**LLAMA ZER-SHOT**

On August 4, 2020, a very serious marine casualty occurred on board the liquefied petroleum gas (LPG)/ethylene carrier Moritz Schulte. The accident occurred in the engine room (ER) when an uncontrolled release of pressurised marine gas oil (MGO) fuel from the AE1 fuel filter sprayed onto the hot exhaust of the adjacent AE2, causing a fire [UGE].

The investigation found that the third engineer, Rajendra Naidu Ponnada, attempted to clean the AE1 fuel filters without isolating them from the pressurised fuel supply. This was due to inadequate supervision, lack of risk assessment, and inadequate training in emergency preparedness and response. The investigation also identified gaps in the exhaust heat shields, inadequate risk assessments, and lack of planning for emergency situations.

The accident highlights the importance of effective supervision, proper risk assessment, and adequate training in emergency preparedness and response. The crew had not practised escape or rescue from an enclosed space in poor visibility, and had not practised escaping from the ER using all possible escape routes or Emergency Escape Breathing Devices (EEBDs). The investigation found that the crew's lack of familiarity with emergency procedures, including the use of EEBDs, contributed to the delay in rescuing the third engineer.

The accident also emphasizes the need for a robust safety culture, proper planning and preparation for emergencies, and regular practice and drills to ensure that crew members are familiar with emergency procedures. The investigation identified several safety issues, including inadequate supervision, lack of risk assessment, and inadequate training in emergency preparedness and response. To prevent similar accidents, shipping companies should prioritize effective supervision, proper risk assessment, and adequate training in emergency preparedness and response. Regular practice and drills should be conducted to ensure that crew members are familiar with emergency procedures, and a robust safety culture should be maintained on board. [MGE]

**LLAMA ONE-SHOT**

The Moritz Schulte vessel was involved in a very serious marine casualty on 4 August 2020 at around 0918 hours while docked alongside Terminal 383 in Antwerp, Belgium. The accident occurred in the engine room (ER) where three crew members were performing routine maintenance tasks. A toolbox talk had been conducted earlier that morning to discuss jobs for the day, during which a third engineer (3/E), Rajendra Naidu Ponnada, requested permission to clean the AE1 fuel filters. However, the second engineer (2/E) [NNE]declined the request, citing concerns about compromising the cargo discharge operation.

The 3/E, despite being instructed by the 2/E not to proceed with cleaning the filters [MGE], decided to carry out the task anyway. This action led to a localized intensive engine room fire that resulted in significant damage to the ER and surrounding areas. Unfortunately, one crew member lost their life as a result of the accident.

The investigation into the accident has revealed that human error was a primary contributing factor. The 3/E's decision to disregard instructions from his supervisor [MGE] and proceed with cleaning the fuel filters despite being instructed not to do so led to the chain of events that resulted in the fire. Furthermore, there were also concerns about the maintenance culture [MGE]on board, including inadequate risk assessments and lack of proper training.

In response to the accident, the owner of the vessel [NNE]has taken immediate action to address the safety concerns. The crew was subject to a thorough debriefing, and measures have been put in place to prevent similar accidents from occurring in the future. Additionally, the company's policies and procedures were reviewed and updated to ensure that all safety protocols are followed by all employees. The investigation into the accident is still ongoing.

**QWEN ZERO-SHOT**

The Marine Accident Investigation Branch conducted an investigation into a very serious marine casualty involving a ship with a gross tonnage of 8,234. The incident occurred on August 4, 2020, at 09:18 alongside Terminal 383 in Antwerp, Belgium. The engine room experienced localised and intensive fire damage, resulting in one fatality.

The ship was engaged in cargo discharge operations to load 4,521 metric tonnes of LPG/ethylene [MGE], with a crew complement of 23 personnel. The voyage was short international, departing from Braefoot Bay, Scotland, bound for Antwerp. The external environment at the time was sunny and clear, with high temperatures reaching 30°C and a wind speed of 9 mph from east south-east.

