



SIRE 2.0 Programme Introduction and Guidance Version 1.0

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The Oil Companies International Marine Forum (OCIMF)

Vision: A global marine industry that causes no harm to people or the environment.

Mission: To lead the global marine industry in the promotion of safe and environmentally responsible transportation of crude oil, oil products, petrochemicals and gas and to drive the same values in the management of related offshore marine operations. We do this by developing best practices in the design, construction and safe operation of tankers, barges and offshore vessels and their interfaces with terminals and considering human factors in everything we do.

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SIRE 2.0 Programme Introduction and Guidance

Purpose

To inform all SIRE 2.0 Programme participants (stakeholders) of how the inspection process has been designed and the expectations for its implementation.

Objective

To form a common understanding of the SIRE 2.0 inspection process across all stakeholders involved in commissioning and conducting SIRE 2.0 inspections and reviewing and using the reports generated.

Scope

This document applies to all vessels inspected under the SIRE 2.0 Programme, which includes:

Any vessel greater than 150 gross registered tonnes designed for carriage of crude oil, condensate, refined petroleum products, petrochemicals and by-products, biofuel, gas, liquefied gas or chemicals in bulk.

Stakeholders

- **OCIMF Secretariat:** Responsible for maintaining the SIRE 2.0 Programme Introduction and Guidance and the SIRE 2.0 Question Library, in alignment with OCIMF policies and procedures.
- **Submitting companies:** Responsible for the correct use of the SIRE 2.0 Programme Introduction and Guidance and the SIRE 2.0 Question Library, in all commissioned SIRE 2.0 inspection activities.
- **SIRE inspectors:** Responsible for the correct use of the SIRE 2.0 Programme Introduction and Guidance and the SIRE 2.0 Question Library, in all SIRE 2.0 inspection activities.
- **Report recipients:** Responsible for interpreting SIRE 2.0 inspection reports based on the SIRE 2.0 Programme Introduction and Guidance and the SIRE 2.0 Question Library.
- **Vessel operators:** Responsible for preparing their vessels and crews for each inspection conducted in accordance with the SIRE 2.0 Programme Introduction and Guidance and the SIRE 2.0 Question Library.

Section 1. The SIRE Programme

1.1 The SIRE 2.0 Programme

OCIMF established the Ship Inspection Report (SIRE) Programme in 1993 and it has developed and grown in scope since then. In 2022 the programme was renamed SIRE 2.0 after a complete revision of the inspection process. This included:

- An evaluation of the strengths and opportunities for improvement of the existing SIRE Programme.
- Reviewing and revising the policies and procedures used to manage the programme.
- Creating a SIRE 2.0 Question Library of completely refreshed inspection questions to allow an Inspection Compiler to construct a unique, ship-specific set of questions for each vessel inspection called the Compiled Vessel Inspection Questionnaire (CVIQ).
- Risk-ranking all questions against OCIMF's bowtie risk analysis to ensure proper emphasis is placed on critical barriers and activities during the inspection process.
- Conducting a gap analysis between the completed SIRE 2.0 Question Library and the previous VIQ7 to ensure that all existing guidance was considered and included in the new question set where appropriate.
- Managing question allocation so that all aspects of a vessel's operation are investigated over a series of inspections.
- Managing question allocation and inspection time using an algorithm to ensure an inspector has sufficient time to address allocated questions.
- Enhancing question guidance to ensure that a shared mental model is developed across all programme participants.
- Requiring the vessel operator to upload photographs, certificates and additional inspection-related information through the Pre-Inspection Questionnaire (PIQ) to facilitate the inspection and enhance the final report.
- Aligning the inspection programme as closely as possible to TMSA and leveraging aspects of TMSA to define expectations within question guidance.
- Shifting the responsibility for identifying weaknesses in ship management processes from the inspector to the vessel operator using targeted declaration and verification questions aligned with TMSA expectations.
- Making the inspector aware of any negative observations to core questions from the previous inspection.
- Creating a bespoke tablet-based application, the Inspection Editor, to allow an inspector to gather and record information during an inspection, including taking photographs of observed conditions.
- Tracking the progress of an inspection before, during, and after the physical inspection by logging inspector interaction with the Inspection Editor.
- Minimising the frequency of questions that would have been recorded as 'not seen' or 'not applicable' under SIRE VIQ7, now collectively called Not Answered, by vessel specific question allocation linked to the HVPQ and the PIQ, both of which are completed by the vessel operator.
- Reinforcing consideration of human factors during the inspection process by including an evaluation of the performance of vessel staff based on tasks performed or described.
- Providing existing inspectors with comprehensive training in the following areas:
 - Technical skills for managing the new inspection process.
 - Non-technical skills to manage the increased focus on effectively interviewing officers and ratings to evaluate their understanding of the use of onboard procedures and the operation of machinery and equipment.

- Conducting a series of trial inspections which included:
 - Evaluating selected tablet devices for adoption by the programme.
 - Testing the Inspection Editor software and tablet combination to ensure stable performance in the inspection environment.
 - Observed inspections to evaluate the effectiveness of:
 - ♦ The technical and non-technical skills training provided to inspectors.
 - ♦ The use of the tablet and Inspection Editor software during the inspection.
 - ♦ The SIRE 2.0 Question Library and its guidance in informing inspection participants of the expectations of the new inspection process.
 - Evaluating and improving the end-to-end inspection process.

1.2 Uniform Vessel Inspection Procedure

The programme requires participants to follow a uniform Vessel Inspection Procedure. This procedure contains the following elements:

The Pre-inspection Element requires the vessel operator to provide information by the following means:

- **Harmonised Vessel Particulars Questionnaire (HVPQ):** This is a well-established process for documenting and communicating permanent and infrequently changing information relating to a vessel, its construction, outfitting and certification. Information from the HVPQ is used to auto-populate some aspects of the inspection report and to manage the assignment of some questions.
- **Pre-Inspection Questionnaire (PIQ):** This is an additional questionnaire used to gather dynamic information about vessel operational history and additional static data, to permit the inspection compiler to assign appropriate questions to each bespoke inspection questionnaire. Some information gathered through the PIQ is inserted in the Inspection Editor and the final report as information for an inspector and report recipient respectively. The PIQ is not intended to be given to programme recipients as a standalone document.
- **Certificate Repository:** The vessel operator uploads certificates applicable to the inspection process from a defined list. The certificates are made available to the assigned inspector through the inspection software prior to boarding.
- **Photograph Repository:** The vessel operator uploads a defined set of photographs of the vessel to be inspected. These will be used for condition verification by the inspector during the inspection and inserted in the final report for the information of the report recipient.
- **Inspection Declaration:** The vessel operator will make a declaration that all data, photographs and certificates provided are accurate, complete and in accordance with the instructions provided.

Based on the information gathered, the Inspection Compiler creates a unique ship-specific inspection questionnaire, the Compiled Vessel Inspection Questionnaire (CVIQ). The CVIQ and the information provided through the Pre-inspection Element is downloaded to the Inspection Editor application on the inspector's dedicated tablet computer.

The Inspection Element consists of the following phases:

- The pre-boarding phase requires that the inspector:
 - Reviews the CVIQ assigned to the inspection and familiarises themselves with any supplementary information relating to the assigned questions.
 - Reviews and completes any specific tasks and questions assigned and tagged as pre-board in the Reorganised Vessel Inspection Questionnaire (ROVIQ).
 - Reviews the standard photographs supplied by the vessel operator and identifies any areas of concern or for further investigation.
 - Reviews the certification and documentation supplied by the vessel operator.

