREVENTION OF POLLUTION																										
5200	Waste Management / Garbage Handling Onboard						o		o		o																
5200.14	Is it a company policy to perform a risk assessment before drafting Garbage Management Plan?																									0	10
5200.15	Is it a company policy that the personnel responsible for collection, storage, processing and disposal of garbage is designated and familiarized?																									0	5
5200.16	Does the company provide training/education programme for the crew in order to create awareness in relation to garbage management?																									0	5
5200.17	Does the company have a policy to reduce garbage at the source?																									0	5
5200.18	Does the company promote participating in the Global Observatory on Marine Litter?																									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
5200.13	Are shipboard crew encouraged by the company to deliver garbage ashore?																									0	10
5200.10	Is it a standard company practice that all operational waste is delivered ashore where reception facilities are available in order to minimise shipboard incineration and to reduce personnel exposure to toxic gases?																									0	10
5200.20	Is it a company policy that plastic is never incinerated?																									0	10
5200.21	Does the company provide guidelines to the crew members on sorting out of reusable and recyclable material?																									0	5
5200.22	Is it a company policy that all reusable and recyclable material are always delivered to the port reception facilities or reused onboard?																									0	5
5200.23	Does the company provide a list of hazardous garbage to create awareness among the crew (based on the current GESAMP list)?																									0	5
5200.24	Does the company provide a procedure to the crew members on storage/handling of hazardous garbage? (carcinogenic, mutagenic and reprotoxic substances)																									0	5
5200.25	Is it a company policy that all incinerated ashes and clinkers are always delivered to the port reception facilities?																									0	5
5200.28	Is it a company policy to use non harmful cleaning agents and additives for cleaning the deck and external surfaces?																									0	10
Total score																								0	100		
Minimum ranking score required for element 5200 = 55																											


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	Air Emission Reduction																
5410	NOx Emissions			0	0												
5410.1	<u>For ships keel laid on/after 01-01-2000</u> Does the company have a policy to initiate measures to reduce NOx emissions, below the Marpol limit, on existing main engines?													0	20		
5410.2	<u>For ships keel laid on/after 01-01-2000</u> Does the company have a policy to initiate measures to reduce NOx emissions below the Marpol limit on existing auxiliary engines?													0	20		
5410.3	<u>For ships keel laid between 01-01-1990 and 01-01-2000</u> (see Revised Marpol Annex VI) Is it company policy to install an "approved method" for NOx reduction on diesel engines? <i>* Installation takes place as soon as possible after "approved method" is certified by the administration</i> <i>* Applies to diesel engines power output >5,000 kW + per cylinder displacement at/above 90 litres</i>													0	40		
			Total score											0	80		
			Minimum ranking score required for element 5410 = 0														
	Measures taken to reduce NOx emissions				0												
	Modified fuel injection valves																
	Electronically Controlled Main Engine (Low NOx operation)																
	Electronically Controlled Auxiliary Engines																
	Dual Fuel* Engine (main engine &/or auxiliary engines) *engine capable of operating on fuel oil or natural gas																
	Exhaust Gas Recirculation																
	Scavenge air moisturisation system																
	Selective catalytic reduction system																
	Other :																


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5430	Particulate Matter (PM) Emissions					0																				
5430.1	Are measures implemented on company vessels to reduce particulate matter (PM) emissions from the main engine ?																								0	20
5430.2	Are measures implemented on company vessels to reduce particulate matter (PM) emissions from auxiliary engines ?																								0	30
5430.3	Is a PM baseline measured for each ship? (Baseline is a measurement of annual PM emissions before reduction measures are implemented)																								0	10
5430.4	Is an annual reduction of PM emissions recorded per ship? (relative to ship's PM baseline)																								0	20
5430.5	Is it company policy to install an electronically controlled improved cylinder lubrication system on Main Engines of company ships? (system is installed & commissioned by engine manufacturer)																								0	30
			Total score																				0	110		
			Minimum ranking score required for element 5430 = 0																							
	Measures taken to reduce PM emissions					0																				
	Modified fuel injection valves																									
	Electronically Controlled Main Engine																									
	Electronically Controlled Auxiliary Engines																									
	Dual Fuel* Engine (main engine &/or auxiliary engines) *engine capable of operating on fuel oil or natural gas																									
	Low sulphur residual fuel (HFO) or low sulphur distillate fuel (MDO or MGO)																									
	Exhaust gas scrubber																									
	Adjustable vane turbochargers																									
	Other :																									

