



SIRE 2.0

Summary & Updates from OCIMF

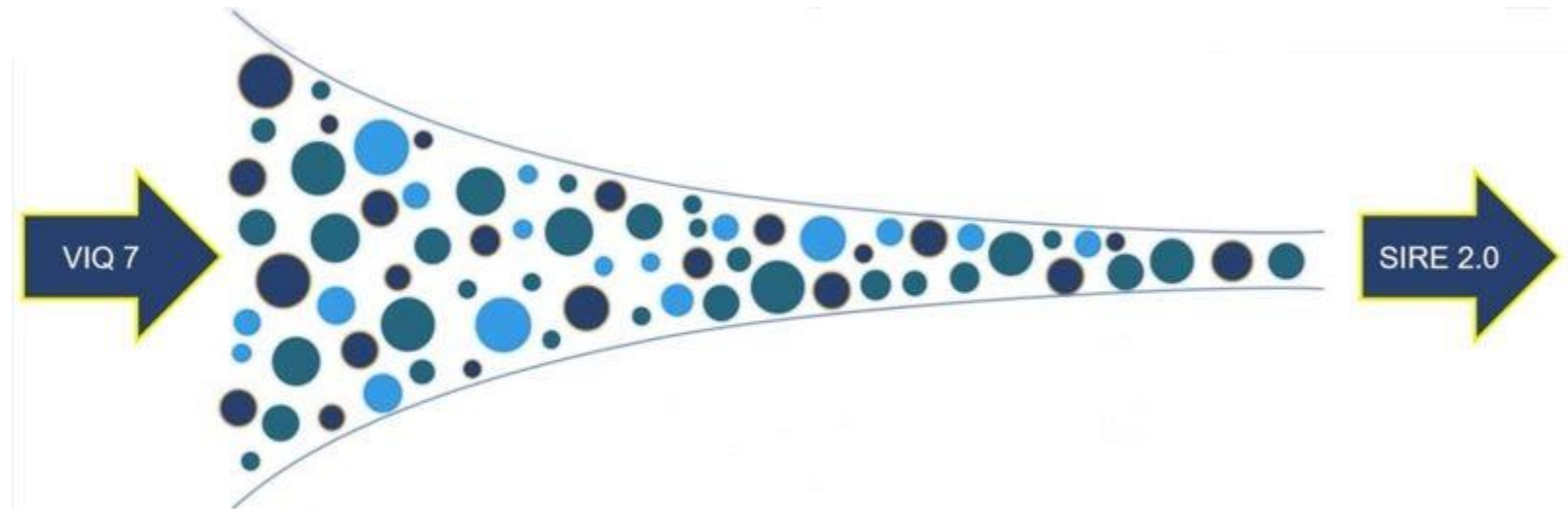
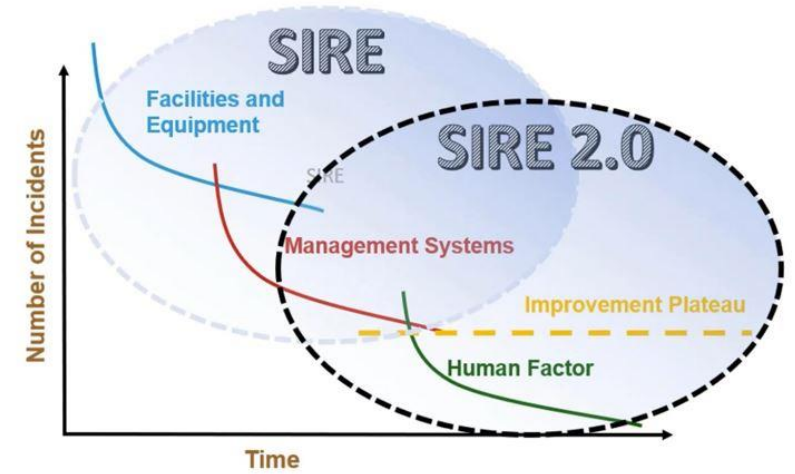