- The physical inspection phase requires that the inspector uses the functions of the Inspection Editor to:
 - Commence, pause, resume and complete the inspection process to ensure an accurate record of inspection activity is maintained.
 - Record applicable responses to each question as the inspection progresses.
 - Take and append photographs to support observations, or as directed by question guidance.
 - Fully document any negative observations prior to the closing meeting.
 - Fully document any human observations that exceeded normal expectations prior to the closing meeting.
 - Update any negative observations to reflect additional information provided during the closing meeting before the Master acknowledges understanding of any negative observations made.
- The Report Element requires that the inspector:
 - Verifies the accuracy of all information entered into the Inspection Editor during the pre-boarding and physical inspection phases.
 - Adds supplementary comments to support positive or neutral observations recorded where considered necessary.
 - Performs a spelling and grammar check of all comments and negative comments.
 - Validates the inspection.
 - Submits the Inspection Data-set to the SIRE Report Database.
- The Inspection Data-set consists of:
 - The observations, including comments and negative comments, to all assigned questions.
 - Any photographs tagged to be included in the final report.
 - A data packet which includes:
 - ♦ The geographic position of the tablet at the commencement and completion of the physical inspection.
 - ♦ The step count, against time, of the inspection tablet between the commencement and completion of the physical inspection.
 - ♦ The date and time of each response to an assigned question before, during or after the physical inspection.
 - ♦ The date and time of adding or removing a negative observation to an assigned question before, during or after the physical inspection.
 - An electronic image of the Observation Declaration presented to, or reviewed with, the Master during the closing meeting.

Section 2. The Vessel Inspection Questionnaire

2.1 SIRE 2.0

The implementation of SIRE 2.0 introduced the following changes to the Vessel Inspection programme:

- The variant concept has been discontinued and replaced by the tagging of all questions to ensure that each question is considered for inclusion in an inspection based on:
 - Vessel type.
 - Vessel outfitting.
 - Information provided through the HVPQ and/or PIQ.
 - Information provided through the inspection booking process.
- A unique, vessel-specific CVIQ is compiled for each inspection, selected from the SIRE Question Library, based on the following criteria:
 - Question applicability to the vessel to be inspected.

- Operational history of the vessel as declared by the vessel operator through the PIQ.
- Pre-determined risk-ranking of the questions resulting in the following categorisations:
 - ♦ Core: Assigned to every inspection.
 - ♦ Rotational: A non-core question assigned to a vessel on an occasional basis.
 - ♦ Campaign: An existing rotational question assigned to every inspection for a fixed period in response to an incident or industry trend. Where no suitable rotational question exists, a new question will be developed for inclusion in the SIRE 2.0 Question Library at the next revision.
- Notional time assigned to each question to allow it to be addressed in line with the supporting guidance and inspector training.
- Time in an inspection area: A vessel has been divided into defined inspection areas with each area allotted a notional inspection timing and each question allocated to an inspection area.
- Time for the complete inspection: The overall inspection time is pre-determined and equals the sum of the notional times for all the allocated questions.

Details of notional times and question allocation to inspection areas will not be published as these parameters will be for internal OCIMF use only.

2.2 Conducting an inspection using the SIRE 2.0 tablet and Inspection Editor

The introduction of SIRE 2.0 introduced the ability to document the inspection as it progresses using a dedicated tablet computer loaded with the Inspection Editor application.

The Inspection Editor can present the inspection and its progress in several user-selected display modes:

- **Chapter mode:** This presents the questions allocated to the inspection in chapter, section and numerical sequence.
- **ROVIQ mode:** This groups the questions allocated to the CVIQ by physical location or activity and then presents the groups in a standard inspection order. The ordering of the ROVIQ locations follows the traditional inspection sequence but the inspector is free to vary the order in which they perform the inspection as they see fit.
- **Photo selection mode:** This presents the standard set of operator-supplied comparison photos in the numerical order of the standard photo set.

A counter is displayed to indicate the total number, and progress towards completion, of the questions assigned to a chapter, section, or ROVIQ location depending on the display in use.

A ROVIQ location is removed from the visible list if it is not applicable to the vessel, or no questions included in the CVIQ had been assigned to that location.

A traffic light system is used to indicate the status of allocated questions in Chapter and ROVIQ mode as follows:

- Red: No responses have been entered in the assigned response tools.
- Amber: At least one response has been entered into an assigned response tool
- Green: All response tools have had at least one response entered.

Observations are any information entered in the assigned response tools and are considered to include positive, neutral and negative information.

Section 3. Using the CVIQ and Inspection Editor application

3.1 Using the SIRE 2.0 Compiled Vessel Inspection Questionnaire (CVIQ)

The questionnaires used in this programme are created for each inspection as described in section 2.

Each SIRE 2.0 question is constructed with the following components:

- **The Top Level Question**, which provides an overview of the purpose and scope of the question itself.
- **The Abbreviated Question Text**, which is used in the ROVIQ and Chapter mode displays to provide a visual cue to help the inspector quickly interpret which questions are included in the CVIQ.
- **The Guidance Section**, which includes:
 - The Objective, which provides a statement identifying the overall purpose of the top level question.
 - Best Practice Guidance provided by industry associations and government bodies.
 - The most applicable TMSA reference.
 - The most applicable ISM reference.
 - Regulation governing the top level question.
 - Inspection guidance, which summarises expectations of a vessel's safety management system and carries forward any previous SIRE guidance that is considered to have created a standard inspection requirement.
- **Suggested Inspector Actions** to verify that all aspects of the top level question and the guidance section have been addressed. The inspector only needs to take such actions to the extent that provides confidence that the required responses can be completed.
- **Expected Evidence** lists the documentary evidence that should be made available to the inspector during the inspection process. The inspector may request further unlisted evidence to assure themselves that the top level question has been addressed. The list of expected evidence should not be considered as exhaustive. Evidence should be made available according to the guidance supporting a specific question or, where no guidance is provided, for the previous six months or since the last SIRE inspection, whichever is more recent.
- **Potential Grounds for a Negative Observation** lists circumstances in which the inspector may consider entering a negative observation. The list is not exhaustive but is representative of the most likely grounds for a negative observation based on the question guidance.

Inspections are compiled to avoid the inclusion of questions that will be not applicable or not seen in their entirety. However, if a question, or an assigned response tool, is found to be not applicable to the vessel being inspected, the Not Answered function is available in the assigned response tools.

Non-exhaustive lists: The guidance provided to support a question will often include representative lists to indicate what should be considered when requesting or evaluating information or inspecting physical structure, machinery, or equipment. Lists should always be considered as representative and not exhaustive. The inspector must use their professional judgement when assessing an observed condition to decide whether the list provided would naturally include the observed condition if the list was exhaustive.

3.2 Using the Inspection Editor and response tools to record observations

SIRE 2.0 uses the term observation to mean any response entered in a response tool. An observation can be positive, neutral or negative.

Each question will be assigned one or more response tools to record the outcome of the inspection activities related to the top level question. Response tools may be programmed to require a binary or graduated assessment by the inspector.

