

GOVERNMENT OF INDIA  
MINISTRY OF SHIPPING  
DIRECTORATE GENERAL OF SHIPPING  
"BETA BUILDING", 9<sup>TH</sup> FLOOR  
I-THINK TECHNO CAMPUS  
KANJUR MARG (EAST)  
MUMBAI - 400 042.

No. SS/Misc(20)/2013

Dated: 18<sup>th</sup> July 2014

DGS Order No: 8 of 2014

Notification for the application of Safety, Security and Environmental Protection Provisions to Indian FSRUs / FRUs, and non-Indian FSRUs / FRUs while operating in Indian waters

**Nothing** that the Liquified Gas Industry is one of the fastest growing service line in Maritime

Sectors in the country and worldwide;

**Considering** that due to the special nature of the operations of Floating storage and re-gasification units (FSRUs) and other similar units for storage, re-gasification of liquefied gases, which are moored at a particular location for extended periods either at an offshore location or within the harbour/port limits, some of the provisions of IMO Conventions may not fully apply to these units the way they apply to ships undertaking voyages;

**Recognising** that the special nature of operations of FSRUs and other similar units is different From those of a trading ship, and hence requires separate guidelines for safety, environmental Protection, survey and certification;

**Taking** into consideration that there are no guidelines issued related to FSRUs issued by IMO, these being recent developments;

**Nothing further** the practices followed by other Maritime Administrations with regard to operation of FSRUs and other similar Units;

Now, the Director General of Shipping, in exercise of the powers vested in him under the provisions of Section 456 of the Merchant Shipping Act 1958, read together with S.O 3144 dated 17.12.1960, hereby issues the following Order:-

## **1. FSRUs (or 'Units'):**

**1.1** Floating storage & re-gasification units (FSRUs) and other re-gasification units of liquefied gases ('Units') are specialized vessels used in the storage, re-gasification and transfer of gases listed in the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk, as amended (IGC Code) whilst at a fixed location. These include the following and are referred collectively as 'Units' in this circular.

- a) FSRU (Floating, Storage and Re-gasification Units):
- b) FRU (Floating Re-gasification units);
- c) FSU (Floating Storage Units); or
- d) Any combination and variation of the above dealing with liquefied gases

**1.2** Non-self-propelled unit is a Unit not certified to navigate independently.

**1.3** Self-propelled units is a Unit certified to navigate independently.

## **2 Application:**

**2.1** This order is applicable to the 'Units' under the Indian Flag, and to all other 'Units' while operating in waters within the jurisdiction of India ( which includes its territorial Waters and the Exclusive Economic Zone).

**2.2** The Notification applies to:-

- a) Non-disconnectable Units, (i.e., which are designed to be permanently moored on location and may not have any mechanical means of transiting under their own propulsion);
- b) Disconnectable Units, with or without permanently mooring system (i.e., which are designed to be either self-propelled or non-propelled) while operating on location.

### **3 Marine safety regime for Units;**

**3.1** The Units shall be flagged and classed.

**3.2** The Units shall be maintained in class for its intended purpose and service, and assigned with an appropriate class notation, by one of the Recognized Organization (RO) of the Indian Administration.

**3.3** The Units shall comply with the following IMO Resolutions/Circulars, as applicable:

- a) Resolution MEPC.139 (53) adopted on 22 July 2005 on the “Guidelines for the application of the revised MARPOL Annex I requirements to Floating Production, Storage and Offloading Facilities (FPSOs) and Floating Storage Units (FSUs)”, as amended by MEPC 142 (54) dated 24 March 2006, for machinery spaces.
- b) MSC-MEPC 2/Circ.9 dated 25 May 2010 on “guidance for the application of safety, security and environmental protection provisions to FPSOs and FSUs”;

**3.4** Since the certification of such Units are specific to a location, the certification and compliance requirements for operation at the permitted location shall include, but not limited to, the following documents from the Flag and/or RO of the Indian Administration.

- a) International Tonnage Certificate
- b) International Load Line Certificate

- c) Certification under SOLAS-1974/88, as amended (i.e., CSSCC, CSSEC, CSSRC, ISM, ISPS etc.) for all self-propelled Units
- d) Certification under IGC Code.
- e) Industry guidelines for transfer of cargo to terminals or other vessels/units
- f) Certification under the applicable Annexes of MARPOL-73/78, as amended.
- g) Maritime Mobile Radio Station License
- h) Certificates of Class appropriate for the intended use.
- i) Units shall comply with SOLAS Ch. XI-2 and the ISPS Code, as applicable.
- j) Minimum Safe Manning Document.
- k) Compliance with MLC 2006/Crew Accommodation Rules.
- l) Asset Insurance and Third Party Liability Cover including Wreck Removal.
- m) Financial Responsibility Certificate
- n) Civil Liability Certificate, as applicable.

**3.5** The survey and certification of the Unit shall be carried out in accordance with the Harmonised System of Survey and Certification (HSSC).

**3.6** The Coastal State/the Directorate or other governmental agencies may impose additional requirements, due to innovative designs, nature of operating conditions and/or the complexity of the operation of industrial systems onboard and public safety in general which are not dealt with the IMO instruments, as deemed necessary.

**3.7** The Units shall comply with the requirements under Anti-fouling Systems Convention (AFS), Ballast Water Management Convention (BWM) etc. to the extent applicable.

