

64 F.3d 1037

1995 A.M.C. 2705

FOLKSTONE MARITIME, LIMITED, a Cyprus Corporation, Plaintiff-Appellee,

and

Great Lakes Towing Company and Carl B. Turner, Captain,

Third Party Defendants-Appellees,

v.

CSX CORPORATION, a Corporation, and CSX Transportation,

Incorporated, a Corporation, Defendants/Third

Party Plaintiffs-Appellants,

and

Lexington Insurance Company, Home Insurance Company,

Underwriters of London, Lloyds, et al.,

Intervening Plaintiffs-Appellants.

Nos. 94-2306, 94-2402.

United States Court of Appeals,

Seventh Circuit.

Argued Jan. 12, 1995.

Decided Aug. 18, 1995.

Michael A. Snyder (argued), Richard A. Forster, Ray, Robinson, Carle, Davies & Snyder, Chicago, IL, for Folkstone Maritime, Ltd., a Cyprus Corp.

Edward M. Kay (argued), James T. Ferrini, Robert N. Dunn, Kimbley A. Kearney, Jeffrey J. Asperger, Clausen, Miller, Gorman, Caffrey & Witous, Cornelius P. Callahan, Callahan & Ehret, Thomas L. Hogan, Soo Line R. Co., Chicago, IL, for CSX Transportation, Inc., CSX Corp.

Harney B. Stover (argued), Louis F. Raymond, Davis & Kuelthau, Milwaukee, WI, for Great Lakes Towing Co.

Edward M. Kay, James T. Ferrini, Kimbley A. Kearney, Clausen, Miller, Gorman, Caffrey & Witous, John J. Henely, Cornelius P. Callahan, Callahan & Ehret, Chicago, IL, for Lexington Ins. Co., Home Ins. Co., Lloyds of London, Underwriters.

Edward M. Kay, James T. Ferrini, Kimbley A. Kearney, Jeffrey J. Asperger, John J. Henely, Cornelius P. Callahan, Thomas L. Hogan, Soo Line Railroad Co., Chicago, IL, for International Ins. Co.

Charles R. Watkins, Susman, Buehler & Watkins, Chicago, IL, Karl L. Cambronne, Sandra J. McGoldrick-Kendall, Chestnut & Brooks, Minneapolis, MN, for Carl B. Turner.

Edward M. Kay, James T. Ferrini, Kimbley A. Kearney, Jeffrey J. Asperger, Clausen, Miller, Gorman, Caffrey & Witous, John J. Henely, Cornelius P. Callahan, Callahan & Ehret, Thomas L. Hogan, Soo Line R. Co., Chicago, IL, for Lexington Ins. Co., Home Ins. Co., Lloyds of London, Underwriters, National Union Fire Ins. Co.

Before CUDAHY, ESCHBACH and RIPPLE, Circuit Judges.

RIPPLE, Circuit Judge.

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On May 6, 1988, the Motor Vessel Pontokratis allided¹ with the B & O Railroad Bridge as it transited northbound on the Calumet River. The damage to the Bridge and vessel was substantial, and by Coast Guard estimate approached \$14,000,000. The district court entered judgment on the issue of liability for Folkstone Maritime, the M/V Pontokratis, Captain Turner and the Great Lakes Towing Company, and

against the owner of the Bridge, CSX Corporation, CSX Transportation and the CSX insurers (collectively "CSX"). CSX appeals. For the reasons set forth in the following opinion, we affirm the judgment of the district court.

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* BACKGROUND

A. Facts

1. The Accident

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On May 6, 1988, the Motor Vessel ("M/V") Pontokratis prepared for its northbound journey on the Calumet River to Lake Michigan. The Pontokratis is a large freight vessel, with a length of 590.1 feet, and weight of over 15,881 gross tons. As the ship prepared to depart, it had a draft of 15 feet forward, and 17.8 feet aft. Accordingly, at this draft, the top of the mast of the Pontokratis was approximately 105 feet above the waterline (the vessel's height of mast above keel was listed at 123.1 feet in the vessel particulars).

4

Captain Carl B. Turner, the pilot of the Pontokratis during its Calumet River navigation and an employee of the Great Lakes Pilotage Authority, boarded the ship at approximately 4:30 p.m. Captain Turner and the master of the Pontokratis, Captain Pappamethodiu, dined together. Captain Turner later communicated by radio with the tug captains regarding the maneuvering of the Pontokratis to Lake Michigan and verified with the ship's crew the operating condition of the ship's essential systems. A continuous VHF radio channel was maintained between the tugs and the vessel throughout the transit.

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Around 6:20 p.m., the Pontokratis departed her berth at approximately mile 6.84 of the Calumet River. In accordance with a contract between Great Lakes Towing Co. ("Great Lakes") and Folkstone Maritime, Ltd. ("Folkstone"), Great Lakes assisted the Pontokratis during its northern transit thorough the Calumet

River to Lake Michigan. Two tugs--the Florida (captained by Charles Kelley and placed at the bow) and the South Carolina (commanded by Donald Thayer and placed at the stern) were sent to assist the transit. The transit of the Pontokratis was not a "deadboat" tow. Rather, the Pontokratis was at all times under her own steerage and power. The tugs maintained taut lines connected to the vessel and operated according to instructions given by Captain Turner, who was piloting the vessel from the navigation bridge.

6

At the time of departure, Captain Turner and Captain Pappamethodiu were accompanied on the navigation bridge by Third Officer Noe Galigao, who manned the Engine Order Telegraph, and Quartermaster Jardgie Arlos, who was at the helm. The Relief Quartermaster, Anson Tomdecillas, came to the bridge to take the helm duties at 8:00 p.m. The Chief Mate of the Pontokratis, Nikolaos Spetsiotis, was stationed on the bow of the vessel with the Bosun, Georgios Xiluras, Apprentice Mate, Celso Roquero, and other members of the crew's deck force. Second Mate, Mihail Maniatis, was stationed on the stern of the vessel with Able Seaman Manuel Padin and two other members of the deck force.

7

The Pontokratis proceeded dead slow ahead with the tug Florida ahead and the South Carolina off the stern. At mile 1.5 of the River, in the vicinity of the Chicago Skyway Toll Authority Bridge, which has a vertical clearance of 125 feet, Captain Kelley of the Tug Florida received a message from the operator of the Conrail Bridge that there would be a slight delay before the Bridge could be raised for safe passage of the vessel. This information was communicated by VHF radio telephone to Captain Turner who, around 7:50 p.m., ordered the Pontokratis to stop dead in the water.

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The Conrail Bridge was the first of a series of four railroad bridges on the Calumet that were located within 300 feet of each other. The Conrail Bridge is a vertical lift bridge with a vertical clearance of 120 feet when raised and a horizontal clearance of 138 feet. The next two bridges were both vertical lift bridges with similar clearances; they were permanently out of service and in a raised position. The final bridge was the B & O Railroad Bridge (Bridge 258/0, the Baltimore and Ohio Railroad Company Bridge). The Bridge was a single leaf bascule bridge that opened from the west side of the river and had a published horizontal clearance of 135 feet and vertical clearance of 19 feet above ordinary high water when lowered. No vertical clearance figures were published for the Bridge in its raised position on navigation charts or in the United States Coast Pilot--a guidebook published by the Department of Commerce for water navigation.

