

Picture of an EGR shut off valve

#EGRSystem

Our first seminar on the EGR System

With the delivery of the 3rd Ultramax Bulk Carrier from Oshima by the end of the year, seven (7) vessels of our company (4 LNGCs and 3 Bulk Carriers) in total, will have the main engine Exhaust Gas Recirculation (EGR), as the required NOx Tier III system for use in ECAs designated for NOx emissions.

The EGR is one of the two emission control systems designed to facilitate compliance with the MARPOL Annex VI Tier III NOx emission requirements. Very simply, part of the exhaust gas – after a cooling and cleaning process – is redirected to the scavenge air receiver. The effect is that part of oxygen is replaced by CO₂ from the combustion, reducing the temperature of the combustion and the generation of nitrogen oxides.

Although partial reference to the EGR system was occasionally being done in other courses, our first, dedicated seminar on this system took place last week covering in detail its design, function and parameters with a presentation of its necessary wastewater treatment unit.

Using a few drawings, photos of ship installations and engine MOP pictures, we managed to shed light to this system and its basic operation. Two of the most important valves of the EGR were adequately explained, the Shut Off Valve which remains open during its operation allowing an amount of exhaust gas to be recirculated and the Cylinder By-Pass Valve used to by pass gas from the compressor wheel to the turbine entrance maintaining a constant scavenge air pressure.

Training on welding intensifies

Another successful seminar on electric welding took place from 27 to 30 April 2026. Our aim is to keep a constant frequency of one seminar per quarter to ensure that as many as possible, 2nd Engineer Officers under promotion will have attended it.

Our cooperation with the Technology & Quality Control Center' welding Experts remains productive and this is reflected in the assessment of the quality of the seminar. From the basic knowledge of the properties of marine steel to the safe way the welding equipment is used onboard, the skills that an Engineer Officer might acquire can be summarized in the following table:

Welding Technique	Manual Arc Welding using Basic Electrodes
Positions/Types	<ul style="list-style-type: none"> • PB (Edge Fillet welding of moderately thick plates) • PF (Upward welding)
	Boiler tubes plug welding
Material	Mild Steel

A very interesting issue of the discussions in the abovementioned seminar was the behaviour of steel in very low temperatures (ice conditions) and the use of cryogenic marine steels, with a reference to the impact testing.



Sparing no effort in SIRE 2 Inspections Training

Early from the transition phase to SIRE 2 regime and after its September 2024 official launching by replacing the previous VIQ 7 system, training remains active and continuous.

The last seminar took place on 15 May 2026 by Capt. G. Politis, Head of Vetting of Minerva Marine, who presented the latest developments and fresh findings from inspections in our fleet tankers. The developments are driven by the constant need of reviewing and updating the Question Library as new regulations and new industry best practices are being adopted.

The seminar gave the opportunity to our attending Officers to understand the whole cycle of a vetting inspection, starting from its arrangement, the collection and submission of information by the office up to the physical inspection of the vessel and the subsequent reporting.



A successful outcome always comes from the effort of the Master and the accompanying seafarers to demonstrate that the SMS procedures are effectively implemented, the ship and her equipment are maintained according to the standards, and most importantly that the crew professionalism and skills guarantee a safely operated tanker (the triptych of process, hardware and human factors).

Difficulties in navigating in dense fishing areas

While collisions between fishing vessels and ocean-going cargo ships have become a serious risk in certain areas and periods of time, a collision in 2025 outside the Tianjin Port of China that resulted in the sinking of a fishing vessel and into 10 fatalities was the catalyst for the Chinese MSA to start conducting targeted ship inspections.



Two of the issues normally reviewed by the MSA are the pre-employment training of Deck Officers on ship handling and navigating in dense fishing areas as offered by their shipping companies and secondly the level of knowledge on those Rules of COLREGS dealing with fishing vessels and the avoidance of collision with merchant ships.

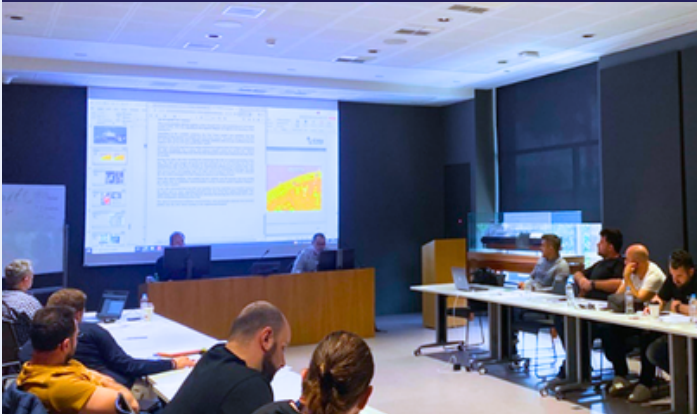
The difficulties the merchant vessels might face when navigating in close proximity with fishing vessels are well known, occasionally becoming even worse when the fishing vessels fail to exhibit the appropriate lights and shapes, or to keep a proper watch and make a good use of their AIS or VHF.

Therefore, in most cases, it is left to our Masters and Bridge Teams to maintain a high level of vigilance and situational awareness, taking early action to prevent a collision from happening.

1st Incident Investigation course to introduce the IOGP Analysis

Our attending Officers of the Incident Investigation course that took place on 21 – 22 April 2026 were among the first to listen by Capt. T. Lefakis and G. Diamantis how exactly the Cause Analysis Technique of the International Oil and Gas Producers Association will affect the way that incidents in our fleet are to be investigated in the future.

This newly adopted technique by Minerva will assist in the better identification of the causes of an incident through the collection and analysis of evidence, in associating events to potential failures of safety procedures and safety barriers and most importantly in producing effective actions to prevent them from reoccurring.



PV Valves opening pressure under review



In some of our seminars, we discuss with our Officers the cargo tanks' means of venting and especially the full flow and high velocity PV valves as well as the cargo tank pressure sensors.

There is always a reference to the Vapour Emission Control System calculations in relation to the maximum allowable loading rates per segregation group, pair of cargo tanks per group and for the whole cargo tank capacity.

Draft amendments to MARPOL Annex VI have been approved to require from tankers that are to be built in the future that the opening pressure of PV valves should not be less than 2000 mmWG when carrying crude oil to minimize the release of volatile organic compounds during the laden passage.

USCG eNOAD under upgrade

By March 2027 and after a short transition, the USCG Ship Arrival/Departure Notification System including the eNOAD Portal will have become upgraded, faster and more secured for ocean-going ships sailing to a US port. More details on this project are expected to be available through specific Notices to Mariners.

Electronic Notice of Arrival/Departure (eNOAD)