Where a binary response is required, the well-established SIRE yes/no convention is carried forward by providing two options which are phrased to indicate yes or no within the context of the response tool. Where a graduated response is required, specific guidance is provided for each type of response tool.

Hardware Response Tool

Where a top level question or supporting guidance refers to vessel structure, machinery, outfitting, or equipment, the Hardware Response Tool is assigned.

In most cases the Hardware Response Tool assigned is binary since if vessel structure, machinery, outfitting, or equipment inspected under the scope of the top level question is found to be deficient in any respect, the outcome is unsatisfactory. The options for a binary response are:

- Free from obvious deterioration or deficiency.
- Observable or detectable deficiency – negative observation required in the Negative Observation Module.

In cases where the Hardware Response Tool assigned is graduated, the inspector is required to make a qualitative judgment of the observed condition, based on the following categorisations:

- Free from obvious deterioration or deficiency.
- Slight superficial deterioration – no supporting comment necessary.
- Slight superficial deterioration – with description (mandatory comment and/or photograph).
- Observable or detectable deficiency – negative observation required in the Negative Observation Module.

Where a negative observation is recorded in the Negative Observation Module:

- Subject of Concern (SOC) – the deficient vessel structure, machinery, outfitting or equipment should be identified through the standard classification coding.
- Nature of Concern (NOC) – where possible, the underlying reason for the deficiency should be identified through the standard cause analysis tree.
- A negative comment must be added to describe the deficiency as observed.
- A photograph may be taken and appended to the report to show the deficiency as observed.

Where a hardware related deficiency is rectified during an inspection, the inspector should verify that the corrective action was effective and then should add an additional note at the end of the negative comment to describe the corrective actions taken.

Where the hardware element of a question cannot be answered, the Not Answered drop-down should be used to select the reason as follows:

- Not applicable – as instructed by question guidance.
- Equipment not fitted – erroneous entry in PIQ.
- Equipment not fitted – erroneous entry in HVPQ.
- Equipment not fitted – no error in either PIQ or HVPQ.
- Equipment not seen – removed from vessel for maintenance.
- Not seen – inspection terminated before completion.
- Other – provide comment.

Where more than one hardware-based negative observation is applicable under the same top level question, the inspector should add further Negative Observation Modules to record each hardware-based negative observation separately.

The inspector must not consolidate multiple negative hardware observations applicable under the same top level question into a single Negative Observation Module entry.

The inspector may add a comment to the Hardware Response Tool to provide general information relating to the hardware fitted to the vessel.

Process Response Tool

Where a top level question or supporting guidance refers to a vessel procedure or documented process, the Process Response Tool is assigned.

There are questions where the guidance requires a binary response against a process-based question. In these cases, the response should be based on the top level question and the instructions provided in the guidance. The options for a binary response are:

- As expected – procedure and/or document present.
- Not as expected – procedure and/or document deficient.

Most questions that refer to vessel procedures or documented processes require a graduated response based on the observed situation, as follows:

- As expected – procedure and/or document present.
- Largely as expected – procedure and/or document present – with mandatory comment.
- Not as expected – procedure and/or document deficient – negative observation required in the Negative Observation Module.

Where a negative observation is recorded in the Negative Observation Module:

- SOC – the deficient procedure and/or document should be identified through the TMSA* based classification coding.
- NOC – where possible, the underlying reason for the negative observation should be identified through the standard cause analysis tree.
- A negative comment must be added to describe the negative observation as observed.

The largely as expected option may be used where a comprehensive procedure was present but was missing a step, check or test identified by industry best practice or regulation. The absence of the missing step, check or test must not lead directly or indirectly to a situation where an incident or accident could occur. The option can be considered as an opportunity for improvement but not as a substitute for a deficiency (including absence) in a procedure.

Where the process element of a question cannot be answered, the Not Answered drop-down should be used to select the reason as follows:

- Not applicable – as instructed by question guidance.
- Equipment not fitted – therefore no procedure required.
- Vessel not certified to conduct operation – erroneous entry in PIQ.
- Vessel not certified to conduct operation – erroneous entry in HVPQ.
- Vessel not certified to conduct operation – no error in either PIQ or HVPQ.
- Not seen – inspection terminated before completion.
- Other – provide comment.

Where more than one process-based negative observation is applicable under the same top level question, the inspector should add further Negative Observation Modules to record each process-based negative observation separately.

* The classification coding is based on TMSA KPIs and BPG which may be pertinent to the physical ship inspection process. 4B: Machinery Space Management is a construct for the SIRE 2.0 process and is not included in TMSA3.

The inspector must not consolidate multiple process-based negative observations applicable under the same top level question into a single Negative Observation Module entry.

Human Response Tool

The Human Response Tool is assigned where a top level question or supporting guidance refers to the familiarity of vessel staff with a company procedure, written process or the use or operation of machinery or equipment. The inspector should consider whether the underlying task or activity was performed in an appropriate manner in accordance with company procedures, operating instructions, and/or industry best practice.

Performance Influencing Factors (PIFs) are the foundational blocks of human performance and have been categorised as follows:

- Recognition of safety criticality of the task or associated steps.
- Custom and practice surrounding use of procedures.
- Procedures accessible, helpful, understood, and accurate for task.
- Team dynamics, communications, and coordination with others.
- Evidence of stress, workload, fatigue, time constraints.
- Factors such as morale, motivation, nervousness.
- Workplace ergonomics including signage, tools, layout, space, noise, light, heat, etc.
- Human-machine interface (e.g., controls, alarms, etc.).
- Opportunities to learn or practise.
- Not Identified – Not a PIF (option provided where a PIF could not be identified with confidence).

All observations entered in the response tool must be tagged to the rank grouping (SOC) of the Observed Person (OP) or Responsible Team (RT) based on the following categorisations:

- Senior deck officer.
- Junior deck officer.
- Senior engineer officer (including ETOs, cargo engineers and electricians based on company rank).
- Junior engineer officer (including ETOs, cargo engineers and electricians based on company rank).
- Rating.
- Deck team task – historical task only.
- Engine room team task – historical task only.

The historical task option is to be used when review of records or documents indicated that a task had not been executed as expected at some time in the past by someone other than the person being interviewed.

All questions that refer to the familiarity of vessel staff with a company procedure, written process, the use or operation of machinery, or equipment, require a graduated response based on an observed or reviewed task or activity as follows:

- Execution of task exceeded normal expectations – mandatory tagging of one or more PIF with a mandatory supporting comment to provide context.
- Execution of task was as expected – no requirement for comment.
- Execution of task was largely as expected – mandatory tagging of one or more PIF with a mandatory supporting comment to provide context.
- Execution of task was not as expected – negative observation required in the Negative Observation Module.

Where a negative observation is recorded in the Negative Observation Module:

- NOC – the most appropriate PIF(s) affecting the performance of the task should be tagged, or
- NOC – where the inspector cannot identify an appropriate PIF with a high degree of confidence, the Not Identified (10) option should be tagged instead of one of the PIFs.
- A negative comment must be added to provide context as to why the task or activity was not executed as expected.

Where more than one human task based observation is applicable under the same top level question for the same or different Rank Grouping or Responsible Team, the inspector should add further response tools to record each human task based observation separately.

It is possible to have both positive and negative observations under the same top level question, and this might be expected where an inspector interviewed more than one person with differing outcomes.

