

Safety criteria for vetting river vessels

Object

The object of this document is to provide river vessel operators with the environmental, safety and quality requirements for third-party vessels used for Repsol Group services.

The requirements described here are mandatory, and any deviation will require the Operator to implement a corrective action and submit a report each time the deviation appears as a comment. Appendix II includes the requirements for Passenger Vessels.

Scope of application

These criteria apply to every river transport in Peru and Ecuador and include all propelled and non-propelled vessels, as applicable, contracted by the Repsol Group. Vessels used for maritime coastal services and bunkering operations in Roads are excluded.

This type of navigation is understood to be very unique and involves an area with rapidly changing river courses and navigation channels, with scarce navigation resources limited to geographic landforms and natural features.

Including: Self-propelled and non-propelled vessels, Liquid Cargo Transport, Dry Cargo Transport, Pushers, Passenger Vessels.

Framework regulations (reference regulations)

- "Safety and environment management in operations and/or transport by sea and river" norm (00-00462NO)

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1. Definitions and abbreviations

1.1. Definitions

In the context of this guide,

- **Service:** transporting Repsol Group products or personnel, chartered by Group subsidiaries, or transporting personnel or calling at facilities in which Repsol Group has a shared interest.
- **Operator:** a Company that technically supervises and managed the daily operations of fleet vessels and their safety management systems.

See Appendix V for the rest of the definitions included in this document.

1.2. Abbreviations

- **A/F:** Spanish abbreviation for Dumb Barge.
- **BIQ:** Barge Inspection Questionnaire from OCIMF's SIRE programme. Checklist used during a vessel's vetting inspection and subsequently used to prepare its final SIRE report.
- **CO₂:** Carbon dioxide gas used on-board mainly as firefighting equipment.
- **E/F:** Spanish abbreviation for Fluvial Pusher.
- **FF:** Firefighting.
- **GMAW (MIG):** Gas Metal Arc Welding. An aluminium welding process in which an electric arc forms between a consumable wire electrode and the workpiece metal(s), which heats the workpiece metal(s), causing them to melt, and join. The arc and the weld pool are protected by gas that may be active or inert. The procedure is suitable for welding most materials with a wide variety of filler metals available.
- **GPS:** Global Positioning System. System that shows a position of a person or a vehicle with high precision anywhere in the world. It triangulates using 24 satellites to determine the global position accurate to a few metres. GPS navigation that can show an operator on the bridge the instantaneous geographic position of the vessel. Other systems are GLONASS and Galileo. Also Beidou which was developed by China.
- **IACS:** International Association of Classification Societies. This is the technical organisation that includes 13 Classification Societies, headquartered in London.

IACS is a non-governmental organisation which also plays a role in the International Maritime Organisation (IMO), providing technical support and guidance, and developing unified interpretations of international legal standards developed by IMO member states. Once adopted, these interpretations are applied by each IACS member society in certifying the compliance of legal provisions for the flag states that delegate in them.

- **IMDG:** The International Maritime Dangerous Goods Code of the IMO.
- **IMO:** International Maritime Organisation – www.imo.org.
- **ISGINTT:** International Safety Guide for Inland Navigation Tank-Barges and Terminals, issued by OCIMF and the Central Commission for the Navigation of the Rhine. www.isgintt.org.
- **M/F:** Self-propelled river barge (Motochata Fluvial)
- **MEPC:** The Marine Environment Protection Committee of the IMO.
- **MSDS:** Material Safety Data Sheet. The safety data sheet for a specific commodity or product, including typical product features and their performance, densities, flash points, etc.
- **NDT:** Non-destructive testing is the process of inspecting, testing, or evaluating materials, components or assemblies for discontinuities, or differences in characteristics without destroying the serviceability of the part or system. In other words, when the inspection or test is completed the part can still be used.
- **OCIMF:** Oil Companies International Maritime Forum. www.ocimf.com
- **P&I:** Protection and Indemnity, it is a form of marine insurance provided by a P&I Club. A P&I Club is a mutual insurance company that provides coverage for its members, which are normally shipowners, operators or

bareboat charterers. Unlike a marine insurance company, which is accountable to its shareholders, a P&I club is only accountable to its members.

- **SGI:** Integrated Management System by Repsol (*Sistema de Gestión Integrado de Repsol*).
- **SIRE:** Ship Inspection Report Exchange. Is the report developed by OCIMF as a standard regulation for every type of ship or vessel.
- **SOLAS:** The International Convention for the Safety of Life at Sea, issued by the IMO.
- **SSB/HF-MF:** Single Side Band / High Frequency-Medium Frequency. Radio transceiver that transmits and receives in 300 to 3000 kHz (MF) bands, and 3 MHz to 30 MHz (HF) bands. SSB is known in Spanish as BLU (*banda lateral única*).
- **STCW 95/2010:** The International Standards of Training, Certification and Watchkeeping for Seafarers, including the 2010 Manila amendments. www.stcw.org
- **SWL:** Safe Working Load. This is the maximum load that can be applied to a given piece or fitting such as lifting equipment. This is usually determined by the manufacturer; however it may also be determined by a qualified individual or workshop after carefully considering the usage and external factors that could affect the equipment, such as temperature and working cycle, depending on its structure.
- **TMR:** Thickness Measurement Report. This is based on measuring the thickness of certain structural plates of a vessel by NDT.

2. Marine Safety Criteria (MSC)

1st phase of immediate application

2.1. Age

All vessels shall have an age limit of 50 years. No evaluation of a reduced conventional age or rebuilding shall be accepted.

2.2. Double hull

Vessels more than 600 tonnes deadweight carrying heavy-grade oil must have a double hull.

2.3. Certification

The following shall be required prior to the inspection:

- Valid Flag Certificates for the ship.
- Valid Protection and Indemnity (P&I) coverage for each vessel.

2.4. Vetting inspection

A vetting inspection shall be required according to the process listed in 3.

2.5. Navigation and stroboscopic light

All vessels shall be equipped with navigation and stroboscopic lights to preventing collisions on the river, in accordance with local regulations.

2nd phase from 1/1/2015 to 31/12/2016

In addition to the immediate application requirements, vessels must comply with:

2.6. Structure

- a) If the vessel is classified by an IACS Member Classification Society, the pre-inspection requirements shall be a copy of its Class certification and updated "Listing of Surveys, Conditions of Class and Memoranda" issued during the last month.
- b) If the vessel is not classified by an IACS Member Classification Society as mentioned above, its structure and machinery installations must be assessed prior to 31/12/2016 by an IACS Member Classification Society having own Inland Navigation Rules.
- c) Vessels more than 10 years old must, in addition to complying with a) or b), submit a thickness measurement report (TMR) showing that it is free of substantial corrosion, performed during the last 36 months prior to 1/1/2016. Non-destructive testing carried out by a qualified workshop certified by a recognised organisation is also required.

2.7. Double hull

All vessels transporting hydrocarbons products must comply with the double-hull requirement established by the Flag Administration Authority within the deadlines specified or after 1/7/2016, whichever occurs first.

2.8. Radar

All vessels engaged on voyages of more than eight hours between calls shall have radar installed by 31/12/2016.

3rd phase from 1/1/2017

In addition to the immediate application and 2nd phase requirements, vessels must comply with:

2.9. Classification

All vessels must be classified after 31/12/2017 by an IACS Member Classification Society having their own Inland Navigation Rules.

2.10. Vetting inspections

All vessels shall be inspected under the OCIMF SIRE 3 programme.

2.11. Crew training

A matrix of minimum crew training requirements shall be implemented based on the vessel to be crewed; this matrix is included as an appendix to this document.

3. General – Inspection requirements

3.1. Particulars

At the time of the inspection the following information must be available in the office or on-board:

1. Contact information for the Shipowner and whoever is responsible for the Technical Control of the Vessel (Operator).
2. A demonstration of the Maintenance system used for the vessel with updated records and containing an inventory of critical spare parts and permanent stock.
3. There shall be a Logbook containing the most important events in an official language of vessel's flag country. There shall also be a Book recording all machinery events. In both cases the events shall be recorded by ink. These documents must be on-board or in the custody of the Operator in exceptional cases.
4. If the vessel is classified it shall require a valid certificate and Listing of Surveys, Conditions of Class and Memoranda.
5. There shall be an incident log available performing reports to be sent to the vetting department as soon as possible if any event were to occur in that regard. See Appendix III, Safety Management Manual.

3.2. Certification and Documentation.

1. Documentation regarding the vessel's Flag Certificates, Insurance and Crew Licenses shall be required for checking and review.
2. Self-propelled vessels must have drawings showing at least the General Arrangement, Life Saving Appliances and Fire Plan, displayed in visible locations.
Non-propelled vessels must have a drawing showing at least the General Arrangement.
3. A copy of this guide must be available on board the vessel at all times for the familiarisation of the crew.

