



U.S. COAST GUARD INVESTIGATIVE SUMMARY

Matter Under Investigation: Main Space Engine Room Fire aboard the Passenger Vessel SANDY GROUND (O.N. 1299657), which occurred in the Upper Bay of New York Harbor on December 22, 2022.

Date: March 10, 2023

Location: Staten Island, New York

On December 22, 2022, at approximately 1640, the Passenger Ferry Ship SANDY GROUND (O.N. 1299657) had departed the Whitehall Ferry Terminal located in Manhattan, New York, with 866 passengers, 16 Staten Island Ferry crewmembers, and 2 New York Police Department (NYPD) Officers onboard for its scheduled southbound transit to the St. George Ferry Terminal located in Staten Island, New York. Prior to departure, engineering crewmembers had noticed that the fuel oil levels for the port and starboard fuel oil day tanks were disproportionate than what was usual, and Marine Oiler 1 (MO1) and Marine Oiler 2 (MO2) had been engaged in the leveling of both fuel oil day tanks. During the leveling process, at approximately 1647, an over pressurization event occurred in the fuel oil return system, and the Chief Marine Engineer (CME) received low fuel oil pressure alarms affecting all four main diesel engines that were displayed on the Machinery Control Station (MCS) console located in the Engine Operation Station (EOS). The CME contacted the Pilothouse to notify the Captain of the potential loss of propulsion.

Upon further investigation, MO1 and MO2 observed fuel oil spraying from the spin-on fuel oil filter assemblies on the #3 and #4 main diesel engines. The CME stepped out of the EOS and observed fuel oil spraying from the spin-on fuel oil filter assembly on the #2 main diesel engine. The Marine Engineer, who had been on an engineering round in the New York End Voith Propulsion Room, observed that the red emergency alarms had been activated and transited to the engine room to investigate. Upon entering the engine room, the ME observed a shower of fuel oil in the vicinity of the #2 main diesel engine and informed the CME that fuel oil was hitting the #2 main diesel engine exhaust manifold. MO1 observed a wide fuel oil spray from the #1 main diesel engine and held absorbent pads over the spin-on fuel oil filter assembly of the #1 main diesel engine while it was running in an effort to impede the fuel oil spray onto the #2 main diesel engine. The CME contacted the Pilothouse to alert the Captain of the situation and of the imminent loss of propulsion and steering. The Captain ordered the Pilothouse crewmembers to stop the ferry and to deploy the New York End anchor.

At approximately 1654, a fire erupted on the #2 main diesel engine, the approximate position of the SANDY GROUND at the time of the fire was 40°-39.6' N, 074°-03.2' W, in the vicinity of the former Military Ocean Terminal (MOT) Bayonne, NJ and the Main Channel Gowanus Flats Lighted Bell Buoy 30. The CME informed the Captain of the fire and attempted to secure all four main diesel engines, then observed on the MCS that a shutdown had been initiated. The Captain ordered the Pilothouse crewmembers to deploy the Staten Island End anchor to assist in keeping the ferry in the main channel. The CME ordered the evacuation of the engine room and the engineering crewmembers

proceeded to exit through the EOS escape hatch which led to the main deck. The CME was the last to evacuate the engine room and activated the emergency fuel shutoff valves located in the EOS prior to exiting through the EOS escape hatch. Emergency power came online as a result of the automatic start-up of the emergency diesel generator after the fuel shutoff valves were activated. Once all the engineering crewmembers were out of the engine room and on the main deck, the CME directed the engineering crewmembers to position a fire hose by the engine room door for boundary cooling and relayed to the Captain to start the emergency fire pump. The Pilothouse crewmembers energized the emergency fire pump and secured ventilation to the engine room.

During the operation of the emergency diesel generator, a shutdown occurred, which left the ship without electrical power. The Captain granted permission to the CME to activate and release the NOVEC 1230 fire suppression system into the engine room. The CME advanced to the NOVEC locker, manually activated the NOVEC 1230 fire suppression system, and by-passed the 61-second time delay for the immediate release of the colorless, electrically non-conductive, and low odor fire protection liquid into the engine room. After the activation of the NOVEC 1230 fire suppression system, the CME attempted to re-enter the EOS through the escape hatch to verify that the fire was extinguished but was unable to do so. The CME then proceeded to the emergency diesel generator room on the hurricane deck in an attempt to restore emergency power. The CME was unable to start the emergency diesel generator and observed that the engine had a start lock-out which prevented operation of the emergency diesel generator. The CME informed the Captain that emergency power could not be restored and returned to the main deck to assist with the containment of the engine room fire.

New York City Fire Department (FDNY), New York City Police Department (NYPD), and Coast Guard Sector New York assets arrived on scene to provide assistance. Nearby vessels responded to the scene, and at approximately 1719, the crew of the SANDY GROUND commenced an emergency evacuation of passengers. The NYC Ferries RIVER SPRINTER and GREAT EAGLE, the NY Waterway Ferry FRANKLIN DELANO ROOSEVELT, and the towing vessels MISTER JIM and CHARLES JAMES provided assistance for the vessel-to-vessel transfer of 816 passengers. The RIVER SPRINTER was the first vessel and took onboard 138 passengers, the FRANKLIN D ROOSEVELT was the second vessel and took onboard 558 passengers, and the GREAT EAGLE was the third vessel and took onboard 120 passengers. During the course of the evacuation, the Captain had directed to cease the vessel-to-vessel transfer as winds from the north increased. The ferry was placed under tow back to the St. George Ferry Terminal located in Staten Island, New York. At approximately 1825, the SANDY GROUND had moored at the St. George Ferry Terminal and the remaining 50 passengers and crewmembers had disembarked the vessel. At approximately 2200, FDNY firefighters established that a 24-hour wait period would be necessary prior to entry into the engine room and to inhibit potential reflash of the fire.

On December 23, 2022, at approximately 1235, FDNY firefighters entered the engine room and found no hot spots or areas of excessive heat. FDNY firefighters deemed the engine room unsafe for entry and commenced ventilation of the space due to high carbon monoxide readings. At approximately 1742, Sector New York Investigating Officers had been informed by the Staten Island Ferry vessel representative, that the engine room was cleared for entry by the FDNY. At approximately 1810, Sector New York Investigating Officers arrived at the SANDY GROUND to enter the engine room and observed that the FDNY firefighters had departed the vessel, a Marine Chemist had certified the engine room safe for workers, and Staten Island Ferry personnel had already entered the engine room prior to their arrival.

The SANDY GROUND incurred major damage to the #2 main diesel engine and surrounding equipment in the engine room. The resulting damage incurred had not been fully determined and no estimated cost of repair had been established due to the continued assessment of the fire damage. Drug and alcohol testing had been conducted in accordance with post-casualty Serious Marine Incident (SMI) requirements and the company's drug and alcohol policy, all yielded negative results.

[REDACTED]

[REDACTED] CWO, USCG

March 10, 2023