

UNITED STATES COAST GUARD
WASHINGTON, D. C.

MVI
30 January 1953
(ARTHUR N. HERRON & Tow
a-3 Bd)

From: Chief, Merchant Vessel Inspection Division
To: Commandant
Via: Chief, Office of Merchant Marine Safety

Subj: Marine Board of Investigation; fire involving Tug ARTHUR
N. HERRON and tow, Schuylkill River, 18 November 1952,
with loss of life

1. Pursuant to the provisions of Title 46 C.F.R. Part 136, the record of the Marine Board convened to investigate subject casualty, together with its Findings of Fact, Conclusions, and Recommendations, has been reviewed and is forwarded herewith.

2. On 18 November 1952, during the nighttime, the motor tug ARTHUR N. HERRON, 175 g.t., with a loaded mud scow alongside, was under way in the Schuylkill River, engaged in local towage. In the vicinity of Yankee Point, she evidently entered into an area or space of inflammable or combustible material which apparently was ignited by the flame of an oil lantern on the scow; immediately the tug and tow became enveloped in a sea of flame. The weather was clear and calm and the tide had just begun to flood. As a result of this casualty the ARTHUR N. HERRON suffered fire damage and the following two crew members lost their lives:

Arthur Milan, Engineer
[REDACTED] Deckhand

3. The Board made the following Findings of Fact:

"1. The tug ARTHUR N. HERRON sustained damage to her superstructure above the main deck as a result of encountering an area of burning material in the Schuylkill River, Philadelphia on 18 November 1952 at about 2230 EST. Two crew members of the HERRON were unaccounted for after the fire and later one body was recovered; the other is still missing and presumed dead.

"2. The ARTHUR N. HERRON, Official No. 223540, is a diesel powered tug of 175 gross tons, built in 1924 and is uninspected. She is owned and operated by the American Dredging Company of 12 South 12th Street, Philadelphia, Pa., and is customarily employed in dredging operations in or near the Philadelphia waterfront. At the time of the casualty [REDACTED]

was in command of the vessel. Mr. [redacted] holds no valid seaman's certificate, but at one time held a motorboat operator's license which had expired.

3. The weather at the time was clear, light air and the sea smooth, and the tide had just begun to flood. The tidal currents are not strong in the Schuylkill.

4. The personnel who lost their lives are as follows:

Arthur Milan, Norristown, N. J., Engineer (body recovered)
[redacted], Deckhand

5. The ARTHUR N. HERRON, with a loaded, unmanned mud scow #122 made fast alongside to port, left the Dredge BALTIC at Point Breeze, Philadelphia, at about 2135, 18 November 1952. Prior to leaving the BALTIC the HERRON had delivered a light scow alongside and intended to tow the loaded #122 to a mooring at Mantua Creek. On the trip up the river and again when she left the BALTIC, the scows carried open flame lanterns on each outboard corner as running lights. After the HERRON squared away downbound in the river with her tow, she proceeded uneventfully as far as a point below the bend at Yankee Point when the acting master, who was at the wheel, blew the whistle to call a seaman to the wheelhouse.

[redacted], who was in the galley, answered the call and relieved [redacted] who went below to the galley. He obtained his coffee and stepped out on deck on the starboard side to talk to the engineer, Milan. At this moment the tug, without any warning, was enveloped in a sea of flame.

[redacted] jumped into the engine room and ordered the engines stopped. He then ordered them full astern, an order which was also carried out while an attempt was made to close the ports and doors to keep out the smoke and flame. He then ordered the engines stopped and shouted for all hands to jump overboard, as he himself headed for the stern.

6. [redacted], oiler, stated that soon after making his ten o'clock round, he noticed a peculiar smell and on going to a port hole on the port side was suddenly confronted with a wall of flame. He shut the port and retreated to the center of the engine room where he encountered [redacted], a deckhand, in the smoke. They obtained life jackets and made their way out of the engine room aft where they jumped overboard. [redacted] remembers seeing the lower part

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of the engineer's body through the smoke near the throttle and he did not see him thereafter. [REDACTED] also stated that he heard an explosion just before he noticed the flames.

"7. [REDACTED], cook, was in his bunk in the after room on the main deck, having gone there when [REDACTED] relieved [REDACTED] at the wheel. He was reading, with a radio turned on when he heard the sound of an explosion, the force of which parted the rope yarn with which the door was secured, blowing it open. The ship seemed to be immediately enveloped in flame, and as he tried to leave the room his pajamas caught fire. He attempted to go amidships to the engine room and reached the starboard door where he saw Milan at the throttle and the captain, who shouted to get out. [REDACTED] jumped over the stern, and later in the hospital was found to have sustained first and second degree burns.

"8. [REDACTED], the other survivor, was in the galley when the fire was noticed and he followed the captain towards the engine room. He also saw Milan just prior to leaving the engine room. He was pushed overboard by [REDACTED]. [REDACTED] also testified that he saw Milan jump over the stern into the river and he heard calls for help from him, but in his anxiety to get ashore, did not pay any more attention to his shipmate. [REDACTED] was also treated for first degree burns.