3.3. Crew

1. There shall be a procedure that defines which crew member(s) shall carry out each task involved in loading, pumping and unloading operations; the vessel's Master or Skipper is responsible for this. Bridge lookout shall be defined so that there is a watchperson present at all times during the voyage.
2. Officers shall hold qualifications authorising them to hold their position on-board.
 - 2.1 At least one Officer must have the corresponding authorisation to use Radio-communication equipment for vessels equipped with SSB/HF-MF.
 - 2.2 Crew members in charge of hydrocarbon or hazardous cargo loading/unloading operations must certify having taken a familiarisation course for the type of transport involved (hydrocarbons, hazardous cargo, etc.) in accordance with STCW 95/2010 requirements.
 - 2.3 The vessel Owner/Operator shall present the training programmes for their personnel.
 - 2.4 Work and resting hours shall be defined based on the provisions of relevant regulations and traced in order to prevent crew fatigue. (See Appendix I).
3. A minimum of five years of actual experience in the area to be navigated shall be required for the position of Master, and a minimum one year's experience with the type of cargo to be transported shall be required for the Master and Inland Pilot.
The Chief Engineer must have at least one year's experience working with the type of cargo being carried in the vessel where they are currently engaged.
4. The shipowner must ensure that each vessel operates under a Drugs and Alcohol Policy, in accordance with the following:
 - 4.1 The Drugs and Alcohol Policy must be effective and comply with the rules contained in OCIMF's "Guidelines for the Control of Drugs and Alcohol On-board Ship".

4.2 It must contain provisions for alcohol and drug analysis that include unscheduled tests and routine medical examinations at least once a year for all crew members, and unannounced alcohol tests less frequently.

3.4. Navigation and Communications

Short voyages in which the departure and destination ports are within sight shall have some exemptions to be determined in the inspection matrix for the type of concerning vessel.

1. Night-time or low-visibility navigation shall not be permitted, except in emergency situations and with the approval levels of the relevant BU Division, after consulting the SE manager.
2. Self-propelled vessels shall have a dinghy on-board (escort boat, service boat, working boat or guide boat).
3. Reference sailing publications for the navigation area including Charts, Courses and relevant information about the location shall be kept on-board.

In this context, a Navigation Plan shall be developed containing at least:

3.1 Difficult or hazardous passages, prohibited passages and places where crossing with other vessels is prohibited;

3.2 Communication systems in every location to be navigated;

3.3 Estimated times and distances between locations or landmarks;

3.4 Speed control instructions;

3.5 Methods for receiving accurate local forecast;

3.6 Quantification and definitions of low visibility, etc.

The plan may be used from one voyage to the next but must be updated based on prior voyages.

4. It is recommend to comply with navigation equipment as described in OCIMF Barge Safety Chap. 4, specifically:

4.1 A river radar for voyages > 8 hours.

4.2 Echo sounder.

4.3 Rudder angle indicator.

4.4 Suitable reflectors for the convoy dimension (it must be able to aluminated at least twice the length of the convoy length).

4.5 Windscreen wipers in good conditions (clear view screen).

4.6 A radio-frequency or telephone communications unit that covers all the areas to be sailed by the vessel.

4.7 Whistle.

4.8 Binoculars.

4.9 A system of navigation lights that at least comply with local navigation rules. Portable navigation lamps for non-propelled vessels shall be powered by rechargeable batteries sealed in a watertight container. The charging stations for these batteries shall be located in safe spaces inside the Engine Room.

An all-round strobe light (or rotating/flashing light) must be installed on the monkey island.

4.10 The bridge shall have a telephone communication with the Engine Room or the Watchkeeper Engineer's Control station.

4.11 A GPS or similar system to ensure that the Office can regularly monitor the vessel's position.

3.5. Safety Management

1. Self-propelled vessels shall have a Safety Management Manual that meets the minimum guidelines of the International Safety Code (See Appendix III). There shall be clear instructions for using safety equipment both in this manual and posted in visible locations near safety, firefighting and LSA equipment. Furthermore, there must be a valid Contingency Plan that includes a plan for controlling spills.

2. All vessels must have gangways or safe entrances with non-slip surfaces and railings of 90 cm minimum height, in good conditions, as far away as possible from the loading manifold, if there is one, equipped with a safety net and lit at night.
3. All moving machinery and pieces on-board must be protected with effective guards to prevent accidents.
4. Every crew member must use personal protective equipment (PPE) in accordance with the activity they are doing¹.
5. Vessels that transport hydrocarbon cargo must have portable equipment like an explosimeter and an oxygen analyser with a valid calibration certificate, as well as a gas analyser for SH₂, CO, CO₂ or C₆H₆ (where applicable). An all-in-one unit shall be sufficient. In any case, it must be explosion-proof and the crew must be familiar with its use.
6. Vessels carrying liquid cargo shall comply with 3.8.1, and if they carry hazardous substances in a receptacle, a portable tank, a container or a vehicle –including empty receptacles, portable tanks and tanker vehicles that have been previously used to transport a hazardous substance, except if the receptacles or tanks have been cleaned and dried– it must be labelled correctly in accordance with the IMDG Code.
7. When operating with flammable cargo the openings to the vessel's crew spaces must be kept closed during all operations at port.
8. Those vessels using SSB/HF for communications and need aerial antenna (e.g. multiband dipole) to use this equipment must have a grounding system that must be switched on during operations with flammable products.
9. Propelled vessels must have an emergency stop for the engines (quick release) and a system for closing or stopping engine room ventilation, all properly marked.
10. Access shall not be permitted to enclosed spaces unless an entry procedure for enclosed spaces that complies with ISGINTT Chap. 10 is followed; there must also be a self-contained breathing apparatus with a set of bottles for that purpose, with an explosion-proof lantern with sufficient battery charge, properly inspected. (ISGINTT 8.2.2.2).
11. If there is welding machine on-board, it must be located in a place suitable for carrying out this kind of work, have the welding instructions for use and a procedure/authorisation for hot work.
12. There should not be any loose electrical installations. If there are electrical installations, the junction box and the entire circuit must be in good watertight conditions.
13. There must be access platforms over deck piping. Other transit areas shall be clearly marked made in non-slip paint.
14. Vessels carrying flammable products that have domestic open-flame kitchens must comply with the provisions of Appendix IV.
15. Manned vessels shall have a suitable stretcher to evacuate an unconscious person, a fire blanket and nitrofuril (gauze treated with Furacin ointment) or hydrogel.
16. All consumable flammable products on each vessel must be stowed together in a suitable place. If they are located within the accommodation, there must be provided with fixed fire-fighting equipment.
17. Vessels carrying hydrocarbons shall be provided with flame arrestor screens (spark arrestors) at the funnel of their internal combustion engines to prevent sparks from scattering. ISGINTT 24.9.4.
18. Safety and pollution prevention signs shall be posted on deck²:
 - Non-smoking areas and allowed smoking places. The use of lighters are forbidden.
 - No naked light.
 - Restricted access for unauthorised personnel.
 - Hazardous cargo.

¹ This will include, at least, a helmet, safety shoes, gloves and work clothes.

² This list is not exhaustive and should be used as a guideline.

- Restricted use of mobile telephones or non-intrinsically safe equipment.
 - Pollution prevention measures (no throw garbage into the water).
19. All vessels must have Emergency Procedures, including exercises and drills, describing the duties that must be taken in at least the following scenarios:
 - 19.1 Oil spill.
 - 19.2 Collision/aground/Stranding.
 - 19.3 Firefighting.
 - 19.4 Abandon.
 - 19.5 Man overboard
 - 19.6 Ship security.
 20. Evidence must be shown for having carried out these training exercises in accordance with these procedures such that all emergencies are periodically covered.
 21. Manned vessels must have general emergency alarm buttons and at least one must be on the bridge.
 22. All firefighting and LSA equipment must be labelled with symbols in accordance with the firefighting in Res. IMO A.654 (16) of 19/10/1989; and the LSA in Res. IMO A.760 (18) of 4/11/1993.
 23. Manned vessels must have the equipment required by the Flag Administration including at least one survival kit that allows it to safely evacuate all crew members from the vessel in case of emergency.
 24. Individual life jackets for each crew member must have a light activated by a suitable system or reflective bands and a whistle, and must be marked with the name of the vessel and port or Register Number. There shall be donning instructions for the specific life jacket on-board.
 25. Unmanned vessels must have two lifebuoys (rings) (one fore and one aft) and two fire extinguishers available during all operations. Neither the lifebuoys nor the extinguishers may be borrowed from the permanent equipment of any assistance vessels.
 26. Fire detector with a remote indicator panel for easy monitoring shall be strongly preferred.
 27. There must be a fire pump, duly identified and compatible with the firefighting system, which must always be ready to be used under any conditions. It shall have at least a pressure gauge on the pump delivery. This pump shall be exclusively for firefighting use; a fire pump may not be used for fuel transfers, stripping operations, etc. The system shall have at least two hydrants with their respective fire hoses and quick release coupling.

