



TECHNICAL INFORMATION

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DESIGNATING IN-USE FUEL OIL SAMPLING POINT

1. Background

As MARPOL Annex 6 is amended to implement the 2020 sulfur dioxide regulation, ships must use compliant fuel oil with a sulfur content of 0.5% or less. In order to verify compliance with this regulation, the definitions of marine fuel oil samples have been classified into three types and the guidelines for designation of 'In-use fuel oil sampling points' (Res MEPC.324(75)) have been approved. Accordingly, all ships must designate the already installed sampling point as the 'In-use fuel oil sampling point' or install a new sampling point and designate it as the 'In-use fuel oil sampling point' after the effective date of the amendment of the convention (1. April. 2022).

2. Type of sample

The type of Fuel oil samplings on board are classified into three categories.

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|-----------------------------|---|
| (1) In-use sample | : a sample taken from fuel oil used in ship |
| (2) On board sample | : a sample of fuel oil intended to be used or carried for use onboard that ship |
| (3) MARPOL delivered sample | : a sample collected during bunkering and delivered to the ship along with a Bunker Delivery Note (BDN) |

3. Application

- (1) Subject of application

In each combustion machine burning fuel, such as main engines, auxiliary engines, boilers, incinerators, Inert gas generator, emergency appliances and other equipment, a point should be designated at which 'In-use fuel oil' can be sampled.

(2) Exception

A fuel oil service system using only a low-flashpoint fuel (Fuel with a flash point of less than 60 degrees Celsius) for combustion purposes for propulsion or operation on board do not need to designate 'In-use fuel oil sampling point'.

(3) Application date

The regulation is expected to enter into force on April 1, 2022.

(A) For a ship constructed* before 1 April 2022, In-use fuel oil sampling point shall be fitted or designated not later than the first IAPP renewal survey on or after 1 April 2023.

(B) For Newbuilds which are constructed* on or after 1 April 2022, sampling points should be in designated during construction and confirmed during initial surveys

After completion of the applicable renewal survey or initial survey, the checkbox in paragraph 2.3.4 of the new form of the Supplement to IAPP certificate (to be amended) should be ticked off.

4. Fitting or designating of In use fuel oil sampling points

'In-use fuel oil sampling point' should be taken at the designated sampling points. The number and location of designated fuel oil sampling points should be confirmed by the Surveyor after taking into account the possibility of mixed contamination of fuel oil and the arrangement of service tanks, etc. For a common fuel oil supply line serving one or more combustion machines, a single sampling point may be acceptable.

(1) Requirements for designating In-use fuel-oil sampling point(refer toMEPC.1/Circ.864/Rev.1)

- In both cases of designating sampling points by using existing sampling points or installing new sampling points, all of the following requirements must be satisfied.

(a) be easily and safely accessible;

(b) take into account different fuel oil grades being used for the fuel oil combustion machinery item;

(c) be downstream of the in-use fuel oil service tank;

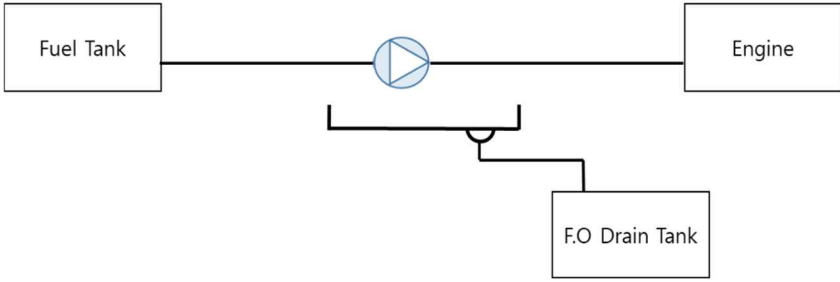
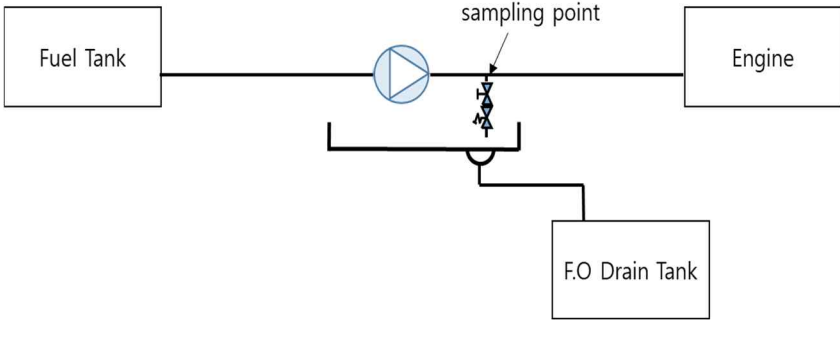
* keel laid or similar construction stage