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5440	CO2 emissions / Energy Efficiency				0	0														
5440.1	Is data for newbuild vessels, recently delivered or expected soon, provided to the vessel's flag state or industry association, to enable an assessment of the Energy Efficiency Design Index (EEDI)? (Reporting of actual ship data will assist with development of upcoming IMO regulations for the Energy Efficiency Design Index for future newbuilds)																	0	10	
5440.2	Has the company developed a Company Energy Efficiency Management Plan for its fleet? (The plan is an evaluation of energy efficiency measures appropriate for individual ships, and also procedures for implementation of these measures, monitoring of the fleet's energy efficiency & assessing whether the measures are effective.)																	0	20	
5440.3	Are Ship Energy Efficiency Management Plans - vessel specific - included in the Company Plan? (These plans include energy efficiency measures specific to the vessel and procedures for measurement, recording and reporting of energy efficiency. Responsibilities for shore and ship staff should be clearly divided. Administrative burden to the ship should be kept to a minimum.)																	0	20	
5440.4	Are documented procedures available in the Company Plan for familiarisation and training of shipboard personnel concerning implementation of energy efficiency measures and measuring/monitoring systems used onboard?																	0	10	
5440.5	Is an energy efficiency baseline measured for each ship (over the period of one year), using the IMO Energy Efficiency Operational Indicator and a Rolling Average? (baseline is a measurement of the ship's energy efficiency before improvement measures are implemented.)																	0	20	
5440.6	Alternative to 5440.5 & 5440.7 Is an energy efficiency baseline measured for each ship (over the period of one year), using a calculation of fuel consumption?																	0	10	
5440.7	Alternative to 5440.5 & 5440.6 Is an energy efficiency baseline measured for each ship (over the period of one year), using measurement of CO2 emissions from emission monitoring equipment? * Measurement unit = Energy Efficiency Operational Indicator (EEOI) or other units with conversion to EEOI ; * System is calibrated according to OEM or class instructions + Recording System is installed in a suitable location e.g. Air conditioned space																	0	20	
5440.8	Is an annual evaluation carried out in relation to energy efficiency measures implemented per ship? (The evaluation assesses effectiveness of measures implemented per ship. It includes use of monitoring tools such as the ship's Energy Efficiency Operational Indicator, fuel consumption or CO2 emission monitoring to measure improvements)																	0	20	
5440.9	Is an annual improvement in energy efficiency achieved on the company fleet? (shown by improvement of the Energy Efficiency Operational Indicator for individual ships, a reduction of fuel consumption fleet-wide or reduction of CO2 emissions fleet-wide as shown by monitoring equipment (measuring unit = EEOI)																	0	30	
																	Total score		0	130
Minimum ranking score required for element 5440 = 0																				


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			Energy efficiency measures implemented onboard company vessels																										
			<i>For ease of use, measures are listed according to the INTERTANKO Guide for a tanker energy efficiency management plan (1st edition). Please note that measures should be applied according to company needs & individual ship characteristics. IMO guidelines (MEPC.1/Circ 683) also provide options to improve efficiency.</i>																										
			Measures related to Voyage Optimisation																										
			Measures related to Propulsion Resistance (hull & propeller)																										
			Measures related to Machinery Optimisation																										
			Measures related to Cargo Handling Optimisation																										
			Accommodation-related measures																										
			Other measures implemented onboard company vessels																										
			Adjustable vane turbochargers																										
			Electronically Controlled Main Engine																										
			Electronically Controlled Auxiliary Engines																										
			Dual Fuel* Engine (main engine &/or auxiliary engines) *engine capable of operating on fuel oil or natural gas																										
			Integrated rudder / propeller design																										
			Improved propeller design (e.g. larger propeller diameter combined with low rotational speed)																										
			Propeller modification to restore optimal match between propeller speed & engine power (only in case of a "heavy running" propeller)																										
			Towing kite system																										
			Air lubricated hull design																										
			Shore side electricity																										
			Other :																										
5450	Newbuild policy					0	0																						
5450.1	Does the company policy for newbuilds implement additional measures to reduce harmful air emissions (NOx, SOx and PM) and improve energy efficiency (reduce CO2 or fuel consumption)?																0	40											
			Total score														0	40											
			Minimum ranking score required for element 5450 = 0																										
5460	Environmental Ship Index (ESI)					0	0																						
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																										


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			5500	Sewage Management																						
	Alternative 1: Sewage Treatment Plant																									
5500.1	Is it company policy to treat the sewage with a sewage treatment plant which uses minimal or no use of harmful chemicals?																							0	20	
5500.2	Is it company policy to sample and monitor the discharged effluent periodically 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	15	
5500.4	Does the company have a procedure to monitor and address any non-compliance in the effluent standards?																							0	15	
	Alternative 2: Sewage comminuting and disinfecting system																									
5500.5	Is it company policy to sample and monitor the discharged comminuted and disinfected sewage to check the compliance with the below listed standards? 1. Faecal Coliform not exceeding 1000/100 cm3 2. Chlorine residual level not more than 0.5 mg/l.																							0	10	
	For all ships: Sewage Holding Tank																									
5500.6	Did the company perform a risk assessment to calculate the capacity of the holding tank?																							0	5	
																								0	55	
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	
																								0	25	