3.6. Pollution Prevention

1. Every manned vessel shall have a Garbage Plan.
2. All vessels carrying hydrocarbon products must be equipped with adequate means for containing spills on deck, including drainage and/or strip. A round fishplate (spill rail) covering all the openings on the main deck, with a minimum height of 100 to 150 mm should be fitted (OCIMF Barge Safety 6.2). Fishplate must have scupper plugs ensuring proper watertightness.
3. Vessels carrying hydrocarbons must have suitable spill containment under the cargo manifold lines with a purge to drain that empties into a cargo tank. One or the other must have an effective locking device. Portable containments shall be permitted.
4. Piping connections and all unconnected pipe ends must be fully bolted, either to another section of pipe or to a blind flange.
5. Every vessel must have a properly marked Spillage Equipment.
6. Self-propelled vessels must have:
 - 6.1 High bilge level alarm in the engine room.

6.2 Comply with 6.4 and 6.5³ of the OCIMF Barge Safety book regarding having a system to manage oily mixtures generated on-board or by tank cleaning cargo tanks. In that case certificates must be obtained for each final disposal ashore in Port, in addition to the Garbage Management certificate.

3.7. Structures

1. Repairs such as doublers and welded cracks shall not be allowed in any part of the vessel. Only insert plate shall be allowed for repairs, using a plate or material with the same thickness and features as the one being repaired.
2. Vessels must have had a dry dock at least once in the last 36 months, accredited by the Class Society (according to 2.6.c)
3. Protection and coating on cargo tanks, ballasts and void spaces must be in good conditions with no substantial corrosion.
4. Every vessel must display its name and port of registry or Register number with a bead welded to the hull or stencilled mark.
5. Vessels carrying hydrocarbons must have a cofferdam forward, which can be substituted with a forepeak. Similarly, they must have a cofferdam or an aft peak at the stern.
6. The Operator must have a written Preventive Maintenance and Corrosion Control policies in place, closed to the provisions of OCIMF Barge Safety Chapter 7.

3.8. Cargo Operations

Applicable to vessels carrying liquid cargo.

1. Material safety data sheet (MSDS) for each product carried on board shall be available on board for information purposes, with which all crew members must be familiar with.
2. All portable equipment used in operations on the main deck must be explosion-proof. Mobile phones, pagers, Nextel devices or any other communication systems that do not comply with this requirement is forbidden.
3. All the tanks, cofferdams, valves and vents on the vessel must be identified.
4. Cargo tanks must be fitted with vents, which may be individual or combined by tanks group. The vents must have pressure and vacuum valves (P/V), or comply with either SOLAS II-2/4.5.6 or ISGINTT 7.1.8. Vacuum valves must be fitted with flame screen (spark arrestors) 12x12 cm² mesh count, or two overlapped screens 8x8 cm² mesh count.
5. Vents blowing flammable vapours must be located 3 metres of distance from any type of engine and/or any machinery or equipment with internal combustion on deck that could pose a fire risk.
6. Pressure and vacuum valves must have a certification test in compliance with the working pressure specified by the manufacturer, issued within the last five years with an interim review.
7. Discharge pumps, if any, must have an emergency stop device with remote operation. There must be marked "Discharge Pump Emergency Stop" in the chosen location.

³ 6.4 Oil Record Book

All vessels should record relevant machinery space operations in an Oil Record Book, styled on the format set out in MARPOL, Annex I, Appendix III. Barges should also record all cargo/ballast operations in a separate Oil Record Book, styled on the format set out in MARPOL, Annex I, Appendix III.

The cargo/Oil Record Book or loading journal should give voyage details and cargo grades, quantities and distribution, plus any required tank preparation and transfer of or disposal of slops.

The Oil Record Book should be kept in such a place as to be readily available for inspection at all reasonable times.

6.5 Disposal of greywater and garbage

All vessels should have equipment and policies that comply with MARPOL Annex V and local regulations.

8. All cargo manifolds, valves, connections and associated equipment with pumps must be in good condition. Cargo manifolds and all their valves and spool pieces and reducers must be made of steel. Aluminium and cast iron are not permitted.
9. Any cargo pump engines installed on board must be in good condition and have protective covers, and their engine exhaust must be properly insulated along its length.
10. Cargo tanks used to carry AVGAS must be protected with epoxy and free of copper, zinc, cadmium and their alloys.
11. All lifting equipment and hose handling equipment (derrick/crane) must have sufficient loading capacity to hoist the loads.

The maximum capacity of the lifting equipment must be marked on the derrick/crane (SWL); if SWL capacity is more than 1 tonne of capacity, annually should be inspected and certificate must be available.
12. Cargo tank lids must be gas-tight. Every tank lid must have a gasket, preferably made of "Viton" (synthetic rubber) or another oil-resistant material.

Sampling and sounding inspection covers must have flame arrestors (spark arrestors) with a mesh count of at least 12x12 per cm².

There must be an effective closing device using lashing lock; the closing locks may be threaded or of any other type that can be secured in the closed position.
13. Every cargo tank, except shallow-draught vessels where it is not possible, shall have overfill alarm for high level liquid with an audible signal.
14. Cargo measuring elements must be suitable, including tape measures with bronze plumb bob. Cut-off tape measures and any handmade items may not be used. In order to prevent electrostatic ignition, all vessels must comply with ISGINTT 11.8.2.
15. Sounding pipes must be built in such a way so as to effectively join the tank bottom continuously with the top of the tank. They must also be clearly marked with their individual reference mark or marked to the edge. This shall be indicated in the cargo procedures. Every sounding pipe shall be identified as close as possible to its actual location.
16. Ballast tanks and/or cofferdams could not be used with cargo or oily water. These spaces shall be verified for their gas content and there must be records controlling the atmosphere in void spaces on vessels when they are carrying hydrocarbons.
17. Vessels fitted with cargo pumps must have discharge pressure gauges at the cargo manifold and at the pump discharge.
18. Any pump room installed on-board and used as such must comply with pump room requirements, including a high bilge level sensor with indicators easily detected from the tugboat bridge assisting the barge, or from the operations point in the case of a self-propelled river barge. There must be a procedure for entering the pump room as indicated in ISGINTT 10.10.2.
19. Cargo pipelines pressure tests must be performed every five years at one and a half times the working pressure; and one test must be performed annually at the working pressure, including the cargo valves and keeping a record and certificates of the tests. This test pressure with performing date must be stencilled in a visible location on the pipeline.
20. A minimum of 2% of the tank volume must be kept empty in all loading operations as an expansion chamber, being any product to be carried.
21. When cargo hoses are used:
 - 21.1 The hoses must be free of kinks or any other material defect.
 - 21.2 The cargo hoses must follow a maintenance schedule in line with ISGINTT 18.2.

3.9. Mooring

1. Mooring lines must be suitable and in good conditions. Self-propelled vessels must have a minimum of four moorings ropes when they are berthed to a pier or port.

2. All mooring equipment and lashing fittings arranged in the hull of the vessels must be marked with their SWL in tonnes.
3. Personnel must be properly trained to moor the vessels they are engaged (ISGINTT 23.1).
4. All the mooring elements of each vessel must be in the following conditions:
 - 4.1 Rollers properly greased and rotating free;
 - 4.2 No slack or excessive wear;
 - 4.3 Bollards and cleats have no grooves due to wear from working with cables or moorings ropes;
 - 4.4 Free from excessive corrosion that could be hazardous;
 - 4.5 Vessels equipped with winches or capstans must ensure that they are properly maintained and in operational conditions.

3.10. Tugboats and Push Tug

1. Turnbuckles connecting tug with barge must be in good conditions and demonstrate that a maintenance plan is being followed. The barge and the push tug shall be compatible with each other for the convoy. Each shall have mechanical or manual means to fasten wires and mooring ropes used, in good working conditions. The tugboat and the barge must be connected in such a way that does not permit movements, so that the two vessels work together as a single rigid unit to prevent uncoupling.
2. The entire horizon must be visible from the push craft's wheelhouse. Ahead visibility, the bow line that passes through the upper front end of the convoy must intersect with the surface of the water at the minimum distance necessary to avoid collisions.
3. Fibre ropes may not be used in conjunction with steel cables to connect the barge and the tugboat.
4. Wires should not be used if the cross-section area has been reduced by more than 10% due to wear, abrasion, corrosion or breakage; neither should there be serious kinks, flattened areas or any other damage that could distort the structure of the steel cables. Likewise, if the end sockets or other endings such as eye splice are damaged, deformed or substantially corroded.
5. The tugboat must be a vessel built for that purpose, which is to say it must have the typical features of that kind of vessel. This includes, preferably, two main engines, suitable power for the pushed barges, a duplicate steering system, suitable push bumpers, etc.

