

August 14, 2023

VIA U.S. MAIL AND EMAIL

Michael B. Karr
Investigator-In-Charge, Spirit of Norfolk Fire Investigation
National Transportation Safety Board
Office of the Marine Safety
Washington, D.C. 205494

Re: M/V Spirit of Norfolk
City Cruises Party Submission

Dear Mr. Karr,

This letter is City Cruises' party submission as a part of the Coast Guard and NTSB's investigation into the June 7, 2023, fire on board the Spirit of Norfolk. This submission is based on facts contained in the administrative record.

Overview:

The proximate cause of the loss of the Spirit of Norfolk was an error on the part of responding firefighting personnel whereby the quick acting watertight door between the engine room and galley was opened. This act breached containment of the fire and thousands of gallons of fire-fighting water that had been added to the engine room by responding fire-fighting vessels and shore-side fire-fighting crews. This "mistake", as it was described by the MIRT, allowed the fire to spread throughout the ship and caused responding government agencies to be concerned with vessel stability after fire-fighting water spread from the engine room to the adjacent galley area. This led responding government agencies to affirmatively direct the suspension of direct fire-fighting operations on board the Spirit of Norfolk and allow the vessel to burn at the dock.

The cause of the fire on board the Spirit of Norfolk is not known. Based on post fire analysis, the fire originated on the port side of the engine room somewhere in the vicinity of the port main diesel engine. Burn patterns indicate the initial fire burned hottest and lowest in the area immediately forward and outboard of the port main diesel engine, which is consistent with witness testimony.

The evidence in the record to date reflects that at the time of the incident, on June 7, 2022, the Spirit of Norfolk was operating in compliance with applicable laws, regulations and policies. There is no evidence to suggest that the port main diesel suffered any mechanical failure that caused the fire and there is no evidence to suggest that Coast Guard licensed or documented mariners committed acts of negligence, misconduct, or violated any laws, regulations or policies.

Summation of Evidence: Fire and Evacuation

The evidence in the record to date reflects that at the time of incident, on June 7, 2022, the Spirit of Norfolk was operating in substantial compliance with applicable laws, regulations and policies. The port main diesel engine had been successfully rebuilt, tested and placed back into the operational service by mechanics from



Bay Diesel and verified by Coast Guard marine inspectors from Sector Virginia. In addition to a thorough sea trial that was witnessed by Bay Diesel mechanics, the Spirit of Norfolk operated without incident on numerous voyages following the rebuild and before the fire. First Mate Enloe, Captain Nadeau and Captain Brown each testified to personally operating and inspecting the machinery in the engine room on the date of the incident and testified that the engines were all operating normally with no issues identified during morning light offs or pre-underway checks. Jeremiah Perry (an experienced crewmember) performed an engine room safety round at 1130 on June 7, 2022, and stated the engines and engine gauges were all normal and commented that the engine room seemed “perfect”. There were no odd noises or leaks identified during any of these safety rounds.

The crew of the Spirit of Norfolk safely, efficiently and effectively responded to the fire and subsequent evacuation of all guests and crew without known injury. The crew of the Spirit of Norfolk quickly identified and investigated the report of fire on board. The smoke was initially described as gray or white and within two minutes transitioned to being black in color with an odor was described as plastic burning or having a chemical smell. Responding crewmembers reasonably evaluated their ability to perform a direct attack into the engine room and contained the blaze by securing the quick acting watertight door between the galley and the engine room and secured fuel to the engines and generators via the fuel shut offs. A fire hose was faked out in the galley for possible fire-fighting efforts or fire boundary cooling. Passengers were notified and quickly moved to the third deck, which is one of the Spirit of Norfolk’s passenger muster locations. Once it was determined that excessive smoke was impacting the open-air deck, guests were moved down to the second deck, which was a safe clean air environment, and lifejackets were passed out in preparation for evacuation from the Spirit of Norfolk to the Victory Rover. All guests, including children, were provided with properly fitted lifejackets prior to evacuation. Marine and restaurant staff, who were in direct communication with Captain Nadeau, effectively communicated directions to guests and assisted with the evacuation process.

All evacuation efforts were directed and implemented by private commercial operators, including coordination efforts from the Port’s Maritime Incident Response Team (MIRT). LCDR Pulliam commented during her testimony that at no time did the Coast Guard Sector Command Center direct any of the evacuation efforts. The Command Center issued a UMIB, a safety zone and served as an information node during evacuation portion of this event. Within minutes of Captain Nadeau’s distress call a wide variety of commercial vessels rendered assistance and evacuation arrangements were confirmed with the Victory Rover due to its size, freeboard and ability to quickly and safely transfer guests from Spirit of Norfolk to the Victory Rover. Accurate guest and crew head counts were passed to the Victory Rover in real time and guest and crew counts were checked and double checked by Victory Rover staff. Spirit of Norfolk crew completed several rounds throughout the Spirit of Norfolk to ensure that no one remained on board (with exception of Captain Nadeau and Captain Brown) following the evacuation. All guests and crew were safely evacuated with no known injuries.