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While the Pontokratis was holding, waiting for the Conrail and B & O Bridges to open, a fishing vessel, the Saltshaker, operated by Art Neilan, approached from astern. Mr. Neilan decided to wait until the Pontokratis cleared the series of bridges before he passed so that he would have sufficient room without endangering his vessel. Mr. Neilan thus observed the allision.

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At 8:00 p.m., the Conrail Bridge operator communicated to the B & O Bridge operator that the Pontokratis was transiting, and that it was a "big boat." The Conrail Bridge displayed green lights to signal that it was safe to proceed, and Captain Turner, after observing the Conrail and B & O Bridges opening, ordered the transit to continue.

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The Pontokratis moved ahead "dead slow" west of the centerline of the river. By 8:05 p.m., the bow of the Pontokratis had passed the Conrail Bridge, and began passing under the B & O Bridge. Crew members on the bow of the vessel observed that the bridge-leaf had ceased moving. The Florida was keeping its line taut while moving ahead, while the South Carolina followed astern waiting for orders from Captain Turner. Captain Pappamethodiu stood on the port bridge wing watching the clearance off the bridge protection fenders on the port side. Captain Turner stood in the front window of the wheelhouse and occasionally walked out to the bridge wings to check clearances on each side. On two occasions, Turner ordered the engines stopped and then ahead dead slow to reduce the speed of the Pontokratis.

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At 8:07 p.m., Captain Turner ordered the ship to alter course to port to line up for the transit under the next bridge, the 95th Street Bridge. To facilitate this navigation alteration, Captain Turner called the tug South Carolina to pull the stern to starboard. The Pontokratis was to the west of the centerline of the 138-foot B & O Bridge horizontal draw in order to allow sufficient clearance for the stern and the South Carolina. As these maneuvers were implemented, Captain Pappamethodiu observed the distance closing between the bridge-leaf and the vessel. At the time of transit, Captain Kelley, from his vantage point on the tug at the front of the bow of the Pontokratis, observed no problems; he believed that the vessel was lined up properly for successful passage underneath the B & O Bridge. Captain Kelley believed the Bridge had been raised to the same angle as it had on other occasions in which he had transited through

the B & O Draw. Captain Pappamethodiu, on the port wing, estimated the angle of Bridge elevation at 75°. Mr. Neilan, from his vantage point on the Saltshaker, approximately 500 yards astern of the vessel, stated in the Coast Guard Report filed soon after the accident that it appeared that the vessel was close to the west bank of the river.

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At 8:08 p.m., as the Pontokratis passed under the B & O Bridge, Captain Pappamethodiu stated that the vessel was about twelve feet off the bridge protection fendering system on the port side. Captain Pappamethodiu relayed distances to Captain Turner, who was now in the center of the wheelhouse. Captain Pappamethodiu yelled three times that the Bridge was coming closer, and Captain Turner immediately ordered a 20° port rudder, and called the tug South Carolina to pull the stern away from the Bridge. The port wing of the navigation deck allided with the Bridge. Captain Pappamethodiu ran into the wheelhouse and ordered an evacuation. The bridge-leaf collapsed on the wheelhouse, causing the vessel to roll to port and to be pulled against the bridge protection fendering system on the port side of the vessel. The engineer on watch felt the accident and stopped the main engines of the Pontokratis around the same time that one of the crew members came below to order such an action.

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Captain Kelley of the tug Florida did not notice anything until his tug started to wallow as if it had run aground. He then turned to look at the Pontokratis, and it appeared to him that the vessel had also run aground, which surprised him because he believed that his tug and the vessel were in the middle of the river channel. Captain Kelly observed the bridge-leaf collapse slowly onto the superstructure of the vessel, ultimately picking up speed and falling into the water, wrapping itself completely around the ship. Two crewmen aboard the Florida confirmed Captain Kelley's observations, noting that there was clear water between the port side of the Pontokratis and the west bank fendering system at the time the Bridge came down onto the vessel.

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Captain Thayer, in the tug South Carolina, thought the transit under the Bridge was uneventful and routine until he heard a strange scraping sound described as the "sound of the gears giving or breaks giving...." R. 371 at 9. While carrying out an order from Captain Turner to give more engine, he saw the Bridge fall on the vessel, which pulled the stern of the Pontokratis against the west bank.

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The Calumet River closed for ten days, as a contractor hired by CSX Transportation, Inc., removed pieces of the Bridge. Those pieces were shipped to a local salvage yard for evaluation and investigation. On May 16, 1988, the Pontokratis, with a sizeable portion of the bridge-leaf on its wheelhouse, was severed from the wreckage on the west bank of the river, and was towed to the mouth of the Calumet River to have the remainder of the Bridge removed by shoreside cranes.

2. The Bridge

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a.

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The control house for the Conrail Bridge is located in the center of the lift span and offers an unobstructed view south; the northern view is partially obstructed by the bridge structure. In contrast, the control house for the B & O Railroad Bridge was located in a two-story brick structure on the west bank of the river, slightly north of the Bridge. The northern view was unobstructed from a side window of the house, but the view to the south was almost completely obstructed by the bridge structure. The bridge operator could not see a northbound vessel until it nearly transited the Bridge. When the operator was at the control panel, his back was to the river, and his ability to see in any direction was limited.

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At the date of the accident, the bridge operator was Norman Minas. Mr. Minas had become a bridgetender in August 1987 after spending three months in training with another operator. Mr. Minas stated that he went through the standard raising procedures before the transit of the Pontokratis. The Conrail Bridge bridgetender told Mr. Minas that the approaching ship was a "big boat" which meant that Mr. Minas had to open the Bridge fully. Mr. Minas continued the raising procedure until the "FULLY OPEN 83 " indicator light illuminated on his control panel. He then turned off the master switch and released the foot operated seating switch.

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A survey of the bridge tower after the accident showed that the "FULLY OPEN 83 " panel light was illuminated; however, the angle indicator on the panel was approximately 76 . Mr . Minas indicated at

the time that the indicator was in error; he testified that his belief that the angle indicator was wrong was based on the fact that the angle indicator would read 10 when the Bridge was fully closed.

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b.

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On January 28, 1910, the Secretary of War issued notices to three companies including the B & O Railroad Company to alter their bridges across the Calumet River because they obstructed the free navigation of the River. Recommendations included the removal of the existing bridge and replacement of it with a bridge of bascule or vertical lift type, providing a clear channel not less than 140 feet in width.

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On April 11, 1911, the B & O Railroad submitted plans, marked C-23-1 and dated April 1, 1911, of a single leaf bascule bridge termed a "Strauss Trunnion Bascule Bridge," which was based on a patented design whose general specifications were developed by consulting engineer J.E. Greiner. The specifications provided for an angle of opening of 83°, a bumper to stop moving the leaf at 82' 30", and an electrical automatic cutoff at 77°. The War Department approved the plans on May 13, 1911, and, on June 5, 1916, the District Engineer, on authority from the Secretary of War, notified the B & O Railroad that the constructed bridge was in substantial compliance with terms of the War Department order.