3.11. Machinery

1. Self-propelled vessels must be in conditions and ready to sail out in case of emergency at all times.
2. External electrical generators shall not be accepted for vessels carrying hydrocarbon; if there are any they must be demonstrably inactive and signposted with warning notice during loading and unloading operations, or they must be explosion-proof with Ex-d approval.
3. There must be an emergency electrical power supply panel, for essential equipment at least. If a group of batteries is the chosen power source, they must be properly maintained, free of sulphating and stowed in a casing made specifically for that purpose. There shall be no loose installations and wires must be properly insulated. Battery cables shall be plugged by dedicated terminal connector.
4. The vessel must be sufficiently lit and good seamanship practices must be followed with industry devices used correctly.
5. All engine rooms shall have metal platforms with detachable fasteners so the bilge can be inspected. Any engine room where staff has to walk on stiffeners shall not be accepted.
6. The engine room must be correctly lit, ventilated and free of debris. It must be kept clean and tidy at all times.
7. Preventative measures must be taken to effectively insulate any discharges going directly into the river from the bilge. A means of retaining garbage/oily water on-board must be installed complying with 3.6.6.
8. Engine fuel tanks must have their capacity marked and have an effective system for measuring the fuel quantity at any time. They shall be provided with gooseneck-type vents fitted with flame screen (spark arrestors).

9. There shall be a bunker procedure including measures to be taken during operations on-board.

3.12. General appearance

1. Draught marks must match freeboard certificates and be kept properly painted.
2. The steel round bar used as defence structure of every vessel, or rubbing strake, must be kept in good condition and suitable for use with no many indentation.
3. The hull must be free of significant dents, oil/hydrocarbon stains, excessive coating breakdown or marine growth.
4. The inside of the vessel must be kept clean and tidy, with containers for disposing garbage and labels for identification.
5. The paint coating on the superstructure and decks must be in good condition.
6. Loose electrical installations and electrical consumption outlets without insulation shall not be permitted.

3.13. General cargo.

1. There shall be crew on-board responsible for operations during loading, stowing and unloading operations. There shall be a Cargo Securing Manual having guidelines to be followed. Safety notices about Cargo and Operations shall be posted.
2. The vessel must not have stability problems.
3. A stability plan approved by a competent authority for carrying deck cargo shall be required, including the load capacity and deck strength.
4. If the vessel is equipped with tank frameworks, they must have adequate strength and a securing and lashing system with stacking cones twist lock or a similar system.
5. If the cargo is carried in pallets, totes or drums these must be in good condition with effective lashing equipment. Fixing points such as eyebolts that are used for lashing cargo must be capable of transferring forces to which they are subjected, and they must be marked with their SWL.
6. Vehicles carried on board must be properly secured in accordance with the Cargo Securing Manual. Tie-down attachments must be located in such way keeping a free passageway between the vehicle's bumpers. Drivers may not be inside the vehicle during the voyage.
7. The securing points should be capable of transferring forces from the lashings to the chassis of the freight vehicle and should not be fitted to bumpers or axles.
8. Drums and containers must be in good condition, free of leaks and clearly marked with the cargo they contain. If they are carrying hazardous substances they must be labelled with IMO symbols as indicated in the International Maritime Dangerous Goods code (IMDG).
9. Drums shall be correctly stowed in vertical position and lashed.
10. Lights and electric accessories located in the vicinity of stowed tanks must be in good condition and explosion-proof.

4. International regulations of reference

- OCIMF SIRE Barges for SA&CA (OCIMF)
- ISGINTT (Central Commission for the Navigation of the Rhine and OCIMF)
- Equipment Safety Code for Ships and Naval, Maritime, River and Lake Vessels (DICAPI)
- Safety Rules for Ships and Vessels Used for Inland Navigation (DICAPI).
- General Law of Maritime and River Transport (Supreme Decree No. 98) (DIRNEA)
- Rules for Maritime Activity (Decree No. 168) (DIRNEA)

5. Appendices

Appendix I – Work and resting hours

Rule	STCW 2010 (Manila Amendment)
Work/Rest in 24 hours	Min. 10 hrs. of rest.
Work/Rest in 7 days	Min. 77 hrs. of rest.
Rest periods	No more than two rest periods, one of which must be at least six hours. Time between rest periods must not exceed 14 hours.
Timetable	Specific format table such as MLC, but watchkeepers and safety, pollution, security positions only.
Records and Exceptions	Daily records to be maintained. Parties may allow exceptions.

Note: Neither Peru nor Ecuador have signed ILO 180 or MLC 2006; therefore the river vessels that work for Repsol must at least comply with STCW 2010.

It must be ensured that the crew always complies with the required minimum of 10 hours of rest, which have been divided into no more than two periods, one of which must be at least six hours.

Rank/position (¹)	Daily work hours expected at sea		Daily work hours expected at port		Notes	Total number of daily work/rest hours	
	Watch (from-to)	Non-watch duties (from-to) (²)	Watch (from-to)	Non-watch duties (from-to)		At sea	At port

Captain's signature:.....

(1) For positions/rank that also appears in the document regarding the ship's minimum safe manning, use the same terminology as in that document.

(2) For watch staff, the notes section may be used to indicate the number of hours expected to be spent on non-scheduled tasks, which shall be stated in the column with the total number of corresponding daily work hours.

Appendix II – Passenger Boats

A - GENERAL:

Passenger transport boats must be built of naval aluminium material (strongly preferred) or a similar material that complies with the safety standards. If built with naval aluminium, the boats may be inspected structurally by a naval engineer to certify their navigability (inspection and survey).

Construction:

If built with naval aluminium, welds must follow the GMAW process or a similar process. If built with synthetic material, test results for the materials used for the structural elements of the hull shall be provided.

These conditions shall only be mandatory the first time the boat reports for service or after having undergone a major modification.

There shall be plans approved and stamped by either a qualified naval architect, a naval technician or a naval engineer.

These boats must be mechanically propelled with facilities to transport all their passengers seated and secured for the entire journey.

No any boat used for passenger transport shall be used to carry any kind of cargo beyond the personal belongings of each passenger.

B - CERTIFICATION:

Boats shall fly the flag of the country where they operate.

They shall have the certificates issued by their Flag country and the operator shall have the proper registration authorising them to operate river ships in the area the boat will be navigating. A copy of this document shall be sufficient.

There must be current insurance policies as requested by Repsol Group's SGI.

C - MANNING/STAFF:

1. All passenger boats must have at least one Captain/Skipper with a minimum of two crew members. Both must be qualified and trained to transport passengers.

There must be an additional crew member for trips over six hours long.

2. All crew members shall speak a common working language, Spanish is preferred.
3. All shall have current license issued by the Official Flag Administration and have passed the "Safety basic on-board and survival" course.

It is recommended they receive training in line with the course "Crowd Management, Passenger Safety and Safety Training for personnel providing direct services to passengers in passenger spaces" IMO 1.28.

The Captain/Skipper must have at least two years' experience handling passenger boats in the area to be navigated.

4. The Operator shall have a Drugs and Alcohol Policy. Periodic checks must be performed with a breathalyser not less than once a month, and a full A&D analysis when hiring new personnel and at least once a year subsequently.
5. It is preferable that the Operator has a Health, Safety and Environment Policy in place.

D - NAVIGATION AND COMMUNICATIONS:

1. Manuals and procedures must be in the cockpit and be easily understood. Procedures must cover high-risk navigation situations such as limited visibility, high traffic density, reduced manoeuvrability, speed control, etc.
2. There must be:
 - 2.1 Marine VHF including at least a channel used in the area (Ch 16 if covered by traffic control).
 - 2.2 HF equipment (SSB) would be preferable.
 - 2.3 Magnetic compass.
 - 2.4 Satellite tracking (panic button) where is covered.
 - 2.5 Navigation lights, sidelights and mast lights.
 - 2.6 Flagpole.
 - 2.7 External strobe light (beacon).
 - 2.8 Whistle.
 - 2.9 Hand-held torch in working conditions.
 - 2.10 Windscreen wipers.
 - 2.11 Fog reflector or lamp with electrical adaptor inside and outside the cockpit.
 - 2.12 Hand-held sounder or, optionally, echo sounder (N/A for speedboats)
 - 2.13 Distress signal poster.

All Communications and Navigation equipment on-board must be in good working condition.

3. *Rudder*. The boat must be operated from the cockpit using a rudder activated mechanically or remotely.

