

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
STATEMENT OF CAPTAIN G. M. WILLIAMS
ON CRUISE SHIP HEALTH AND SAFETY STANDARDS
BEFORE THE
SUBCOMMITTEES ON MERCHANT MARINE AND
COAST GUARD AND NAVIGATION
COMMITTEE ON MERCHANT MARINE AND FISHERIES
U.S. HOUSE OF REPRESENTATIVES
SEPTEMBER 28, 1994

Thank you Mr. Chairman. I am Captain Mike Williams, Chief of the Coast Guard's Merchant Vessel Inspection and Documentation Division of the Office of Marine Safety, Security, and Environmental Protection. I appreciate the opportunity to meet with the Committee to discuss your concerns about health and safety standards on foreign flag cruise ships. I would like to outline the Coast Guard's role in these areas, and provide some information on the Coast Guard's Foreign Passenger Vessel Control Verification Program.

As the members of this Committee are aware, the Coast Guard has developed a strong oversight program for foreign flag passenger vessels. In 1993, approximately 12 million passengers passed through U.S. deep water ports on foreign and U.S. passenger vessels. The five largest ports by passenger volume in descending order are: Miami, Florida; Port Everglades (Fort Lauderdale), Florida; St. Thomas, U.S. Virgin Islands; Port Canaveral, Florida; and San Juan, Puerto Rico. There are approximately 125 cruise ships which call on U.S. ports annually which receive control verification examinations.

The Coast Guard conducts initial, annual, and quarterly examinations on all foreign flag passenger vessels which embark passengers in U.S. ports. These examinations are conducted to ensure the vessels are in compliance with the appropriate international conventions and treaties. These include: the Safety of Life at Sea Convention (SOLAS), the International Convention for the Prevention of Pollution from Ships (MARPOL), the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW), and the International Convention on Loadlines. These treaties address vessel safety, pollution prevention, crew competency, and structural integrity of ships. The primary responsibility for compliance rests with the vessels' owner and flag state. The Coast Guard's duties are to verify that these vessels comply with their international certificates, and to ensure that they have the capability to safely conduct operations.

Oversight of health and sanitation conditions on foreign flag passenger vessels is the responsibility of the U.S. Public Health Service. The Coast Guard conducts a spot check of galley electrical, ventilation, and fire safety equipment, sewage systems, and structural fire boundaries as part of the control verification examination, and assists the U.S. Public Health Service when a serious health or sanitation condition is found. The U.S. Public Health Service conducts regular detailed sanitation inspections on foreign passenger ships entering U.S. waters under the authority of the Public Health Service Act (42 USC 264(a)).

This casualty clearly showed the benefits of the Coast Guard's control verification program and Captain of the Port contingency planning. The crew responded to the fire properly by closing the fire screen doors, securing ventilation, properly mustering the passengers, and taking the proper initial fire fighting efforts - all part of the quarterly drills the Coast Guard requires during its examinations. As per the Captain of the Port contingency plan, a command post was set up, local firefighters properly established liaison with Coast Guard and shipboard personnel, and successfully worked together in locating the source and extinguishing the fire. Vessel personnel indicated that had shoreside assistance not been available, the fire would have been difficult for the crew to extinguish.

It is important to note that this ship was built in 1953 when SOLAS permitted ships to be built with a significant amount of wooden materials on board. Until SOLAS 74 entered into force in 1980, three methods of passenger ship construction were permitted. Method I, the U.S. method, required noncombustible materials of construction, generally without the installation of fire detection or suppression systems in accommodation spaces. Method II, the British method, permitted construction with combustible materials, but required that a sprinkler system be installed. Method III, the French method, permitted restricted use of combustible materials and required a fire detection system but no sprinkler system. Each method required that vessels be

divided into main vertical fire zones approximately 40 meters in length.

In the mid 1960's, a number of fires on foreign flag passenger ships prompted the International Maritime Organization (IMO, then IMCO) to examine the three methods of allowable passenger ship construction. This led to the adoption of an amendment, SOLAS 60 Part H, which would permit only one method of construction, based largely upon Method I. This amendment became mandatory when it was incorporated into SOLAS 74 which entered into force in 1980.

A fire in 1990 aboard a foreign passenger vessel operating outside of the U.S. killed 154 passengers. At the urging of the U.S., the IMO reexamined the issue of fire protection of passenger ships, ultimately resulting in two new sets of amendments. One set applies to new passenger ships (referred to as the new ship amendments), and the other applies to existing passenger ships (referred to as the retroactive fire safety amendments or RFSAs).

The new ships amendments, which enter into force on October 1 of this year, further upgrade the level of fire safety of new passenger ships, requiring fire detection and suppression systems in addition to noncombustible construction. The RFSAs split existing passenger ships into two categories: those which fully meet SOLAS 74 and those which do not. The amendments require each category to upgrade existing structure and fire protection

systems. Vessels which do not comply with SOLAS 74 are forced to comply on a more aggressive time schedule than those which fully comply.

The REGAL EMPRESS was built to method II, so it contained large amounts of wooden construction materials and was protected by a sprinkler system. During the fire, the sprinkler system operated, and controlled the fire below the overhead; however, the fire spread freely through the concealed space above the ceiling panels. The space above the overhead was not protected by the sprinkler system, as is typical aboard method II constructed ships.

