Main firefighting system on tourist vessel "ineffective" says report

By Insurance Marine News, 30th January 2018

An investigation by New Zealand's Transport Accident Investigation Commission into the fire on and subsequent sinking of tourist vessel PeeJay V has found that the main firefighting system was ineffective and that staff did not fully understand how it should work.

PeeJay V caught fire and sank on January 18th 2016 while on an all-day excursion from Whakat?ne to White Island, north-eastern New Zealand. There were 53 passengers and seven crew on board. She was near the end of the round trip, approaching the

entrance to Whakat?ne Harbour when a fire broke out in the engine room.

The crew released the fixed CO2 fire extinguisher into the engine room, which suppressed the fire, but only for a short time. The fire then escalated, forcing the skipper to order everyone to abandon the vessel. Several vessels in the vicinity responded to the skipper's distress call. Everyone was eventually transferred to the assisting vessels. However, because the fire rapidly gained intensity several passengers were forced to enter the water without a life-jacket.

Because of the fire, the crew could not access all of the life-jackets on board and were unable to launch the flotation raft that was stored on top of the vessel's flybridge.

PeeJay V burnt to the waterline and sank. One crew member suffered smoke inhalation, but noone else was seriously injured.

The Commission could not establish conclusively the cause of the fire, but found that the absence of a fire detection and automatic alarm system on the PeeJay V meant that the crew had only a short warning time and opportunity to respond to the fire and to prepare the life-saving apparatus.

The Commission said that the CO2 fire suppression system was ineffective because oxygenated air was able to enter the engine room through several openings, including a cable duct that could not be closed. The Commission added that the placement of the life-saving apparel and equipment on board was appropriate, and the fact that it could not all be accessed served to highlight the difficulty faced by operators of smaller vessels when choosing where to put such equipment.





The three main safety issues identified were:

- Maritime Rules did not require the PeeJay V to have fire detection or automatic fire alarms installed, even though it could carry up to 90 passengers and operate up to 12 nautical miles from the coast.
- The CO2 fixed fire-fighting system installed in the engine room could not be fully effective in extinguishing the fire because the space it was protecting could not be fully closed down.
- The builder and operators of the vessel did not fully appreciate the principles of how the CO2 fixed fire-fighting system operated.

Maritime New Zealand has agreed to review the maritime rules about fire alarms and remote extinguishers in vessels of this type with enclosed engine spaces.

It will also encourage people who design, install and use CO2 fixed fire-fighting systems to fully document and understand how these systems work.

https://taic.org.nz/inquiry/mo-2016-201

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