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Between 1918 and 1959, the method of controlling and raising the Bridge was modified a few times. Sometime after 1934, but before 1940, the electrical controls were adjusted to preclude the Bridge from opening above 76°. No consultation or permit was obtained from the U.S. Army Corps of Engineers before these alterations were implemented.² In 1960, prior to the opening of the St. Lawrence Seaway and the introduction of larger commercial vessels into the Great Lakes ports, B & O, along with all other railroads, was informed of the need to ensure compliance of its bridges with their permits. The B & O contracted with Westinghouse Electric Company to modify the Bridge controls to permit the Bridge to raise to its fully open angle of 83°.

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Norman Richter, a B & O, and subsequently a CSX, electrical maintainer from 1940 to 1987, supervised the modification of the bridge cams in 1960 so that the Bridge could raise to 83 , as it had been able to do when initially built. At this time, the operator's console was fitted with a synchro-controlled angle indicator to measure continuously the angle of elevation of the Bridge. Richter, while observing the first attempt to elevate the Bridge to its "fully open" angle in over twenty years, became concerned that a steel electrical junction box on the west diagonal of the north truss would be crushed against the counterweight tower. He consequently ordered the Bridge elevation to be stopped short of 83 to prevent any damage. However, the railroad supervision had requested a fully open angle of 83 . The electrical indicators were adjusted so that the modified degree of elevation that the Bridge had achieved would be thereafter the "fully open" position of the Bridge. No angle-measuring device was utilized to determine the angle to which the span actually elevated after this modification.

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Mr. Richter testified that the console indicator read "79 or 80 degrees" at this time. The electrical junction box could have been repositioned to allow the Bridge to raise to 83 , but this was not done.³ Richter testified that such a procedure "would have involved lots of work and lots of money." R. 419 at 8. At the date of the accident, the Bridge was operating according to Mr. Richter's modifications, not according to the 83 angle drawn in the permit.

B. District Court Proceedings

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Folkstone filed an initial claim against CSX for negligent operation of the Bridge. CSX counterclaimed against Folkstone and the Pontokratis in rem, and as third-party plaintiffs, CSX also sued Captain Turner⁴ and Great Lakes. CSX's insurers, Lexington Insurance Co., Home Insurance Co., Interested Underwriters at Lloyds, International Insurance Co., and National Union Fire Insurance Co. intervened against Folkstone, the Pontokratis, Great Lakes and Turner.

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The district court heard 110 hours of trial submissions over the course of twenty-four days. The court specifically found that Folkstone Maritime, Captain Turner and Great Lakes Towing were free from any negligence, and determined that the sole proximate cause of the accident was the angle of the B & O Bridge at the time of allision. The court found that evidence of record established that "not only is it

more likely true than not that the bridge was at 67 degrees at the time of contact but that the evidence approaches, and even exceeds, the clear and convincing standard." R. 473 at 33. The court further held that the Pennsylvania Rule of admiralty did not "operate to impose liability on a bridge which is constructed or operated in violation of a statute, where the proximate cause of a collision was negligence in the navigation of a vessel." R. 473 at 56-57. However, the court concluded that the only negligence in this collision was the failure of the "management of the B & O and its successor, CSX, to see to it that this bridge fully opened to 83 ." Id. Finally, the court, in short order, also rejected the arguments of CSX that the accident resulted from inadequate look-outs posted on the tugs and the Pontokratis, an inadequate pre-sailing meeting among the captains of the tugs and Captains Turner and Pappamethodiu, an inadequate maintenance of radio communication between the vessels, or from the failure of the Great Lakes Tugs to use such reasonable care and maritime skill as prudent navigators employ for the performance of their towing services.

II

DISCUSSION

1.

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We begin our analysis of the contentions of each of the parties with a statement of the basic principles that must govern our analysis.

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On matters of law, our review of the judgment of the district court is plenary. By contrast, our review of the district court's findings of fact is governed by the clearly erroneous standard. Fed.R.Civ.P. 52(a). A finding is clearly erroneous only when the reviewing court, on the entire evidence, is left with a definite and firm conviction that a mistake has been committed--a conclusion we cannot reach if the trial judge chose between differing permissible views of the evidence. *Roper v. Peabody Coal Co.*, 47 F.3d 925, 927 (7th Cir.1995); see *Anderson v. Bessemer City*, 470 U.S. 564, 573, 105 S.Ct. 1504, 1511, 84 L.Ed.2d 518 (1985). Questions of negligence in maritime cases are treated as factual issues, and are accordingly subject to this standard of review. *Noritake Co. v. M/V Hellenic Champion*, 627 F.2d 724, 728 (5th Cir. Unit A Oct. 1980).

Liability for allisions, and other types of marine casualties, is based upon a finding of fault that caused or contributed to the damage that occurred. With respect to the first of these elements, fault, the standard of care against which fault is determined is derived from general concepts of prudent seamanship and reasonable care, statutory and regulatory rules governing the movement and management of vessels and other maritime structures, and recognized maritime customs and usages. 2 Thomas J. Schoenbaum, Admiralty and Maritime Law Sec. 14-2 (2d ed. 1994). Liability analysis often begins with a review of applicable statutes or regulations. Frequently, rules concerning ship navigation ("rules of the road") attribute fault based on their violation. In this case, the Uniform Inland Navigational Rules apply by Coast Guard mandate. See 33 U.S.C. Secs. 2001 et seq.; 33 C.F.R. Secs. 80.01 to 80.1705 (1995).

Liability for allisions may be imposed even in the absence of a statutory violation, if negligence was involved. The test and standard for a finding of negligence is reasonable care under the circumstances, see *Weyerhaeuser Co. v. Atropos Island*, 777 F.2d 1344, 1351 (9th Cir.1985), or whether, judged against the standard of good and prudent seamanship, the allision could have been prevented by the exercise of due care. See *The Jumna*, 149 F. 171, 173 (2d Cir.1906). Each case must be reviewed by considering the specific factual circumstances under which the accident took place. See, e.g., *The H.F. Dimock*, 77 F. 226, 229-30 (1st Cir.1896). It is not required that an extreme degree of caution or other more exacting standard of care be used; nor does error of judgment impute fault if it is within the ordinary care standard. See *The W.H. Baldwin*, 271 F. 411, 413 (2d Cir.1921).

As in other tort contexts, in order for liability to be imposed in a maritime allision case, the fault must be a proximate cause of the injury. Therefore, the fault committed by the operator of the instrumentality (the ship, or in this case, the Bridge) must be a contributory cause of the collision. *The Java*, 81 U.S. (14 Wall.) 189, 193, 198-99, 20 L.Ed. 834 (1871); *The Farragut*, 77 U.S. (10 Wall.) 334, 338-39, 19 L.Ed. 946 (1870). Generally, common-law proximate cause analysis is applicable, and, if a vessel was not a contributory cause of the allision, no liability will follow. However, in cases in which statutes and regulations are implicated, the causation analysis in admiralty cases is eased by the "Pennsylvania Rule."⁵ This rule provides that a vessel shown to be in breach of a statute or regulation has the burden of proving not only that the fault probably was not one of the contributory causes of the accident, but also that it could not have been a contributory cause. *The Pennsylvania*, 86 U.S. (19 Wall.) 125, 136, 22 L.Ed. 148 (1873), overruled in part on other grounds, *United States v. Reliable Transfer Co.*, 421 U.S. 397, 95 S.Ct. 1708, 44 L.Ed.2d 251 (1975). This rule does not establish fault; rather, it shifts the burdens of

proof and persuasion on causation to the party who violated a legislative mandate. This rule applies equally to allisions as it does to collisions. *Orange Beach Water, Sewer & Fire Protection Auth. v. M/V Alva*, 680 F.2d 1374, 1381 (11th Cir.1982).

