



ARE YOUR FIRE EXTINGUISHING SYSTEMS STILL COMPLIANT?

SCRUBBER INSTALLATION

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New amendment's ban high sulphur fuels without using scrubbers, but don't forget the fire-fighting requirement with a scrubber retrofit.

Shipowners looking to retrofit marine exhaust gas cleaning systems as a way of complying with new sulphur emissions rules should verify the capacity of their fixed fire-fighting systems before undertaking any retrofit projects.

While amendments to MARPOL Annex VI, dubbed the IMO 2020 regulation, do not specifically require additional fire-fighting capability, owners are reminded that any increase in machinery space size will require an increase in fire-extinguishing capacity.

THE AMENDMENT

A significant amendment to the regulation is the agreement on a carriage ban for HSFO as of 1 March 2020, except for ships equipped with scrubbers. While it will still be permitted to carry HSFO as a cargo, it will not be permitted to have HSFO in fuel tanks unless scrubbers are being used.

This is intended to enable port state control (PSC) to detain ships carrying non-compliant fuel without having to determine if it has been used or not and is expected to significantly discourage non-compliance when in international waters. Certain ports have banned the use of open-loop scrubbers within their areas.

Source dnvgl.com

THE CLOCK IS TICKING!

1 MARCH 2020



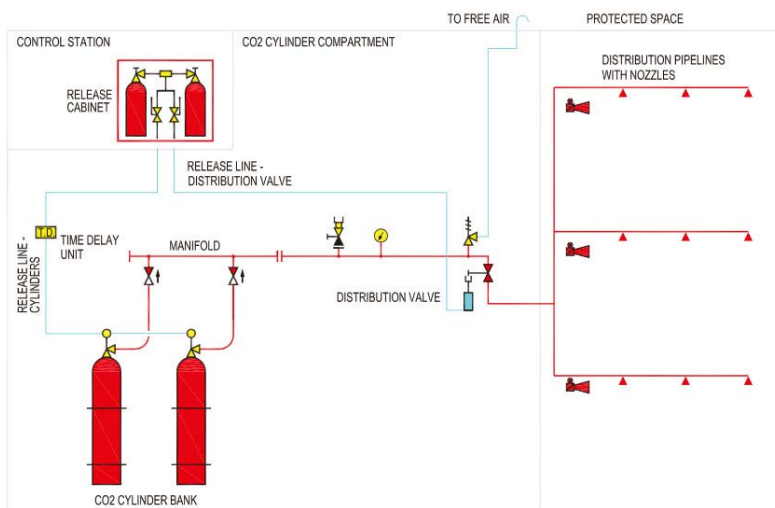
THE CHALLENGE

A scrubber installation often requires extending the engine room in the casing area and when the engine room's volume is increased the capacity of the extinguishing agent in most cases CO₂ must also be increased. If this is not completed the fire extinguishing capacity, which is based on volume of engine room can often become insufficient.

When the engine room volume is increased, the fire-extinguishing system needs to be re-calculated and re-engineered with the required additional extinguishing agent and discharge devices installed accordingly. This means that new flow calculations need to be carried out to verify that the new fire-extinguishing system will discharge the correct amount of extinguishing agent.

Drawings must also be sent to the classification society for approval before installation can take place. If these are not approved in the first instance operators risk having to remove and reinstall some installations.

To meet this requirement and ensure the correct fire extinguishing capacity onboard work needs to be planned and timed accordingly. Please see scheduling page for more information on timing and scheduling your project.