The investigation found that despite initial remote efforts [MGE]due to travel restrictions related to COVID-19, a visit was later conducted to gather physical evidence. While the exact cause of the fire is not detailed in this summary [MGE], localised intensive engine room damage suggests a significant equipment or operational issue. The lesson learned emphasizes the importance of thorough pre-cargo discharge safety checks and continuous monitoring systems in critical areas like engine rooms.

To prevent similar incidents in future shipping operations, measures should include enhanced fire prevention protocols, regular maintenance schedules for engine rooms, improved crew training on emergency procedures, and robust communication channels to ensure quick response times during emergencies. These precautions will help maintain the safety of personnel and protect cargo integrity during maritime operations. [MGE]

**QWEN ONE-SHOT**

On August 4, 2020 [DTE], a very serious marine casualty occurred involving the vessel with a gross tonnage of 8,234 and authorized cargo of LPG/ethylene, while it was alongside Terminal 383 in Antwerp, Belgium. The incident took place at 09:18 local time during cargo discharge operations.

The accident involved an intensive engine room fire that caused localized damage. The vessel's crew numbered 23 members and had a minimum safe manning of 14 individuals. Despite the best efforts of the crew to control the situation, the intensity of the fire was overwhelming, leading to one fatality on board.

An investigation conducted by the Marine Accident Investigation Branch highlighted that the immediate cause of the accident was an engine room fire likely ignited due to a buildup of flammable gases from the cargo, ethylene [MGE]. The vessel was undergoing cargo discharge operations when the explosion and subsequent fire broke out. This tragic event underscored the critical importance of proper ventilation procedures during cargo handling. [MGE]

Following the incident, the ship registry took no specific actions [MGE]as there were no recommendations made at that time to address the identified issues. The investigation aimed to raise awareness about the potential dangers associated with loading LPG/ethylene and stressed the necessity for stringent safety measures, including enhanced fire prevention protocols and crew training in emergency response procedures.

In conclusion, this marine accident serves as a stark reminder of the risks involved in handling flammable cargoes such as ethylene. The recommendations moving forward would emphasize continuous vigilance regarding cargo handling practices, improved vessel design to mitigate potential hazards, and comprehensive crew training programs focusing on emergency response drills and safety measures. [MGE]

**CHAT GPT ZERO-SHOT**

The accident on the liquefied petroleum gas (LPG) carrier [MGE]Moritz Schulte was a very serious marine casualty resulting in an engine room (ER) fire and the subsequent death of the third engineer (3/E). The fire occurred on 4 August 2020, when pressurized marine gas oil (MGO) fuel sprayed from Auxiliary Engine 1 (AE1) fuel filters onto the hot exhaust of Auxiliary Engine 2 (AE2), causing ignition. The fire caused localized damage to the engine room and resulted in the 3/E inhaling toxic smoke, leading to cyanide (CN) and carbon monoxide (CO) poisoning. Despite being rescued after an hour [MGE], the 3/E succumbed to his injuries nine days later.

The accident was caused by the 3/E attempting to clean AE1 fuel filters without properly isolating them from the pressurized fuel supply, a decision that demonstrated significant gaps [MGE]in his understanding of machinery systems. Contributing factors included inconsistencies in the planned maintenance system (PMS), inadequate supervision by senior officers, and a mismatch between ship-specific practices and manufacturer instructions. Furthermore, gaps in AE2’s exhaust heat shielding allowed fuel to reach hot surfaces, and the absence of a thermal imaging camera (TIC) delayed the rescue of the 3/E. Poor emergency preparedness, including inconsistent muster lists, inadequate fire drills, and limited familiarity with escape routes, compounded the tragedy.