E - SAFETY MANAGEMENT:

1. Every crew member shall be equipped with sufficient personal protective equipment, with at least a shirt, trousers, goggles, deck shoes (not steel-toe), life jacket and gloves for dock mooring.
2. Emergency procedures must be available and understood by all crew members, at least for the following situations:
 - Man overboard.
 - Abandonment.
 - Fire.
 - Ship security (antipiracy).
 - Collision/grounding/Stranding.
3. There shall be a Maintenance Plan in accordance with the hours of navigation, the different systems, and including at least:
 1. Structure.
 2. Steering gear.
 3. Power/propulsion system.
4. A list of emergency contacts shall be available in the cockpit indicating the responsible person, location and contact method. If there is mobile phone service it shall also be used for communications.
5. The maximum passenger and cargo capacity must be prominently posted at the entrance to the passenger cabin and in the passenger compartment.

Saving Appliance:

6. Every boat shall have enough lifejackets for each crew member and each passenger, in addition to one in the cockpit and one in the aft of the passenger cabin. Two children's life jackets shall also be available.
7. There shall be at least two lifebuoys and one of them must be provided with life line.
8. A fully-equipped first aid kit must be kept in the custody of the Captain/Skipper.

Fire Fighting:

9. There shall be an adequate system with sufficient extinguishers or a fixed system (optional depending on the dimensions of the boat) that has been approved, serviced annually by a third-party and reviewed regularly by the Operator or crew.

CO₂ system may be used in enclosed spaces isolated from passenger and crew lodging areas.

There must be at least two approved extinguishers with valid annual service.

10. Boats having enclosures with heat engine must have bilges suitably vented to the outdoors.
If boats have engine rooms they must have forced ventilation with a minimum of 100 air changes per hour.
11. Fuel tanks must be vented to the outdoors. These tanks must be installed under the boat's waterline.
12. All engine gas exhausts must be as far away as possible from the passenger transport area.
13. Storerooms and enclosed spaces must be properly vented.
14. Emergency exits: All ships must have emergency exits. There must be at least two, and properly marked. Emergency exits must have a minimum width of 0.55 m and minimum height of 0.75 m.
These doors must be easy to open, with frames that prevent deformations from forming that would block the doors when trying to open them. They must open from either side.
15. Compartments for passenger transport and toilets, if any, must be ventilated, even when their doors and windows are closed.
16. All equipment, evacuation systems and safety equipment must be correctly signposted using the IMO Res A 760(18) and Res A 654(16) system. All equipment for use in emergencies must also have clear operating instructions.

Operations:

17. Boats with a bilge where pollutant-free rainwater or river water can accumulate must be equipped with a stripping pump, preferably mechanical. This pump shall have usage and care instructions before carrying out any outboard drain operations.
18. There shall be at least two oars and one boat hook, harpoon or spear.
19. There shall be a detachable ladder at the bow or stern to access the boat from the water level.
20. A safety talk and introduction must be given to the passengers before each voyage. This talk may be recorded on a video developed for that purpose and for the specific boat in question.

Safety cards summarising the events of the safety talk shall be available for each individual passenger.

Recommendation is subject to following the instructions of the lifesaving equipment manufacturers, and including at least the following detailed explanations:

- Life jackets donning instructions;
- Lighting in abandonment areas;
- The use of all survival equipment;
- Location and use of all aids and equipment;
- Recovering people from the water;
- Best use of saving systems and conduct in the water, rescue methods including the use of helicopter rescue gear (slings, baskets, stretchers), buoy trousers and lifesaving devices ashore.

F - POLLUTION PREVENTION:

1. Signs prohibiting throwing garbage or waste into the water shall be prominently posted to all passengers and crew members.
2. Boats provided by WWCC facilities must ensure there is a process for disposing waste and oily mixtures in ashore facilities provided for disposal.
3. Every boat shall have containers for throwing away any garbage that may be generated during the voyage. These containers shall be signposted and will preferably have at least two categories of garbage (organic and inorganic).

4. The boat's petrol refuelling points must have an effective closing device preventing unwanted openings. Fuel tanks shall be prominently marked with their capacity in the measurement system used in each location (gallons, litres, etc.).

G - STRUCTURE/FREEBOARD:

1. Passenger boats shall have positive stability and an initial metacentric height (GM) when adrift, loaded with its entire deadweight and passengers seated, of no less than 0.30.

Only positive GMs will be accepted for speedboats.

2. The freeboard shall comply with the indicated stability and floatability criteria.
3. Areas of passenger transit and access, embarkation and disembarkation areas where there is a danger of people falling overboard shall have guardrails of proper height and strength.

Interior and exterior walkways shall have suitable handrails to be used by people.

4. Preferably there shall be a watertight bulkhead at the bow to maintain buoyancy in the event of a collision.
5. There shall be two buoyant compartments with their hatches properly marked.

H - PASSENGER COMPARTMENTS:

1. Toilets must be provided on boats engaged on voyages of more than four hours.
2. Passenger boats shall have adequate means for protecting passengers from outdoors. These shall include overhead and side protection. In warmer areas the side protection is not necessary. In these cases, the emergency exits shall be adaptable to any circumstance.
3. There shall be sufficient luggage racks for the assigned number of passengers and additional racks for other uses. Each passenger shall be allowed to bring a maximum of 10 kg. of personal items.
4. There shall be proper heat and sound isolation between the engine room, if there are not outboard engines, and the passenger compartments.

Any pipe passing through passenger compartments that could raise the temperature shall be thermally insulated.

5. All windscreen or porthole panes or glass in the wheelhouse shall be shatterproof or acrylic, preferably injectable.
6. The net width of every passenger seat shall not be less than 45 cm. and there shall not be seatbelts.

The net width of interior passenger walkways shall not be less than 55 cm. Passenger entrances and walkways shall have non-slip floors.

Assuming that each passenger occupies 62 cm. of space from the seat back, this means that the distance between passengers may not be less than 40 cm. and the distance between one passenger and the seat in front of them not less than 12 cm.

7. Closed compartments shall be air conditioned.

J - MOORING:

1. Boats shall have at least two bollards at the bow and two at the stern for proper mooring.
2. A minimum of two nylon/fibre ropes shall be available for mooring and towing. There must also be a third rope.
3. There must be an eyebolt or fairlead at the bow. There must be eyebolts or a chock at the stern.
All elements used for operations shall have strength commensurate with the size of the boat.
4. A mooring system with an anchor is preferred for boats over 12 m long.

K - ENGINE:

1. The propulsion system shall be mechanical and controlled remotely from the wheelhouse. There shall be a control switch to turn the engine on and off as well as an emergency stop or quick release valve. Emergency stop tests shall be logged.
2. The control panel shall have these instructions.
3. The engine power shall be sufficient to reach a uniform cruising speed without causing vibrations to the boat.
The engine fuel must have a flash point of no less than 43°.
4. There shall be a tool kit for quick repairs on-board.

Electricity

5. The boat's electrical circuit shall be properly insulated, preferably with a switchboard if the voltage is 110 V or higher.
6. This switchboard must be in the wheelhouse or in a suitable location where it can only be operated by the Master/Skipper.
7. At least emergency lights must be provided and connected to an electrical panel.
8. The sockets shall be suitable to the type of voltage used.
9. If the electrical generator supplying the circuit has an engine it must have clear using instructions, emergency stopping and a fuel tank located away from the electrical wiring and the generator itself.
10. The circuit(s) shall have thermal switches for the proper power.

L - GENERAL APPEARANCE:

The boat's general appearance, coating and material conditions, as well as its overall cleanliness and tidiness, shall be assessed.

Appendix III – Safety Management Manual

The Safety Management Manual to be followed in river boats must at least:

- Clearly establish who is the Technical Operator, with updated contact information on-board and on all documents concerning the vessel.
- Have a crew training policy and ensure that those crew members who are going to perform new functions or move to a new unit are properly familiarised. Include an emergency preparation plans and drills and ensure an effective response to any emergency at all times.
- Have procedures for risk analysis, reporting incidents and quasi-accident reports.
- Designate a person ashore responsible for shipping operations and safety on-board (DPA), defining the duties of the Captain of the vessel (IMO MSC-MEPC.7/Circ6).
- Have a Maintenance Plan that includes reviews, tests and inspections as least as often as recommended by the manufacturer of each equipment on board.
- Develop a Contingency/Emergency Plan containing, at least, lists of contacts and assigned duties the crew must take in different scenarios (spill, stranding, collision, etc.). The plan must be kept on-board (3.5.1).
- Establish Safety, Health and Environment Policies and an Alcohol and Drugs Policy.
- Vessel Operations Procedures. Each activity must be logged and kept updated digitally, on paper, etc. This shall include tracking the Management System documentation.

Appendix IV – Domestic appliances that use liquefied petroleum gas (LPG).

All installations on-board that use LPG must comply at least with the following:

Gas appliances, containers, taps, piping, valves, safety devices and accessories used in on-board installations shall be of a type approved by a recognised certification body.