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5700	Ballast Water Management																															
5700.1	Does the company have ship-specific procedures/instructions (flag-approved according to IMO guidelines) for the control and management of ballastwater on board?																			0	20											
5700.2	Is it company policy that ship(s) participate in promising ballast water treatment testing programs? (program is to be approved by the ship's flag state)																				0	50										
5700.3	Does the company monitor regional / local requirements concerning the control of ballastwater and is this information forwarded to the company vessels?																				0	10										
5700.4	Is it company policy that relevant crew is properly familiarised with operational & safety aspects of ballast water management?																				0	10										
5700.5	Are tasks & responsibilities of shipboard personnel assigned to ballast water exchange operations defined, documented & controlled ?																				0	10										
5700.6	Does the office support the master in cases where the ship cannot reasonably be expected to carry out ballast water exchange?																				0	10										
												Total score		0	110																	
												Minimum ranking score required for element 5700 = 60																				
Lubrication and Use of Oils (Element nr.: 5810, 5811 & 5812)																																
5810	Stern tube lubrication																															
5810.1	Does the company install a class approved stern tube <u>water</u> lubricated system which uses <u>sea water</u> 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 <u>water</u> lubricated system which uses <u>fresh water</u> 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 <u>air type</u> or <u>void space seal</u> ?																				0	25										
												Total score		0	60																	
												Minimum ranking score required for element 5810 = 0																				
5811	Mooring wire lubrication																															
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																				


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5910	Ship Recycling - Policy for ships due to be recycled																															
	For Owner / Managers only (Not applicable to 3rd-party ship managers)																															
5910.1	Has a company policy been implemented within the Management System that vessels due for recycling will only be sold directly to a recycling facility?																	0	20													
5910.2	Has a company procedure been implemented within the Management System to audit a recycling facility before "contract of sale"?																	0	40													
5910.3	Alternative to 5910.1 and 5910.2: Has a company policy been implemented within the Management System that vessels due for recycling will only be sold to a "cash buyer"?																	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													
			Total score											0	140																	
			Minimum ranking score required for element 5910 = 60																													
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																													


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7300	Training / Courses for Personnel Additional Green Award Requirements & IMO Model Courses						0								
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 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 familiarization 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 1.35) ?													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









CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LPG CARRIER - VERSION 2019																									
Revision Code	Norm Item		<div style="border: 1px solid black; padding: 5px; text-align: center;"> <h1 style="margin: 0;">RANKING</h1> <h2 style="margin: 0;">Office - LPG</h2> </div>										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 Doc. & Impl.	RANKING SCORE	RANKING MAX. SCORE
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 of company related courses 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?																	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?																	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						
7300.16	Is it company policy that masters are required to complete a fire fighting training that specifically addresses chemical fires ?																	0	15						
7300.17	Is it company policy that all the officers are to complete Security Awareness Training ?																	0	5						
												Total score		0	185										
												Minimum ranking score required for element 7300 = 85													
7400	Familiarisation, Additional Green Award Requirement																								
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						
7400.9	Does the company have a method in which senior officers are deployed onboard within the company fleet? (eg. Senior officers returning to the same vessel)																	0	10						
7400.8	Does the company have a method in which junior officers are deployed onboard within the company fleet? (eg. Junior officers rotating among the companies fleet)																	0	10						
7400.10	In those cases when junior or senior officers are transferred to another class of ship that differ considerably from where their experience lie, is an onboard appropriate operational experience with previous off-signing officers implemented for a specific minimum period?																	0	10						
7400.4	Is it company policy that a company format handover report is requested from all off-signing officers onboard ?																	0	10						
												Total score		0	80										
												Minimum ranking score required for element 7400 = 50													

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LPG CARRIER - VERSION 2019																										
Revision Code	Norm Item	 <div style="border: 1px solid black; padding: 10px; text-align: center;"> <h1>RANKING</h1> <p>Office - LPG</p> </div>	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	
			9412	INSPECTION AND TEST STATUS					0		0															
9412.1	Are working procedures available?																								0	10
9412.2	Is a status quo report of e.g. coating of tanks available?																								0	10
			Total score																				0	20		
			Minimum ranking score required for element 9412 = 20																							
9413	CONTROL OF NON CONFORMING PRODUCT		Included in ISM: See BASIC criteria																							
9414	CORRECTIVE ACTION		Included in ISM: See BASIC criteria																							
9415	HANDLING, STORAGE, PACKAGING AND DELIVERY												0													
9415.1	Is a vessel generally checked in order to meet the customer's requirements?																								0	10
9415.2	Are cargo/product specifics received from the customer and evaluated in comparison with the nominated vessel?																								0	10
9415.3	Is communication between charterer, office and ship traceable?																								0	10
			Total score																				0	30		
			Minimum ranking score required for element 9415 = 30																							
9416	QUALITY RECORDS		Included in ISM: See BASIC criteria																							
9417	INTERNAL QUALITY AUDITS		Included in ISM: See BASIC criteria																							
9418	TRAINING		Included in ISM: See BASIC criteria																							
9419	SERVICING		Not applicable																							
9420	STATISTICS (See also vessel requirements)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9420.7	Is statistical data, received from the vessels, evaluated and used for improving performance?																								0	10
9420.8	Is evaluated statistical information distributed to departments concerned and are trends analysed?																								0	10
			Total score																				0	20		
			Minimum ranking score required for element 9420 = 20																							