The inspector should assess the performance of each interviewed or observed officer or rating commensurate with their rank or rating, based on the following criteria:

- The execution of a task or activity should be considered to exceed expectations when:
 - One or more PIFs enhanced the execution of the task.
- The execution of a task or activity should be considered as expected when:
 - PIFs do not impede the execution of the task.
- The execution of a task or activity should be considered as largely as expected when:
 - One or more PIFs may affect the execution of the task but do not impede the execution of safety critical aspects of the task or activity or any of their associated steps.
- The execution of a task or activity should be considered as not as expected when:
 - One or more PIFs significantly impeded the execution of the task.
 - One or more PIFs impeded execution of safety critical aspects of the task or its associated steps.

A historical task should be assessed on the same basis.

Comments should not identify an individual by the inclusion of rank. Written comments should only refer to one of the following:

- An Observed Person (OP) – since the appropriate rank grouping will have been identified by tagging.
- The Responsible Team (RT) – since the appropriate team will have been identified by tagging.

The use of the acronyms OP and RT is acceptable and encouraged.

Where the human element of a question cannot be answered, the Not Answered drop-down should be used to select the reason as follows:

- Not applicable – as instructed by question guidance.
- Equipment not fitted – therefore no procedure or familiarity.
- Vessel not certified to conduct the operation – therefore no familiarity.
- Not seen – inspection terminated before completion.
- Other – provide comment.

Photograph Comparison Response Tool

Where a top level question refers to one of the standard photographs provided by the vessel operator prior to the inspection, a Photograph Comparison Response Tool is assigned.

The intention of photograph questions is to allow the reader of the final report to assess the physical and cosmetic condition of the vessel being inspected, rather than the inspector attempting to make a subjective evaluation of condition during the inspection.

The photographs provided should be representative of the general condition of all similar areas. If the area shown in a photograph has been upgraded while the remaining similar areas have not, then a photograph cannot be considered representative of the general condition.

All photograph comparison tools require a graduated response as follows:

- Photo provided representative.
- Photo representative – concern to be highlighted – comment.
- Photo reasonably representative – additional photos required/added – comment.
- Photo not representative – negative observation required in the Negative Observation Module.

Many recipients of the SIRE 2.0 inspection reports use automated screening processes to evaluate some aspects of vessel acceptability. It is possible that a photograph is completely representative of the condition observed on board during the inspection but that the photograph showed a part of the vessel or machinery in a less than satisfactory condition. If, in the opinion of the inspector, a photograph is representative but presented a potential concern, the second option should be used to highlight the concern to the recipient.

Where a photograph shows an area of a vessel which is not fully representative of all similar areas, but not to the extent that the photograph can be considered to misrepresent of the general condition of the vessel, the inspector should select the third option and add one or more photographs of similar areas to illustrate the difference. Vessel operators will naturally upload photographs which provide the best impression of a vessel while not necessarily attempting to hide the true condition of the vessel. Inspectors should consider this before making a negative observation.

Vessel operators and crews should not selectively upgrade areas of a vessel to permit unrepresentative photographs to be taken and uploaded.

Where a negative observation is recorded in the Negative Observation Module:

- SOC – this is automatically identified by the location of the standard photograph.
- NOC – the underlying reason for the photograph being unrepresentative should be identified through the standard cause analysis tree.
- A negative comment must be added where no suitable cause option is available.
- A photograph should be taken and appended to the report to show the condition as observed.

The Standard Photograph Set

To ensure consistency across all vessel types, the Standard Photograph Set has been devised with a core set of photographs where the majority will be applicable to all vessel types, followed by a small selection of vessel type specific photographs.

1. Bow area from dead ahead.
2. Hull forward end starboard side.
3. Hull forward end port side.
4. Hull aft end starboard side.
5. Hull aft end port side.
6. Transom from right astern.
7. Forecastle port side looking towards fairleads.
8. Forecastle starboard side looking towards fairleads.
9. Port or starboard windlass.
10. Forward main deck showing condition of deck (and external framing).
11. Forward main deck showing condition of pipe-rack.
12. One mooring winch showing brake setting arrangement.
13. One hose crane overall view.
14. One hose crane showing hoisting winch, stowed wire, and limit switches.
15. Starboard manifold looking from aft to forward.

16. Starboard manifold looking forward to aft.
 17. Aft main deck showing condition of deck (and external framing).
 18. Aft main deck showing condition of Piperack.
 19. Poop deck looking from midships to starboard including fairleads.
 20. Aft emergency towing equipment storage arrangement.
 21. Aft emergency towing equipment deployment system.
 22. Lifeboat and davit.
 23. The emergency generator or accumulator batteries.
 24. Engine room general view showing top of main engine.
 25. One generator engine.
 26. The oil filtering equipment.
 27. The incinerator.
 28. One boiler from the front.
 29. One boiler from the top showing control equipment.
 30. Purifier room general view.
 31. Main engine side showing local control station.
 32. Steering gear room general view showing access.
 33. Main steering gear.
 34. Not assigned through to 39.
- Crude/product/shuttle/chemical tankers/OBO.
40. IG system pressure/vacuum-breaking (P/V) device.
 41. IG system first non-return device (deck seal or double block and bleed arrangement).
 42. One main cargo pump and, if in pump room, including bilges.
 43. Not assigned through to 49.
- LPG pressurised.
50. A cargo tank liquid dome including load and discharge valve.
 51. Electric motors for deepwell pumps.
 52. Compressor/motor room internal view.
 53. Not assigned through to 59.
- LPG refrigerated.
60. A cargo tank liquid dome including load and discharge valve.
 61. Electric motors for deepwell pumps.
 62. Compressor room internal view.
 63. Not assigned through to 69.
- LNG Membrane type.
70. A cargo tank liquid dome including load and discharge valve.
 71. A cargo tank vapour dome including cargo system relief valves.
 72. Compressor house internal view.
 73. Not assigned through to 79.
- LNG Moss type.
80. A cargo tank liquid dome including load and discharge valve.
 81. General view of one moss sphere.
 82. Compressor house internal view.
 83. Not assigned through to 89.

Shuttle tanker.

90. Bow mooring arrangement from forward looking aft showing chain stopper.

91. Bow mooring arrangement from aft looking forward showing winch.

92. General view of hose connection area.

93. Hose coupling arrangement.

94. General view forward bow thruster room.

95. Forward bow thruster room showing one azimuth thruster.

96. Not assigned through to 99.

Where a vessel is not outfitted with the equipment identified in a standard photo, the vessel operator should select the appropriate response from within the upload area which will result in the appropriate photograph question being tagged as 'not applicable – equipment not fitted' in the final report.

The vessel operator should upload a new set of photographs to the OCIMF database at approximately six-month intervals. The vessel operator may choose to extend the interval for refreshing the photographs on the database for as long as they consider them to remain representative. It is recommended that new photographs are uploaded prior to each inspection to ensure that the condition depicted in each photograph is fully representative.

3.3 Addressing a potential negative observation where a specific question is not allocated to the VIQ

The SIRE 2.0 inspection process requires that the inspector takes time to interview vessel staff, review documented evidence and visually inspect structure, machinery or equipment to verify that the subject matter addressed in each top-level question is effectively managed. The increased emphasis on human factors and understanding the reasons for any negative observations means that there is only time for a limited number of questions during a standard inspection.