This incident highlights several critical lessons. First, robust safety culture and supervision are essential, especially for junior engineers. Clear, updated maintenance procedures aligned with equipment specifications must be followed, and risk assessments should be mandatory for all high-risk tasks. Emergency preparedness needs improvement through realistic fire and rescue drills, proper placement and use of Emergency Escape Breathing Devices (EEBDs), and equipping vessels with TICs. Finally, competency management systems must ensure that promotions are based on demonstrated skills and knowledge, not incomplete or bypassed training processes. By addressing these issues, the industry can mitigate similar risks and improve overall safety in shipping operations. [MGE]

**CHAT GPT ONE-SHOT**

On 4 August 2020, the liquefied petroleum gas (LPG)/ethylene carrier Moritz Schulte suffered a serious marine casualty [MGE]while docked at Terminal 383, Antwerp, Belgium. At 0918, an engine room fire broke out during cargo discharge operations, leading to the tragic death of the third engineer and significant damage to the vessel's engine room. The accident occurred as the third engineer attempted to clean the auxiliary engine 1 (AE1) fuel filters without properly isolating the pressurised fuel system. The resulting fuel spray ignited upon contact with the hot surfaces of the adjacent auxiliary engine 2 (AE2). The fire caused intense heat and smoke, resulting in further damage to engine room components and the auxiliary boiler platform. Despite prompt firefighting and rescue efforts, the third engineer succumbed to injuries caused by smoke inhalation nine days later.

The accident investigation revealed several critical factors leading to the incident. The third engineer performed the filter cleaning task unsafely and without proper isolation of the fuel system, demonstrating a lack of understanding of the machinery systems and maintenance procedures. The ship's Planned Maintenance System (PMS) was inconsistent with the manufacturer’s instructions for fuel filter maintenance, and there were no risk assessments, permits to work, or proper supervision in place. The engine room crew had not adhered to safe systems of work, and the task was undertaken during cargo discharge, a critical operation where additional caution was required. Furthermore, gaps in the exhaust insulation of AE2 allowed the fuel spray to reach hot surfaces, resulting in ignition. The investigation also identified deficiencies in the vessel’s emergency preparedness. The crew had not conducted realistic emergency fire drills or practiced effective escape procedures in reduced visibility, contributing to delays in locating and rescuing the third engineer.

In response to the accident, Bernhard Schulte Shipmanagement (UK) Limited implemented corrective measures across its fleet. These included revising fuel filter cleaning procedures, enhancing risk assessment and permit-to-work systems, improving training in lock-out/tag-out procedures, and updating muster lists to ensure clarity of emergency roles. Additional Emergency Escape Breathing Devices (EEBDs) were installed on Moritz Schulte and similar vessels, and a thermal imaging camera (TIC) was provided to improve firefighting capabilities. The company introduced enhanced Bridge Resource Management (BRM) training and mandatory blind pilotage training for officers. Furthermore, the competency management system (CMS) was overhauled to ensure proper evaluation of skills and knowledge before promotions.

To prevent similar accidents in the future, it is recommended that shipping operators prioritize comprehensive training and assessments for junior engineers to ensure they are adequately prepared for their responsibilities. Safe systems of work must be strictly enforced, with regular audits to verify compliance. Emergency preparedness should include realistic fire and escape drills under simulated conditions, and the installation of TICs and additional EEBDs should be considered mandatory across all vessels. Vessel maintenance procedures should align with manufacturers’ instructions, and condition-based monitoring should be adopted to reduce unnecessary risk during critical operations. Enhanced emphasis on teamwork, communication, and shared responsibility within engine room operations will further ensure the safety of crew members and the vessel. [MGE]

**LLAMA FEW-SHOT**

The Marine Accident Investigation Branch investigated a very serious marine casualty involving the vessel Arrow [NNE], a ro-ro freight ferry, [MGE]which occurred on August 4, 2020, at around 09:18. The incident took place while the vessel was alongside Terminal 383 in Antwerp, Belgium. The accident led to a localized intensive engine room fire damage, resulting in one fatality and significant damage to the port side of the underwater hull. [MGE]

According to the investigation, the cause of the accident appears to be related to the failure of the vessel's cargo discharge system, which led to the ignition of flammable gases present in the cargo. [MGE]The investigation suggests that a combination of human error and inadequate safety procedures contributed to the accident. Specifically, it was found that the cargo discharge team had not followed standard procedures for handling LPG/Ethylene cargo, which is known to be hazardous. [MGE]

The damages resulting from the accident were extensive, with significant damage to the port propeller, rudder, and water ballast tanks on the port side of the hull. The vessel required dry docking for repairs, and was out of service for four weeks. Fortunately, there were no injuries or pollution reported [MGE]in relation to the incident.

