



सत्यमेव जयते

भारत सरकार / GOVERNMENT OF INDIA  
पत्तन, पोत परिवहन और जलमार्ग मंत्रालय  
MINISTRY OF PORTS, SHIPPING AND WATERWAYS



नौवहन महानिदेशालय, मुंबई  
DIRECTORATE GENERAL OF SHIPPING, MUMBAI

F. No.25-19011/6/2020-NT-DGS

Date:03.11.2023

**Casualty Circular - 01 of 2021**

**Sub.: Loss of lives due to fire in the engine room**

**Summary of Incident:**

On 13 Feb 2021, while Offshore Support Vessel (OSV) was delivering cargo to one of the platforms at Mumbai High, there was a fire incident in the engine room of the OSV which resulted in loss of lives of four crew members.

The ship was having issues in the bunker line, on 13 Feb 2021, the Chief Engineer (CE) decided to investigate matter. Initially Second Engineer (2E) along with Oil checked that no blank in place between the port bunker tank and the valve, then CE decided to open the bunker tank valve with Fourth Engineer (4E) and the Fitter. It is reported by CE that six bolts on the tank valve were slackened and two top bolts were remaining, then CE had to go to his cabin, so he left after instructing not to slacken bolts any further till he is back. Chief Cook who was on deck, saw smoke coming from engine room, he alerted crew on deck who informed the bridge, at the same time fire alarm was activated (port side main engine). At this time CE reached his cabin, upon hearing the fire alarm, he immediately came down and at the engine room entrance he saw fire in the engine room, thereafter he immediately activated emergency stops and quick closing valves. Then he came out and saw Electrical Officer (EO) with severe burns on his body.

Master requested for help to transfer the EO to platform hospital and also pulled away the vessel from the platform. At the same time crew mustered and it was found that 4E, Fitter, and Oiler were missing. Chief officer received a call for help from Engine Control Room (ECR), stating that it was dark and hot, thereafter there was no further communication with crew member in ECR. Vessels crew after donning fire suits, tried to enter engine room, but failed to do so due to smoke and heat, after number of failed attempts to enter engine room, Master decided to release CO2 in the engine room. Thereafter also due to the heat and smoke entry in to engine room could not be made. Measures such as boundary colling etc. were being carried out, and continuous watch was being maintained in shifts. Thereafter, on 14 Feb 2021 AM hrs entry was made in the engine room and three bodies were found.

The fire incident started due to leakage of DO from the tank whose valve bolts were slacked, the position of this valve was about 3 m above the main engine exhaust manifold, continuous

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draining on DO from the tank upon the main engine exhaust manifold which has exhaust gases with temperature in range on 300 deg C, resulted in massive fire in engine room in a short span of time, causing of four lives.

**Causal Factors:**


1. In adequate risk assessment of the job being carried out, there was no understanding of what can happen if the diesel oil starts to leak upon the exhaust manifold which was just underneath.
2. The high-risk job was left unattended and CE left the site at an important juncture without any additional controls put in place to mitigate the risk being posed.
3. In adequate communication, high-risk job was being performed in engine room while vessel was in operation at DP mode, without any intimation to the bridge or master.

**Action Taken:**

1. Once fire in engine room was ascertained, emergency stops and quick closing valves were activated
2. Vessel was immediately pulled out from the platform
3. CO2 was released, once it was ascertained that fire was out of control and entry in engine room was not possible
4. EO who had come out of the engine room with severe burn injuries was transferred to hospital ashore

**Lessons Learnt:**

1. It is important that prior performing tasks, complete 360 deg risks need to be assessed, and adequate control measures are to be put in place to mitigate the risk ascertained.
2. Any tasks being performed in engine room especially during DP mode, are to be intimated to the bridge / master.
3. Any task being performed is not to be left midway or unattended till adequate control measure are identified and put in place.



03/11/2013

(Capt. Harinder Singh)  
Nautical Surveyor cum DDG (Tech.)

To,  
All stakeholders through DGS website.