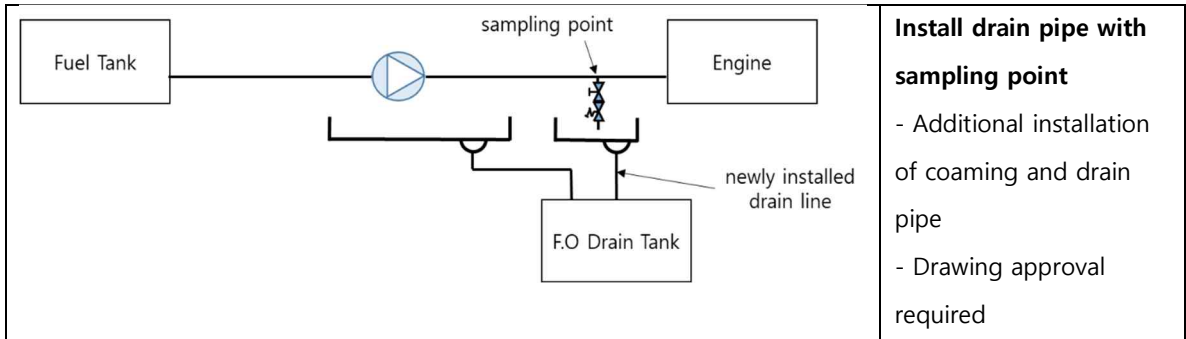
- (d) be as close to the fuel oil combustion machinery as safely feasible taking into account the type of fuel oil, flow-rate, temperature, and pressure behind the selected sampling point;
- (e) be clearly marked for easy identification and described in either the piping diagram or other relevant documents;
- (f) each sampling point should be located in a position shielded from any heated surface or electrical equipment and the shielding device or construction should be sturdy enough to endure leaks, splashes or spray under design pressure of the fuel oil supply line so as to preclude impingement of fuel oil onto such surface or equipment; and
- (g) the sampling arrangement should be provided with suitable drainage to the drain tank or other safe location.

(2) Practical advice on fitting of new sampling points for designating 'In-use fuel oil sampling points'

- Requirements

(A) Drawing approval is not required when only sampling points are newly installed, but drawing approval is required when additional drain piping is installed

	<p>New sampling point before installation</p>
	<p>Install sampling point only</p> <ul style="list-style-type: none"> - Sampling point installation on top of existing coaming - Recommended method - No drawing approval required



For other modifications to the piping system, please contact the Environment & Piping Team (piping@krs.co.kr) of this Society.

- (b) After installation of sampling valve, the sampling valve must be clearly marked on the relevant piping drawings.
- (c) Sampling valve should be installed in a well-lit and well-ventilated area.
- (d) A shut-off valve should be installed at the sampling point.
- (e) The drip tray should be installed below the sampling point to allow the oil to drain well into the drain tank.

- Recommendation

- (a) It is recommended that the sampling valve be provided with a cap to prevent leakage when not in use.
- (a) It is recommended to install a self-closing valve or a double shut-off valve together at the sampling point.

This technical information was published by Convention& legislation team to give information about the amendment to MARPOL Annex VI related to fuel oil sampling and verification procedures for the sulphur content of fuel oil, If you have any technical questions regarding the designation of sampling points for a specific vessel, please contact the Environment & Piping Team of this Society (piping@krs.co.kr).

Reference

- Res MEPC.324(75) - Procedures for sampling and verification of the sulphur content of fuel oil and the Energy Efficiency Design Index (EEDI)
- MEPC.1Circ.864/rev.1 - 2019 Guidelines for on board sampling for the verification of the sulphur content of the fuel oil used on board ships

(Distributions : KR surveyors, Ship owners, Other relevant parties)

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