To prevent similar accidents in the future, the Marine Accident Investigation Branch made several recommendations. Firstly, it highlighted the importance of ensuring that crew members are properly trained and aware of the hazards associated with specific cargo types. Additionally, the investigation emphasized the need for improved safety procedures and protocols for handling hazardous cargoes. The report also recommended that vessel operators implement enhanced measures to prevent the ignition of flammable gases in the cargo hold. [MGE]

In light of this incident, it is essential that the shipping industry prioritizes crew training, safety procedures, and cargo handling protocols to minimize the risk of similar accidents. Vessel operators should also conduct regular maintenance checks on their cargo handling systems to ensure they are functioning properly. Furthermore, regulatory bodies should review and update existing safety standards to reflect the latest research and best practices in the industry.

Ultimately, this incident serves as a sobering reminder of the importance of prioritizing safety at sea. By learning from this accident and implementing necessary changes, we can reduce the risk of similar incidents occurring in the future and ensure that vessels operate safely and efficiently.

**QWEN FEW-SHOT**

On August 4, 2020, at 09:18, a very serious marine casualty occurred involving an unnamed ro-ro freight ferry [MGE]in Antwerp, Belgium. The vessel was engaged in cargo discharge operations alongside Terminal 383 of the port. Prior to the incident, the ship had completed an overnight passage from Braefoot Bay, Scotland, arriving at its destination under sunny and clear weather conditions with a high temperature of 30°C and wind blowing east-southeast at 9 mph.

The accident unfolded when the vessel grounded while entering Aberdeen Harbour[MGE] in thick fog. Despite there being no reported injuries or pollution,[MGE] significant damage was sustained on the port side of the underwater hull. Specifically, several water ballast tanks were holed and split, causing structural damage that also extended to the port propeller and rudder. These damages required extensive repairs, necessitating a dry docking process that left the vessel out of service for four weeks.

The investigation into this incident was conducted by the Marine Accident Investigation Branch on behalf of the Isle of Man Ship Registry, a member of the Red Ensign Group. Initially, remote investigations were necessary due to travel restrictions related to COVID-19; however, physical evidence was later gathered through an in-person visit.

Analyzing the causes, the primary issue appears to have been poor navigation and visibility conditions [MGE]. The vessel encountered thick fog while entering the harbor, which likely impaired its ability to navigate safely and avoid grounding. Additionally, inadequate situational awareness or navigational error by the crew might have contributed to the accident.

In response to this incident, no specific recommendations were provided in the reports reviewed for immediate corrective actions that could be taken. However, based on similar cases, it would be prudent to enhance navigation safety protocols, particularly during low visibility conditions. Implementing better training and procedures for fog navigation, as well as improving communication systems between vessels and harbor authorities, could significantly mitigate risks.

For future shipping, the recommendation is to emphasize proactive measures that can prevent such incidents. This includes equipping ships with advanced navigational aids, ensuring regular maintenance of critical safety systems like propellers and rudders, and enhancing crew training on low visibility operations. Additionally, establishing clearer communication channels between vessels, port authorities, and maritime navigation centers could help improve situational awareness and reduce the risk of grounding accidents.[MGE]

**CHAT GPT FEW-SHOT**

On 4 August 2020, the liquefied petroleum gas (LPG)/ethylene carrier Moritz Schulte suffered a serious engine room fire [MGE]while berthed at Terminal 383 in Antwerp, Belgium, discharging a cargo of ethylene. At approximately 0918, the third engineer (3/E), Rajendra Naidu Ponnada, attempted to clean the fuel filters on auxiliary engine 1 (AE1) without fully isolating the pressurised fuel system. This resulted in a high-pressure spray of marine gas oil (MGO) from the partially disassembled fuel filter. The spray reached the hot surfaces of auxiliary engine 2's (AE2) turbocharger, which had gaps in its exhaust insulation, causing the fuel to ignite. The ensuing fire spread rapidly, producing thick, toxic smoke that filled the engine room. The 3/E, unable to escape, succumbed to acute cyanide and carbon monoxide poisoning nine days later in the hospital. The fire caused localized damage to the engine room and the boiler platform, as well as heavy smoke damage throughout the space.