The inspector is required to inspect most areas of a ship to address all core questions and will, from time to time, come across situations where a negative observation may be warranted, but where the natural rotational question is not included in the CVIQ.

The emphasis of the SIRE 2.0 inspection process is placed on verifying that the vessel staff and vessel operator are managing the vessel in accordance with company procedures and guidance provided by OCIMF publications, including TMSA KPIs and best practice guidance.

Several core questions have been developed to leverage the requirements of stage one and two KPIs across the various elements to verify that procedures are in place to manage key requirements.

The SIRE 2.0 programme is focused on the effective management of defects, on board procedures and crew familiarity with the tasks they perform.

Addressing hardware-based defects

The SIRE 2.0 inspection process, through core question 2.4.1, requires that the Master provides a list of all open defects entered in the defect reporting system to the inspector during the opening meeting. TMSA KPI 4.1.2 gives detailed guidance on how defects should be managed on board and reported to the vessel operator. All defects existing on board the vessel at the time of the inspection, except sudden failures on the day of the inspection, should be included in the list of open defect reports.

If a defect is properly recorded in the defect reporting system and mitigating actions are documented and in place, there are no grounds for a negative observation to be raised under question 2.4.1.

Where a defect to structure, machinery or equipment, as described in the guidance to question 2.4.1, exists and has not been entered in the defect reporting system, a negative observation will record the circumstances.

Classification Societies and Flag Administrations require that structure, machinery, or equipment which is required by classification society rules and/or statutory regulation is maintained in proper working order. Where structure, machinery or equipment is defective, notifications must be made in accordance with Classification Society and/or Flag Administration rules. Such notifications may result in a memorandum or condition being issued and recorded on the vessel's class status report and/or a short-term certificate being issued by the Flag Administration.

Question 2.4.2 evaluates whether any defects existed that would require notification to the Classification Society and/or Flag Administration. Where notifications should have been made, but were not, negative observations will record the circumstances.

Question 2.1.1 records any memoranda and/or conditions of class.

Following this process will ensure that the final inspection report will report on all defects that were, or should have been, reported to the vessel's Classification Society and/or Flag Administration.

Defects or substandard conditions managed by the OCIMF Ship/Shore Safety Checklist

The principal risk management tool provided by OCIMF for cargo transfer operations is the Ship/Shore Safety Checklist (SSSCL) which is fully described in ISGOTT6 chapter 25.

Question 8.99.2 addresses compliance with the SSSCL.

Where an observed substandard condition or defect indicates an applicable SSSCL question should be answered negatively, then a negative observation should be entered within the appropriate response tool and Negative Observation Module for each violation.

Where a question is included in the CVIQ that addresses the specific equipment or process that resulted in a negative observation under 8.99.2, the appropriate negative observation(s) should also be entered in the response tools under the question that addressed the specific equipment or process.

Minor defects that present a hazard

A series of questions have been developed which reflect that safety inspections of all areas of the vessel should be carried out by a designated Safety Officer to identify, record and verify rectification of any developing hazards or substandard conditions that exist on board.

Where minor issues that present a hazard are observed during the inspection, these should be pointed out to the accompanying officer at the time. They should only be considered for inclusion as a negative observation in accordance with the guidance provided in the appropriate question, or where more than one example of the same unlisted hazard is identified during an inspection.

- 5.8.1 Safety inspection of the main deck and mooring areas (core)
- 5.8.2 Safety inspection of the machinery space (core)
- 5.8.3 Safety inspections of the cargo pumproom (core)
- 5.8.4 Cargo machinery rooms safety inspections (core)
- 5.8.5 Safety inspection of the forecastle spaces (core)
- 5.8.6 Safety inspections of the accommodation spaces (rotational)
- 5.8.7 Ballast and/or bunker pumproom safety inspection (rotational)

Addressing procedure and human-based shortcomings

Due to the inspection philosophy and the design of SIRE 2.0 questions and supporting guidance, it is unlikely that an inspector will have time to investigate the background to a question that has not been assigned to the CVIQ in sufficient detail to identify human- and process-based weaknesses. Therefore such negative observations would not be justified.

However, where an officer or rating is observed to have a lack of familiarity with a task or duty that is under their direct responsibility, and the task or duty has a direct impact on the safety of personnel, the environment or the overall safety of the vessel, the guidance provided under question 3.5.1 should be considered.

3.4 Recording negative observations in multiple observation modules within a single question and across more than one question

The SIRE 2.0 Question Library has been built on the principle of barrier management with the purpose of identifying when a failing in a task, procedure, or item of structure, machinery, or equipment could result in a potential weakening of a barrier. The identification of an apparently isolated negative observation can potentially identify weaknesses or failures across several systems or processes across a vessel and/or a company.

The inspector must consider the guidance under each assigned CVIQ question and provide observations within the assigned response tools in accordance with the guidance provided. In some cases, the inspection guidance may provide specific guidance about how to manage a specific circumstance by entering a negative observation against another question in addition to the question under review.

The inspector must carefully consider a defect or substandard condition and decide whether the guidance provided by more than one assigned question would result in a negative observation from the human, process and/or hardware perspective.

The process described above is not the same as what was known as ‘double dipping’ in the original SIRE Programme. Each SIRE 2.0 top level question addresses the safeguards or activities required to be in place to prevent the weakening or failure of a specific barrier to prevent an undesirable event.

3.5 Using the Inspection Editor to record key inspection events

The SIRE 2.0 Inspection Editor will record inspection events when the inspector uses the following functions:

Commence inspection

An inspection will always commence at the time the inspector boards the vessel. Upon boarding a vessel to be inspected, and after the initial formalities have been completed, the inspector should switch on the inspection tablet, select the appropriate inspection, and use the commence inspection control, which will cause the Inspection Editor software to take the following actions:

- Record the date and time.
- Record the GPS position of the tablet.
- Set the step counter to zero.
- Start the inspection elapsed timer (green indication).

Where the inspection must be delayed for operational reasons, such as berthing, the inspector should use the pause function and select Vessel Operational Requirement.

Recording vessel operations

The inspector must ascertain and record the following information:

- The vessel operation being conducted at the time of the inspection – selected from the drop-down list provided in the Inspection Editor menu.

- The product(s) being handled during the inspection – selected from the drop-down list provided in the Inspection Editor menu.

This may be entered at any stage of the physical inspection.

Pause inspection

Where an inspection must be paused for any reason, the pause function should be used, and the inspector should select the reason for pausing the inspection from the drop-down list, which includes interruptions due to:

- Meal breaks.
- Port State Control Inspection.
- Flag State Inspections.
- Crew rest periods.
- Inspector rest periods.
- Vessel Operational Requirements.
- Emergency.
- Non SIRE 2.0 Activity for Submitting Company.
- Inspector unable to disembark vessel.

Selecting and accepting a reason for pausing an inspection will cause the Inspection Editor software to take the following actions:

- Record the date and time.
- Record the GPS position of the tablet.
- Record the step count.
- Pause the inspection elapsed timer (amber indication).

The inspector can continue to enter information into the editor during a suspension. The date and time of any positive or negative observations entered in the Inspection Editor software during the pause will be recorded.

The Inspection Editor can be closed, and the tablet device turned off if necessary.