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For the Pennsylvania Rule to apply, three elements must exist: (1) proof by a preponderance of evidence of violation of a statute or regulation that imposes a mandatory duty; (2) the statute or regulation must involve marine safety or navigation; and (3) the injury suffered must be of a nature that the statute or regulation was intended to prevent. See *United States v. Nassau Marine Corp.*, 778 F.2d 1111, 1116-17 (5th Cir.1985). Overcoming the burden of proof imposed by this rule is difficult, but may be accomplished by demonstrating that the accident would have occurred despite the statutory violation. *Consolidated Grain & Barge Co. v. Wisconsin Barge Line, Inc.*, 522 F.Supp. 842, 847-48 (E.D.Mo.1981). For example, a violator of a navigational statute may not be held liable by application of the Pennsylvania Rule if the other party to the accident is found to be the sole cause of the accident. *Alter Barge Line, Inc. v. TPC Transp. Co.*, 801 F.2d 1026, 1029 (8th Cir.1986). Expert testimony can be offered to show that the violation could not have been a cause of the collision. *Hellenic Lines, Ltd. v. Prudential Lines, Inc.*, 730 F.2d 159, 162 (4th Cir.1984). Alternatively, it can be demonstrated that the fault was the result of an emergency which was not created by the violator. *Havinga v. Crowley Towing & Transp. Co.*, 24 F.3d 1480, 1483 (1st Cir.1994). With these general principles in mind, we now turn to an examination of the contentions of each of the parties.

2.

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Central to CSX's case is its contention that the district court erred in its determination that the failure of the Bridge to elevate to its fully open 83° angle was the sole proximate cause of the accident. CSX submits that the district court erred in ruling that the allision was not caused, at least in part, by the *Pontokratis* and the individuals responsible for her navigation. CSX contends that Captain Turner's choice of course through the bridge draw was, in light of his knowledge of the Calumet River, negligently close to the west bank of the river. CSX also submits that the mariners aboard the *Pontokratis* negligently breached their mariners' duty to avoid a collision with a known obstruction. The B & O Bridge, CSX contends, was an open, obvious and known obstruction. CSX claims that the angle of the Bridge was only a condition, not a cause, of the allision. Additionally, CSX alleges that, had an adequate look-out been posted on the *Pontokratis*, there would have been no allision. CSX also argues that the tugs contributed to the allision by failing to use reasonable care and skill in the performance of towing services, and thus also negligently contributed to the allision. Finally, CSX argues that, at the very least,

liability must be apportioned based on the involved parties' comparative degrees of fault; given the court's erroneous factual conclusions regarding Folkstone Maritime, Captain Turner and Great Lakes Towing, the decision should be reevaluated, and liability should be reapportioned. At the outset, we note these contentions challenge the basis of the factual determinations of the district court. In order for this court to conclude that the district court erred, we must be convinced that the court's interpretation is not a permissible view of the evidence.

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2a.

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CSX's primary grievance with the district court's ruling that the Bridge was the sole proximate cause of the allision centers on the factual finding that the Bridge was opened to 67° the day of the accident and that opening the Bridge only to this angle was a violation of the bridge permit. Upon careful review of the record, we cannot conclude that the district court erred. There is sufficient evidence of record to support the district court's conclusion that the B & O Bridge was opened to only 67° , and that such a circumstance constituted an unreasonable and latent obstruction to navigation on the Calumet River. There is also sufficient evidence to support the conclusion that this failure to open fully the Bridge was the sole proximate cause of the accident.

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Initially, we note that, since the early days of this century, this court, consistent with Supreme Court precedent,⁶ has recognized that the right of navigation on the waterways of the United States is paramount to the right of a bridge spanning the navigable waterway. "Such a structure must be so maintained and operated that navigation may not be impeded more than is absolutely necessary." *Clement v. Metropolitan W. Side Elec. Ry.*, 123 F. 271, 273 (7th Cir.1903).⁷ Admiralty law thus makes clear that a bridge may not unreasonably obstruct free navigation. Indeed, federal statutory law stipulates that bridges may not "unreasonably obstruct the free navigation of any navigable waters." 33 U.S.C. Sec. 512; see 33 U.S.C. Sec. 491; 33 C.F.R. Pt. 117. Specifically, 33 U.S.C. Sec. 491 provides that it is unlawful for a bridge to deviate from its plans and specifications for its construction, as approved by the Army Corps of Engineers--formerly the Secretary of War--unless the modification of the bridge is previously submitted to and approved by the Secretary of Transportation. As we noted in *Chicago & W. Ind. R.R. v. Motorship Buko Maru*, 505 F.2d 579, 584 (7th Cir.1974), a bridge owner has the burden of demonstrating that a bridge that was not in compliance with its bridge permit did not and could not have contributed to the accident. See also *In re Great Lakes Towing Co.*, 348 F.Supp. 549, 554

(N.D.Ill.1972), *aff'd sub nom., Motorship Buko Maru*, 505 F.2d at 584; cf. *The Pennsylvania*, 86 U.S. at 136.

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The B & O Bridge's permit specified a fully opened position greater than 67°. The district court had before it undisputed evidence that, at the time of the accident, the Bridge could not have been raised to its permit-required 83°. If the Bridge had been raised to 79° 53'21", the accident would not have occurred, even if the Pontokratis was in direct contact with the west fender protection system. R. 371 at 17. The evidence at trial established that the Bridge was opened to a much smaller angle. There was certainly sufficient evidence to permit the district court to determine that the Bridge was opened to an angle of 67°. Folkstone's experts--marine surveyor George Leithner, mechanical engineer Donald Rudny, structural engineer Alan Tate and electrical engineer Ralph Armington--testified as to the angle of the Bridge at the instant of initial contact. By referencing the Pontokratis' construction plans and drafts, in combination with the Corps of Engineers' measurements from its river level gauge on the date of the accident, they determined that the height of the Pontokratis' port wing dodger at the time of contact was 69.9 feet. Evidence was presented that the initial contact on the dodger was 21 inches inboard of the extreme port corner of the dodger. Using triangulation, the experts concluded that the angle of the Bridge at the time of the collision was 67°. Examination of the gear racks of the Bridge indicated fresh deformations commencing at a position that indicated that the Bridge was open to 67°.