THE SOLUTION

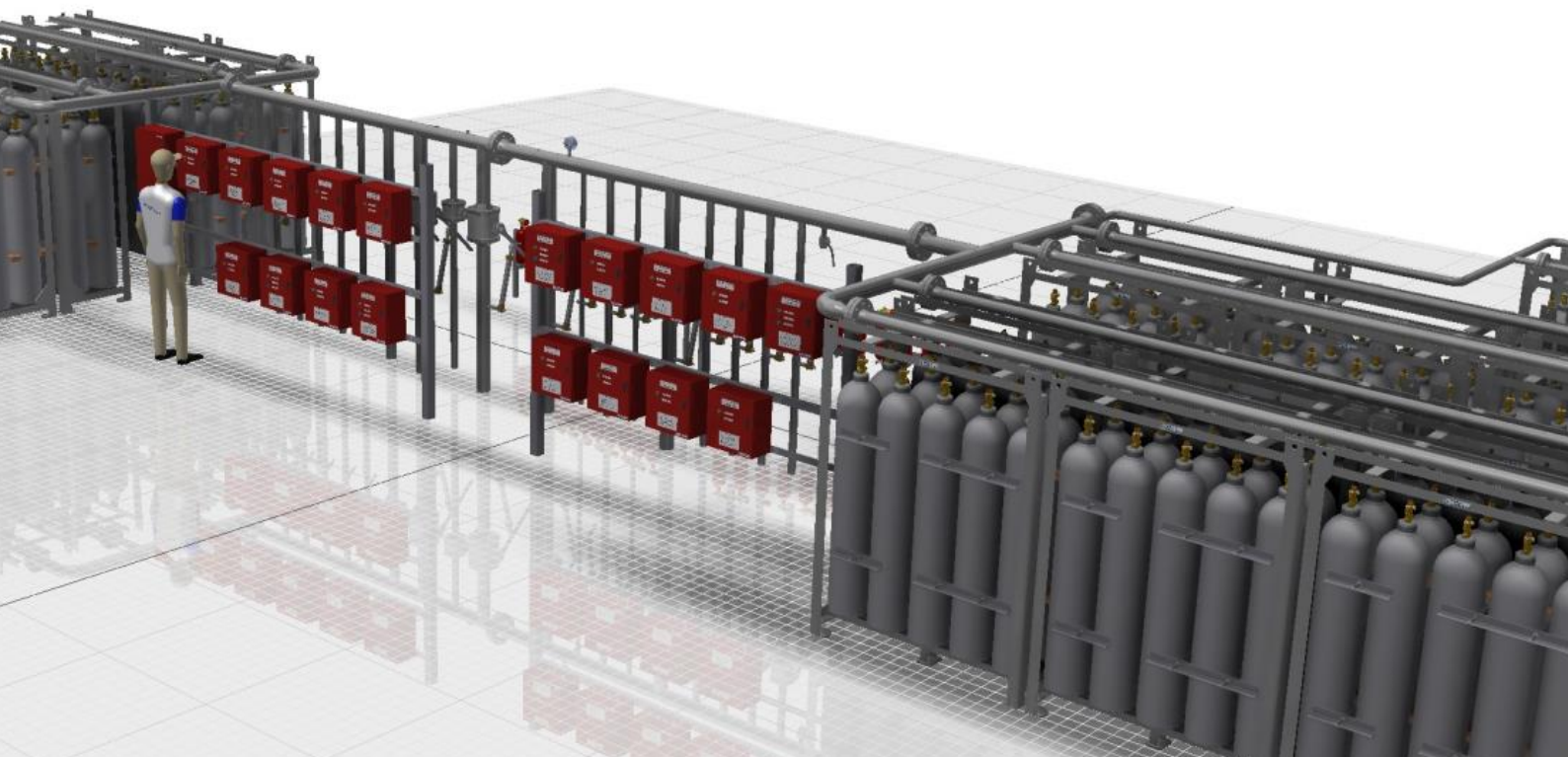
The type of installation required to meet the new requirement will very much depend on the type of system installed. Most commonly a gas cylinder is in use, in some cases it might also be a high-expansion foam system.