The investigation identified several critical factors contributing to the accident. The primary cause was the 3/E's failure to isolate the fuel system before starting maintenance, which demonstrated a significant lack of understanding of safe machinery operation. The gaps in AE2’s exhaust shielding allowed the fuel spray to reach high-temperature surfaces, exacerbating the fire hazard. Additionally, the vessel’s planned maintenance system (PMS) had not been updated to reflect the operational use of MGO instead of heavy fuel oil (HFO), leading to discrepancies between documented maintenance procedures and actual practices. The 3/E’s decision to perform the task without supervision, adequate risk assessment, or a permit to work reflected lapses in the enforcement of safe systems of work. Further, the investigation highlighted a failure in the company’s competency management system, as the 3/E had been promoted without completing required training and demonstrating adequate skills for his role.

The emergency response was found to be poorly coordinated. Muster lists contained conflicting roles for key personnel, and the crew lacked adequate training in search and rescue operations in smoke-filled environments. Fire drills and enclosed space rescue exercises had been poorly conducted and inadequately recorded, leaving the crew unprepared for a real emergency. The absence of thermal imaging cameras (TICs) on board delayed the location and rescue of the 3/E, whose survival chances would have been higher with earlier extraction.

In response to the accident, Bernhard Schulte Shipmanagement (BSM) implemented several corrective actions. These included fitting additional emergency escape breathing devices (EEBDs) across four vessels built before July 2003, including Moritz Schulte, and supplying the vessel with a TIC for improved emergency response. A comprehensive review of the company’s competency management system was undertaken to ensure alignment with training and promotion requirements. Training programs and procedures for lock-out/tag-out systems, risk assessments, and safe maintenance practices were revised to prevent similar incidents. Vessel muster lists were standardized, and emergency drill planning was improved to include search and rescue in smoke-filled environments. Additional fire safety measures, such as addressing gaps in exhaust insulation and updating PMS procedures for fuel filter cleaning, were also introduced.

To prevent similar accidents in the future, it is recommended that ship management companies enforce rigorous supervision and training for junior engineers, ensuring they possess the skills and knowledge required for their roles. Comprehensive and realistic emergency response drills should be conducted regularly, with a focus on search and rescue in low-visibility environments. Thermal imaging cameras should be made mandatory for engine room firefighting operations. Additionally, planned maintenance systems must be regularly audited and updated to reflect current operational practices and manufacturer recommendations. Improved communication and cultural sensitivity in multinational crews should also be prioritized to foster an environment where junior personnel feel confident in seeking guidance and raising concerns. [MGE]

**LLAMA FEW-SHOT**

On August 4, 2020, at 0918 hours, a very serious marine casualty occurred aboard the vessel [NNE], resulting in one fatality and extensive damage [MGE]. The incident took place alongside Terminal 383 in Antwerp, Belgium, during a cargo discharge operation.

The accident is believed to have been caused by an intensive engine room fire that damaged the ship's propulsion system, which led to a loss of power and subsequent grounding. [MGE]According to the investigation, the vessel was navigating in clear weather conditions with a high temperature of 30°C and moderate winds.

The damage sustained by the vessel was significant, resulting in localized fire damage within the engine room. The cause of the fire is still under investigation, but preliminary findings suggest that a combination of factors contributed to its origin. These include inadequate maintenance practices, insufficient safety protocols, and potential ignition sources within the cargo hold. [MGE]

In response to this incident, the shipping authority has taken steps to enhance the vessel's safety measures. However, further actions are needed to prevent similar incidents in the future. Recommendations for improvement include conducting regular fire drills and training crew members on emergency procedures. Furthermore, the shipping company should develop more stringent maintenance schedules to prevent equipment failures and ensure that all necessary safety protocols are in place.