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Captain Turner and other experts testified that they believed that there was, at minimum, 120 feet of vertical clearance at the B & O Bridge because nautical charts listed the minimum vertical clearance for the four bridges at that section of the Calumet River at 120 feet. While the 1911 permit provides for neither an angle of opening nor horizontal or vertical clearances for the Bridge in a raised position, the court, given the state of the record, could conclude that 83° represented the Bridge's fully open position. The drawings submitted to the War department, while lacking a legend indicating an elevation angle, depict a bridge that opens to 83°. The War Department accepted such plans not as a depiction solely of its operational design, but rather the Bridge's intended "fully open" position. The Department consequently integrated the same plans in a permit when it approved them. Further, B & O was on notice that the Bridge did not comply with permit provisions as evidenced by the operational specifications in the E.L. Reeves letter of 1960,⁹ written in response to the Army Corps of Engineers' request that railroads ensure that their bridges comply with their respective permits. The electricians who made modifications to the Bridge in 1960 failed to comply with the Army Corps' mandates.

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We turn now to the district court's treatment of the condition of the bridge control panel after the allision. The record reveals that a survey of the console after the accident indicated that the "FULLY OPEN 83?" notice was illuminated. The bridge leaf angle gauge indicated an angle of 76-77? . At the time of the survey, the bridgetender, Mr. Minas, stated that the angle indicator always gave an inaccurate reading, and that it consistently indicated an angle of 76? when the "FULLY OPEN 83?" light was illuminated. We therefore cannot characterize as clearly erroneous the court's conclusion that the fully open position of the Bridge had been reset in 1960 to 67? , and that 67? was the angle to which the Bridge was raised on the day of the accident.

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In reaching this conclusion, we note that the court fully considered all the estimates of the elevation of the Bridge at the time of the allision. See R. 473 at 40. At the very least, the record supports varied, but inconsistent, explanations as to the condition of the control panel and controls. We cannot conclude that the district court took a view of the evidence that was not within the range of permissible interpretations. We recognize, according to the record, that neither the bridgetender on the day of the accident, Norman Minas, nor the other bridgetender who worked on the B & O Bridge in April and May of 1988, noticed any peculiarity involving the indicator lights on the control panel during the month preceding the allision. However, in tests performed on the control panel after the accident, the "NEARLY OPEN" light functioned properly, but the "67? OPEN" and "FULLY OPEN 83?" indicator lights would not illuminate. Investigation revealed that three of the wires in the limit switch box were connected differently than the bridge electrical plans instructed. Some evidence supported the hypothesis that if wires 214 and 214A were interchanged, and that interchange was the only wiring error, the result would be to interchange the angles of illumination for the "OPEN 67?" and "FULLY OPEN 83?" lights on the control panel. In addition, further investigation indicated that the fine indicator gauge was off calibration by ten to twelve degrees. This evidence supports the district court's view that the Bridge was likely opened to 67? on the day of the allision.

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2b.

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We turn now to the contention that the negligence of the pilot, Captain Turner, and the other members of the Pontokratis' crew was the proximate cause or at least a proximate cause of the allision.

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Generally, admiralty law presumes that, when a vessel under its own power allides with a fixed structure, the burden of proving absence of fault rests with the moving vessel. *The Oregon*, 158 U.S. 186, 192-93, 15 S.Ct. 804, 806-08, 39 L.Ed. 943 (1895). Folkstone does not contest this principle as a general proposition, but points out that it cannot be applicable in this case because the Bridge's failure to open to a degree specified in its permit constituted a latent defect. Folkstone submits that the crew of the *Pontokratis* was entitled to rely on the posted notices of the height of the Bridge and the displayed signal at the time of the passage.

46

We accept the general rule of *The Oregon* that there is a presumption of fault against a moving vessel that allides with a stationary object. "The presumption derives from the common-sense observation that moving vessels do not usually collide with stationary objects unless the vessel is mishandled in some way." *Wardell v. National Transp. Safety Bd.*, 884 F.2d 510, 512 (9th Cir.1989). The moving vessel may rebut the presumption by showing that the allision was the fault of the stationary object, that the moving ship acted with reasonable care, or that the allision was an unavoidable accident. *Brunet v. United Gas Pipeline Co.*, 15 F.3d 500, 503 (5th Cir.1994); *Cliffs-Neddrill Turnkey Int'l-Oranjestad v. M/T Rich Duke*, 947 F.2d 83, 86 (3d Cir.1991).

47

The application of this presumption, whether it be considered a rule governing the burden of persuasion¹⁰ or the burden of proof,¹¹ an issue that is not outcome determinative in our case, must be applied in a "common sense" manner that is rooted in "logic and experience." *Bunge Corp. v. M/V Furness Bridge*, 558 F.2d 790, 794 (5th Cir.1977), cert. denied, 435 U.S. 924, 98 S.Ct. 1488, 55 L.Ed.2d 518 (1978). Indeed, courts have recognized that, as a matter of pragmatic necessity, the Oregon Rule is not susceptible to rigid application in the case of a drawbridge. In *The S.S. Bellatrix*, 114 F.2d 1004 (3d Cir.1940),¹² the court described the situation facing mariners navigating a ship through the draw of a drawbridge in these terms:

48

The bed of navigable waters and the rocks located therein are indeed fixed, and to the mariner's knowledge, but such is not the case with the movable parts of a drawbridge. Its very purpose is that it may be moved out of the ship-way of the water course. The non-marine traffic which crosses over a drawbridge is subservient to the demands of navigation on the waters beneath. A ship may, therefore, proceed on her course toward a drawbridge upon the assumption that the draw will be opened timely,

especially where, as in the present case, the ship signals punctually for the opening and is answered affirmatively by the draw tender. Nor is a ship under any duty to stop before reaching a drawbridge in order that an examination may be made to determine whether the draw is operating efficiently.

49

The same approach was echoed, although in somewhat more specific terms, in *Pennsylvania Railroad v. S.S. Marie Leonhardt*, 320 F.2d 262, 264 (3d Cir.1963):13

50

The maritime tribunals view bridges as obstructions to navigation. The right of navigation is paramount; land traffic over the bridge is subservient thereto. Hence the rule has evolved that in approaching a drawbridge a ship having sounded proper signal may proceed on the assumption that the drawspan will be timely opened; the vessel is under no duty to heave to and critically examine the situation to satisfy itself that the drawspan is operating properly.

51

Rather, the "viable standards of reason and prudence, applied to the totality of the circumstances, determine the allocation of fault in each instance." *Id.*

52

It is true that the United States Coast Pilot warns mariners that unlimited vertical clearance is not available for bascule bridges. See R. 365, Ex. 1. However, this general warning does not support CSX's allegation that the mariners involved in this collision should have been aware that the B & O Bridge was elevated to 67', and that they would not have the full width of the Calumet River channel to transit. The record shows that Captain Turner, and the rest of the mariners on the river at the time of the collision, had an oblique view (primarily of the underside) of the bridges they were transiting. This view was not a right angle profile view of the bridges, but rather a view that was up to approximately 50' off the axis of symmetry of the Calumet River channel. Additionally, their view, at times, was obscured by the towers of the Conrail lift bridge. We recognize that record testimony exists from numerous witnesses that placed the elevation of the Bridge anywhere from 67' to 75'. We also recognize that mariners should rely on their "mariner's eye" to estimate angles and clearances while navigating on a body of water. However, under the circumstances presented here, the district court was entitled to conclude that it was not reasonable to expect that the mariners would detect the deviation in the opening of the B & O Bridge.