Responding tugboats with marine fire-fighting capability immediately began creating a curtain of fire fighting water around the Spirit of Norfolk and directed fire fighting monitors towards the port and starboard engine room vents while towing vessels took positive control of the Spirit of Norfolk and towed it to Pier 4 at Naval Station Norfolk. Port coordination efforts between Bill Burket with the MIRT, Coast Guard Sector Virginia personnel, responding civilian commercial vessels and the U.S. Navy were exceptional, and the Commanding Officer of Naval Station Norfolk graciously agreed to open the pier barricades and allow the Spirit of Norfolk to moor at the Navy Base to facilitate firefighting efforts. Once all the guests were successfully evacuated and the Spirit of Norfolk was in control of responding tugboats, Captain Nadeau



made the decision to evacuate the Spirit of Norfolk onto a responding crew boat and then a responding towboat U.S. vessel, whereby he and Captain Brown were taken to Pier 4 at the Navy Base. Prior to departing the Spirit of Norfolk, Captain Nadeau completed a full walkthrough of the vessel, insured the fire was contained in the engine room and moved the fire control plan onto the fantail so that it would be readily available for responding fire crews. All responding commercial vessels had a legal obligation to do so in accordance with 46 U.S.C. §2304, Duty To Provide Assistance At Sea.

Captain Nadeau stated that since the Spirit of Norfolk was sailing with a relatively small passenger load made up of school children, and a large number of parents and chaperones, he believed the most prudent way to communicate, direct actions and minimize the possibility of panic was to communicate through his marine and restaurant staffs instead of sounding an alarm or making a PA address. Captain Stevens, the then Sector Commander, commented that in his expert opinion, Captain Nadeau's primary responsibilities were to coordinate the evacuation, ensure accountability and advise responding fire fighters on pertinent aspects of the vessel that would impact firefighting efforts and that Captain Nadeau performed these duties effectively. In reviewing Captain Nadeau's efforts, Captain Scott Smith testified that in his opinion, Captain Nadeau's decision to communicate direction to the guests through his crew was reasonable given the operational situation. It is important to note that City Cruises operational policies are intended to provide general operating principles and will never subvert the operational judgment of the master of the vessel. The Spirit of Norfolk's crew responded quickly, effectively, and efficiently, successfully contained the fire, ensured passenger safety and accountability and effectively evacuated all crew and guests with no known injuries. To that end, City Cruises safety training programs and policies were reasonable and effective.

The Spirit of Norfolk's structural fire protection standards, pursuant to Subchapter K, performed as designed, ensuring that the fire in the engine room was contained in the engine room. This afforded ample opportunity for guests and crew to remain safely on-board the Spirit of Norfolk until evacuation could be implemented. The fire remained fully contained in the engine room until 4:30 pm local time, nearly five hours after the fire began, when firefighters breached containment. Had there been more passengers on board or had this occurred later in the evening, the evacuation would have taken longer, and it may have been more complicated than it was on June 7, 2022, but the result would have been the same. The Spirit of Norfolk's structural fire protection would have afforded ample time to plan and execute a mass evacuation effort.

Summary of Evidence: Fire- Fighting Efforts and the Incident Management System

At the moment the Spirit of Norfolk was secured at Pier 4 at Naval Station Norfolk, all of the guests and crew had been safely evacuated, the vessel was no longer a threat to navigation or the navigable channel, there was no pollution emanating from the vessel, and the fire was contained in the engine room. Tugs and shoreside fire-fighting teams applied cooling water to the skin of the Spirit of Norfolk and applied direct streams of fire-fighting water into the port and starboard side exhaust trunks leading into the engine room.

Mr. Bill Burket testified that the standard in the fire-fighting industry is that there should be a single incident commander to coordinate the efforts of multiple responding units. He stated unequivocally, "in firefighting the IC is the IC." On June 7, 2022, this was not the case. There were multiple responding afloat and shoreside fire-fighting units from multiple fire-fighting agencies and at least two fire-fighting incident commanders, one from Navy Region Fire Department and one from the Norfolk Fire Department. These two Incident Commanders, while together on the pier, communicated with their personnel on two different communication systems. The Coast Guard operated with a third communication system and mitigated this by sending personnel to the fire-fighting scene and established communications through representatives



from the MIRT. Captain Stockwell confirmed that she was a third Incident Commander on scene responsible for Coast Guard entities, which at the time was limited to the marine casualty investigation and assisting the fire department with fire-fighting efforts by providing them with information about the Coast Guard inspected commercial vessel.