#### **4. Survey of outer bottom of the Unit:**

**4.1** The Unit shall undergo docking surveys as per the SOLAS requirements, i.e., two dockings in five year period, with the interval between dockings not exceeding 36 months. However, due to the special nature of the operations of the Units, in-water

survey of outer bottom in lieu of dry-docking or is otherwise approved by the RO for such extended dry-docking, provided that at least two satisfactory in-water surveys are carried out in any five-year period with the interval between the surveys not exceeding 36 months.

**4.2** The extent and scope of such in-water surveys shall be in accordance with the plans/documents approved by the RO at the design stage of construction/conversion of the Unit. The documentation related to class certification shall clearly indicate the maximum duration up to which the vessel is designed to undergo in-water surveys in lieu of docking. The Conditions for allowing an in-water survey in lieu of extended docking survey are given at Annex-I.

**4.3** The safety management system on board shall contain necessary procedures for regular monitoring and reporting of the condition of the hull and underwater fittings/equipment of the Unit. The owner/operator shall establish a scheme of inspections, duly approved by the RO, for undertaking the in-water survey in lieu of the dry-docking and the conformity of compliance to the scheme shall be verified by the RO.

**4.4** The owner/operator shall maintain the approval records from the RO of the satisfactory completion of underwater hull inspection, clearly indicating the validity and the recommendations, if any. In case of any adverse finding during the "In Water Survey" which reveals damage or deterioration that requires early attention, the Surveyor/RO may require that the unit be dry-docked forthwith in order that a more detailed survey/necessary rectification can be undertaken.

**4.5** A unit shall not move from its permitted location except in case of an emergency. In case of a planned movement from one location to another, the Unit shall fully comply with the certification requirements for undertaking a sea voyage as per the relevant provisions of IMO Conventions, such as SOLAS, MARRPOL etc. and the Unit shall be in possession of all relevant trading Certificates, as applicable.

## **5. Safety Management:**

**5.1** The Unit shall have an approved safety management system, taking into consideration the ISM Code and other industry guidelines, in accordance with paragraph 8 of Annex to the MSC-MEPC 2/Circ.9 dated 25 May 2010.

**5.2** Self propelled Units shall only comply with the ISM Code requirements.

## **6. Manning:**

The Unit shall be manned as per the safe manning document issued by the Administration.

## **7. Security:**

The Unit shall comply with SOLAS Chapter XI-2 and the ISPS Code in full in order to facilitate the interaction between the Unit and other ships.

## **8. Emergency Response:**

The Unit shall develop and maintain an emergency response system procedure and a detailed risk analysis (such as HAZOP, HAZID, FMEA etc.), duly vetted by the relevant authority, in order to address the safety and pollution risks associated with marine and production systems and operations, taking into account the MARPOL Convention, ISM Code and other appropriate industry Guidelines such as guidelines issued by IMO, Society of International Gas Tanker and Terminal Operators (SIGTTO), International Organization for Standardisation (ISO) etc. In an emergency situation, a Unit may move out of its assigned location provided such movement is essential for safety and is a part of the documented emergency response system.

## **9. Application of MARPOL:**

The Units shall comply with MARPOL Annex I, IV, V (in accordance with IMO resolution MEPC.219 (63) – Guidelines for the implementation of MARPOL Annex V) & VI (with the exception of Ch.4).

**Sd/-**

**(Gautam Chatterjee)**

**Director General of Shipping**

**To**

1. All Indian Shipping Cos.
2. INSA, Mumbai
3. ICC Shipping Association
4. FOSMA/MASSA, Mumbai
5. All Charterers/ Shippers
6. All Mercantile Marine Departments.
7. All Major Port Trusts.
8. All Recognised Organizations.

**Copy to:**

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2. PS to DG
3. PS to jt. DG
4. Computer Cell – for hosting on the DGS web site
5. Hindi Cell – for Hindi translation

Conditions for allowing an in-water survey in lieu of extended docking survey (W.r.to section 4 of the order):

1. Before entering in to service, a satisfactory review of plans/documents shall be done by the RO, including the following aspects, as applicable
  - a) Markings on the underwater hull to identify location of bulkheads, watertight floors, tanks and sea suctions/discharge
  - b) Details and arrangements for inspecting and servicing sea chests, sea inlet/discharge valves, other appendages and the underwater hull;
  - c) Details for servicing and maintenance programme for essential equipment and underwater fittings like echo-sounder, speed log, sea water temperature gauges, electronic draft gauges, shaft seals, CP propeller blade seals, sea chests, sea inlet discharge valves etc;
  - d) Means for blanking off all the openings likely to affect the watertight integrity, including those for side thrusters
  - e) Provisions for maintaining outer bottom hull markings including load line markings;
  - f) Corrosion protection: Details of increased scantling, Cathodic protection, protective coating etc. provided to account for the longer period of service without docking. The extended period so approved by class should be specified in the design documents and class certificates/records;
  - g) Details of protective coating applied to double bottom, wing tanks, ballast tanks, void spaces and spaces adjacent to shell and the maintenance scheme to keep these coating in "Good" condition.
  - h) Details of hull protection system adequate for the extended period (cathodic protection or other equivalent arrangement) and procedures for maintenance/renewal in afloat condition;

- i) Arrangements for underwater inspection and maintenance of propellers, thrusters and rudders; provision of efficient sealing/glands for stern tube and rudder including their renewal where required; arrangements for the measurement of wear in the stern tube bearings and rudder bush/bearings
  - j) Provision for surveys and maintenance of thrusters/stabilizers including maintenance plan.
2. A satisfactory review of the unit's history with particular attention to previous findings with respect to damage, repair or watertight integrity of the underwater hull structure and fittings.
  3. Any other condition, as stipulated by the Class/Flag.