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SIRE 2.0

Why SIRE 2.0 was needed

- Focus more on significant risks
- Address technological and regulatory changes
- Focus on the way a vessel is managed – i.e. *Hardware – Process – Human*
- Link SIRE with TMSA objectives
- Reinforce consideration of human factors
- Enhance governance controls

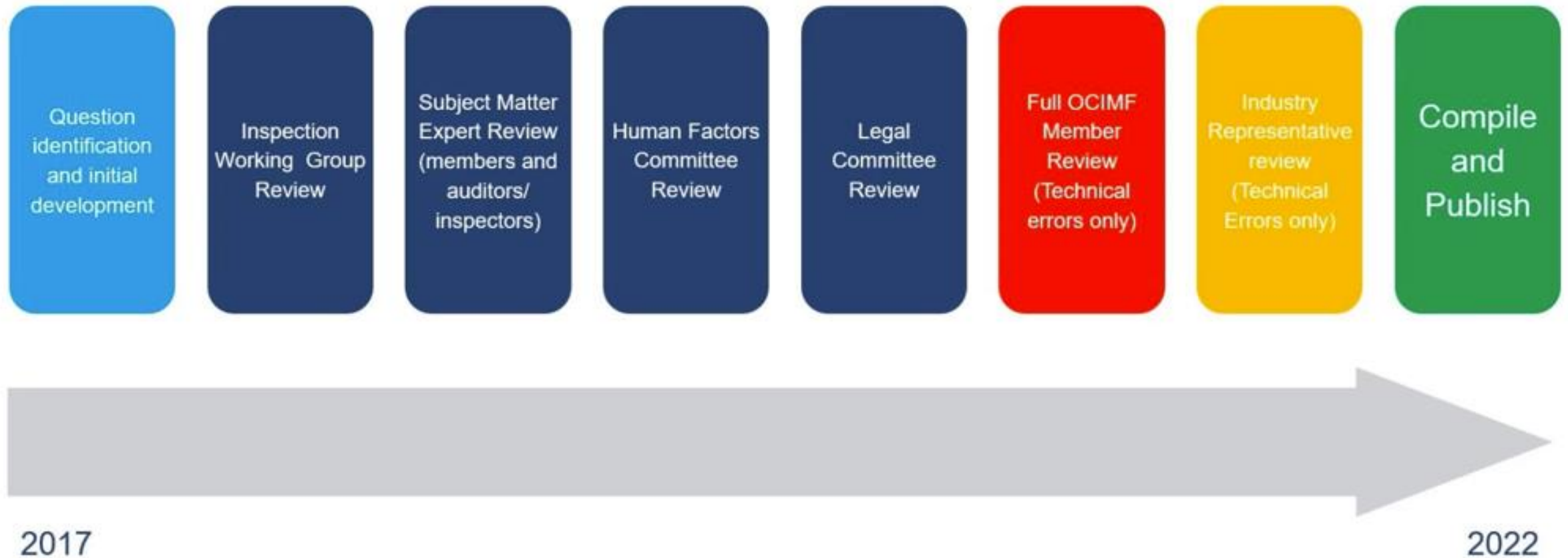


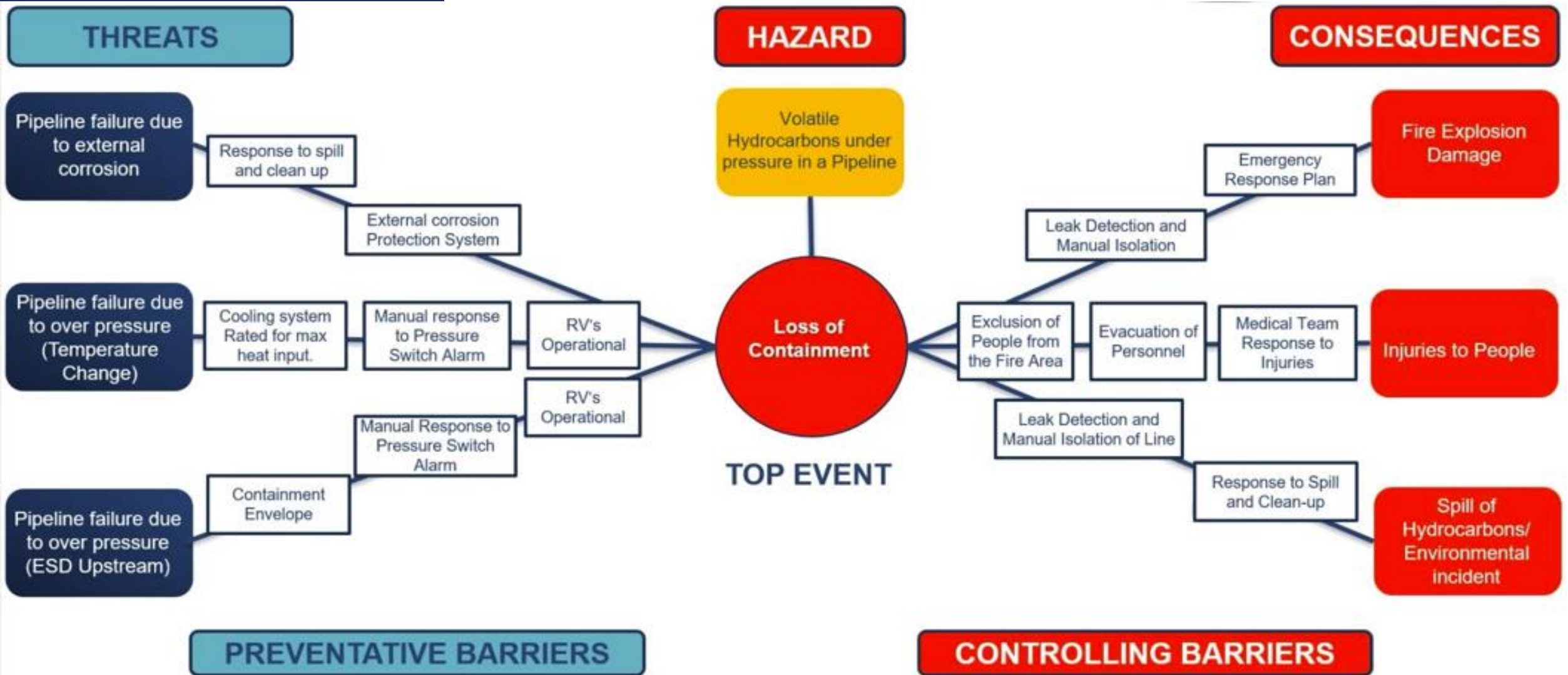
OCIMF Strategic Goal & Objectives

SIRE 2.0 declared goal:

To set up an enhanced and risk-based vessel inspection Programme that will provide more accurate information and enable better judgements on the quality and likely future performance of a vessel

Question set development and review process





Bridging the gap between VIQ 7 and SIRE 2.0

VIQ 7

SIRE 2.0

- Question Style – Binary Response.
- Number of question.
- Many N/A questions.
- Paper based inspection.
- Limited Inspector guidance.
- Question sets fixed and not rotated.

- Tablet based inspection
- Enhanced Question Style
- Unique inspection templates.
- CVIQ Compiled Vessel Inspection Questionnaire.
- Comprehensive Inspector guidance
- Observation reporting tool – graduated responses.
- Photographic content to support observations.

RISK based Approach

Risk-based Vessel Questionnaire

- Generated using bow-tie methodology of risk assessment
- 4 types of questions incorporated in the questionnaire:
 - **CORE** – minimum questions required to meet the members' fundamental risk assessment criteria
 - **ROTATIONAL** – non-core questions that are included in the questionnaire over a defined period
 - **CONDITIONAL** – specific questions that are included based on data available for the vessel, operator or ship-type
 - **CAMPAIGN** – cover areas of specific focus identified by OCIMF or its membership and is included in all questionnaires over a limited time period

Question – Maintain the health of **PRIORITY** Barriers to identify risk and critical activities

CAMPAIGN questions permits OCIMF to respond to emerging industry trends and issues by modifying the way the question set is managed and questions are allocated to individual inspections.

CAMPAIGN questions will be treated as CORE questions for the duration of the campaign period



CORE questions will be allocated to every inspection – applicable to vessel type and its operation.

