



# Getting ready for IMO 2020

Vecom Marine Special Bulletin

## IMO 2020 Regulation

With 2020 rapidly approaching, more and more ship owners are preparing for the new IMO regulations. With the sulphur cap at 0.5% the marine world will have to adapt fast and efficiently. Non-compliance with mandated regulations can lead to extravagant fines, vessel detention which can cause huge losses, having the vessel's insurance cancelled and even jailtime for captains who fail to comply.

### Transition Problems

Regardless of which compliance route followed, HSFO remnants will affect the sulphur concentration measurements, as in most tank cleaning jobs the fuel systems are still not cleaned properly. A planned fuel treatment is NECESSARY when changing fuel types, as non-compliance and long-term damage to the engine are at stake.



### Sludge & Sediments in Fuel Tanks

Fuel tanks using HSFO are always contaminated by an accumulated layer of wasted, unpumpable fuel. **This can reach up to 8% of the tank's capacity, as sludge and sediments have formed over time.** Before changing fuel types, these need to be removed.



### Fuel System & Filters Clogging

During the switchover process, with the remnants of HSFO still in the fuel system, two different types of fuels burning inside the engine cylinder may cause the asphalt of the heavy fuel to precipitate as heavy sludge. **Chunks of the sludge and sediments within the fuel network and tanks can disband and clog the fuel system and filters.**

## The Vecom Marine solution

Vecom Marine is well prepared to assist the marine world in this unpredictable transition, offering cost-effective and reliable fuel oil treatment solutions. With a technology thoroughly tested and proven, we recommend **FOT SLUDGE DISPERSANT** as the ideal solution for a smooth transition during IMO 2020.

With a unique ability to disperse the sludge, **FOT SLUDGE DISPERSANT** keeps the pre-combustion system clean and maintenance free. This efficient and reliable treatment disperses sludge and breaks water in oil emulsions, making the residual fuel more homogeneous for combustion improvement. This product stabilizes fuel blends, stopping stratification and reducing compatibility issues and can be used to reduce and disperse existing sludge from bunker tanks prior to dry-docking.

### Tank cleaning in motion

First a sludge is dispersed into your fuel during a period of gentle clean up. Residues in the bottom and sides are close to none leaving the manual work an easy affair. Fuel tanks and fuel system are cleaned over time during vessel operation.

## IMO 2020 compliance types

### VLSFO & ULSFO

- ✓ Minimal cost and operationally compatible as normal.
- ✗ Quality varies substantially and supply may not be reliably guaranteed. Thermal shock and lubricity issues may occur.

### SCRUBBERS & ABATEMENT TECH

- ✓ Can still use HSFO which is much more cost-effective.
- ✗ Investment & operational costs are high. New technology for the industry. Requires storage space and complex fitting to many existing systems. Big sludge output.

### MARINE GASOIL & DMA 0.5%

- ✓ Easy to source and use.
- ✗ Too costly. Thermal shock and lubricity issues may occur.

### LNG CONVERSIONS

- ✓ Dependable and less hazardous to the environment. Supply is developing very rapidly. Operationally easy.
- ✗ Supply remains limited which may lead to unforeseen costs.

### BIO FUEL

- ✓ Significantly less emissions, steadily growing supply.
- ✗ Expensive conversion and quality varies substantially. New technology for the industry. Heavy bacteria contaminations.



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## Initial 3 steps

1. An initial manual tank cleaning may be necessary depending on the accumulation of remnants to avoid sludge overflow.
2. Dose FOT SLUDGE DISPERSANT directly into the bunker tank prior to bunkering. During the bunkering process, the product will self-disperse into the remaining fuel and the new bunker fuel.
3. Perform treatment twice prior to fuel change and inspect condition of tanks.

## Why prepare now?

- External cleaning operation teams are expensive and will be in high demand.
- Vessel crews may be unable to perform the necessary cleaning job to change the fuel; It is dangerous at sea, there may not be enough time to perform the cleaning job and procurement of the waste disposal services will be difficult.
- Shipyards or drydock scheduled maintenance may be further into the future.
- The fuel network will need to be diligently cleaned as clogged filters, heaters, pumps or fuel systems will result to non-compliance and long-term damage to the engine. Time and proper treatment are required to avoid sludge overflow.
- Electronic engines with high pressure piping systems such as common-rail systems, will need special attention and more time to thoroughly clean, as the transition from HSFO may have too much sulphur accumulated within due to the bigger quantity of fuel holding.



## Why fuel treatment?

- ✓ Previously wasted unpumpable fuel is now utilized to its full potential, saving significant costs.
- ✓ The complete fuel system network is cleaned, with most of the HSFO residues removed.
- ✓ Manual tank cleaning requirements are significantly minimized upon fuel change.
- ✓ Slop tank space requirements when manually cleaning tanks are negligent.
- ✓ Time and cost associated with tank cleaning is greatly reduced.

## Test Kit Compa Dens Check



Dosage rates are always best determined from the results of the fuel analysis. In this case we recommend using the VECOM MARINE compatibility test kit.

This information is not to be taken as a warranty or representation for which Vecom Marine assumes legal responsibility.  
The information is offered solely for your consideration, investigation and verification.

### HEAD OFFICE

Vecom Marine B.V.  
Mozartlaan 3  
3144 NA Maassluis  
The Netherlands

### EMAIL & TELEPHONE

✉ sales@vecom-marine.com  
☎ +31 10 593 02 10

### BUSINESS HOURS

Monday-Thursday: 9am - 5pm CET  
Friday: 9am - 4pm CET  
Saturday-Sunday: Closed