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LPG CARRIER - VERSION 2019						
Norm Item		TOTAL SCORE REVIEW OFFICE AUDIT - LPG CARRIER	OFFICE RANKING SCORE	MAXIMUM OBTAINABLE RANKING SCORE	MINIMUM RANKING SCORE REQUIRED	ELEMENTS WITH NO MINIMUM SCORE
1000	GENERAL					
1100	Data Monitoring and Recording Equipment		0	35	0	
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 / Medical examination		0	35	20	
1500	Emergency Response System		0	75	55	
1600	Computer Systems, Networks, Data Security and Training. GA requirement		0	65	40	
1610	Cyber Risk Management		0	50	30	
1700	Noise and Vibration Management		0	65	25	
1710	Underwater Noise and Vibration Management		0	30	0	
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 Testing, Bunker Alerts & Marpol Bunkering Requirements & Additional Green Award requirements		0	90	70	
4000	CARGOES / CARGO OPERATIONS					
4100	LPG Carrier Cargo Operations & Additional Green Award requirements		0	160	110	
4200	Ship to Ship Transfer Operations		0	40	40	
5000	PREVENTION OF POLLUTION					
5200	Waste Management / Garbage Handling Onboard		0	100	55	
5400	Air Emission Monitoring		0	130	0	
5410	NOx Emissions		0	80	0	
5420	Sulphur Content of Fuel		0	160	50	
5421	Ships required to carry out Fuel Change Over to low sulphur MARINE DIESEL OIL or low sulphur MARINE GAS OIL (low sulphur Distillates)		0	40	40	
5430	Particulate Matter (PM) Emissions		0	110	0	
5440	CO2 emissions / Energy Efficiency		0	130	0	
5450	Newbuild policy		0	40	0	
5460	Environmental Ship Index (ESI)		0	50	0	
5500	Sewage Management		0	55	5	
5510	Grey Water Management		0	25	0	
5700	Ballast Water Management		0	110	60	
5810	Stern tube lubrication		0	60	0	
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	30	15	

CHECKLIST - RANKING CRITERIA - OFFICE AUDIT - LPG CARRIER - VERSION 2019						
Norm Item		TOTAL SCORE REVIEW OFFICE AUDIT - LPG CARRIER	OFFICE RANKING SCORE	MAXIMUM OBTAINABLE RANKING SCORE	MINIMUM RANKING SCORE REQUIRED	ELEMENTS WITH NO MINIMUM SCORE
5821		Outfitting of bilge water system	0	50	20	
5822		Outfitting of sludge handling system	0	35	5	
5900		Ship Recycling - Inventory of Hazardous Materials	0	100	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	185	85	
7400		Familiarisation, Additional Green Award Requirement	0	80	50	
7500		Safe Manning and Fatigue Management	0	70	50	
9000		REQUIREMENTS ACCORDING TO NEN-EN ISO 9001:2000				
9406		PURCHASING	0	60	60	
9407		PURCHASER SUPPLIED PRODUCT	0	40	40	
9408		PRODUCT IDENTIFICATION AND TRACEABILITY	0	20	20	
9411		INSPECTION, MEASURING AND TEST EQUIPMENT	0	10	10	
9412		INSPECTION AND TEST STATUS	0	20	20	
9415		HANDLING, STORAGE, PACKAGING AND DELIVERY	0	30	30	
9420		STATISTICS (See also vessel requirements)	0	20	20	
		TOTAL SCORES	0	3625	1685	

LEGEND


	Indicates which crew/employee may be interviewed/questioned.
	Shows that a certain item is complied.
	Shows that a certain item is <i>not</i> complied.
	Indicates that an alternative is used, hence the score for that item is a "0".
	The checklist was filled in incorrectly, thus shows "error".
	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 <i>not</i> 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".


APPENDIX 3


CHECKLIST - BASIC CRITERIA - SURVEY -
LPG CARRIER

(PMC-08)

CHECKLIST - BASIC CRITERIA - SHIP SURVEY - LPG CARRIER - VERSION 2019																			
Revision Code	Norm item	 <div style="border: 1px solid black; padding: 10px; text-align: center; margin-top: 10px;"> <h2 style="margin: 0;">BASIC</h2> <h3 style="margin: 0;">Ship - LPG</h3> </div>	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		<input checked="" type="radio"/>																
101.1	Are the Management System (MS) Manuals maintained and updated?																		
102	SAFETY AND ENVIRONMENTAL PROTECTION POLICY		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		
102.1	Is the company policy concerning safety and the environment available, posted and implemented at all levels?																		
103	COMPANY RESPONSIBILITIES AND AUTHORITY		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		
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		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		<input checked="" type="radio"/>		
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		<input checked="" type="radio"/>																
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		<input checked="" type="radio"/>								<input checked="" type="radio"/>								
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?																		

CHECKLIST - BASIC CRITERIA - SHIP SURVEY - LPG CARRIER - VERSION 2019																			
Revision Code	Norm item	 <div style="border: 1px solid black; padding: 10px; text-align: center; margin-top: 10px;"> <h2 style="margin: 0;">BASIC</h2> <h3 style="margin: 0;">Ship - LPG</h3> </div>	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
			107	DEVELOPMENT OF PLANS FOR SHIPBOARD OPERATIONS		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-CONFORMITIES, 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 ?																		