Rotational 1 Questions allocated approximately every third or fourth inspection.

Rotational 2 Questions allocated approximately every sixth inspection.

CONDITIONAL These questions have been developed to assess a vessel operator's level of attainment against TMSA. These are known as conditional questions since they are allocated based on information provided by the vessel operator through the Pre-Inspection Questionnaire (PIQ).

SIRE 2.0

How the questions are structured

The scope of the inspection:

- Condition of hardware
- Adequacy of the procedures / processes
- Conditions that supports people – Performance Influencing Factors (PIF)

Four categories of findings:

- “Exceeds expectation”
- “As expected”
- “Largely as expected”
- “Not as expected”

7.2.1
 Were the Master and officers familiar with the company procedures for hardening the vessel when entering areas of increased security risk, and was there a Vessel Hardening Plan (VHP) available?

Hardware NOT ANSWERABLE

YES	<input checked="" type="radio"/>	NO
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Comments

Process NOT ANSWERABLE

PROCEDURE AND/OR CHECKLIST SIGHTED	<input type="checkbox"/>	PROCEDURE AND/OR CHECKLIST SIGHTED	<input checked="" type="radio"/>	PROCEDURE MISSING, INADEQUATE OR INACCURATE
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Comments

Process NOT ANSWERABLE

<input type="checkbox"/>	EXCEEDED NORMAL EXPECTATION	AS EXPECTED	<input type="checkbox"/>	LARGELY AS EXPECTED	<input checked="" type="radio"/>	NOT AS EXPECTED
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Comments

The overview of the inspection process



Inspection request/inspector validation	Vessel pre-inspection data input	Risk-based inspection questionnaire automatically created	Inspector preparation for inspection	Inspection execution	Inspection report
<p>Inspection request/validation tool with inbuilt rules and criteria to identify suitable inspectors for an inspection.</p>	<ul style="list-style-type: none"> • Vessel particulars • Crew details • Certificates • Pre-inspection questionnaire • Past inspection observations (core questions only) • Incident data • Standard Photoset 	<p>Risk-based VIQ created, using bow tie methodology</p> <p>Questions set automatically compiled to form a Compiled Vessel Inspection Questionnaire (CVIQ).</p>	<p>Inspector reviews and analyses data provided on the vessel in advance of the inspection.</p>	<p>Observation reporting tool with:</p> <ul style="list-style-type: none"> • Grades of response (in addition to Yes/No). • Responses against Equipment, Procedures and Human Based Tasks. <p>Multi-media content – photographic evidence to support negative observations where applicable.</p>	<p>A report that accurately describes how key safety and operational risks are managed and verified onboard a vessel Quality verified by OCIMF using targeted approach.</p>

- **Vessel Photographs**

- Vessel Operators are requested to upload a series of standard Vessel photographs to support the Inspection process
- The photographs are presented to the Inspector who is asked to describe their validity
- The Pre-Inspection Questionnaire feeds into the compiler providing a set of questions for the Inspection specific to the Vessel and cargo

- **Vessel Certificates**


- **HVPQ**

- **Crew Matrix**

- **PIQ Questions**

- Selected questions are prepopulated with information extracted from the HVPQ and PIQ

✕ Inspection Photos



11.1.1 11.1.2 11.1.3

11.1.4 11.1.5 11.1.6

11.1.7 11.1.8 11.1.9

11.1.10 11.1.11 11.1.12

PIQ Additional Information

PIQ - 7.2.1001 Does the vessel's usual trading area include entering or transit through areas of increased security risk?
Yes

PIQ - 7.2.1002 Does the vessel always carry sufficient material to fully implement its Vessel Hardening Plan?
Yes

- A SIRE 2.0 negative observation is a combination of a subject (the element of hardware or process which caused the observation) and a nature of concern
- The “subject” is specific to the category, either a hierarchical list of on-board hardware or, in the case of processes, all applicable on-board TMSA KPIs
- This allows the Inspector to capture and codify the findings directly into the inspection report while on-board
- In addition, text comments can also be provided
- This mode of Inspection data capture provides powerful, real time data analysis opportunities. Pre-codified/analysed negative observations captured across the Inspection, Vessel and fleet, are instantly available and comparable as further Inspector responses are captured

Process Observation

5.1.1.
Were the Master and officers familiar with the onboard emergency response plans and, were records available to demonstrate that all mandatory and company defined emergency drills had been completed and documented as required by company procedures?