In addition, industry experts suggest that vessel operators should prioritize double-hulled or triple-hulled designs to reduce the risk of cargo fires, as well as investing in fire suppression systems and regular inspections to detect potential ignition sources. It is also essential for shipping companies to maintain accurate records of maintenance activities and implement robust safety management practices. [MGE]

Overall, this incident highlights the importance of prioritizing vessel safety and adhering to strict regulations to prevent marine casualties. By implementing these recommended measures, the shipping industry can reduce the risk of similar incidents occurring in the future.

**QWEN FEW-SHOT**

The Marine Accident Investigation Branch conducted an investigation into a very serious marine casualty involving a vessel that occurred on 4 August 2020 at 0918 alongside Terminal 383, Antwerp. The vessel, which had a gross tonnage of 8234 and was authorized to carry LPG/Ethylene, experienced an intense engine room fire during cargo discharge operations. The incident resulted in one fatality and localized, extensive damage within the engine room.

The investigation revealed that the accident took place while the ship was alongside Terminal 383 in Antwerp, Belgium. The environmental conditions were sunny with clear skies, a temperature of 30°C, and a wind speed of 9mph from the east south-east. There were 23 persons on board at the time.

The causes of the accident are still under detailed analysis but preliminary findings suggest that improper maintenance or handling procedures for the cargo could have contributed to the fire outbreak. The high temperature and presence of flammable cargo, such as Ethylene, in the engine room further increased the risk of a severe incident if proper safety measures were not strictly adhered to. [MGE]

Following the accident, immediate actions included evacuation of all crew members from the vessel and securing the scene to prevent any further damage or injury. The ship registry and relevant authorities have initiated an extensive investigation to determine the exact cause and circumstances leading to this tragic event.[UGE]

In response to the incident, recommendations for future shipping practices are being formulated. These include enhanced training programs focusing on safety protocols related to handling flammable cargoes, regular maintenance checks of engine rooms and critical systems, and improved emergency preparedness plans onboard ships. Additionally, a recommendation has been made to improve awareness among fishing vessel owners and crew regarding the safety guidance available and its importance in preventing such accidents. [MGE]

This comprehensive approach aims not only to address the immediate aftermath of this accident but also to implement preventive measures that can significantly reduce the risk of similar incidents occurring in the future.

**CHAT GPT FEW-SHOT**

On 4 August 2020, the liquefied petroleum gas (LPG)/ethylene carrier Moritz Schulte suffered a serious engine room fire while berthed at Terminal 383 in Antwerp, Belgium, discharging a cargo of ethylene. At approximately 0918, the third engineer (3/E), Rajendra Naidu Ponnada, attempted to clean the fuel filters on auxiliary engine 1 (AE1) without fully isolating the pressurised fuel system. This resulted in a high-pressure spray of marine gas oil (MGO) from the partially disassembled fuel filter. The spray reached the hot surfaces of auxiliary engine 2's (AE2) turbocharger, which had gaps in its exhaust insulation, causing the fuel to ignite. The ensuing fire spread rapidly, producing thick, toxic smoke that filled the engine room. The 3/E, unable to escape, succumbed to acute cyanide and carbon monoxide poisoning nine days later in the hospital. The fire caused localized damage to the engine room and the boiler platform, as well as heavy smoke damage throughout the space.

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To prevent similar accidents in the future, it is recommended that ship management companies enforce rigorous supervision and training for junior engineers, ensuring they possess the skills and knowledge required for their roles. Comprehensive and realistic emergency response drills should be conducted regularly, with a focus on search and rescue in low-visibility environments. Thermal imaging cameras should be made mandatory for engine room firefighting operations. Additionally, planned maintenance systems must be regularly audited and updated to reflect current operational practices and manufacturer recommendations. Improved communication and cultural sensitivity in multinational crews should also be prioritized to foster an environment where junior personnel feel confident in seeking guidance and raising concerns. [MGE]