53

A mariner's eye is "informed" by his charts and maps. The trial evidence and testimony supports the conclusion that the mariners likely believed that they had 83? of clearance on May 6, 1988, and that the 67? elevation of the Bridge was a latent obstruction. 83? of clearance, estimated from the river, from the perspective of the mariners, "became" the actual 67? of elevation to which the B & O Bridge had been elevated since 1960, and with which the mariners associated the nautical chart statistics. The court also had before it, as did the mariners on the evening of the allision, the minimum vertical clearance of 120 feet listed for the series of four bridges on the Calumet. In short, the mariners had no reference from which to discriminate between a bridge raised to 83? and one raised 16? less.

54

The mariners simply had no notice that the vertical clearance was other than that stated in the applicable documentation. Accordingly, the mariners had no duty to avoid this latent obstruction, and they had the right to rely on the rule that a vessel has an unfettered right to navigate the full width of a water channel. See *Pennzoil Producing Co. v. Offshore Express Inc.*, 943 F.2d 1465, 1470-71 (5th Cir.1991). As the district court summed up, "[t]he fact that several experienced mariners were not able to perceive that the bridge was 16 degrees lower than it should have been, however, only further militates for the conclusion that overhang of the bridge at 67 degrees was latent and unreasonable." R. 473 at 58. This conclusion is compatible with the relevant law and cannot be reversed as a clearly erroneous finding.

55

In regard to Captain Turner and the alleged negligent navigational course that was "too close" to the B & O Bridge fendering system, the district court found that, despite CSX's assertion that the safest course through the bridge draw was the center, a course west of the center was prudent in order to ensure safe passage underneath the remaining bridges on the River.¹⁴ Under maritime law, a vessel has a right to navigate the entire channel in the absence of known obstacles. *Pennzoil Producing Co.*, 943 F.2d at 1470-71; cf. *Orange Beach*, 680 F.2d at 1382 (collecting cases); *Pennsylvania R.R.*, 320 F.2d at 265 (holding that, in the absence of a violation of the Inland Rules, vessel had right to take a course to the port side of the channel, and the course was a mere condition, and not a cause, of collision with bridge).

56

In 1910, when the War Department requested that all railroads alter their bridge structures to remove obstructions from the Calumet River, it intended to give vessels a clear channel not less than 140 feet in width (a width of 135-140 feet was eventually approved in 1916) for navigation. Because we have already determined that the defective condition of the Bridge's draw (i.e., the angle of inclination) on May 6, 1988 was not open and obviously visible, it follows that the district court's findings in regard to Captain Turner and his chosen course of navigation cannot be termed "clearly erroneous." The testimony of Captain Martin Connaughton confirmed that Captain Turner's transit of the B & O Bridge was routine, safe and reasonable, especially in light of the large size of the Pontokratis.

57

The district court was not convinced that Captain Turner's method of navigating the Pontokratis violated Inland Navigational Rule 7, Risk of collision, 33 U.S.C. Sec. 2007,¹⁵ by failing to discover the risk of collision, and Rule 8, Action to avoid collision, 33 U.S.C. Sec. 2008,¹⁶ by failing to take timely and positive action to avoid a collision.¹⁷ Therefore, there was no occasion to apply the Pennsylvania Rule and to place the burden on the mariners to show that their violation of any statute or regulation was not a proximate cause of the accident. See *supra* note 5. Because the record supports the finding of the district court that no negligence occurred in the navigation of the vessel, we cannot overturn its judgment.¹⁸

58

CSX next submits that one of the primary reasons that the Pontokratis allided with the B & O Bridge was the failure to post an adequate look-out. Rules 5 and 8 of the Inland Navigational Rules, 33 U.S.C. Secs. 2005,¹⁹ 2008, create a duty for mariners to maintain appropriate look-outs to monitor, to assess and ultimately to avoid the possibility of a collision. The duty to maintain a look-out is a paramount duty: "[I]n the performance of this duty the law requires indefatigable care and sleepless vigilance." *First Nat'l Bank v. Material Serv. Corp.*, 544 F.2d 911, 918 (7th Cir.1976) (citations and quotations omitted). However, CSX's contention that "there were no look-outs or the look-outs were simply not looking out," is not supported by the record, and the district court's determination concerning the Pontokratis' look-outs was not clearly erroneous. Two factors that the district court considered require that we not disturb its conclusion. First, there were lookouts on the Pontokratis who were in position to gauge the progress of the vessel through the draw of the Bridge and who could monitor the clearance from the fender protection systems. The Chief Officer of the Pontokratis was stationed at the bow of the vessel with the Bosun, the Apprentice Mate, and other members of the deck force. The Second Mate was stationed on the stern of the vessel with three other members of the deck force. Captain Pappamethodiu, the record demonstrates, stood on the port bridge wing watching the clearance off the bridge protection fenders on the port side. In addition, Captain Turner, the Pilot, stood in the front window of the wheelhouse and occasionally walked out to the bridge wings to check clearances on each

side of the vessel. The district court was entitled on such evidence to conclude that the adequacy of the look-outs played no role in the accident.

59

Second, the district court properly exercised its discretion when it concluded that other look-outs, performing their duties zealously, would not have provided any new or different information to the pilot regarding the distance of the Pontokratis to the port fendering system. Additional look-outs thus would not have prevented the allision. See *Ellis Towing & Transp. Co. v. Socony Mobil Oil Co.*, 292 F.2d 91, 96 (5th Cir.1961) ("[T]he question would exist whether such a lookout would have served any purpose. A ship may be negligent for failure to have a proper, vigilant lookout and yet not be held at fault where, for example, what the lookout would have learned was already known.").

60

CSX further submits that Captain Pappamethodiu was negligent by not ensuring that a complete pre-sail meeting was conducted before transit between himself, Captain Turner and the tugboat captains. CSX asserts that Captain Pappamethodiu breached his duty of care when he did not insist that Captain Turner and the tug captains reach a pre-sail agreement on a towing plan and the manner in which the flotilla would be maneuvered through the B & O Bridge; Great Lakes Towing Company regulations state that a thorough discussion between the Master and Pilot should occur concerning maneuvering procedures required of the vessel and the tugs.

61

The district court was satisfied with the adequacy of the evidence in regard to the pre-sail meeting. Captain Pappamethodiu had dinner with Captain Turner prior to transit at approximately 4:30 p.m., and later, Captain Turner had discussion with the tug boat captains via VHF radio. We cannot accept the proposition that the court erred. CSX has failed to highlight evidence that would establish that a more extensive meeting would have prevented the vessel from striking the low overhang of a bridge that was raised to an angle of inclination that represented a latent obstruction.

62

Similarly, CSX's allegation that Captain Pappamethodiu negligently failed to ensure that radio communication between the Pontokratis and the tugs was maximized is not supported by the record, and the district court was under no obligation to make such a finding. We note that a continuous VHF radio channel was maintained between the tugs and the vessel throughout the transit. It is of no

consequence that there was little communication conducted via radio; as the district court stated, "there was no reason why Captain Pappamethodiu should have known that Captain Turner's navigating the vessel in the navigable waters adjacent to the west bank of the river, to the west of the centerline of the draw, was imprudent navigation." R. 473 at 49. The radio pre-sail conference which informed the participating mariners how, as a general manner, the transit would proceed was adequate.