> 5.1.4 - Refresher bridge resource management simulator training

> 6 - Cargo, ballast, tank cleaning and bunkering operations

6A - Mooring and Anchoring Operations

6A.1.1 - Procedures for mooring and anchoring operations

6A.1.1.1 - The procedures include roles and responsibilities

6A.1.1.2 - The procedures include requirements for risk assessments

6A.1.1.3 - The procedures include mooring arrangements and layout

6A.1.1.4 - The procedures include anchoring methods

6A.1.1.5 - The procedures include use of main engine (and thrusters if fitted)

6A.1.2 - Guidance: ensures protection of personnel and safe operation

> 6A.1.2 - mooring and anchoring equipment included in PMS

> 6A.1.3 - Condition of mooring ropes, wires, tails and shackles

> 6A.1.4 - Procedures that address the use of tugs

> 6A.2.1 - Detailed procedures that address different types of mooring operation

= 6A - Mooring and Anchoring Operations
6A.1.1 - Procedures for mooring and anchoring operations

Nature of Concern

No procedure

Procedure not present/available/accessible

Too many/conflicting procedures

Procedure clarity and understandability

Procedure accuracy/correctness

Procedure realism/feasibility/suitability

Procedure completeness/validity/version

Communication of procedure/practice updates

Other - text

Comments

Observation Declaration example

2. Certification and Documentation

4. Defect Management

1. Were the senior officers familiar with the company procedure for reporting defects to vessel structure, machinery and equipment to shore-based management through the company defect reporting system and was evidence available to demonstrate that all defects had been reported accordingly?

Hardware Observable or detectable deficiency

Environmental Protection Equipment: Maintenance task available – not completed

Emergency shut off boxes on port side accommodation required several attempts and two crew to open. Catches found in poor condition.

3. Crew Management

2. Crew Evaluation

5. Was a report available onboard which confirmed that a comprehensive cargo audit by a suitably qualified and experienced company representative had been completed as declared through the pre-inspection questionnaire?

Process **Not as expected – procedure and/or document deficient**

12 – Inspections: Procedure completeness/validity/version

There were no details of the auditors experience and qualifications provided within audit documentation.

5. Crew Familiarisation

1. Had the company developed an effective familiarisation programme that covered the personal safety and professional responsibilities of all onboard personnel, including visitors and contractors, and were records available to demonstrate that the familiarisation had been completed as required?

Human **Senior Deck Officer - Not as expected**

As part of maintaining safety awareness, monthly inspections conducted. Subject space seen to be storage place for various items. In use paint left above tank top port side E/R/ No MSDS. Paint subsequently removed.

9. Opportunity to learn or practice

SIRE 2.0 implementation phases – latest from OCIMF

- Phase 1: SIRE 2.0 Internal Testing
 - OCIMF Secretariat & Submitting Companies and vessel operators involved in initial trials

- Phase 2: Beta test of full end-to-end process
 - Optional participation for invited parties

- Phase 3: Unlimited beta test of full end-to-end process
 - Optional participation for all programme participants

- Phase 4: SIRE (VIQ7) withdrawn
 - All programme participants

A Summary

- SIRE 2.0 will significantly enhance inspection regime
- It will no longer focus on a snapshot of vessel's condition at the time of inspection
- SIRE 2.0 will take human element into consideration and the inspection will involve interviews of selected officers and ratings and identification of Performance Influencing Factors (PIF)
- One VIQ question under SIRE 2.0 may generate up to 3 observations
- Training of crew and their familiarity with their duties, industry practice and company management system requirements is crucial for successful vetting performance under SIRE 2.0 regime
- Preparation for the upload of documents and completion of pre-inspection questionnaire requires significant efforts from shore based team (estimated 3 hrs per single inspection arrangement)



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THANK YOU!

Source: OCIMF