

INDIAN REGISTER OF SHIPPING

CLASSIFICATION NOTES

Extended Dry-Docking Scheme

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Classification Note

Extended Dry-Docking Scheme

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Section 1

General

1.1 These Classification Notes provide requirements for assignment of additional Class Notation EDD (X), which enrolls a vessel classed with IRS, into an extended dry-docking scheme. The (X) in parentheses denotes the extended interval of years between successive dry-dockings of the vessel.

1.2 These Classification notes provide requirements for assigning EDD(X) notation, as included in Part 1, Chapter 1 of *Rules and Regulations for the Construction and Classification of Steel Ships*. They include acceptance procedure for schemes which extend the interval between surveys in dry-dock. Ships eligible for the Extended Dry-Docking scheme and assigned with the EDD(X) notation are to meet the provisions and conditions prescribed in these Classification Notes.

1.3 The scheme which extends the interval between out of water dry-docking surveys is to be agreed by the Flag Administration, and unless specifically permitted by the Administration's regulations, is to be confirmed by way of a written agreement by the Flag. The Flag Administration may at any stage, impose requirements which are additional to the provisions of these Classification notes, for upkeep of the extended dry-docking scheme.

1.4 The assigning of the EDD(X) notation does not alter the periodicity of the Ships' Special Surveys and Statutory Renewal Surveys, therefore the application will have to consider provisions for carrying out all such surveys and repairs, with the ship in afloat condition.

Section 2

Application and Eligibility

2.1 The scheme is applicable to vessels, such as Floating Dry-Docks; and Gas Carriers with re-gasification units, which are stationed at one place for long periods; due to their special nature of operations (i.e. in situ operations), subject to meeting the conditions specified in these classification notes. However, this scheme excludes self-propelled vessels, where the propeller connection to the shaft is by means of a keyed taper.

2.2 To be eligible for the scheme, the following additional requirements are to be complied with.

- .1 The vessel is to be assigned with class notation INWATER SURVEY, in accordance with *Rules and Regulations for the Construction and Classification of Steel Ships*;
- .2 In case of self propelled ships, the vessel is to be assigned with the class notation TCM, in accordance with *Rules and Regulations for the Construction and Classification of Steel Ships*;
- .3 Verification by IRS that a hull maintenance scheme is implemented.
- .4 Vessels are to be provided with special design features (as applicable), in accordance with section 3.

2.3 Vessels complying with the requirements of this classification note may be assigned with class notation EDD(X), where X indicates the maximum permitted interval between successive dry-dockings.

2.4 The EDD(X) notation is intended to be assigned to vessels built under the special survey of IRS. However, IRS may consider assignment of this notation to vessels already in service and less than 10 years of age, as permitted by Section 4, para 4.2.

2.5 The dry docking survey at the end of the extended period can be conducted within a three month window prior to the due date of the survey. No extensions would be granted for the dry-docking required at the end of each extended dry docking period

2.6 An unscheduled docking survey conducted before the due date of the EDD(X) docking survey, will not result in extension of the EDD(X) docking survey. If the owner requires an extension of the next due EDD(X) docking survey, IRS will treat it as a case of an existing vessel newly entering the EDD(X) scheme and provisions for the same will apply.

Section 3

Special Design Features

3.1 Special Design features

3.1.1 The following design features are to be incorporated into vessel's design in order to be assigned with class notation EDD(X):

- a) **Sea valves.** Means are to be provided to examine any sea valve. Provisions for blanking of the inlets are to be provided, to allow for inspection during survey, as well as maintenance of valves.
- b) **Auxiliary Thrusters.** Means are to be provided for blanking of auxiliary thruster openings to allow for inspection during survey, as well as periodic servicing of thrusters.
- c) **Underwater Fittings.** Arrangements are to be provided for servicing and maintenance of underwater fittings such as the echo sounder, ICCP systems, sea water temperature gauges, electronic draught gauges, shaft seals, sea chests etc., keeping in view that the vessel will remain in the afloat condition for an extended period of time.