Resume inspection

When it is possible to resume an inspection the ‘resume inspection’ function should be used. This will cause the Inspection Editor software to take the following actions:

- Record the date and time.
- Record the GPS position of the tablet.
- Record the step count.
- Re-start the inspection elapsed timer (green indication).

Complete inspection

An inspection will be considered as being completed at the head of the gangway when the inspector disembarks the vessel.

Selecting the ‘complete inspection’ function will cause the Inspection Editor software to take the following actions:

- Record the date and time.
- Record the GPS position of the tablet.
- Record the step count.
- Stop the inspection elapsed timer (red indication).

Special circumstances

In the circumstances that an inspector is unable to leave a vessel as soon as the closing meeting is concluded, the inspector must:

- Pause the inspection on conclusion of the closing meeting by selecting the ‘Inspector unable to disembark vessel’ option.
- Resume the inspection when ready to disembark the vessel.
- Complete the inspection at the head of the gangway before disembarking the vessel.

In the circumstances where an inspector is required to undertake additional inspection activities by a Submitting Company while on board a vessel, the inspector must:

1. Exclusively conduct SIRE 2.0 inspection activities until the conclusion of the closing meeting.
2. Pause the inspection on conclusion of the closing meeting by selecting the ‘Non SIRE 2.0 Activity for Submitting Company’ option.
3. Conduct the activities required by the Submitting Company.
4. Resume the inspection when ready to disembark the vessel.
5. Complete the inspection at the head of the gangway before disembarking the vessel.

It is critical that the inspector does not engage in non-SIRE 2.0 related activities unless they are recorded as described above. SIRE 2.0 inspections are compiled based on the work an inspector is required to do by the programme. Doing unrelated activities during the inspection will undermine the quality of a resulting inspection report.

Section 4. Inspection requirements

4.1 Mandatory inspection requirements

The following mandatory inspection requirements must be followed by inspectors in the conduct of their shipboard inspection in order for reports to meet the requirements of the SIRE 2.0 Programme:

- The inspector must use the OCIMF approved inspection tablet to complete the inspection as it progresses.
 - In circumstances where the OCIMF approved inspection tablet cannot be used during an inspection due to loss, theft, damage or port and/or terminal restrictions the inspector must follow the inspection contingency process described in the supplementary document, *SIRE 2.0 Paper-based Contingency Inspection Process – Version 1.0*.
- The inspector must use the commence, pause, resume and complete inspection functions provided in the inspection software to record the actual time spent on board and conducting inspection activities.
 - The commencement of the inspection is considered the point at which the inspector boards the vessel, and they present themselves to visitor control.
 - The inspection is considered paused during:
 - ♦ Meal breaks.
 - ♦ Interruptions where the Master or accompanying officer is no longer able to continue with normal inspection activities.
 - ♦ Rest breaks.
 - ♦ Inspector activities unrelated to the SIRE 2.0 inspection process.
 - The inspection is considered as being resumed when the Inspector, Master or accompanying officer can continue with normal inspection activities.
 - The inspection is considered complete when the inspector departs the vessel and checks out at visitor control.
- Where an inspection is terminated before it has been completed for any reason, the inspector must apply the appropriate Not Answered response to all response tools which were not completed during the shortened inspection.

4.2 General inspection requirements

1. The inspector must set a good example with respect to their communications, behaviour and own personal safety procedures while on board the vessel and in the terminal and must always wear appropriate personal protection equipment.
2. The Inspector must hold opening and closing meetings with the Master or the Master's authorised deputy which includes, where possible, the attendance of Senior Officers who are not otherwise engaged. Company representatives who are on board to witness the inspection should be invited to the meetings, but they should observe only.

Opening meeting

The inspector must introduce themselves and any accompanying observers or auditors to the Master and others attending the opening meeting. The inspector must explain the role of an observer or auditor.

The inspector must present a valid OCIMF SIRE accreditation identification card to the Master on request. The Master may take a copy of the accreditation card for their records.

The inspector must explain the scope of the inspection and discuss:

- The order of the inspection, recognising that this may be varied to accommodate changes in circumstances.
- The equipment that is likely to be tested and the permissions that will be required.
- Any specific personal protective equipment (PPE) that must be worn by the inspector in accordance with onboard procedures.
- The use of the inspection tablet and the applicable Ex certification.
- Any company restrictions in place for the taking of photographs during the inspection.
- Any port or terminal restrictions in place affecting the taking of photographs during the inspection.
- The safe entry requirements for spaces such as the pumproom, compressor room, IG room.
- The requirement that the inspector must be accompanied at each stage of the inspection by an appropriate officer who is familiar with the equipment and procedures used within an inspection area.
- The availability of a wireless or Bluetooth printer to print the Observation Declaration.
- The expectation that a closing meeting will be held to review any negative observations and positive human (exceeded) observations identified during the inspection.

Closing meeting

The inspector should confirm whether the Master has any supplementary information to provide before finalisation of the Observation Declaration.

The inspector must make any amendments to the negative observations before printing two copies of the Observation Declaration using the vessel's wireless printer provided for this purpose.

The inspector must review the Observation Declaration with the Master and Senior Officers and provide explanations for any negative observations made.

The inspector should** provide one copy of the Observation Declaration to the Master and retain the second copy for their records.

** Where a Submitting Company has provided the inspector with instructions not to leave a copy of the Observation Declaration on board, or the vessel does not have a wireless printer, the inspector must review the content of the declaration with the Master in sufficient detail so that the Master can make notes for each observation recorded as follows:

- Negative observations:
 - The question number.
 - The type of negative observation (human, process, hardware or photo comparison).
 - The nature of concern (NOC).
 - The subject of concern (SOC).
 - The essential details of the negative comment.
- Human observations that exceeded normal expectations:
 - The question number.
 - The essential details of the comment.

3. The inspector must consider all sections of guidance supporting each assigned question and review sufficient evidence, inspect sufficient hardware, and interview sufficient staff to permit an accurate observation to be entered within each assigned response tool and where necessary, a negative observation to be entered in a Negative Observation Module.
4. The inspector must use objective evidence when considering the appropriate observation to make within the Hardware and Process Response Tools for each question (the assurance of the vessel's staff is insufficient evidence or proof).
5. The inspector must use an interview with, or a witnessed demonstration by, a member of the vessel's crew to form an objective opinion relating to the performance of a task, before entering an appropriate observation within an assigned Human Response Tool.
6. The inspector should consider requesting that equipment be run and tested to confirm that it is in operational order and that officers and crew are familiar with its operation.
 - The inspector must ensure that such requests do not cause delay or interfere with the safety and normal operation of the vessel and do not contradict any terminal requirements.
 - The inspector must not touch and/or operate/run/test any vessel equipment/machinery.
7. The inspector must resolve whether a crewmember's lack of familiarity arose from the lack of an appropriate company procedure or was due to the lack of familiarity with an existing procedure. Where there was no appropriate company procedure, negative observations must be considered in both the Human and Process Response Tools.
8. The inspector must point out and discuss any negative observations that they intend to record in the Inspection Editor on site at the time with the member of the ship's staff assigned to accompany them. This ensures that the negative observations are fully understood and can also avoid extended discussion at the end of the inspection.
9. The inspector must note any deficiencies or inspector-observed conditions, to which action was taken while the inspector was on board.
10. The inspector may use the comments section within a response tool assigned to any question to provide useful information for the report recipient.
11. The inspector must not offer any comments or opinions about actions to be taken in respect of any deficiencies or observed conditions noted by the inspector.
12. The inspector must not use the expression 'we' in any comment or negative comment.
13. The inspector must not at any time give any verbal or written indication of vessel acceptability/non-acceptability.
14. The inspector must not conduct any other inspection or be involved in the provision of any other service while conducting a SIRE 2.0 inspection.