CHECKLIST - BASIC CRITERIA - SHIP SURVEY - LPG CARRIER - VERSION 2019																								
Revision Code	Norm item		<div style="border: 1px solid black; padding: 10px; text-align: center;"> <h1 style="margin: 0;">BASIC</h1> <h2 style="margin: 0;">Ship - LPG</h2> </div>											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		
			Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.														
112	COMPANY VERIFICATION, REVIEW AND EVALUATION											○		○										
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											○												
201.1	Compliance with General Provisions																							
201.2	Compliance with IGC Code																							
213	Certificates and documents on board											○												
213.1	Are all regulatory certificates valid ?																							
216	Maritime security											○												
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 - SHIP SURVEY - LPG CARRIER - VERSION 2019																			
Revision Code	Norm item	 <div style="border: 1px solid black; padding: 10px; text-align: center; margin-top: 10px;"> <h2 style="margin: 0;">BASIC</h2> <h3 style="margin: 0;">Ship - LPG</h3> </div>	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
			217	Safety of Navigation / SOLAS chart carriage requirements		o				o									
	Alternative 1: 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: 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?																		
217.6	Have all deck officers and master been familiarized with ECDIS unit(s) installed onboard?																		
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																		
	<i>(Only applicable to new ships of a gross tonnage of 1,600 and above.)</i>																		
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)																		


APPENDIX 4


CHECKLIST - RANKING CRITERIA - SURVEY -
LPG CARRIER


(PMC-09)


CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LPG CARRIER - VERSION 2019																															
Revision Code	Norm item		<div style="border: 1px solid black; padding: 5px; text-align: center;"> <h2 style="margin: 0;">RANKING</h2> <h3 style="margin: 0;">Ship - LPG</h3> </div>														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				
			Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.																					
5400	Air Emission Monitoring - For the purpose of Environmental Performance Monitoring																														
5400.10	Is the vessel arranged with an approved monitoring & recording system for NOx ? (System is calibrated according to OEM or class instructions + Recording System is installed in a suitable location e.g. Air conditioned space)																										0	20			
5400.17	Alternative to 5400.10 Do the ship staff / shore office monitor NOx emission values for marine diesel engines by means of calculation? (measuring units = g/kWh or other unit with conversion to g/kWh)																										0	15			
5400.11	Is the vessel arranged with a monitoring & recording system for SOx ? (system is calibrated according to OEM or class instructions + Recording System is installed in a suitable location e.g. Air conditioned space)																											0	20		
5400.18	Alternative to 5400.11 Do the ship staff / shore office monitor fuel sulphur content by means of fuel quality test results? (measuring units = % volume)																											0	15		
5400.12	Is the vessel arranged with a monitoring & recording system for CO2 ? (system is calibrated according to OEM or class instructions + Recording System is installed in a suitable location e.g. Air conditioned space)																												0	20	
5400.19	Alternative to 5400.12 Do the ship staff / shore office monitor CO2 emissions by means of fuel consumption calculations, or the ship's Energy Efficiency Operational Indicator?																											0	15		
5400.13	Is the vessel arranged with a monitoring & recording system for PM (particulate matter) ? (system is calibrated according to OEM or class instructions + Recording System is installed in a suitable location e.g. Air conditioned space)																													0	20
5400.20	Alternative to 5400.13 Do the ship staff / shore office monitor PM emissions, for example by calculation?																												0	15	
5400.14	All Ships: Is the above data (emission values from monitoring & recording system or ship staff calculations) forwarded to the company on a regular basis? (minimum quarterly + data is recorded on company format emission monitoring environmental report)																												0	10	
										Total score							0	90													
Minimum ranking score required for element 5400 = 0																															
Air Emission Reduction																															
5410	NOx Emissions from the Main Engine (Ship keel laid on/after 01-01-2000)																														
5410.4	Are NOx emissions below Marpol Tier 1?																											0	10		
5410.5	Are NOx emissions below Marpol Tier 2?																										0	15			
5410.6	Are NOx emissions below Marpol Tier 3?																										0	30			
NOx Emissions from the Auxiliary Engines (Ship keel laid on/after 01-01-2000)																															
5410.7	Are NOx emissions below Marpol Tier 1?																										0	10			
5410.8	Are NOx emissions below Marpol Tier 2?																										0	15			
5410.9	Are NOx emissions below Marpol Tier 3?																										0	30			
5410.3	For ships keel laid between 01-01-1990 and 01-01-2000 (see Revised Marpol Annex VI) Is an "approved method" installed for NOx reduction on diesel engines? * Installation takes place as soon as possible after "approved method" is certified by the administration * Applies to diesel engines power output >5,000 kW + per cylinder displacement at/above 90 litres																											0	15		
										Total score							0	110													
Minimum ranking score required for element 5410 = 0																															


CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LPG CARRIER - VERSION 2019																																					
Revision Code	Norm item		<div style="border: 1px solid black; padding: 5px; text-align: center;"> <h2 style="margin: 0;">RANKING</h2> <h3 style="margin: 0;">Ship - LPG</h3> </div>														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										
			Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.																											
5421	Ships required to carry out Fuel Change Over to low sulphur Marine Diesel Oil or low sulphur Marine Gas Oil (low sulphur Distillates)																																				
5421.1	Has the company carried out a safety assessment with respective manufacturers, for any necessary modifications to the vessel's boilers & each fuel system onboard? (modifications should be class approved)																											0	20								
5421.2	Are updated fuel change over procedures (company-approved) available for the main engine, auxiliary engines & boilers? (procedures should be available for each fuel type used onboard)																												0	10							
5421.3	Are crew familiarised with updated fuel change over procedures?																												0	10							
5421.4	If modifications to fuel system are required, are updated detailed fuel system diagrams for fuel change over available?																												0	10							
5421.5	Is an additional inspection carried out according to documented instructions, to check for leakages during distillate fuel operation ?																												0	10							
5421.6	Is there an agreed procedure to manage related problem areas? (e.g. spares, maintenance due wear & tear)																													0	10						
5421.7	For cases where the vessel must use low sulphur fuel for a prolonged period Are there instructions from the engine manufacturer, for use of appropriate (cylinder) lube oil for main & auxiliary engines?																													0	5						
										Total score							0	75																			
Minimum ranking score required for element 5421 = 55																																					
5430	Particulate Matter (PM) Emissions															0																					
5430.1	Are measures implemented to reduce particulate matter (PM) emissions from the main engine?																													0	20						
5430.2	Are measures implemented to reduce particulate matter (PM) emissions from auxiliary engines?																													0	30						
5430.5	Does the vessel have an electronically controlled improved cylinder lubrication system for the main engine? (system is installed & commissioned by engine manufacturer)																														0	20					
5430.6	If above is installed for main engine : Have ship personnel with responsibility for daily operation of the engine taken part in a manufacturer training course or received familiarisation on operation of the system?																													0	20						
										Total score							0	90																			
Minimum ranking score required for element 5430 = 0																																					
Measures taken to reduce PM emissions																	0																				
Modified fuel injection valves																																					
Electronically Controlled Main Engine																																					
Electronically Controlled Auxiliary Engines																																					
Dual Fuel* Engine (main engine &/or auxiliary engines) *engine capable of operating on fuel oil or natural gas																																					
Low sulphur residual fuel (HFO) or low sulphur distillate fuel (MDO or MGO)																																					
Exhaust gas scrubber																																					
Adjustable vane turbochargers																																					
Other :																																					
5440	CO2 emissions / Energy Efficiency																																				
5440.3	Are ship specific procedures available for shipboard personnel on implementation of energy efficiency measures and use of measurement tools onboard (e.g.. fuel flow meters, measurement of specific fuel consumption per kWh)? Tasks and responsibilities for shipboard personnel should be defined.																																0	30			
5440.4	Have shipboard personnel received familiarisation and training for energy efficiency measures and related measuring / monitoring systems onboard?																															0	20				
5440.8	Is the vessel in receipt of a shore assessment of the energy efficiency measures implemented onboard & are results communicated amongst the crew?																																	0	10		
										Total score							0	60																			
Minimum ranking score required for element 5440 = 0																																					

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LPG CARRIER - VERSION 2019																
Revision Code	Norm item		RANKING										RANKING SCORE	RANKING MAX. SCORE		
			MASTER	Doc. & Impl.	CHIEF OFFICER	Doc. & Impl.	DECK OFFICER	Doc. & Impl.	DECK RATING	Doc. & Impl.	CHIEF ENGINEER	Doc. & Impl.			ENGINEER OFFICER	Doc. & Impl.
5800	Accidental Bunker Oil Pollution Prevention Measures (overflow prevention systems)															
5800.4	Are all fuel oil bunker tanks fitted with a high level alarm?													0	5	
5800.5	Are all fuel oil bunker tanks fitted with a high-high level alarm?													0	5	
5800.6	Are all fuel oil bunker tanks fitted with an overflow line that is connected to an overflow tank which is arranged with a level alarm?													0	5	
5800.7	Are all fuel oil bunker tank overflow lines connected to an overflow tank and are they arranged with a flow alarm?													0	10	
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 = 15																
5801	Protective location of fuel and lubrication oil tanks															
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	
Total score												0	70			
Minimum ranking score required for element 5801 = 20																
Lubrication and Use of Oils (Element nr.: 5810, 5811 & 5812)																
5810	Stern tube lubrication															
5810.1	Is the vessel fitted with a class approved stern tube <u>water</u> lubricated system which uses <u>sea water</u> 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 <u>fresh water</u> 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 <u>air type</u> or <u>void space seal</u> ?													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																
5811	Mooring wire lubrication															
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																









CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LPG CARRIER - VERSION 2019																			
Revision Code	Norm item		RANKING											RANKING SCORE	RANKING MAX. SCORE				
			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
6200	Mooring Equipment		0		0				0									0	10
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 "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	Is an automatic wire rope lubricator in use on board?																	0	10
6200.12	Alternative for 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																			
6300	Corrosion Prevention of Seawater Ballast Tanks			0							0							0	20
6300.1	Are ballast tanks of double-hulled vessel, 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																			