Section 4

Information, Plans and Procedures

4.1 New vessels

4.1.1 For vessels to be assigned with the EDD(X) notation, a technical assessment is to be carried out at the design stage, clearly indicating the maximum duration up to which it is designed to undergo underwater inspection in lieu of dry-docking. The technical assessment document, along with the following details, is to be forwarded to IRS for Approval. The arrangements are to be verified at the special survey during construction/conversion, by the attending Surveyor. These are to include (as applicable), but not be limited to the following:

- .1 Provisions for maintaining the draft marks fore, aft and midships as well as Loadline marks (painted and welded figures) and all other required hull markings;
- .2 Markings on the underwater hull to identify location of bulkheads, watertight doors, tanks and sea suction/discharges;
- .3 Details and arrangements for inspection and servicing of sea-chests, sea inlet/discharge valves, other underwater appendages, and the underwater hull;
- .4 Maintenance required of thrusters and stabilizers, if fitted, and provision for carrying out surveys or maintenance or as required by the surveyor;
- .5 Provisions for carrying out maintenance required on electric/electronic sensors e.g. Echo-sounder, Doppler-Log, Speed-log (propeller speed-log or backpressure speed-log), seawater temperature gauges, electronic draught reading, etc;
- .6 Manufacturer's guarantee that the underwater coatings used are designed to last for the interval between successive dry dockings, since the coating is to remain effective through the extended dry docking period;
- .7 Impressed cathodic protection system or provisions for renewal of external hull sacrificial anodes in the afloat condition;
- .8 Details of protective coatings applied to double bottom, wing tanks, ballast tanks, void spaces and spaces adjacent to shell and the maintenance scheme to keep these coatings in "Good" conditions;

- .9 Details are also to include, for information, the extent and periodicity of underwater cleaning.
- .10 Plans and documents relating verification of compliance with TCM notation
- .11 Section of SMS manual incorporating hull maintenance and inspection of underwater area, fittings/appendages and coating.

4.2 Existing Vessels or vessels undergoing conversion

4.2.1 Although the EDD(X) notation is intended to be assigned only to ships built under the Special Survey of IRS, IRS may specially consider including ships already in service, into the scheme, on a case to case basis. The extended dry-docking scheme detailed in these classification notes can be implemented at any time till the vessel reaches 10 years of age. For such vessels, a technical assessment similar to the detailed in 4.1 needs to be carried out, and approved by IRS. For existing vessels, the details and arrangements are to be verified by IRS, before assignment of the EDD(X) notation.

4.2.2 For vessels already assigned with an equivalent class notation in accordance with the Rules of an IACS member society, IRS may specially consider a waiver to the requirements of paragraph 4.2.1, subject to a satisfactory review of the plans, technical documents, taking due cognizance of the vessel's operational history.

Section 5

Inspection of the outside of the vessel's bottom in afloat condition

5.1 Intermediate Surveys

5.1.1 Inspection of the outside of the vessel's bottom at intermediate surveys is to be carried out in accordance with the scope of survey applicable to class notation INWATER SURVEY. In cases where a docking survey as per the EDD scheme, is due at an intermediate survey, the hull will be inspected with vessel in dry dock.

5.2 Special Surveys

5.2.1 For vessels assigned with EDD(X) notation, IRS will credit an underwater inspection carried out as detailed in this sub-section as equivalent to the relevant requirements of a special survey in dry-dock. Such an underwater inspection may be carried out by a combination of:

- heeling of the vessel for partial examination of the bottom
- ultrasonic measurement of plate thicknesses
- underwater photography
- underwater television and examination by diver/ROV's.

5.2.2 A survey plan documenting the extent and scope of the underwater inspection is to be prepared before each underwater inspection to be carried out in lieu of dry docking during special survey, and the same is to be forwarded to IRS for approval. The submitted survey plan is to include, in addition to the documentation required as per section 4 and documentation required by class notation INWATER SURVEY, the following details.

- Non-destructive testing locations (including NDT methods). Arrangements may be required for underwater or internal thickness gauging of suspect areas. Means for underwater non-destructive testing may also be required for fracture detection;
- Results of inspections by the Owner's personnel of double bottom/ double side ballast tanks (during the last 3 years) and other spaces adjacent to the shell with reference to structural deterioration in general, leakages in tank boundaries and piping and condition of the protective coating;
- Conditions for internal examination of double bottom/ double side ballast tanks (e.g., information regarding tank cleaning, gas freeing, ventilation, lighting, etc.);

- Provisions for surveying and maintaining sea connections including thickness measurements of sea chests;
- Details of any event of circumstance in the operation of the vessel which could have led to underwater damages/deterioration in the crew knowledge or opinion. Details are to also include any such findings from previous surveys/ inspections of the vessel.