Captain Nadeau had at least two conversations with fire-fighters about the lay-out of the Spirit of Norfolk, confirmed the location of the fire control plan, the location of the main deck escape hatch from the engine room and gave a recommendation to fire-fighting personnel to break the exterior window immediately adjacent to the pier and escape hatch as the easiest and most logical way to directly attack the fire in the engine room. Bill Burket told Captain Nadeau that one likely option for firefighters was to simply fill the engine room with water to smother the flames. Captain Stockwell, through consultation with the Sector Virginia Prevention Department and Coast Guard Marine Safety Center (MSC), confirmed that the engine room on the Spirit of Norfolk could be fully flooded without risking the vessel's stability.

Fire-fighting water was added to the engine room in a near continuous fashion, beginning when tugs first arrived on scene when the Spirit of Norfolk was underway and continuing until containment was breached by firefighting personnel. The Chesapeake fire department responded, per its mutual support obligations, with a foam truck to provide an expanding, low weight blank of foam into the engine room. At some point in time, the decision was made from one of the responding fire fighting agencies to send a reconnaissance team on board the Spirit of Norfolk to check on the extent of the fire, and to locate the escape hatch as the preferred location to provide a direct attack on the fire. This team was made up of individuals from two different fire-fighting teams that were presumably operating on two different communication systems reporting to two different Incident Commanders. It is not known if the escape hatch was located during this recon boarding. Documentation provided by the Norfolk Fire Department stated that the quick acting watertight door was opened and secured during this recon trip indicating that the fire was contained in the engine room. Documentation provided by the Navy Region fire department does not confirm whether the escape hatch was located or whether the quick acting watertight door between the engine room and galley was opened during this recon. The individuals making up the recon team are not known.

Approximately one hour after the recon team boarded the Spirit of Norfolk a separate entry team boarded the Spirit of Norfolk with the presumed task of opening the escape hatch on the main deck and applying a layer of foam into the engine room via the Chesapeake foam truck and closing the escape hatch to ensure the fire remained contained in the engine room. Instead of opening the escape hatch, the entry team opened the quick acting watertight door between the engine room and the galley. At this point in time the engine room had been filled with fire fighting water to a level several feet above the deck plates. This level can be determined based on the burn patterns in the engine room observed during the post fire analysis. This matches the fire fighters report of a four-foot wall water pouring out of the engine room when door was opened. This rapid shift in water and weight caused the Spirit of Norfolk to list violently port and aft. A mayday was called, the fire-fighters self-extracted from the Spirit of Norfolk without re-securing the door between the engine room and galley. Bill Burket has consistently referred to this action as a firefighting "mistake" reporting that at no time was he aware that there was a plan to open the quick acting watertight door between the engine room and the galley.

Bill Burket stated that during the time between the recon team boarding the vessel the first time and the entry team boarding the vessel, firefighting water was being added to the engine room by two hoses, adding approximately 1,000 gallons of firefighting water to the engine room each minute. It's unclear the level of water in the engine room when the recon team allegedly opened the door the first time. Bill



Burket reported that like the recon team, the entry was made up of fire fighters from different agencies, operating on different communications systems and reported to different incident commanders. Mr. Burket also reported that one individual on the entry team was not on the recon team. The individual members of the entry team are not known. There is no information in the record to determine who opened the quick acting water tight door between the engine room in the galley, however, the Navy Region fire chief confirmed Mr. Burket's assessment of the decision to open the quick acting water tight door, by commenting to Jolene Price-Thompson that "someone opened up a door that they shouldn't have."

City Cruises activated an OSRO and Salvage Company as required by its non-tank vessel response plan. Salvage personnel began arriving soon after the mayday event. Mr. Ken Adgar reported overhearing a conversation by firefighting personnel discussing the possibility of making a third boarding to locate and open the main deck escape hatch and to apply expanding foam to the engine room, which would in turn expand into the now adjoining galley. This fire-fighting plan was not allowed by Captain Stockwell, absent a written plan drafted and submitted by City Cruises salvage company, which would be further reviewed and approved by Coast Guard staff. Mr. Adgar testified that as a naval architect, he was able to use draft readings, the vessel's freeboard and measure the period of roll to perform some basic inclining calculations to estimate the vessel's GM. Mr. Adgar calculated the vessel's GM to be 4.9 feet, which he testified was sufficient stability to support further fire-fighting efforts.

