M2109

Posted on 11.07.2023 by Adam Parnell

Category: General Maritime

Report Title Incorrect response to fuel leaks results in an unintentional power shutdown

Initial Report

The vessel left the dock and proceeded to sea to conduct sea trials after a lengthy period in dry-dock, where work had taken place on both main engines. A vibration specialist and a Classification Society surveyor were also on board. Both generators were running and connected to the electrical switchboard.

While the vessel was still inside the breakwater, the chief engineer disconnected one of the generators from the switchboard but left it running in cool-down mode. They did not inform the bridge that they had done so.

The 2nd engineer was in the engine room, next to the generators, helping the vibration specialist to gather readings from the gearbox. They noticed that a high-pressure fuel line to one of the generators had split and was spraying oil onto the hot exhaust manifold.

The 2nd engineer hit the generator's emergency stop button, and the ship experienced a total electrical failure just as it was passing the breakwater. All navigational control was lost as a result, but luckily the emergency generator started, and power was quickly restored.

Comment

The chief engineer in the Engine Control Room should have requested permission from the bridge before changing the machinery state of the vessel so that the bridge team are always aware of the limitations of power and propulsion – especially when manoeuvring in or out of the harbour. Because the conversation would have also been broadcast over the loudspeakers in the engine room, those in the engine room would have been aware that only one generator was providing electrical power to the ship.

After a lengthy period in dry-dock, and particularly when the material state of the vessel has been altered, the hazards and risk assessments should be reviewed and enhanced controls put in place, e.g., additional watchkeepers in place while leaving the harbour.

Key Issues

Communications – Restoring standard communication procedures, particularly after a lengthy

period in dry-dock, needs to be reinforced. Taking the generator offline and not communicating this to the engine room team and the bridge was unsafe.

Teamwork – A heightened level of teamwork is required to ensure that the engine room, which has been subjected to overhauls and repairs from external contractors and the ship's staff, is seaworthy. Consider operating an enhanced watchkeeping routine for the first day and night back at sea. This reduces the risk of something going wrong.

Distractions – Checking that the status of the engine room and all ancillary equipment is functioning must be the priority, and nothing should distract the engine room team from this task.

Competency – Drydocking requires the ship's staff to have good operational adaptability and an elevated level of risk knowledge. Management should ensure that certain members of the ship's crew have this when planning their dry dockings.

distractionDistraction

lack_of_knowledge Knowledge

poor_communication Communication

teamworkTeamwork

There are no comments yet.