

**Board of Examiners
New Orleans-Baton Rouge Steamship Pilots**

In re: Capt. J. Strahan, Jr. - M/V Kition

The Board of Examiners for the New Orleans - Baton Rouge Steamship Pilots conducted a hearing on September 26, 2007, following an investigation of the actions of NOBRA Pilot Capt. J. Strahan, Jr. in connection with the M/V Kition's allision with the I-10 bridge pier on February 10, 2007 in Port Allen, Louisiana.

Capt. Strahan was represented at the hearing by counsel. The Board of Examiners has considered the sworn testimony of the witnesses and the exhibits which were introduced into the record, and now makes the following findings of fact:

FINDINGS OF FACT

- 1. The Board of Examiners for the New Orleans Baton Rouge Steamship Pilots is charged by Louisiana law with promoting and maintaining the safety of maritime commerce along the Mississippi River.**
- 2. In recognition of this duty, the Board maintains a strong commitment to enhancing the safety and well-being of the citizens of Louisiana, preventing peril to public health, safety and welfare, and maintaining reliable and safe pilotage services. In furtherance of its commitment, the Board desires to identify and propose solutions to all factors that are detrimental to marine safety and the effectiveness of NOBRA pilots.**
- 3 Capt. Strahan has been a commissioned NOBRA pilot since May 1, 2002. Over the course of his career as a state-commissioned pilot, Capt. Strahan has piloted in excess of seven hundred trips over the NOBRA route. During those assignments, he has never been involved in a collision or other incident involving pilot error.**
- 4 On February 10, 2007, Capt. Strahan received orders to pilot the M/V Kition from the Apex Dock (MM 229.5) downriver to the Point (MM 90.5). The Kition is a tanker 798 feet long and 137 feet wide. On February 10, 2007 it had a draft of 44'7". At the time of the incident at issue, the Baton Rouge gauge read 26', with winds from the north at about 10-15mph. The river current was estimated to be approximately 4.6 knots.**

5. The Apex dock is located on the west bank of the Mississippi River, just upriver from the I-10 bridge in Baton Rouge Harbor. The bridge provides a horizontal clearance of about 1,100 feet.
6. Capt. Strahan boarded the vessel at approximately 0550, at which time the vessel was moored to the Apex 2 dock, port side to the berth with its bow pointing upriver.
- 7 The charterer's agent ordered three tug boats to assist in the unberthing of the vessel. The three tugs were the Peggy H, a twin-screw tug with 3,600 horsepower; the Gladys B, a single-screw tug with 2,400 horsepower; and, the Margaret F. Cooper, a single-screw tug with 3,500 horsepower.
8. Capt. Strahan testified that his plan was to hold the vessel against the dock with the assistance of the three tugs, release all lines, and then, with the continued assistance of the tugs, allow the vessel to float back under the I-10 bridge, and ultimately turn the ship once there was sufficient room downriver from the bridge.
9. The vessel was held in its berth with four bow lines, two forward breast lines, two forward spring lines, four stern lines, two after breast lines and two aft spring lines. Capt. Strahan planned to release most mooring lines using standard procedure, except that the aft spring lines would be released last.
10. Capt. Strahan instructed the Peggy H to take a position on the bow and to send a line up to the vessel. He instructed the Gladys B to take a position amidships and the Margaret F. Cooper to take a position at the stern. At 0705, Capt. Strahan ordered the three tugs standing by to come ahead hard in order to hold the vessel alongside the dock so that the mooring lines could be taken in.
11. When the forward bow lines were being taken in, one of the lines leading from the starboard bow dropped into the water near the Peggy H. The tug's master had to stop pushing so that he could move his vessel in order to prevent the possibility of the mooring line fouling one of his propellers. Capt. Strahan estimated that the Peggy H was not able to push for one to two minutes and it was during this time that the vessel's bow began to move away from the dock toward midstream.

12. Recognizing that the vessel's bow was moving away from the dock, and that the aft spring line had not yet been cleared, Capt. Strahan ordered "port rudder" and "dead slow ahead," and then "slow ahead" to allow the linesmen to let go the aft spring lines so that he could attempt to bring the bow closer to the dock. Capt. Strahan further testified that despite the Peggy H resuming its position and pushing on the vessel, the bow of the Kition continued to come away from the dock, toward midstream, due to the strong current of the river in that location.
13. Based on the vessel's continued swing toward mid-river, Capt. Strahan decided that, rather than backing the vessel under the bridge and turning it once he was some distance below the bridge, he would have to turn the vessel right then. He ordered the Peggy H to go back hard and the other two tugs to push hard in an attempt to turn the vessel. The vessel, however, had drifted too far toward midstream due to the strong current. As Capt. Strahan tried to turn the vessel, the vessel's underwater hull, the bulbous bow, made contact with the bridge's fender system. Moments later, the Kition's starboard bulwark near the bow struck the bridge pier.
14. The Board recognizes that there is some conflict between Capt. Strahan's testimony and that of Capt. Lacour, the master of the Peggy H. That is, Capt. Lacour testified that he was pushing against the ship when the two starboard lines were let go. The lines typically drop into the water and, because of their weight, sink out of sight. On this day, however, these two lines did not stay submerged; they floated and gradually came back toward the Peggy H. Capt. Lacour was concerned that these lines may become entangled in his propeller so he slowed down his port engine and slid down the Kition, toward its stern, until he reached the end of his line. He then resumed pushing using both engines. Capt. Lacour estimated that this maneuver took a matter of seconds.
15. Capt. Lacour further testified that from his vantage point, the vessel appeared to stay alongside and parallel to the dock during the period that he had to reduce power and drop back. According to Capt. Lacour, Capt. Strahan then ordered him to back half, and ordered the two other tugs to move to the stern of the vessel. Thereafter, Capt. Strahan ordered Capt. Lacour to go back hard and the two tugs at the stern to push hard.