CHECKLIST - RANKING CRITERIA - SHIP SURVEY - LPG CARRIER - VERSION 2019																										
Revision Code	Norm item		<div style="border: 1px solid black; padding: 5px; text-align: center;"> <h2 style="margin: 0;">RANKING</h2> <h3 style="margin: 0;">Ship - LPG</h3> </div>											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		
			Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.	Doc. & Impl.																
7300	Training / Courses for Personnel, Additional Green Award Requirements & IMO Model Courses											0														
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 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 familiarization 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 1.35) ?																							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 for 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 liquified 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?																							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?																							0	20	
7300.16	Has the master completed a fire fighting training that specifically addresses chemical fires ?																							0	15	
7300.17	Have all the officers completed Security Awareness Training?																							0	5	
										Total score										0	140					
												Minimum ranking score required for element 7300 = 60														

CHECKLIST - RANKING CRITERIA - SURVEY - LPG CARRIER - VERSION 2019						
Norm item		TOTAL SCORE REVIEW SHIP SURVEY - LPG CARRIER	SHIPS RANKING SCORE	MAXIMUM OBTAINABLE RANKING SCORE	MINIMUM RANKING SCORE REQUIRED	ELEMENTS WITH NO MINIMUM SCORE
1000	GENERAL					
1100	Data Monitoring and Recording Equipment		0	25	0	
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 / Medical examination		0	30	20	
1500	Emergency Response System		0	80	60	
1600	Computer Systems, Networks, Data Security and Training. GA requirement		0	60	30	
1610	Cyber Risk Management		0	20	10	
1700	Noise and Vibration Management		0	50	15	
1710	Underwater Noise and Vibration Management		0	10	0	
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 Testing, Bunker Alerts, Marpol Bunkering Requirements & Additional Green Award requirements		0	100	70	
4000	CARGOES / CARGO OPERATIONS					
4100	LPG Carrier Cargo Operations & Additional Green Award requirements		0	180	110	
4200	Ship to Ship Transfer Operations		0	30	30	
4400	Additional Green Award Requirements (tank alarms, coatings, etc.)		0	170	100	
4500	Hull Stress Monitoring System		0	20	0	
5000	PREVENTION OF POLLUTION					
5200	Waste Management / Garbage Handling Onboard		0	130	55	
5400	Air Emission Monitoring - For the purpose of Environmental Performance Monitoring		0	90	0	
5410	NOx Emissions		0	110	0	
5420	Sulphur Content of Fuel		0	140	0	
5421	Ships required to carry out Fuel Change Over to low sulphur Marine Diesel Oil or low sulphur Marine Gas Oil (low sulphur Distillates)		0	75	55	
5430	Particulate Matter (PM) Emissions		0	90	0	
5440	CO2 emissions / Energy Efficiency		0	60	0	
5460	Environmental Ship Index (ESI)		0	60	0	
5500	Sewage Management		0	70	5	
5510	Grey Water Management		0	25	0	
5700	Ballast Water Management		0	100	50	
5800	Accidental Bunker Oil Pollution Prevention Measures (overflow prevention systems)		0	30	15	
5801	Protective location of fuel and lubrication oil tanks		0	70	20	
5810	Stern tube lubrication		0	60	15	

CHECKLIST - RANKING CRITERIA - SURVEY - LPG CARRIER - VERSION 2019						
Norm item		TOTAL SCORE REVIEW SHIP SURVEY - LPG CARRIER	SHIPS 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	20	15	
5821		Outfitting of bilge water system	0	80	20	
5822		Outfitting of sludge handling system	0	35	5	
5900		Ship Recycling - Inventory of Hazardous Materials	0	110	0	
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	20	
7300		Training / Courses for Personnel, Additional Green Award Requirements & IMO Model Courses	0	140	60	
7400		Familiarisation, Additional Green Award Requirement	0	70	50	
7500		Safe Manning and Fatigue Management	0	60	40	
9000		REQUIREMENTS ACCORDING TO NEN-EN ISO 9001:2000				
9406		PURCHASING	0	40	40	
9407		PURCHASER SUPPLIED PRODUCT	0	40	40	
9408		PRODUCT IDENTIFICATION AND TRACEABILITY	0	40	40	
9411		INSPECTION, MEASURING AND TEST EQUIPMENT	0	10	10	
9412		INSPECTION AND TEST STATUS	0	40	40	
9415		HANDLING, STORAGE, PACKAGING AND DELIVERY	0	60	60	
9420		STATISTICS	0	30	20	
		TOTAL SCORES	0	3635	1675	

LEGEND

	Indicates which crew/employee may be interviewed/questioned.
	Shows that a certain item is complied.
	Shows that a certain item is <i>not</i> complied.
	Indicates that an alternative is used, hence the score for that item is a "0".
	The checklist was filled in incorrectly, thus shows "error".
	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 <i>not</i> 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".