5.2.3 Prior to commencement of the survey, a survey planning meeting is to be held between the attending surveyor(s), the owner's representative in attendance, the diving company and the master of the vessel or an appropriate representative appointed by the owner for the purpose of ascertaining that all the arrangements envisaged in the survey plan are in place, so as to ensure the safe and efficient conduct of the survey work to be carried out.

5.2.4 *Conduct of Survey*

5.2.4.1 Underwater conditions - The underwater structures to be examined are to be cleaned and de-scaled prior to the examination. The in-water visibility and the cleanliness of the hull below the waterline is to be clear enough to permit a meaningful examination which allows the surveyor and diver and/or ROV pilot to determine the condition of the plating, appendages and the welding. The attending surveyor is to be satisfied with the methods of orientation of the divers/ROVs on the plating, which should make use, where necessary of permanent markings on the plating at selected points.

5.2.4.2 Exposed areas - An examination of the outside of the hull above the waterline is to be carried out by the Surveyor(s). Means and access are to be provided to enable the Surveyor to accomplish visual inspection and non-destructive testing, as necessary. During the survey, the vessel is to be at its lightship draft, or as close to it as practicable.

5.2.4.3 Underwater areas – An examination of the entire vessel below the waterline is to be carried out by a suitably qualified diver using closed-circuit television with two-way communication capable of being monitored by the Surveyor(s) as required. This is to be supplemented by the Diver's Report describing and attesting to the conditions found. A copy of this diver's report and relevant photographs are to be submitted to the attending Surveyor. Copies are also to be retained on-board, together with any video tapes, for reference.

IRS may specially consider the use of ROV's instead of divers for the examination of underwater areas.

5.2.4.4 Areas with damage/ deterioration are to be photographed. Internal examination, measurements, marking and thickness gauging of such locations may be necessary as determined by the attending Surveyor. Means are to be provided for location, orienting and identifying underwater surfaces in photographs or by videography.

5.2.4.5 Inspection of the outside of the vessel's bottom in afloat condition may not be acceptable where there is record of abnormal deterioration or damage to the underwater structure; or where damage affecting the fitness of the vessel is found during the course of the survey. In such cases, where a comprehensive inspection and renewal is not practicable with the vessel in the afloat condition, the surveyor may, require the vessel to be dry-docked.

5.2.5 A comprehensive report of findings, gauging, clearances and any work undertaken, including recordings of representative CCTV images, is to be submitted by the ship owner to IRS for future reference and records.

5.2.6 The continuance of the EDD(X) notation is to be recommended by the attending surveyor at every inspection of the underwater portion of the hull.

Section 6

Termination of Scheme

6.1 All vessels enrolled in the EDD scheme would be delisted, at the end of X years. The final inspection of the underwater portion of the hull, at the completion of the scheme, is to be carried out in a dry-dock.

6.2 The Extended Dry-docking Scheme will be automatically terminated in cases of change of the vessel's owner, management or Flag Administration. In such cases the EDD(X) class notation is to be withdrawn, until a new application and agreement amongst stakeholders is obtained. Reinstatement of the notation will be specially considered by IRS on a case to case basis.

6.3 The Extended Dry-docking scheme will be automatically terminated in cases where the vessel is required to dry-dock in accordance with paragraph 5.2.4.5, or when the vessel sustains damage to the underwater portion of the hull. In such cases, continuance of the notation will be considered on a case to case basis.

6.4 IRS may withdraw the EDD(X) notation, at any time if it is noted that the conditions for maintaining this extended Dry-Dock scheme are not fulfilled anymore, and on failure to obtain endorsement from IRS as per 5.2.6.

6.5 Once the extended dry-docking scheme is terminated, the vessel will return to the normal survey scheme as applicable, according to the *Rules and Regulations for the Construction and Classification of Steel Ships*.