



Association of Transportation Law Professionals

Highlights Blog: Maritime Update, July 15, 2022

Coast Guard Accepts Solas Regulations For Tank Vessel Inert Gas Systems

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Marine Safety Information Bulletin No. 05-22

On June 16, 2022, the Commandant of the U.S. Coast Guard, Office of Design and Engineering Standards (ENG-3) published a Maritime Safety Information Bulletin No. 05-22 (MSIB) for tank vessels.¹ Specifically, the MSIB authorized and approved double block and bleed systems for the Inert Gas Systems on tanks vessels that are designed, installed, and operated in compliance with 74 Safety of Life at Sea Convention (SOLAS) (14) II-2/5.5 pursuant to 46 CFR §32.53-10(b). The significance of the MSIB is that shipowners and operators with SOLAS-compliant double block and bleed systems for Inert Gas Systems on tank vessels do not need approval for their system by the Coast Guard Marine Safety Center.

What is a Non Return Device for an Inert Gas System?

Large tank vessels routinely transport hazardous or flammable cargo. Differing grades and qualities of oil cargo present in the cargo holds the inherent danger of producing flammable vapors and gas during the loading operation.² Moreover, the residue of flammable gases in an empty cargo hold also constitute an explosion risk.³ Generally, Inert Gas Systems designed to reduce explosions are equipped with an isolating valve; scrubbing tower; demister to absorb moisture; gas blower; Inert Gas pressure reducing valve; deck seal; deck isolating valve; pressure vacuum breaker; cargo tank isolating valve; mast riser; and safety and alarm system.⁴

The Inert Gas System “non-return device” is a barrier that prevents both hazardous and flammable cargo vapors from invading machinery compartments and other areas of the vessel that could cause an explosion. According to the Coast Guard MSIB, the “double block and bleed valve arrangement isolates or blocks the return of gas from the cargo area to the engine room and permits the bleeding of any residual gas in the Inert Gas System.”⁵

The Amendment of SOLAS

The technical requirements for Inert Gas Systems aboard tank vessels are contained in the current version of 46 C.F.R. Subchapter D, Subpart 32.53. These regulations are outdated, however, because they require compliance with the provisions of SOLAS II-2, Regulation 62, which has since been superseded by SOLAS II-2, Regulation 5.5. The new SOLAS provision, Regulation 5.5 requires shipowners to comply with the Fire Safety Systems

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(FSS) of the International Maritime Organization (IMO). This new provision provides that vessels may use a double block and bleed system in addition to a deck water seal.⁶

Conclusion

The MSIB clarifies that vessels equipped with a non-return device with a double block and bleed complying with the FSS Code is acceptable to the Coast Guard without the need for further Coast Guard Marine Safety Center approval.

¹<https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5p/MSIB/2022/MSIB-05-22-Inert-Gas-System.pdf?ver=mQ6soPDIXfiKLuz8HoPgGA%3D%3D>.

²<https://www.marineinsight.com/marine-safety/protection-against-explosion-the-i-g-system/#:~:text=Inert%20gas%20system%20is%20the,combustion%20of%20flammable%20hydroc.>

³ *Id.*

⁴ *Id.*

⁵ Marine Safety Information Bulletin 05-22.

⁶ The Amendment to Chapter 15 is contained in IMO Circular MSC.367(93).