16. Capt. Strahan testified that after the aft spring lines were released, they became entangled on the wood fender system along the dock. This condition occurred as the vessel's bow continued to move out away from the dock. At that time, he ordered dead slow ahead and then slow ahead on the ship's engine with hard to port rudder, rather than full-ahead, because he was concerned that full-ahead may cause the aft spring line to part, thereby resulting in potential injury to those nearby.
17. The Board recognizes the strong current in that location and has taken into account the difficulties posed by the starboard bow lines interfering with the operation of the Peggy H and aft spring lines becoming fouled on the fender system of the dock. The Board also recognizes that the Pilot on the bridge of the vessel has the best vantage point to judge the position of the vessel relative to the dock as well as the effect of the current on the vessel.
18. Capt. Strahan and Capt. Lacour both testified to the strength of the current at the Apex dock. That testimony is consistent with the experience of each member of this Board, which is that the river current is quite strong at that location. Moreover, an additional important fact is that the current there does not run perpendicular to the bridge nor does it run parallel to the Apex dock. The current crosses from the west bank as it approaches MM229.5 from upriver to the east bank below the I-10 bridge, creating a very strong offshore pressure for a vessel that is moored like the Kition was on February 10. This causes all vessels coming southbound through the bridge to be set toward the middle support pier.
19. Based on the testimony of Capt. Strahan, and on our analysis of the video surveillance footage identified as Exhibit 5, the sworn statements of the captains of the three tugs, and the other documents introduced into evidence, the Board finds there were several contributing factors to this incident. They include an incomplete and ineffective Master Pilot Exchange; ineffective communication between the pilot and tug captains; the strong current and directional flow of the current in that area of the River, and the pilot exhibiting a lack of situational awareness, failing to make timely and prudent decisions, and failing to readjust his actions as needed.

The Board finds that once the aft spring lines were cleared, Capt. Strahan did not take adequate timely action to properly turn the vessel. Capt. Strahan testified that once the aft spring lines cleared, he ordered dead slow ahead and hard to port rudder. Other more appropriate alternative courses of action would have been to go full ahead with hard to port rudder immediately and if necessary let go one or both anchors to stop the set of the vessel; or, to stop

engines and go full astern in order to keep the vessel from setting across the river when it became apparent that he had to execute the turning maneuver. It appears that Capt. Strahan did not timely appreciate the significance of the vessel's headway that was caused by the vessel's deep draft and close under keel clearance. Any actions taken to counteract this large amount of kinetic energy would have to be immediate and considerable, i.e. using full ahead or full astern engine orders.

20. The use of the danger signal, five or more short blasts on the whistle, is widely recognized as the proper way to alert others when the risk of collision or allision is imminent. The Board finds that, due to his lack of situational awareness, Capt. Strahan did not timely realize the imminent risk of allision, and as such did not issue the danger signal at any time during the incident at issue.
21. The evidence produced in connection with this incident reveals several issues that the Board must address in furtherance of its mission of enhancing the safety and well-being of the citizens of Louisiana, preventing peril to public health, safety and welfare, and maintaining reliable and safe pilotage services.
22. The area of the Mississippi River at issue consists of a very narrow channel which restricts maneuverability and creates strong currents. Further, the Kition had a 44'7" draft, which further restricts maneuverability, especially once the bow moves out away from the dock and the current is predominantly acting on one side of the ship (port side) more than the other. Here, Capt. Strahan had to unberth a vessel that was 800' long with a 44'7" draft, and he had the assistance of three tugs totaling only 9,500 horsepower. Two of these were single-screw tugs, which affects their maneuverability alongside when requested to move from one position to another. In the Board's estimation, these tugs offered insufficient capabilities for the safe unberthing of the Kition at that location and under the then-existing conditions.
23. Unberthing Procedure: The Board recognizes that holding the aft spring lines until last is a procedure widely used around the world. But, in this instance, the Board finds that this was an inappropriate procedure.
24. The Board recognizes that there have been very few vessels of the M/V Kition's size and draft unberthing at the APEX terminal. The Board recommends that all parties involved including pilots, owners, agents, and dock operators ensure that adequate and reliable equipment is made available for all vessels along the NOBRA route.