63

The evidence of record fails to indicate that a course west of center on the Calumet River was imprudent and that any radio warning should have been proffered when it became apparent that the Pontokratis would transit the B & O draw within 6 to 12 feet of the west fendering system. Because none of the mariners involved had any advance warning that the angle of the B & O Bridge would not allow the Pontokratis to navigate the full width of the draw, radio communication was sufficient to support the conclusion that no fault of the allision derived from radio communication or the lack thereof.

64

CSX also submits that the tug captains and Great Lakes Towing failed to use reasonable care and maritime skill of a prudent navigator in performing their towing duties. See *King Fisher Marine Serv., Inc. v. The NP Sunbonnet*, 724 F.2d 1181, 1184 (5th Cir.1984). The responsibilities CSX alleges the tugs failed to carry out include: the failure of Captains Kelley and Thayer to have a pre-sail discussion with Captain Turner and Captain Pappamethodiu; the failure of the tugs to alert the Pontokratis of the danger of transiting the draw of the B & O at such close proximity to the west fender; and the failure to keep adequate look-outs on the tugs. Given the latency of the bridge elevation, nothing indicating a risk of collision was apparent to the tugs that mandated that they alert the Pontokratis and its pilot. For example, Mr. Neilan, a witness to the allision from his charter boat the Saltshaker, 500 feet astern of the Pontokratis, testified that there was no contact between the Pontokratis and the west fender. This testimony supports the conclusion that the tugs had no notice that the Pontokratis was not clear of a dangerous obstruction. The record also supports the finding that the tugs did not have an opportunity to monitor the position of the superstructure of the vessel in relation to the B & O Bridge; the tugs' views were obscured by the proximity of their boats to the Pontokratis during the transit.

65

Again, the district court did not clearly err when it determined that the tugs and their respective captains were not negligent in the performance of their duties.

66

[A] tug is bound to act and avoid, so far as reasonable care and skill can do it, dangerous points in navigation upon the voyage undertaken, which are known or should have been known to a master in charge of the tug. To do more would be to hold her to that degree of care which would make the tug responsible as an insurer. Navigators are not to be charged with negligence unless they make a decision which nautical experience and good seamanship would condemn as unjustifiable at the time and under the circumstances shown.

67

The W.H. Baldwin, 271 F. 411, 413 (2d Cir.1921). As we have stated previously, the court properly exercised its discretion when it determined that the Bridge, on the day of the accident, was elevated to 67? , and this elevation represented a latent obstruction, preventing the tugs and their respective captains from exercising any more reasonable care than they did.

68

The transit of the Pontokratis was not a "deadboat" tow; the Pontokratis was under her own steerage and power, and the tugs did not provide pilotage services. Further, the tugs were operated according to instructions given by Captain Turner. No complaints concerning the ability of the tugs to follow orders is indicated in the record, nor did trial witnesses comment at any length on actions they believed the tugs conducted negligently or improperly.

3.

69

In sum, we conclude that the district court did not clearly err in finding that the Bridge was improperly elevated to 67? on the day of the accident, and that this improper elevation was the sole and proximate cause of the allision. The court considered all of the evidence carefully and thoughtfully and determined that CSX was solely liable. The physical circumstances of the allision support the district court's view that, at the time the Pontokratis struck the B & O Bridge, the Bridge was not raised to the level specified in its War Department permit. It was negligent for the B & O electricians in 1960, working on the Bridge, to rewire the operation of the Bridge so that its elevation level was limited to a level lower than an angle of 83? . The Railroad has not sustained its burden of proof by demonstrating that a failure to elevate the Bridge to 83? was not the cause of the allision. The purpose of the Bridge permit was to ensure that vessels could navigate the entire Calumet channel of approximately 135 feet up to a height of, at

minimum according to navigational charts, 120 feet. If the Bridge had been raised to 80? , the Pontokratis would not have contacted any part of the Bridge, even if it had touched the west fendering protection system.

70

The record supports the conclusion that Folkstone, Great Lakes Towing and Captain Turner conducted their operations with reasonable care, and that the method in which they executed their duties on May 6, 1988, did not cause the allision. The district court was entitled to conclude that the Pontokratis and Folkstone Maritime, and Captain Turner and Great Lakes Towing did not violate any statute, regulation or admiralty rule that would impose at least partial liability upon them. Sufficient evidence was presented by them to overcome the presumption of fault when a moving vessel allides with a stationary object.

Conclusion

71

Accordingly, for the reasons stated above, the judgment of the district court is affirmed.

AFFIRMED

1

The term "allision" means "the action of dashing against or striking with violence upon"; thus in admiralty law an allision is the violent encounter of a moving vessel and a stationary object such as another vessel, a bridge, a pier, a wharf, or other shoreside installation. 2 Thomas J. Schoenbaum, Admiralty and Maritime Law Sec. 14-2, at 254 (2d ed. 1994)

2

The U.S. Army Corps of Engineers succeeded the War Department as the entity in control of bridges over navigable waters

3

On April 20, 1960, E.L. Reeves, superintendent of the Chicago Division of the B & O Railroad, wrote to W.F. Peters, division operator in charge of the tower operations. Quoted in relevant part:

"Necessary electrical and mechanical adjustments have been made to Bridge 258/0, South Chicago, which permits operating bridge to the fully opened 83 degree limit.

"Electrical Engineer, Mr. H.P. Wright, is preparing permanent instructions covering this revision and operating procedure In the meantime, will you please issue temporary instructions as follows:

"Bridge Operators will open the span to the 67 degrees normally. When excessively high boats are to move through the draw, the Operator will open the bridge to the full 83 degree position. To open to 83 degrees it will be necessary to open to the normal 67 degree position as in the past. When this position is reached, step on "Seating Switch" and also press FULLY OPEN 83 DEGREE PUSH BUTTON, and advance master switch to RAISE position 3 or less (advancing beyond point 3 shuts off motors). Bridge will stop and motor brakes will set automatically when 83 degree position is reached and fully open 83 degree red light will go on. To close bridge proceed in the same manner as before. No changes have been made in "LOWER" operation."

4

American law draws a distinction between the "voluntary pilot," who is taken on voluntarily, and the "compulsory pilot" [like Captain Turner], who is mandated by a statute or local regulation. The voluntary pilot is considered to be the same as any crew member, and his fault is fully attributable to the vessel owner. A compulsory pilot's fault, however, is not imputed to the ship owner personally; the doctrine of respondeat superior does not apply. 2 Thomas J. Schoenbaum, Admiralty and Maritime Law Sec. 14-2, at 262 (2d ed. 1994). Accordingly, CSX sued Captain Turner in his individual capacity, but did not need to do the same with Captain Pappamethodiu