Containers, appliances and piping must be properly secured such that the movement of the boat does not cause them to shift and put the integrity of the installation at risk.

As a safety measure, when changing gas containers or cylinders the following must be respected within a distance of 10 metres from the supply station:

- No flames must be lit or kept lit,
- Electrical switches that are not explosion-proof must not be activated,
- Electrical engines that are not explosion-proof must not be operated.

Gas containers must be located on an open deck, away from passenger compartments, in deck houses that are properly identified and that only open from the outside of the boat. These deck houses shall be made of steel and vented at the bottom, no more than 30 cm from the deck, and at the top. They shall be large enough to store one container in addition to the one inside it.

In boats without full decks, the containers may be located with the device as long as they are in a space that is not under the main deck or in a confined space, and must be:

1.30 metres from ovens and heating elements (except when there is a metal separation),

0.50 metres from all electrical switches, conductors or sockets.

Containers shall always be stowed vertically with the valve facing up, even when they are empty.

All cylinders that are in service shall have a safety valve.

If there are devices on-board in open spaces, the use of flames is prohibited during loading and unloading operations, which is to say these kinds of devices should not be used.

Appendix V - Definitions

Acceptable:	Classification assigned in the vetting process for a vessel indicating that all the information and data has been received and the questionnaire completed, including whether it is being considered for use. However it may or may not have a validity date. If it does not have a validity date it shall be deemed acceptable for one voyage or an equivalent time period. After passing a physical inspection it shall be valid for 6 or 12 months, depending on its condition.
Area to be navigated:	The place where a vessel travels in navigable waterways such as rivers, lakes, lagoons, bays, gulfs, continental seas or oceans. The area to be navigated is generally limited to a space between ports on a navigable waterway.
Boat:	Any naval construction engaged in navigation and used for a specific kind of transport.
Breathing apparatus:	Apparatus designed for rescue teams, firefighters and others who work in oxygen-deficient atmospheres and usually consisting of tanks of air or oxygen and a mouthpiece, that enables the wearer to breath in difficult conditions such as a smoke-filled building.
Capstan:	Winch-type machine with a vertical or horizontal axis that operates by reeling a cable or rope around a drum, usually manually, as a tool for mooring or any other traction using a rope or cable.
Cargo tanks:	Tank or cistern used to hold and carry bulk liquids.
Class certificate:	Document issued by a Classification Society accrediting that a ship and its components have been designed and built according to the rules and criteria established by the Classification Society, and that it therefore will comply with the rules defined by the International Maritime Organisation (IMO).
Class notation:	<p>Classification notations are indicative of the specific requirements of the Classification Society Rules that have been fulfilled. Additional voluntary notations are offered by individual Societies and may be chosen by a Shipowner to demonstrate that the vessel is in compliance with a particular standard that may be higher than the one required for the classification. Depending on the Classification Society, the classification notations are assigned to the ship based on the type of ship, the service, the navigation and/or other criteria that have been provided by the Shipowner and/or builder when the classification is requested.</p> <p>Classification notations attributed to a ship are indicated on the classification certificate, as well as in the Ships Registry published by the Society. These notes may be generalised into the following types, which may also be combined:</p> <ul style="list-style-type: none"> • The main class symbol; • Construction markings; • Service notations with additional service features, as applicable;; • Navigation notations; • Geographic notations; • Additional class notations.
Classification Society:	<p>A Classification Society is an organisation that:</p> <ul style="list-style-type: none"> • Publishes its own classification rules (including technical requirements) regarding the design, construction and control of vessels, and has the ability to apply, maintain and update those rules and regulations with its own resources on a regular basis; • Verifies compliance with those rules during construction and periodically over the service life of a classified vessel; • Publishes a registry of the vessels that it has classified; • Is not controlled by and does not have any stakes in shipowners, shipbuilders or others commercially engaged in the construction, equipping, repair or operating of vessels; and • Is authorised by Flag Administrations as defined in the SOLAS Chapter XI-1, rule 1 and listed, consequentially, in the IMO Global Integrated Shipping Information System (GISIS) database.

Cleat:	A piece of metal or wood having projecting arms or ends T-shaped on which a rope can be wound or secured used as mooring element fixed in suitable places for hitching and securing ropes.
Cofferdam:	Isolated void space between two watertight bulkheads or decks of a barge/vessel. It can be a void space or a ballast space. In general they are used to ensure total isolation between two cargo spaces.
Confined/enclosed space:	Any space with limited entry and exit openings and/or whose natural ventilation is or may be unfavourable and that may contain or have contained hazardous products of any type inside (asphyxiating, flammable or toxic) or present dangerous conditions if works are carried out inside of them.
Crew member:	Person who is a member of an on-board team working on the shared task of driving a boat at all times, whether at sea or in port, and who is subject to a hierarchical structure where the Master has maximum authority.
Dangerous goods:	All dangerous substances contained in a package, a portable tank, a container or a vehicle, including empty receptacles, portable tanks and tanker vehicles that have been previously used to transport dangerous substances, except if the receptacle or tank has been washed and dried, or when the nature of their previous content allows it to be done risk-free. Dangerous goods are classified in the International Maritime Organisation's "International Convention for the Safety of Life at Sea" (SOLAS 1974) VII/1.1 and "International Maritime Dangerous Goods Code" (IMDG).
Declaration for dangerous goods:	Certification or declaration signed by the shipper of the dangerous goods before the goods are shipped, certifying that the cargo presented for transport has been properly packed/packageged and marked, labelled or tagged, as appropriate, and is fit to be transported.
Dinghy:	Also called <i>escort boat, guide boat, service boat or working boat</i> , it is a smaller boat that is transported along with the main boat or is tied or towed by it, and is used in the event of needing assistance ahead of the main boat, providing early warnings of navigational hazards such as shoals, logs or other obstacles that cannot be seen correctly from the boat's wheelhouse.
Double hull:	Structure of a vessel that involves tanks or spaces that are not used for transporting cargo, and that fully cover those cargo tanks from the exterior shell (outer hull). In this way the vessel has a double separation barrier along the full length of the cargo hold between the cargo tanks and the water.
Doubler:	Structurally, when the surface of the new plate is greater than the area removed and lap joint welding is used to attach it. It is used for repairs when it would be difficult and costly to access the other side of the bulkhead, Keep in mind that they are very noticeable and do not look nice. Not accepted as valid in the shipbuilding industry. Doubler plates currently offer a temporary solution for plate damage in ship structures.
Draught marks:	Draughts are measured using scales located on each side, fore and aft, and in some vessels amidships as well. These values must be painted in each place so they can be properly read, in Arabic/decimal numerals.
Dry dock:	Repairs that are performed regularly on the part of the hull known as the underwater body. It has this name because the boat must be taken completely out of the water at a facility that has the same name: drydock.
Dumb Barge AF: (Non-propelled barge)	Floating naval construction lacking propulsion or steering used in waterways to carry out auxiliary maritime functions or exploit marine resources, such as floating docks, floating cranes, hopper barges, flat-bottomed boats, pontoons, rafts and other floating platforms.
Echo sounder:	Navigation instrument that uses the Doppler effect to determine the vertical distance between the seabed and a specific part of a vessel's hull.
Event:	Event or incident of significance that is recorded in the logbooks on-board. Technically it is called remark.