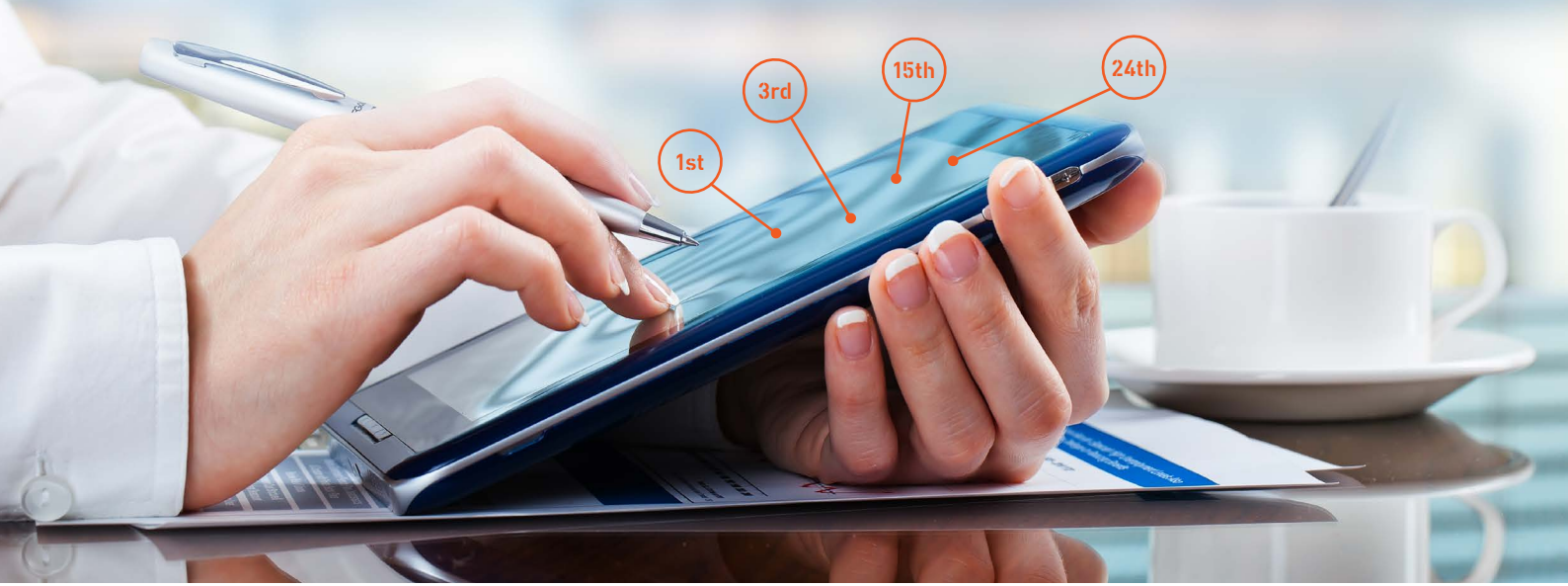
Gas systems most commonly use CO₂, this requires additional CO₂ cylinders with manifold to be connected to the existing cylinder bank.

If a scrubber is installed in a totally separate space, with a bulkhead facing towards the engine room, then there is no need for an additional fire-fighting system. In other cases, additional nozzles will have to be connected to the existing pipework covering the scrubber area, or additional CO₂ cylinders may be required. This will require reapproval of the whole system including the new and old parts. In the most extreme cases the scrubber retrofits required completely new fire-fighting systems. It depends on the calculations and the CO₂ concentration.

In some cases, there can be a separate system covering the scrubber area. This will not interfere with the approval of the existing system for the engine room. Reapproval and engineering will only be required for the separate new small system.

Extended foam systems usually require additional foam generators or re-location of existing ones to comply. However, a re-calculation of the system including the amount of foam concentrate, pump capacities and pipe dimensions are needed before finally reapproving.





THE SCHEDULE

It can be a major task updating the drawings and submitting the paperwork for class approval.

Assuming sufficient drydocking and technician availability it could take around four to five months from the point of taking the order to getting the approvals in place and carrying out the engineering before the vessel returns to service. Gaining the right certification for the products required such as cylinders and valves can also delay supply and installation.

We advise all customers to plan carefully and well ahead of the drydock and ensure that the documentation, approvals and products required are available and delivered in due time.



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