SIRE 2.0 Digitalize Approach to Ship Vetting

The Ship Inspection Report Program (SIRE) developed in 1993 is a ship safety-based risk assessment tool of value to charterers, ship operators, terminal operators, and government bodies.

The SIRE program is a standardized, objective inspection process that systematically examines tanker operations and that is shared by Oil Companies International Marine. Forum (OCIMF) members and other authorized recipients. The main benefits of the SIRE program are:

- Improved operational standards and a reduced number of incidents.
- The establishment of uniform standards and training for ship inspectors.
- A reduction in the number of repeat inspections on the same vessel, which reduces the burden on the vessel's crew.

To keep up with changing risk profile of the tanker industry while utilizing the latest in digitalize management tools, the SIRE program will undergo a significant overhaul by end of 2022. The overhaul SIRE program will be called SIRE 2.0.

Key New Developments:

The current SIRE program uses a standardized questionnaire referred to as Vessel Inspection Questionnaire (VIQ) 7.0. The bespoke inspection questions are created by an algorithm from the SIRE 2.0 question library. The vessel crew will not be able to predict questions which will be asked during an inspection. The questions cover 4 key areas:

Core: Significant risks on board as identified by OCIMF

Rotational: Algorithm will ensure noncore questions are covered over a period.

Conditional: Specific questions such as ship type, area of operations etc.

Campaign: This is like PSC conducting concentrated inspection campaign.

The Human Element:

SIRE 2.0 is a step change in the inspection process as it integrates human factors into the inspection process. The physical, psychological, and social factors affecting human interaction with equipment, process and other people is determined by assessing Performance Influencing Factors (PIF). These factors make human errors likely due to poor workplace design, time pressure or workload. While responding to any observation related to human error, the inspector will use PIF and provide objective in nine (9) areas. The nine areas broadly cover accessibility, usefulness of procedures, human-machine interfaces and opportunity to learn.

Executing the Inspection:

All inspections will be carried out using a tablet device that is fully compliant for use onboard all types of vessels.

Use of the tablet will:

• Improve the overall quality of the inspection report and resulting marine assurance data.

• Facilitate the expanded inspection template and support the delivery of the four-tier question set.

• Provide photographic verification to support the findings.

• Allow GPS tracking, auto-logging of start and finish times, and auto-submission of inspection reports.

Each inspector will be given the opportunity to assess observations against grades of yes. When giving a non-compliant observation, the tablet will auto open an editor that allows a granular assessment of the observations including a breakdown by equipment, procedures, and human factors.

A range of resources and information about SIRE 2.0 are available on OCIMF' s website at www.ocimf.org/programmes/sire2.0, including the full SIRE 2.0 Question Library and supporting guidance materials.

Captain Bally Duggal
Accredited SIRE Inspector.