Ex(d) Explosion-proof:	Classification for elements or equipment that comply with the EN 60079-1 standard in terms of safety. They be certified using a fire test. The external housing of the equipment to be fire-tested is designed to withstand an internal explosion. The enclosure joints allow the combustion products, and the consequent gas expansion, to be relieved by the joints so that the explosion does not leak into the outside atmosphere.
Explosion-proof:	Something that eliminates or reduces the risk of explosion.
Fishplate/ ship rail:	The definition of fishplate in the shipbuilding industry has different variations that can be confused with the term used in this document. Fishplate is a retaining wall around the entire perimeter of the boat on the main desk used to enclose any liquid spills. It is generally built a short distance from the railing to have the maximum possible surface and span all the openings of any tanks that could be on deck. The water trapped in the fishplate is drained through scuppers to the outside. These scuppers must be watertight during loading/unloading operations and bunkering/consumption fuel operations.
Flag certificate:	Document issued by Flag Administration or a recognised organisation on behalf of the Flag, with a specific or permanent term of validity, which ensures full compliance with the requirements issued by the National Maritime Authority.
Flag:	The flag flown by a specific boat. It is the Administration of a state, which sets the rules applicable to any vessel, barge or boat. For the purposes of these standards: Peru or Ecuador.
Flame arrestor or spark arrestor screen:	Metallic screen element that allows air to flow through it, but not fire. This screen is used in engine exhausts.
Flame arrestors (spark arrestors):	This is a device that uses a metal screen to prevent open flames from spreading.
Flat-bottomed boat (Chata):	Boat shaped as a wide platform with shallow draught and used for multiple purposes in ports and inland waterways. Depending on its use it may be called an oil recovery barge, pumping barge, repair barge, etc.
Freeboard:	Distance measured vertically at the centre of a boat, from the waterline to the upper deck level, measured at the lowest point of sheer where water can enter the boat or vessel.
Gangway:	Walkway element that is used to board a boat from a land location (dock, pontoon, coast, etc.). It is also known as a gangplank.
Garbage:	Garbage means all kinds of victual, domestic and operational waste excluding fresh fish and parts thereof, generated during the normal operation of the ship and liable to be disposed of continuously or periodically except those substances which are defined or listed in other Annexes to the MARPOL appendices other than Appendix V. The term rubbish is not used in this document because it is used to mean many things and could generate confusion.
Gooseneck:	Type of non-pressurised vent used in service tanks for effective ventilation by preventing the entry of rainwater or splashed water from the area. It is U-shaped with its ventilation hole facing down.
Gross tonnage:	This is the volume of all the ship's interior spaces including cabins, berths, storerooms, etc., expressed in tonnes. It is known by its initials GT.
Heavy-grade oils:	Refers to: <ul style="list-style-type: none"> a) crude oils, having a density at 15° C higher than 900 kg/m³; b) oils, other than crude oils, having either a density at 15° C higher than 900 kg/m³ or a kinematic viscosity at 50 ° C higher than 180 mm²/s; or; c) bitumen, tar and their emulsions.
Hopper barge:	Flat boat with a similarly-shaped bow and stern that is used to hold granular materials to be carried to their proper disposal site. It is made up of a steel flotation device, typically peripheral, with a bottom that opens with folding doors. It empties using gravity. They typically support dredgers, transporting the dredging material.

HSE inspection:	Regular or unannounced inspection carried out on vessel qualified as acceptable by Repsol Vetting. The inspection covers safety and maritime aspects and is carried out using a checklist from the Business Unit or HSE, or one that has been indicated in the specific contracting procedure; the checklist questionnaire for Repsol HSE river inspections, developed by E&P, may be used as a guide. This inspection is not carried out by the licensing authority, the department nor the vetting personnel; in general it may be carried out by an HSE or river expert from the Business Unit.
Insert:	Structurally the joint is welding using a butt weld. Used for repairs where the other side of the bulkhead is easily accessible and welded on both sides. It has an attractive finish, becoming part of the bulkhead and with only the weld seam visible. It is the only type of repair that may be approved and the type of repair is backed by the industry. In other word also is a steel plate which replaces part of a shell plate and is inserted into a shell opening, with a nominal thickness that is equivalent to the nominal thickness of the adjoining shell material, and is joined together using a butt-welded joint.
International Safety Management Code:	The ISM Code is issued by the IMO. ISM: International Safety Management. www.ismcode.net
Intrinsically safe:	Intrinsically safe equipment shall not be capable of releasing sufficient electrical or thermal energy under normal or abnormal conditions to cause ignition of a specific hazardous atmospheric mixture. Intrinsically safe certified electrical equipment must be distinctively marked in accordance to the classified area in which it can be installed and passed certain pre-established testing conditions. Tests are specified in the standards ANSI/UL 913-1997
Lashing:	Means of securing cargo or a solid piece of the boat using cables, chains, tensioners/turnbuckles or other elements designed for that purpose such as stacking cones twist lock for containers, etc.
Licence:	The document issued by an Official Flag Administration Organisation certifying that a person can perform a specific position on-board. The qualification of the holder shall be noted on it.
Lifebuoy:	Flotation ring. Circular lifesaver. This is a flotation device that, under international conventions for saving human life at sea, is part of a vessel mandatory safety equipment to be used to rescue shipwreck survivors or people who have fallen into the water, and to keep them afloat for a brief time.
Listing of Surveys, Conditions of Class and Memoranda:	Document issued periodically by the Classification Society of a ship, containing a log of class-related surveys, routine inspections, dry docks and repairs carried out, including all machines and equipment comprising the on-board installations that must be monitored.
Loading/unloading operations:	All operations on a boat to stow the material being transported, whether it be dry cargo, bulk liquid hydrocarbons, bulk liquefied gases, containers, pallets, drums, totes, etc.
Logbook:	The book where all the ship's navigation and operation events are recorded, as well as important events and emergency situations or evidence that could be used to clarify certain situations such as an incident, etc. It is also used to record the weather, distance travelled, etc. Navigation Deck logbook.
Low visibility:	Visibility conditions in an area to be navigated, to be defined by the Operator as a unit of distance in the Bridge Procedure Manual.
Manifold:	The ends of the liquid loading and unloading pipelines. They are located near the gunwales of vessel and their pipes usually run to both sides. The cargo pipelines that run to the cargo tanks are joined to the manifolds, as necessary.
Marine growth:	Any living organism attached to the hull of a vessel as moss, hydroids, barnacles, etc.
Marine insurance:	Type of damage insurance generally covering navigational risks that could affect the transporting ship or the cargo being transported.

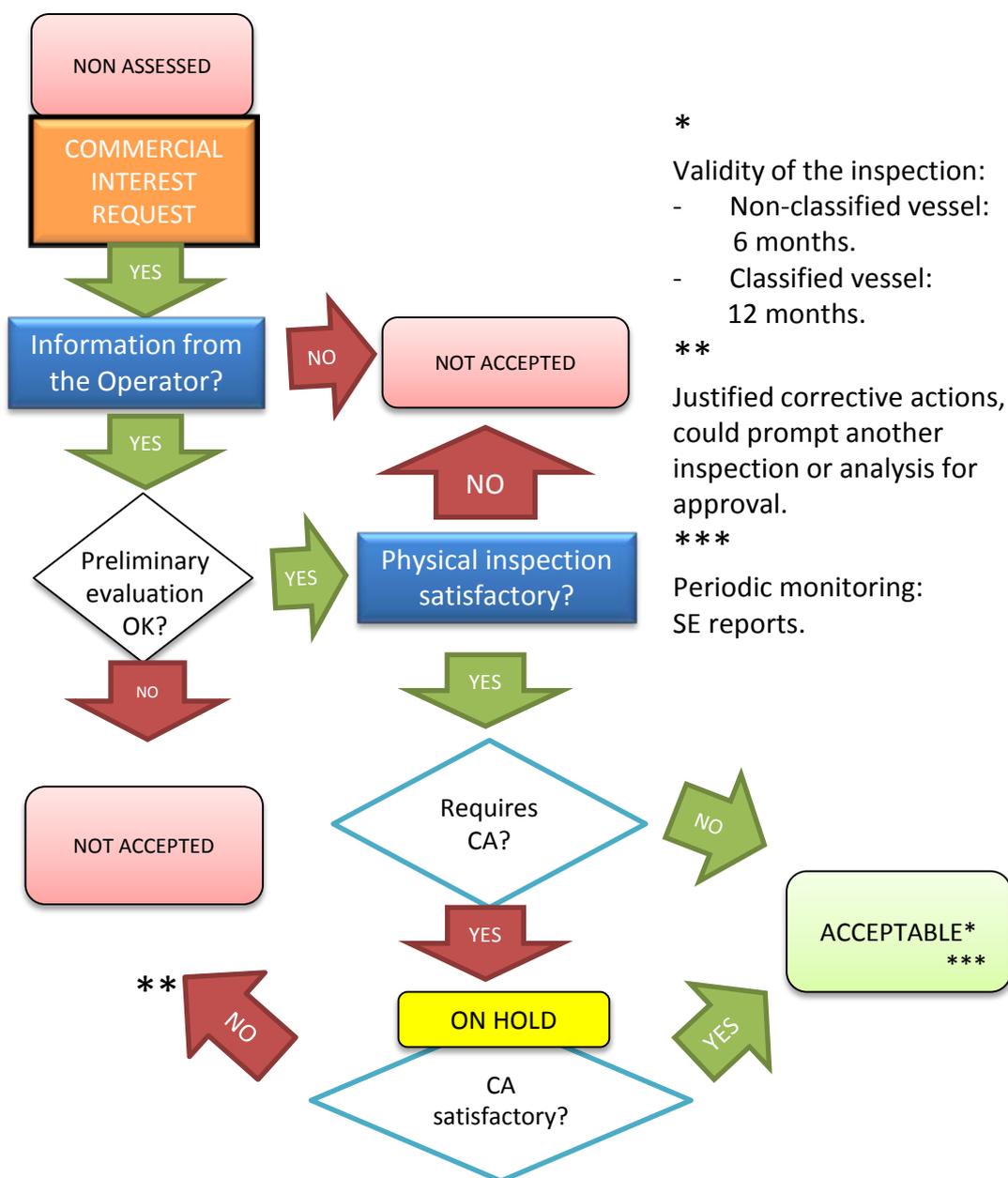
Minimum safe manning:	This is the maritime, river or lake personnel needed to man a vessel when navigating, covering all the watches and shifts as needed for ship safety. This number of crew members does not cover requirements for any activities other than ship navigation and safety.
Navigation plan:	Plan describing the purpose of the manoeuvre and how to proceed during the voyage to be taken. It may be done graphically so as to be understood by the crew. It must state the authority for the voyage and which rules to follow. It must be approved and signed by the responsible party and the Captain. The plan may be brief, including difficult or hazardous passages, areas where crossing with other boats is prohibited, course recommendations, speed control and what is normally done during maritime voyages to navigate and overcome obstacles.
Non-accepted:	The assessment of "non-accepted" means that the ship has been "rejected" during a physical inspection or in the preliminary evaluation and must be inspected in a non-Repsol operation before being used by the Group, or correct a class condition or comply with some Repsol Vetting requirements or demands.
Non-assessed:	Classification assigned in the vetting process for a boat indicating that all the information and data is required and the questionnaire must be completed, including the commercial interest to a specific Group department.
Oily mixture:	Any mixture containing hydrocarbons. Generally, it is a mixture of hydrocarbons and water.
On hold:	Classification assigned in the vetting process for a boat that is under review when additional data/information is required to achieve its final status. Means vessel which Vetting assessment process has been not completed. It may be due to the following: <ul style="list-style-type: none"> • Missing reports on corrective actions. The ship has been physically inspected by Repsol Vetting, an inspection report has been generated and delivered to the operator with the comments included. Repsol Vetting has not received a response from the operator identifying or carrying out the corrective actions for the comments made during the inspection. If 30 days after performing an inspection the corrective actions/responses have not been received, the boat will receive NON-ACCEPTED status. • The evaluation was not finished due to a lack of information. It indicates that some information to complete the vessel selection cannot be found, such as the accident or change management reports, or non-compliance with Repsol requirements and procedures.
Operating license:	The authorisation granted by the Executive Managing Division or the Regional Managing Division for providing river transport services.
Operator:	For the purposes of these criteria, it is the individual, office or team of people in charge of technically managing a vessel.
Pallet:	Platform or tray made of planks on which cargo is loaded for transport. Its primary purpose is to facilitate the arrangement of break-bulk cargo and make it easier to handle and stow.
Peak tank:	A vessel's structural tank, built to leverage the volumes of spaces confined by the hull plating at the tips of the bow and stern, the main deck and the first transversal bulkhead (which is called the collision bulkhead).
Pilot book/Sailing Direction:	Written publication with some illustrations which describes the coasts, shoals, landmarks (buoys, lighthouses, beacons, etc.), visual profiles of the coasts, dangers, suitable ship's routeing, ports and terminals, etc. for information purposes.
Platform:	Metallic piece or square/rectangular steel grid thick enough to support the weight of people walking, which is used in a chequerboard pattern over structural elements to end up with a flat floor so that people can walk freely to and from a certain area. They may be removed for bilge or structural inspections.
Plumb bob (measuring tapes):	Weighted element hanging at the end of a measuring tape, generally made of bronze, so that the tape hangs as straight as possible in the direction of the Earth's gravity.