5

See *Belden v. Chase*, 150 U.S. 674, 698-99, 14 S.Ct. 264, 271, 37 L.Ed. 1218 (1893) (holding that rules for preventing collisions, both statutory and regulatory, are not merely "prudent[ial]", but binding enactments, obligatory from the time that the necessity for precaution begins, and continuing so long as the means and opportunity to avoid the danger remain.... Masters are bound to obey the rules, and

entitled to rely on the assumption that they will be obeyed, and should not be encouraged to treat the exceptions as subjects of solicitude rather than the rules.") (citations omitted); *The Admiral Cecille*, 134 F. 673, 677 (D.Wash.1905) (applying the Pennsylvania Rule for violations of state statutes and local ordinances that facilitate navigational safety); see also *Pennzoil Producing Co. v. Offshore Express, Inc.*, 943 F.2d 1465, 1471-72 (5th Cir.1991) ("The Pennsylvania rule states that when, at the time of a collision, a ship is in actual violation of a statutory rule intended to prevent collisions, it is no more than a reasonable presumption that the fault, if not the sole cause, was at least a contributory cause of the disaster.... The rule allocates the burden of proof, transferring it to the party in violation of a statute or regulation. If that party is to escape liability for the loss, it must prove not just that its violation probably was not, but in fact, could not have been a cause of the collision.") (citations omitted); *United States v. Nassau Marine Corp.*, 778 F.2d 1111, 1116 (5th Cir.1985) ("Under the Rule of The Pennsylvania, a party who fails to observe a safety regulation has the burden of showing not merely that [its] fault might not have been one of the causes [of the loss], or that it probably was not, but that it could not have been.... The Rule has, however, been criticized as a 'drastic and unusual presumption,' and generally has been limited, at least in cases not involving collisions and allisions, to violations of statutes intended to prevent the injury that actually occurred.") (citations and quotations omitted); *Harbor Tug & Barge, Inc. v. Belcher Towing Co.*, 733 F.2d 823, 825 (11th Cir.1984) ("The violation of a safety provision designed to prevent collisions has always been viewed harshly in admiralty. See *The Pennsylvania*, 86 U.S. (19 Wall.) 125, 22 L.Ed. 148 (1874) (imposing on one shown to have violated such a rule the burden of proving that its fault "could not have been" one of the causes of the collision)."); *Florida E. Coast Ry. v. Revilo Corp.*, 637 F.2d 1060, 1064 (5th Cir. Unit B Feb. 1981) (applying Pennsylvania Rule in context of violation of statutes concerning the operation of a bridge)

6

See *West Chicago St. R.R. v. Illinois*, 201 U.S. 506, 520, 26 S.Ct. 518, 521, 50 L.Ed. 845 (1906) (considering the rights of a railroad company that constructed a tunnel under a river and concluding that "in a navigable stream the public right is paramount, and the owner of the soil under the bed of such a stream can only use and enjoy it in so far as is consistent with the public right, which must be free and unobstructed; that the title to the upland is absolute and paramount, while the title to the lands over which the navigable water flows is subordinate to the public right of navigation") (citations and quotations omitted)

7

"A bridge spanning a navigable river is an obstruction to navigation tolerated because of necessity and convenience to commerce upon land. Such a structure must be so maintained and operated that navigation may not be impeded more than is absolutely necessary, the right of navigation being paramount. It is incumbent upon the owner that the bridge be so constructed that it may be readily

opened to admit the passage of craft, and maintained in suitable condition thereto." Clement, 123 F. at 273

8

The district court noted, among other things, that witnesses familiar with the position of the open B & O Bridge estimated that its angle was 67 . Also noted was a public hearing in 1926 concerning the construction of a bascule bridge over the Chicago River. At that hearing, a B & O representative, the engineer during the years of construction of B & O Bridge 258/0 on the Calumet River, stated, "All our bascule bridges open up around 80 to 83 degrees." R. 473 at 35 n. 13

9

See E.L. Reeves Letter, supra n. 3

10

See Pennsylvania R.R. v. S.S. Marie Leonhardt, 320 F.2d 262, 264 (3d Cir.1963) (holding presumption disappears when both sides fully presented testimony regarding their version of what happened prior to the collision)

11

See Bunge Corp. v. M/V Furness Bridge, 558 F.2d 790, 795 n. 3 (5th Cir.1977) (holding that the presumption affects the burden of proof), cert. denied, 435 U.S. 924, 98 S.Ct. 1488, 55 L.Ed.2d 518 (1978). But cf. S.C. Loveland, Inc. v. East W. Towing, Inc., 608 F.2d 160, 165 n. 3 (5th Cir.1979) (citing Pennsylvania R.R. v. S.S. Marie Leonhardt, 202 F.Supp. 368, 376 (E.D.Pa.1962) with approval and remarking that "any presumption that a moving vessel colliding with a fixed portion of a bridge is negligent disappears when evidence is presented"), cert. denied, 446 U.S. 918, 100 S.Ct. 1852, 64 L.Ed.2d 272 (1980)

12

In this case, the bridge only partially opened on one side and the ship allided with the structure while passing through the draw

13

In this case, the vessel allided with a bridge that failed to open as the ship approached

14

There exists a bend in the Calumet river between the B & O Bridge and the 95th Street Bridge. The 95th Street Bridge is located approximately 1000 feet north of the B & O

15

33 U.S.C. Sec. 2007 provides:

(a) Determination if risk exists

Every vessel shall use all available means appropriate to the prevailing circumstances and conditions to determine if risk of collision exists. If there is any doubt such risk shall be deemed to exist.

(b) Radar

Proper use shall be made of radar equipment if fitted and operational, including long-range scanning to obtain early warning of risk of collision and radar plotting or equivalent systematic observation of detected objects.

(c) Scanty information

Assumptions shall not be made on the basis of scanty information, especially scanty radar information.

(d) Considerations taken into account in determining if risk exists

In determining if risk of collision exists the following considerations shall be among those taken into account:

(i) such risk shall be deemed to exist if the compass bearing of an approaching vessel does not appreciably change; and

(ii) such risk may sometimes exist even when an appreciable bearing change is evident, particularly when approaching a very large vessel or a tow or when approaching a vessel at close range.

16

33 U.S.C. Sec. 2008 provides:

(a) General characteristics of action taken to avoid collision

Any action taken to avoid collision shall, if the circumstances of the case admit, be positive, made in ample time and with due regard to the observance of good seamanship.

(b) Readily apparent alterations in course or speed

Any alteration of course or speed to avoid collision shall, if the circumstances of the case admit, be large enough to be readily apparent to another vessel observing visually or by radar; a succession of small alterations of course or speed should be avoided.

(c) Alteration of course to avoid close-quarters situation

If there is sufficient sea room, alteration of course alone may be the most effective action to avoid a close-quarters situation provided that it is made in good time, is substantial and does not result in another close-quarters situation.

(d) Action to result in passing at safe distance

Action taken to avoid collision with another vessel shall be such as to result in passing at a safe distance. The effectiveness of the action shall be carefully checked until the other vessel is finally past and clear.

(e) Slackening of vessel speed; stopping or reversing means of propulsion

If necessary to avoid collision or allow more time to assess the situation, a vessel shall slacken her speed or take all way off by stopping or reversing her means of propulsion.

17

We note that the district court concluded, favorably to CSX, that the Pontokratis was only approximately six feet from the west fender protection system at the time of the allision. R. 473 at 24

18

We note that, even if the district court had found negligence, it would be entitled to disregard that finding if it determined that the negligence was not a proximate cause of the accident. *Gosnell v. United States*, 262 F.2d 559, 563-64 (4th Cir.1959)

19

Rule 5 provides:

Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.