- 25 **The Master-Pilot Exchange: Effective communication among vessels operating on the Mississippi River is essential to the safety and welfare of mariners and industry along the River, and indeed it is essential to the safety and welfare of all citizens of this State. A complete Master-Pilot Exchange (MPX) is the starting point of the effective communication that must take place throughout a Pilot's voyage.**

Here, the Master stated to NTSB that the Pilot told him that he planned to turn the vessel from the Apex dock. Capt. Strahan denies this, but adds that it was difficult to communicate with the Master. Capt. Strahan recognized that his MPX in this instance was, in his own words, "terrible." Capt. Strahan further testified that after this incident and continuing to the present day, his Master Pilot Exchanges include making sure that the Master, and the tug captains, understand what the unberthing procedures will be, as well as what his "Plan B" is in case conditions on the river cause unexpected movement of the vessel or other unforeseen events during unberthing. Capt. Strahan considers the procedures he currently employs to be the types of procedures that allow for a safety factor in the event a Pilot encounters problems during a voyage.

26. **This Board recognizes that a Pilot must also have clear and effective communication with the tug boats assisting with a vessel's berthing or unberthing. That is, the incident at issue demonstrates that comprehensive effective communication starts with a complete and clear MPX but does not end there. Effective communication also includes that communication between Pilot and tug captains, particularly in circumstances of high river, strong current and close proximity to bridges and other facilities.**

Here, while the captain of the Margaret Cooper describes the communication with Capt. Strahan as "fine," and the captain of the Gladys B seems to have a similar view, it certainly appears that the communication between the Captain of the Peggy H and Capt. Strahan was less than optimal. This was likely magnified by the problems encountered with the starboard bow lines and aft spring lines.

27. **The Board finds that proper situational awareness includes consideration of whether the tugs that have been ordered to assist with unberthing are sufficient under the particular circumstances presented by the location, the vessel and the conditions of the river.**

28. Based on the evidence produced during this hearing, the Board takes this opportunity to recommend to NOBRA Pilots that no state-commissioned Pilot attempt to turn any vessel immediately above the bridge when sailing from the Apex or general cargo docks.
29. In accord with state law and the Rules of the Board of Examiners, Capt. Strahan underwent alcohol and drug testing on February 10, 2007. The results of both tests showed that Capt. Strahan was not under the influence of drugs or alcohol.
30. The Board recognizes that NOBRA pilots are frequently called upon to evaluate and timely react to a complex combination of factors that affect a safe voyage. Sudden changes in conditions resulting from the river's current, channel, and stage, the proximity of bridges and facilities along the river, and the size, draft and operational characteristics of a particular vessel, present distinct challenges that demand the immediate action and professional judgment of a well-trained and experienced pilot. Even momentary delays or lapses by the pilot can lead to disastrous results. Such is the heavy burden of those privileged to hold a commission as a NOBRA pilot.
31. Safety is the paramount concern of this Board and must be the paramount concern of every NOBRA Pilot. The Board of Examiners recognizes the limited effectiveness of punitive measures in correcting human factors associated with maritime casualties; therefore, the Board seeks to accomplish safety mitigation through remedial and continuing education measures first.
32. The Board of Examiner's goal is to maintain the safety of navigation on the Mississippi River and in the performance of this task we will institute an extensive and intensive four to six week supplemental training program for the pilot involved in the incident at issue. This program will consist of the following:
 - a. Over the course of a three week period, beginning October 4, 2007, Capt. Strahan will begin a program to evaluate his close-quarters maneuvering skills for docking, undocking, anchoring, unanchoring and buoy system maneuvering. Capt. Strahan will complete at least fourteen trips, to be taken with and under the supervision of senior pilots, who will evaluate the strengths and deficiencies of the pilot's knowledge, technique and proficiency as a NOBRA pilot. These senior pilots will be Instructor Pilots already involved in the continuing education program, and other pilots from within the ranks of NOBRA. Prior to the commencement of the check rides, these senior pilots will be briefed on the findings of the Board.

- b. At the completion of these check rides, the Board of Examiners will debrief these senior pilots. Based on this debriefing, the Board will formulate a supplemental classroom and ship-handling simulator training program for Capt. Strahan that includes Bridge Resource Management, Emergency Ship Handling and Advanced Ship Handling. This supplemental training program and a summary of the debriefing shall be submitted to a third-party expert for review. This third-party expert must have extensive experience within confined waters of the United States and have a background with continuing education of merchant mariners. Capt. Strahan will then undergo a one week reevaluation by taking check rides with members of the Board and/or the senior pilots conducting the initial evaluation. Capt. Strahan will be placed on Commission business and out of rotation during the check rides and training program provided above. In addition to the twenty-four hours of continuing education required for the year 2008, Capt. Strahan shall complete a course in Maritime Safety and Risk Assessment.

The Board of Examiners For The New
Orleans Baton Rouge Steamship Pilots

By: 

Capt. Henry G. Shows, Jr.
Chairman

Date: October 3, 2007.