PREVENTION AT SEA

CIRCULAR 09/2018

ENGINE ALARM MANAGEMENT- NEVER OVER-RELY ON ALARM SYSTEMS

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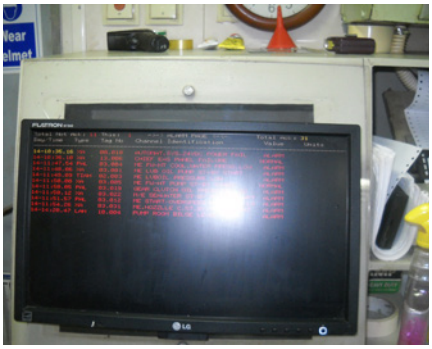
PREVENT

Engine Alarm Management – Never over-rely on alarm systems!

Case#1: After an extended ocean passage auxiliary engines fuel supply had been changed from HFO to MGO in preparation for an arrival to port where combustion machinery was required to be operated on MGO. During pilotage a blackout occurred forcing an emergency anchor maneuver to prevent the ship drifting aground. The engine team succeeded to restore electric power supply and restart all essential equipment within minutes but the port authorities required a class surveyor to attend in order to confirm that the ship was safe to proceed to its destination. This caused a delay of more than 10 hours during which the ship was declared off-hire.

Investigation revealed that the blackout occurred because the MGO day tank was running empty. Normally the day tank was automatically filled from a MGO storage tank by a level-controlled MGO transfer pump that however was found switched off. The day tank had a low-level alarm that did not trigger because it was set off-scan in the engine alarm monitoring system, according to the alarm log since about 6 months when another engine team was serving on board. No records could be found why the alarm was set off-scan and the MGO transfer pump switched off. The low-level alarm was then reactivated, tested and found working normally, as was the transfer pump.



What went wrong?

- The previous engine team failed to record the fact that and the reason why the MGO day tank low-level alarm was set off-scan, and to pass this information to the relievers.
- The present engine team failed to review the list of off-scan alarms and consequently was neither aware of the off-scan condition of the low-level alarm nor of the risks involved in the unavailability of the alarm.
- The present engine team failed to check and test the auxiliary engines' MGO supply system before entering critical waters, especially after it has not been in use for a prolonged period of time.
- The MGO transfer pump was not connected to the alarm system.

Best Practice

- ✔ Ensure performance of a risk assessment when there is need for setting an alarm off-scan, e.g. in case of a defective sensor, to ensure that the impact on system performance is known and that adequate measures are taken to compensate for the reduced monitoring.
- ✔ Make an entry in the engine log book when setting an alarm off-scan, and keep an alarm management log to record reasons, compensation measures, rectification plans, and restoring of alarms.
- ✔ Clearly define authority for disabling alarms or changing alarm settings and protect the alarm monitoring system by password to ensure that only authorized personnel can manipulate settings.
- ✔ Establish frequent, e.g. weekly, review of the list of off-scan alarms to verify that any disabled alarms are still justified and that compensation measures continue to be in place and are effective.
- ✔ Ensure frequent testing of alarms and availability of sufficient spare alarm sensors, especially for critical alarms.
- ✔ Review level of alarm coverage for equipment and systems and propose installation of additional alarms where deemed advantageous.
- ✔ **Never over-rely on alarm systems, but frequently validate alarm statuses by comparing with actual observations.**

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DON'T CURE, PREVENT! FOR MORE INFORMATION, PLEASE DO NOT HESITATE TO CONTACT US.

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