Because the REGAL EMPRESS was built to Method II standards, it is required to meet the provisions of the RFSAs on a more aggressive schedule than vessels which comply fully with SOLAS 74. The RFSAs will require the installation of smoke detectors in accommodation and service spaces, stairway enclosures and corridors, and in the concealed space above combustible ceilings in stairways and corridors by October 1, 1997. Additionally, the RFSAs will require that the vessel be brought into full compliance with SOLAS 74 by October 1, 2010, which will require the removal of all wooden construction materials.

The Coast Guard recognizes that effective shipboard firefighting results from a well trained and equipped crew and a vessel properly designed and maintained to international safety

standards. The Coast Guard will continue to stringently enforce international standards to ensure all passengers can be confident that the vessel they board is safe.

Thank you for the opportunity to appear before you. I would be happy to answer any questions you may have.

I would like to provide you with information relating to three recent incidents on foreign flag cruise ships. The first incident occurred on the Liberian flag passenger ship HORIZON. This vessel regularly cruises between New York and the Caribbean. On July 16, 1994 the Coast Guard Marine Inspection Office New York received a call from the Centers for Disease Control (CDC) which indicated that seven passengers aboard the vessel were suffering from Legionnaire's disease. When the vessel arrived in New York, the Marine Inspection Office assisted the U.S. Public Health Service and the CDC in their investigations.

The CDC took water and air samples, but did not recommend quarantine. The vessel departed New York the following day with passengers. Upon arrival in Bermuda, both the CDC and U.S. Public Health Service recommended that the operating company, Chandris/Celebrity Cruises, disembark passengers from the vessel and fully flush its potable water system. The company concurred with the CDC recommendations and took the ship out of service for over a week, pending the results of the tests. The vessel was returned to service on July 30, 1994 after all CDC recommendations were complied with. Laboratory tests strongly suggested the vessel's whirlpool spa as the source of transmission of the the disease.

The second incident involved the Bahamian flag passenger ship VIKING SERENADE, which operates out of the port of Los Angeles.

On September 1, 1994 Marine Safety Office Long Beach, California received information that approximately 408 passengers and 8 crew^{ee}man of the 2,350 persons on board the vessel had contracted ~~X~~ an intestinal illness. Six passengers had been taken to the hospital in Ensenada, Mexico and one U.S. citizen died there. Coast Guard officers from Marine Safety Office Long Beach boarded the vessel upon arrival in port along with the CDC, U.S. Public Health Service. [^] and

On September 3, 1994, a revised count of the affected persons indicated that 582 passengers and 24 crewmen were ill. The CDC did not recommend a quarantine, however they did take food and water samples, along with passenger and crew urine and stool samples, and recommended the owner, Royal Caribbean Cruise Lines, not allow the vessel to sail until the results of the samples were analyzed. They also made additional recommendations concerning sanitation procedures and removal of certain foods.

On September 9, 1994 the CDC identified the cause of the illness as a Shigella bacteria outbreak, whose source could have come from the vessel's food handlers. All CDC recommendations were completed by the company and verified by the U.S. Public Health Service on this date. Later that day the vessel resumed passenger operations.

These two incidents clearly demonstrated the Coast Guard's cooperation with the U.S. Public Health Service and the CDC, and

also showed that in both cases the cruise ship companies willingly complied with all CDC recommendations. It is our intention to continue this cooperation to ensure that all significant health and sanitation issues are properly addressed.

The third incident occurred on August 19, 1994. At approximately 8:00 A.M. EST, the Coast Guard Vessel Traffic Service (VTS) New York notified the Coast Guard Marine Inspection Office and Captain of the Port of a fire aboard the Bahamian Passenger Ship REGAL EMPRESS which was transiting New York Harbor to a passenger terminal. The vessel had contacted the VTS and requested dockside assistance to combat the fire. Marine Inspection Office investigators and Captain of the Port personnel arrived on scene while the vessel was mooring and noted that municipal firefighters were on board, and that a dockside command center had been established. Coast Guard investigators and vessel crew assisted the local firefighters in reviewing the vessel's plans in order to establish fire boundaries and plan appropriate response activities. Concurrently, all passengers and nonessential crew were safely disembarked and the fire was quickly brought under control. Twelve persons suffered from smoke inhalation as a result of this casualty, four of which required hospitalization. No firefighting personnel were injured.

It was later determined that the fire had originated in the ship's main engine exhaust stack inside an abandoned pipe

enclosure which was lined with cork insulation. This insulation ignited due to contact with engine exhaust components. The fire spread into a dining room after heat conducted through steel fasteners which held insulation to a fire control bulkhead, integral to the abandoned pipe enclosure.

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While the fire department was on board, another fire was discovered in a cabin in another area of the ship, remote from the dining room. The cause of the fire was not directly related to the pipe enclosure fire. Both sprinklers in the cabin operated, and the fire was extinguished by local fire fighters. The local fire department believed the cause of the fire was an overturned ashtray on a bunk, possibly caused by a passenger's rushed egress to the muster station.

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Although fire and smoke damage was limited to the cabin, it was severe. The fire did not penetrate through the wooden overhead ceiling into the concealed space above. Based on the amount of fire and smoke damage in the cabin, it is conceivable that had a passenger been sleeping in the cabin, the passenger would have been killed.

After learning of the casualty, a team of technical fire protection experts from Coast Guard Headquarters was sent to the REGAL EMPRESS. They focused on lessons that could be learned from the casualty, both from the standpoint of what went right and what could have gone better. Their direct observations have proven valuable Coast Guard policy making.

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