APPENDIX 5

CHECKLIST - VISUAL INSPECTION - SURVEY - LPG CARRIER

(PMC-10)


Green Award Visual Inspection - LPG Carrier

Green Award Visual Inspection - LPG Carrier				
Check Box	Norm item		Inspection Focus	Remarks
	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	
	8101.5	Other reports	Vetting reports by chartering companies and independent surveyors	
	8102 Engine Room			
	8102.1	Overall tidyness of E.R. space	Unsecured and loose material, tools and E.R. spare-parts	
	8102.2	General cleanlinesss 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	Save-alls	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 cleanliness, 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 / Save-all	Oil-, water-, corrosion- and dirt-free	


Green Award Visual Inspection - LPG Carrier

Check Box	Norm item		Inspection Focus	Remarks
	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	
	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 firepump valves	Are instructions available for position of valves	
	8113.2	General check of emergency firepump	Position of Fuel valve, Content of fuel tank etc.	
	8114.3	Operating instructions of firepump 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	


Green Award Visual Inspection - LPG Carrier

Check Box	Norm item		Inspection Focus	Remarks
	8100	Machinery		
	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 gauge glasses lub. oil tanks	Check proper working and if they are normal closed	
	8116.3	Condition gauge glasses chemical tanks	Check proper working and if they are normal closed	
	8116.4	Condition 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 cleanliness	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		


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Check Box	Norm item		Inspection Focus	Remarks
	8200	Steering Gear		
	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	
	8300	Cargo / Ballast System		
	8301	Drawings / Diagrams in Cargo Control Room		
	8301.1	All relevant drawings and diagrams available	Pipe Line diagrams, mimic diagrams etc should be available in CCR	
	8301.2	Drawings visible inside CCR	Drawings clearly visible and understandable for operation	
	8302	Functioning of Cargo / Ballast Pumps		
	8302.1	Is every separate pump working		
	8302.2	Cargo pumps with temperature sensors readout CCR		
	8302.3	Stripping pumps with temperature sensors readout CCR		
	8302.4	Ballast pumps with temperature sensors readout CCR		
	8302.5	Cargo pumps fitted with temperature trips		
	8302.6	Cargo pumps with sensors for vibration monitoring bearings		
	8302.7	Is all equipment combined working	Malfunctioning often indicator	
	8303	Functioning Pump Controls/Turbine Controls		
	8303.1	Pump controls functioning	Speed sensor, suction meter, pressure meter, vibration meter	
	8303.2	Pump alarms functioning	Temp. of bearings and casing	
	8303.3	Turbine trips functioning	Overspeed, backpressure, lub.oil pressure and bearing temp.	
	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		
	8305.1	Condition seals Cargo/Ballast pumps pumproom/ E.R.	Check deck penetration, oil level in deck seals	
	8305.2	Condition seals Cargo/Ballast pumps / pump room	Check for leakage	
	8306	Cargo Control Room Communications		
	8306.1	Communication satisfactory	Communication between Cargo Control Room / Pump Room / Cargo Pump Turbines (E.R. side)	
	8306.2	Communication operational		


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Check Box	Norm item		Inspection Focus	Remarks
	8300	Cargo / Ballast System		
	8307	Meters / Displays Inside Pump Room Class		
	8307.1	Suction and discharge pressure meters	Check for good working	
	8307.2	Continuous monitoring of hydrocarbon gases	Check test dates	
	8307.3	Thermometers of bearings / pump casing	Check for good working	
	8307.4	Bilge alarms	Check for high level and high-high level	
	8308	Electrical Equipment		
	8308.1	Equipment installed explosion-proof	Light, control equipment, switches etc.	
	8308.2	Ventilation and lighting interlocked	Ventilation starts when lights switched on, failure of ventilation separate of light-functioning	
	8308.3	Condition of electrical safety barriers		
	8309	Oil Discharge Monitoring Equipment		
	8309.1	Oil discharge monitor	Check operational condition / calibration	
	8309.2	Recorder	Check recent history output	
	8310	Vapour system		
	8310.2	Vapour lines and manifolds		
	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	
	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	
	8404.4	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	
	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	


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Check Box	Norm item		Inspection Focus	Remarks
	8400	Structural		
	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	
	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, tightness	
	8407.7	Ventilation - pipes / ducts	Condition check of covers, closing devices, flame screens, floating locks	
	8407.8	Inert Gas valves, non return valves, void spaces P/V valves, pressure relief valves, 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	

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Check Box	Norm item		Inspection Focus	Remarks
	8400	Structural		
	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	Accommodation & 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 save-all	
	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		

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Check Box	Norm item		Inspection Focus	Remarks
	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. Kathodic wear) and working order	
	8502.2	Rescue boat + davits	Check condition (incl. Kathodic wear) and working order	
	8502.3	Life rafts + release system	Check condition (incl. Kathodic 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. Kathodic wear) and working order	
	8503	Fire fighting		
	8503.1	CO2 / Dry powder 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 accessible	
	8503.7	Breathing Apparatus charging compressor	Check ready for use, easy accessible	
	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	Marine Spill Response Equipment		
	8505.1	Marine Pollution Emergency Plan	Check availability	
	8505.2	Emergency equipment	Check content and working order	