After the Coast Guard incident commander rejected the fire fighters plan to make a third direct attack on the fire aboard the Spirit of Norfolk, the fire was allowed to "burn itself out" at the pier. The on-scene efforts turned to managing a rapidly out of control fire on board the vessel and the growing risk of the Spirit of Norfolk sinking at the pier due to ingress of fire fighting cooling water or the risk that the onboard fire would further damage engineering systems on board, which could cause the vessel to take on water. The unified command was formed, established and its first meeting at 8:00 pm local time as fire fully consumed the vessel.

Based on applicable law and policy, at the time the Spirit of Norfolk was secured to Pier 4 at the Navy Base the Incident Commander should have been the Navy Region fire chief. All other local, state and federal agencies should have been supporting agencies, including the U.S. Coast Guard. The Navy fire Incident Commander should have been the sole incident commander in charge of initial response until the incident progressed from a fire-fighting event to a salvage event at the 8:00 pm unified command meeting.

Proposed Findings:

1. The proximate cause of the loss of the Spirit of Norfolk was an error on the part of responding firefighting personnel whereby the quick acting watertight door between the engine room and galley was opened. This act breached containment of the fire and thousands of gallons of fire-fighting water that had been added to the engine room by responding fire-fighting vessels and shore-side fire-fighting crews. This was a mistake and it did not conform with generally accepted marine fire fighting standards nor did it take into account the level or impact of fire fighting water in the engine room. The entry team's opening of the engine room door caused the fire to spread uncontrollably to the rest of the vessel.
2. A contributing factor to this loss was confusion and lack of command and control on the part of responding federal, state and local emergency response agencies. There was confusion over who was the lead responding agency and who was the incident commander. There were teams made



up different fire-fighting agencies, communicating on different communication systems to different incident commanders.

3. After the breach of containment, future fire efforts were suspended and recommendations from on scene fire-fighting and salvage experts were rejected.
4. The cause of the fire on board the Spirit of Norfolk is not known. Based on post fire analysis, the fire originated on the port side of the engine room somewhere in the vicinity of the port main diesel engine. Burn patterns indicate the initial fire burned hottest and lowest in the area immediately forward and outboard of the port main diesel engine, which is consistent with witness testimony.
5. The Spirit of Norfolk was operated in compliance with applicable laws, regulations and policies. There is no evidence to suggest that the port main diesel suffered mechanical failure that caused the fire.
6. The Spirit of Norfolk's crew was properly trained and licensed.
7. The Spirit of Norfolk's crew properly carried out the Emergency Response Plan for a fire and evacuation of personnel.
8. The report that the recon team opened the engine room door and surveyed the fire is not credible and cannot be reconciled with the later incident involving the entry team. This information was not provided by witness testimony or reports kept in the normal business and is not sufficient to establish facts for the purposes of this investigation.
9. If the Recon Team did access the space and observe the fire, the Incident Command failed to consider and plan for the possibility that opening the engine room door could flood the rest of the vessel with firefighting water and/or could cause the fire to spread outside of the engine room boundaries. The entry team failed to use correct procedures to ascertain the conditions behind the engine room door before opening it.
10. The Spirit of Norfolk met required structural fire protection standards and these standards effectively contained the fire to the engine room for several hours and effectively created several safe muster locations within the Spirit of Norfolk that were free from the effects smoke, heat and fire. These construction standards helped to facilitate the safe evacuation of all guests and crew.
11. The response from the Norfolk maritime community was rapid, privately coordinated, and effective. This underscores the importance of continued Coast Guard and MIRT efforts to conduct training and exercises throughout the port.

Proposed Recommendations:

- (1) Captain Nadeau and the crew of the Spirit of Norfolk should be commended. Captain Deas, the Commanding Officer of the Naval Base, should be commended for taking quick and decisive



action in furtherance of saving human life and property by allowing the vessel to dock at Naval Base Norfolk.

- (2) Federal, State and Local emergency response agencies should review these findings to ensure clarity on jurisdiction for establishing lead and supporting agencies for marine fire firefighting efforts within the Hampton Roads region, taking into consideration interoperability and communication systems.
- (3) The Coast Guard and MIRT should be commended for and continue efforts on mass evacuation coordination exercises within the Hampton Roads region.
- (4) Federal, State and Local emergency response agencies, which have a maritime nexus, should routinely train with commercial vessels to gain familiarity and experience with commercial shipboard fires.

Respectfully,



Scott Smith
Senior Vice President of Marine Operations