Permitted exception: If the Submitting Company requires the inspector to gather additional information, this must be done after the SIRE 2.0 closing meeting. In this situation the SIRE 2.0 inspection process must be paused using the Inspection Editor functionality. On completion of the additional activities required by the submitting member, the inspector must resume the inspection process, then leave the vessel and complete the inspection process at the gangway using the Inspection Editor functionality.
15. Electrical or electronic equipment of non-approved type, whether mains or battery powered, must not be active, switched on or used within any gas-hazardous or other hazardous areas. This includes torches, radios, mobile telephones, calculators, computers, photographic equipment and any other portable equipment that is electrically powered but not approved for operation in a gas-hazardous area. It should be borne in mind that equipment such as mobile telephones and smart watches, if switched on, can be activated remotely and a hazard can be generated by the alerting or calling mechanism and, in the case of mobile telephones, by the natural response to answer the call. Any specific terminal requirements must be adhered to.
16. The inspector must not discuss or communicate by any means (verbal, written, electronic or otherwise) any findings, information gained or outcome of the inspection with any third party other than those with a legitimate involvement in the inspection process for that vessel.

17. Ship inspections should not be conducted at night unless requested by the OCIMF Submitting Company. The vessel's operator must also concur that it is safe to carry out a night inspection and that this will not negatively impact the vessel's compliance with work and rest hour requirements.
18. The inspector must limit advance communications with vessels and vessel operators to that information necessary to arrange access and appropriate arrival to and from the vessel, or to communicate intended inspection plans. The inspector must not request information concerning the CVIQ or PIQ in advance of their arrival to a vessel. Inspectors must not communicate with the vessel or vessel operator after completion of OCIMF inspection activities. Following an inspection all communication concerning the inspection must be managed by the commissioning member.
19. A SIRE 2.0 inspection is compiled to be completed in 8 hours. The inspector must plan their time accordingly and make sufficient allowances to have this period of time available for the inspection. Inspectors must consider the hours of rest requirements for the vessel's staff that must be observed and ensure that the SIRE 2.0 inspection does not interfere with these.
20. SIRE 2.0 inspections are compiled to take 8 hours, which includes a combined allowance of 30 minutes for the opening and closing meetings.
 - Where campaign questions have been added to an inspection, the compiled inspection time may be extended by up to 30 minutes.
 - Due to circumstances encountered during the inspection, the overall inspecting time may be longer, but must not exceed 10 hours.
 - The inspector must use the inspection tablet and Inspection Editor to complete the assigned question response tools as far as possible during the progression of the inspection.
 - Any negative observations must be fully written up prior to the closing meeting.
 - Any human-based observations that exceeded normal expectations must be written up prior to the closing meeting.
 - The inspector must leave the vessel on completion of the closing meeting and must not remain on board to complete entering written supporting comments or transcribing voice memos.
 - Where an inspector cannot commence the physical inspection immediately on boarding a vessel or cannot leave the vessel after the completion of the closing meeting, the instructions provided in section 3.5 must be followed.

4.3 Other inspection requirements

1. Under normal circumstances, a SIRE 2.0 inspection will take place when a vessel is alongside in port while discharging or loading cargo. There are no circumstances in which entry into ballast tanks and/or void-spaces is required or permitted.
2. Travel for ship inspections on behalf of OCIMF member companies must always be conducted in a safe manner with due regard to industry best practice and any agreements between the inspector and member companies. Inspectors must ensure that they are able to safely conduct an inspection of up to 10 hours' duration without undue fatigue.
3. The inspector must consider their own rest hours including travel time and fatigue levels when conducting inspections. Back-to-back inspections are discouraged, and inspectors must complete and submit the report for one vessel before commencing an inspection on another vessel.
4. It should be recognised that the overall objective of the inspection is to provide the user of a SIRE 2.0 Report with a factual record of the vessel's condition and standard of operation at the time of the inspection and, in turn, allow an assessment of the risk that use of the vessel might pose.
5. Inspectors must not use personal intrinsically safe mobile phones, tablets, or computers outside the main accommodation block during a SIRE 2.0 inspection.

6. Inspectors must not use any personal electronic device to record still images, video footage or audio files while on board a vessel to conduct a SIRE 2.0 inspection.

4.4 Illegal activity

If, during an inspection, an inspector becomes aware of possible illegal activity on board:

- They should alert the appropriate shore authorities (e.g. harbour master, police or customs) at the earliest safe opportunity.
- They must inform the submitting company in writing of their concerns and the actions taken.

Such activities include illegal environmental discharges and emissions, smuggling, people-trafficking and modern slavery.

Section 5. Standard phrases used in SIRE 2.0

Sight, and where necessary review means that the inspector shall assure themselves that a procedure existed. It is only required to review this fully or partly, to confirm that procedures cover the task safely and/or to verify the Observed Person's familiarity with a procedure or task, in alignment with question guidance.

Where necessary review means that there is no requirement to review the document referred to unless some other condition made the content of the document relevant to resolving an underlying reason for a potential negative observation.

Was familiar with the procedure for... means that the level of familiarity was sufficient to be able to safely carry out a procedure unaided, or with the assistance of checklists and/or quick reference guides where these are provided.

An encyclopaedic knowledge of all procedures is not required or expected, but a crew member should be able to demonstrate the requirements of a procedure appropriate to their rank and experience.

The key principle is always whether a crew member can demonstrate understanding of the key safety considerations of the procedure relevant to the task they are performing or describing.

Were the Master and officers familiar with... does not mean that the inspector is expected to verify the knowledge of all officers in a department or on board, but rather the appropriate officer(s) present at the time the question is being addressed. The Master is expected to ensure that the officer accompanying the inspector can answer most questions that will naturally arise for the section of the inspection where they are acting as the accompanying officer.

Where a question arises that the accompanying officer cannot fully address, providing they are not directly responsible for the task or duty, another officer present may give a more detailed answer.

Where more than one appropriate officer is present during any section of the inspection, the inspector may direct questions at any officer who would have a direct responsibility for a task or duty. For example, where the Master and a navigation officer were on the bridge during that stage of the inspection, the inspector may direct a question at either the Master or Navigation Officer, or both individually, as the inspector sees fit.

Accompanying officer means the officer that is assigned to accompany the inspector for any part of an inspection.

The vessel operator will be expected to guide the Master and crew to ensure that wherever possible, an officer with an appropriate level of experience and knowledge accompanies the inspector.

It is expected that the assigned accompanying officer for each section of the inspection should have enough knowledge and experience to answer the distinct items raised in the guidance to each question relevant to that section. The inspector should recognise that there may be times when the accompanying officer is not normally assigned tasks under discussion, and in

these cases, the inspector or the accompanying officer may request that clarification is provided by another officer from the relevant department.

Where the accompanying officer has a direct responsibility for the task or duty under review and does not have sufficient familiarity with a task or duty to undertake or describe the task or duty safely, then a negative observation must be raised.