Poor condition:	In terms of the painting or coating protection of a vessel's structure, Condition with breakdown of coating or rust penetration on more than 20% or hard rust scale on more than 10% of the area under consideration or local breakdown concentrated at edges or welds on more than 50 % of edges or weld lines in the area under consideration..
Port:	Geographical area that occupies terrestrial and aquatic spaces located at the banks of navigable seas, rivers and lakes/lagoons and that has the physical, natural or artificial conditions, as well as the organisational conditions, to allow naval traffic operations, and that has been created and authorised to carry out these activities by the relevant administration.
Pressure and vacuum valve P/V:	Mechanical device that controls the interior pressure of cargo tanks, maintaining a maximum and minimum temperature so as not to exceed the structural limit of the tank it is protecting. It is also called a relief valve.
Pusher/Tugboat:	Naval construction engaged in transporting naval devices (dumb barges, flat-bottomed boats and other) by pushing them with its bow.
Recognised organisation:	RO: Recognised Organisation. An organisation that has been evaluated by an Official Authority or Professional Association and found to meet the rules and procedures intrinsic to a specific activity in order to be authorised as such.
River transport:	The activity or service provided by individuals or legal entities, as appropriate, for the purpose of mobilising / transferring / transport people, animals or things via inland waterways using suitable river vessels or devices. An activity whose purpose is to carry cargo and/or passengers along rivers.
Roller:	Cylindrical-shaped mooring element attached to the vessel's structure, which rotates on an axis around which passes a line, rope or chain, allowing you to change their direction.
Rubbing strake:	This is the name for the reinforcement placed on both sides, along the prismatic section of a vessel's hull, in order to give more rigidity to the area of the boat in contact with the dock or other boats. It is also called a garboard.
Safety inspection:	Unannounced inspection carried out on contracted vessels during Repsol Group-related operations. The inspection may be limited, focused on the crew, on the safety of operations, the cleanliness of the engine room, etc.; or full, covering all the areas of the vessel, the safety management system, etc.
Scupper:	Drainage pipe to drain the deck of trapped water or other liquids.
Self-propelled boat	Any boat that has its own mechanical means to drive it forward and astern. It can be a tug pusher, a motorised river flat-bottomed cargo ship or any boat that can be moved by its own mechanical means.
Self-propelled river barge (M/F):	Mechanically-propelled and manned vessel used to transport dry or liquid cargo.
Shallow draught:	Type of boat constructed such as to have a depth under maximum load conditions that allows it to navigate during the river low-water season. It should not exceed 3 feet of draught; speedboats that can navigate in shallow areas are also included in this category.
Sounding pipe:	Tube passing through the main deck at a safe distance so as to be within arm's reach of an operator and down to the bottom of a tank to measure its cargo status in conjunction with the corresponding calibration table for that tank.
Speedboat (deslizador):	Boat with an outboard engine, normally used to transport passengers.
Substantial corrosion:	An area of corrosion that would be considered to be more than 75% of the acceptable diminution levels in an assessment, but still within the acceptable limits.
Tidying:	Putting all objects into order. Organising, cleaning and leaving things in neat and smart conditions.

To Strip:	To remove water or another liquid from the bilge or a compartment (cargo tank, ballast, tray, etc.) using bailers, pumps or any other means.
Tote:	Container with a capacity of approximately one cubic metre, reinforced with a galvanised steel cage built using electrowelding. The base of the container is usually a pallet, and its interior body is made of high-density polyethylene to contain the goods to be transported.
Turnbuckle:	Mechanical element with two ends joined by a screw in the centre, around which the ends are rotated. This generates a force that holds them together and provides tension at the points tied to the two ends. Generally used to hold two lines of cables or two free ends firmly together.
Vessel:	The common term used to refer to boats, barges, motorised flat-bottomed cargo ships, motorboats and pushers, individually or as a group. Naval construction used for navigating, equipped with steering and propulsion. This includes its integral parts and accessories such as rigging, machinery and instruments that, despite not being a part of the structure itself, are used for service both at sea and in port.
Vetting inspection:	A systematic inspection carried out on-board a vessel including active participation from the crew and focused on navigation and cargo management, safety and environmental protection.
Vetting inspector:	Person qualified by Repsol Vetting to carry out the vetting inspection.
Waste:	"MARPOL waste" is the name for trash generated during the ship's services, as well as during its maintenance and cleaning operations, including waste water and all trash that is not from cargo. MEPC 1/ Circ. 671 – 20-07-2009

Appendix VI Synthesis of the vetting process:

- Nomination of the boat (commercial interest)
- Operator of the boat provides documentation and completes the questionnaire.
- Documentation and questionnaire in order → **Acceptance**.
- Vessel authorised to operate for one journey.
- Inspection during a loading/unloading operation.
- If it does not operate or is not inspected, its acceptance will expire after a certain time.
- Inspection with no deficiencies: **ACCEPTABLE** for 6 months. **ACCEPTABLE** for 12 months if it is a classified ship under 15 years old.
- Inspection with deficiencies: **ON HOLD**. Corrective actions are needed; if they are satisfactory the process will conclude and it will be deemed **ACCEPTABLE** for 6 months. **ACCEPTABLE** for 12 months if it is a classified ship under 15 years old.
- Inspection with deficiencies rejecting the boat: **NON-ACCEPTED** until satisfactory corrective actions have been reported and the boat re-inspected.
- Unannounced safety inspections may be carried out during the boat's acceptability period during a Group operation.



Approval

Validity

This guide will become valid as of 1/1/2015

Revoked regulation

None

General and temporary provisions

None

Version 0.0 approved by:

Ignacio Sanjuán Sánchez Sarachaga

<Date of approval>

Control, Innovation and Resources Division