RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

Part PS Floating Offshore Facilities for Crude Oil/ Petroleum Gas Production, Storage and Offloading

Rules for the Survey and Construction of Steel Ships
Part PS 2014 AMENDMENT NO.1

Rule No.9 26th February 2014
Resolved by Technical Committee on 29th July 2013
Approved by Board of Directors on 24th September 2013

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NIPPON KAIJI KYOKAI

Rule No.9 26th February 2014
AMENDMENT TO THE RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

"Rules for the survey and construction of steel ships" has been partly amended as follows:

Part PS FLOATING OFFSHORE FACILITIES FOR CRUDE OIL/PETROLEUM GAS PRODUCTION, STORAGE AND OFFLOADING

Chapter 6 FIRE PROTECTION, DETECTION AND EXTINCTION

6.4 Fire Detection and Extinction

Paragraph 6.4.2 has been amended as follows.

6.4.2 Fixed Deck Foam Systems

1 Fixed deck foam systems are to comply with the requirements of **Chapter 34, Part R**, regarding the Floating Offshore Facilities to be tankers of 4,000 *tonnes deadweight* and over.

2 Foam applicators for fixed deck foam systems are to be provided with fire hoses complying with **10.2.3-1, Part R**.

~~**1** The arrangements for providing foam are to be capable of delivering foam to the entire crude oil tanks deck area as well as into any crude oil tank whose deck has been ruptured.~~

~~**2** Deck foam systems are to be capable of simple and rapid operation. The main control stations for such systems are to be suitably located outside crude oil areas, adjacent to accommodation spaces and readily accessible and operable in the event of fire in the areas protected.~~

~~**3** The rate of supply of foam solution is to be not less than the greater of the following:~~

~~(1) 0.6 *l/min per square meter* of crude oil tank deck areas, in cases where "crude oil tank deck area" means the maximum breadth of the Floating Offshore Facility multiplied by the total longitudinal extent of the crude oil tank spaces ;~~

~~(2) 6 *l/min per square meter* of the horizontal sectional area of the single tank having the largest such area; or~~

~~(3) 3 *l/min per square meter* of the area protected by the largest monitor, such area being entirely forward of the monitor, but not less than 1250 *l/minute*.~~

~~**4** Sufficient foam concentrate is to be supplied to ensure at least 20 *minutes* of foam generation in Floating Offshore Facilities fitted with inert gas installations or 30 *minutes* of foam generation in Floating Offshore Facilities not fitted with inert gas installation in cases where using the solution rates stipulated in **-3(1), (2), (3)** above, whichever is the greatest. The foam expansion ratio (i.e. the ratio of the volume of foam produced to the volume of the mixture of water and foam-making concentrate supplied) is generally not to exceed 12 to 1. In cases where systems essentially produce low expansion foam, but at expansion ratios slightly in excess of 12 to 1, the quantity of foam solution available is to be calculated as for 12 to 1 expansion ratio systems. In cases where medium expansion ratio foam (between 50 to 1 and 150 to 1 expansion ratio) is employed, the application rate of the foam and the capacity of monitor installation is to be to the satisfaction of the Society.~~

~~**5** Foam from fixed foam systems is to be supplied by means of monitors and foam applicators. At least 50% of the foam solution supply rate required in **-3(1)** and **(2)** above is to be delivered from each monitor.~~

~~**6** The number and position of monitors are to be such as to comply with **-1** above. The capacity of any monitor is to be at least 3 *l/minute* of foam solution *per square meter* of deck area protected by that monitor, such areas being entirely forward of the monitor. Capacity is to be not less than 1250 *l/minute*.~~

~~The distance from a monitor to the farthest extremity of the protected area forward of such monitor is not to be more than 75% of the monitor throw in still air conditions.~~

~~**7** Monitor and hose connections for foam applicators are to be situated both port and starboard at the front of the poop or accommodation spaces facing crude oil tank decks.~~

~~**8** Applicators are to be provided to ensure flexibility of action during fire-fighting operations and to cover areas screened from monitors. The capacity of any applicator is to be not less than 400 *l/minute* and the applicator throw in still air conditions is to be not less than 15*m*. The number of foam applicators provided is to be not less than 4. The number and disposition of foam main outlets are to be such that foam from at least 2 applicators can be directed on to any part of crude oil tanks deck areas.~~

~~**9** Valves are to be provided on foam mains, and on fire mains in cases where they are integral parts of deck foam systems, immediately forward of any monitor position to isolate damaged sections of such mains.~~

~~**10** Operation of deck foam systems at required output is to permit the simultaneous use of the minimum required number of water jets at the required pressure from fire mains.~~

~~**11** Foam concentrates are to be considered appropriate by the Society.~~

~~**12** Foam applicator units are to be provided with fire horses complying with **10.2.3-1, Part R**.~~

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 July 2014.

2. Notwithstanding the amendments to the Rules, the current requirements may apply to ships the keels of which were laid or which were at *a similar stage of construction* before the effective date.

(Note) The term "*a similar stage of construction*" means the stage at which the construction identifiable with a specific ship begins and the assembly of that ship has commenced comprising at least 50 *tonnes* or 1% of the estimated mass of all structural material, whichever is the less.