Senior officer normally means the Master, Chief Officer, Chief Engineer and First Assistant (or Second) Engineer, but may include Cargo Engineer, Gas Engineer, Electrician or Electrotechnical Officer depending on how a company classifies its officers.

Junior officer is any officer who is not classified by a company as a senior officer.

Rating is any member of the ship's normal complement who is not classified as an officer.

Interview an officer means that an additional officer is required to be interviewed as it is recognised that the accompanying officer will not usually have the required level of familiarity to address all aspects raised by the top level question and supporting guidance. Questions that specifically require a named rank to be interviewed are tagged as a ROVIQ inspection area to assist the inspector in identifying the requirement.

Where no specific guidance is given relating to interviews, the accompanying officer should be interviewed to verify the human aspects of the question and its guidance.

Inspectors should frame questions and requests to a junior officer that are appropriate and proportionate to their role and duties.

Interview a rating means that the inspector must interview a rating to gauge their level of familiarity and understanding of the subject covered by the guidance. Questions that specifically require a crew member to be interviewed are tagged as a ROVIQ inspection area to assist the inspector in identifying the requirement.

Inspectors should frame questions and requests to a rating that are appropriate and proportionate to their role and duties. Where specific verification points are included within a question's supporting guidance these should be considered appropriate.

An interview with a rating should only take place in the presence of the accompanying officer.

Periodic, when referring to on board maintenance, inspection, test, check or activity, means that the vessel operator should have defined the interval referred to such that the frequency of the maintenance, inspection, test, check, or activity:

- Identifies a deficient condition before it can deteriorate to a hazardous level.
- Follows any legislative requirement.
- Follows any manufacturer's instructions.
- Follows industry best practice.
- Ensures continued familiarity.

Company procedure means a documented requirement that is controlled by the company management systems and may include:

- Any requirement included within the Safety Management System (SMS).
- Instructions contained within the planned maintenance system.
- A standalone document published by the company to manage any aspect of activities on board, which may include:
 - Contingency plans.
 - Muster lists.
 - Company posters.
 - Approved risk assessments.
 - Checklists.
- Industry best practice guidance where specifically referenced by the SMS.
- Manufacturer instruction manuals where specifically referenced by the SMS.

Section 6. Glossary of terms used in SIRE 2.0

Binary response A contextualised pair of responses which equate to a simple YES or NO response to a CVIQ question.

Certificate Repository An online OCIMF database holding electronic copies of vessel trading certificates and documents, provided by the vessel operator.

Comment An explanatory note that enhances an observation entered in a response tool (but not the Negative Observation Module).

Compiled Vessel Inspection Questionnaire (CVIQ) A unique, vessel-specific set of questions compiled for each vessel inspection.

Deficient/deficiency The quality or state of being defective or lacking in some quality or element.

Graduated response A response to a CVIQ question that is not a simple yes or no but is graded.

Harmonised Vessel Particulars Questionnaire (HVPQ) Questionnaire for documenting and communicating permanent and infrequently changing information relating to a vessel, its construction, outfitting and certification.

Inspection area A notional area of the vessel, tagged to each question, to allow the Inspection Compiler to allocate questions within set time criteria.

Inspection Compiler OCIMF software that uses algorithms to select questions from the SIRE Question Library to create a unique vessel-specific VIQ for each inspection.

Inspection Data-Set A package of data uploaded from the inspection tablet to the SIRE Report Database containing all applicable data collected by the inspector during an inspection.

Inspection Declaration A declaration made by the vessel operator that all data, photographs, and certificates provided in connection with a SIRE 2.0 inspection are accurate, complete and in accordance with the instructions provided.

Inspection Editor An OCIMF proprietary software application loaded onto the inspection tablet that allows an inspector to gather and record information during an inspection, including photographs, and create a SIRE report.

Inspection tablet A dedicated, intrinsically safe tablet computer used by the inspector solely to complete a SIRE 2.0 inspection.

Nature of Concern (NOC) A term used within the Inspection Editor application to identify what has been observed.

- **Hardware** – Identified through the standard hardware cause analysis tree.
- **Process** – Identified through the standard process cause analysis tree.
- **Human** – Identified by one or more PIFs.
- **Photograph Comparison** – Identified through the standard photograph comparison cause analysis tree.

Negative comment An explanatory note that enhances a negative observation entered in a Negative Observation Module.

Negative Observation Module A feature of the Inspection Editor, within the response tool, that allows the inspector to enter a negative observation to a CVIQ question.

Not Answered The response provided where the hardware, process or human element of a question could not be completed. The reason for this response must be selected from a pre-populated drop-down list provided within the Inspection Editor.

Notional time A time allowance assigned to a question.

Observation Any information entered in one of the assigned response tools including positive, neutral, and negative information.

Observation Declaration The list of all negative observations, and human based observations that exceeded expectations, generated by the Inspection Editor for presentation to the Master during the closing meeting.

Observed Person (OP) The term that must be used when referring to an officer or rating in a written comment supporting an observation.

Performance Influencing Factors A collective term for those factors are known to influence or shape human performance. They can enhance and assist human performance, or they can degrade and obstruct it.

Photograph Comparison Response Tool A feature of the Inspection Editor that allows the inspector to respond to a CVIQ photo comparison question and record any observations made in association with the response.

Photograph Repository An online OCIMF database holding photographs of vessels, provided by the vessel operator.

Pre-inspection Questionnaire (PIQ) An online questionnaire, completed by the vessel operator, providing information about the vessel, and supplementing the Harmonised Vessel Particulars Questionnaire (HVPQ).

Question types:

- **Core** – Minimum questions required to meet the fundamental risk assessment criteria, as defined by the OCIMF bowtie risk assessment process.
- **Rotational** – A non-core question assigned to a vessel on an occasional basis.
- **Campaign** – An existing rotational question assigned to every inspection for a fixed period in response to an incident or industry trend. Where no suitable rotational question exists, a new question will be developed for inclusion in the SIRE 2.0 Question Library at the next revision.
Any of these question types can be assigned selectively as a **conditional** question based on a vessel's type, outfitting or recent operational history.

Rank Grouping A means of recording the seniority of an Observed Person (OP) without identifying their actual rank withing either the Subject of Concern (SOC) or a supporting comment/negative comment.

Reorganised Vessel Inspection Questionnaire (ROVIQ) The CVIQ grouped and reordered into the normal inspection locations and route taken during a vessel inspection.

Response tool A feature of the Inspection Editor that allows the inspector to respond to a CVIQ question and record any observations made in association with the response.

Responsible Team (RT) A means of recording a department without identifying a specific rank within either the Subject of Concern (SOC) or a supporting comment/negative comment.

SIRE Question Library An OCIMF database containing all current inspection questions.

SIRE Report Database An OCIMF database containing all applicable data collected by the inspector during an inspection.

Subject of Concern (SOC) A term used within the Inspection Editor application to identify what is being reported on.

- **Hardware** – The deficient vessel structure, machinery, outfitting or equipment identified through the standard classification coding.
- **Process** – The deficient procedure and/or document identified through the TMSA-based classification coding.
- **Human** – The rank grouping of the Observed Person (OP) or Responsible Team (RT).
- **Photograph Comparison** – The location of the standard photograph.



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