"9. All four of the survivors came from the burning HERRON to the Gulf Refining Company dock about 800 feet upstream from Pascouet Avenue Bridge, where they were assisted from the water by Gulf Refining Company employees. None were seriously injured but were taken to the St. Agnes Hospital.

"10. Two employees of the Gulf Refining Company, Mr. [REDACTED] [REDACTED] were eyewitnesses to the entire incident with the exception of the actual start of the fire. Both stated that while engaged in their several duties, [REDACTED] in a position

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When the fire and Horcross below it, their attention was attracted to the sudden glare in the sky. Each ran towards it, Horcross stopping to sound a fire alarm, and they reached the river bank where they saw the HERRON and her tow enveloped in flames. [redacted] described the fire, "like the top of a rug", burning on the surface of the river. They also estimated that the burning area extended from a point about 200 feet above the Penrose Avenue Bridge to a point above of the acid dock of the Gulf Refining Company, and from mid channel towards the western bank. [redacted] had looked at a clock just before he noted the glow of flame and placed the time as 2226 or 2227, and this is considered the most accurate time given of all the witnesses. Both of the men, assisted by other Gulf employees attracted to the scene, saw the crew of the HERRON swimming for shore and helped them from the water as soon as they came within reach."

4. The Board made the following Conclusions:

"1. The most probable cause of this casualty was the presence of an inflammable substance at or near the surface of the Schuylkill River and covering an area of about 500 yards long by 100 yards wide in a westerly direction from the center line of the channel, and extending in a northerly direction from a point about 200 feet north of the Penrose Avenue Bridge. The most probable igniting agent for the substance was considered to be the two open flame lanterns carried on the outboard corners of scow #122.

"2. None of the surviving witnesses actually saw the beginning of the active combustion, even though all were within a few feet of the water surface due to the size of the tug. The only positive witness, as disclosed in the investigation, who might have seen the beginning of the fire was the helmsman, Worrell, and he did not survive.

"3. It is also deduced from the testimony that the inflammable substance was probably not on the river an hour prior to the casualty, when the HERRON transited the area with the same rig.

"4. The banks of the Schuylkill River from the mouth to Point Breeze, Philadelphia provides water access to

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the U. S. Navy Yard, the Gulf Refining Company at Girard Point and the Atlantic Refining Company at Point Breeze. These are all on the easterly or Philadelphia side of the river, and the Standard Oil Company has a pier at Harkness Point, across the river from the Point Breeze property of the Atlantic Refining Company. The remainder of the western bank to the mouth is low, swampy and part has been used as a municipal dump. Several pipelines, the property of the Gulf Refining Company, pass under the river in the area under discussion. The possible sources of an oil spill in the immediate vicinity were two Gulf tankers, the GULFLOB and the GULFRING. The hulls of each of these vessels were inspected and bore no signs of an oil spill, or any marks of recent cleaning. Above the scene of the fire and around a bend in the river were the oil barges MORAVIA, FRANKLIN and W. A. WEBER, all at the Atlantic Refining Company. A dry cargo vessel, the ROBIN KETTERING, was also at their docks, but all of these vessels were over a mile above the fire and behind two bends in the river channel, hence there is considered little likelihood that a spill in their area of the river could have drifted to the scene of the fire. Across the river from the Atlantic Refining Company piers, the GATCO #7, another oil barge was loading gasoline at Harkness Point. The possibility of her supplying the oil was also considered unlikely for the same reasons as the vessels at the Atlantic Docks, that is, the configuration of the river banks and the distance from the scene of the fire. At the U. S. Navy Yard on the Schuylkill side, at wharves George and How, there were several craft, some in and some out of commission. These also were considered unlikely sources, again on account of the configuration of the river, the distance from the scene of the fire and the fact that the tide had been ebbing until just before the casualty. Each agency having frontage on the river was questioned for a possible source of an oil patch that might have caused the fire, but all denied any possibility of such an occurrence. It was further pointed out by Gulf Refining officials that the fire never burned beyond the mid channel line in the direction of their piers, another indication that the source of the fire did not originate on the eastern side.

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"5. The possibility that fuel oil had been spilled from road building machinery on the Fenrose Avenue Bridge was also considered, since the fire was only a short distance above the bridge. A close scrutiny of the entire bridge structure disclosed no evidence of an oil spill. The foreman in charge of the road building operations stated that no night work was done on the bridge and due to deprecations to his gear, he customarily had all working material including all the machinery, moved from the bridge, locked up under guard in a construction shanty about a mile from the river bank on the western side. His explanation was supported by the Philadelphia Police who patrol the bridge and in the light of the conditions observed by the Board, was considered adequate.

"6. The possibility of the fire originating on the tug or scow was eliminated in the latter instance by the steel hull and the load of water and mud, and in the case of the former in that the fire only burned the superstructure and the character of the damage plainly indicated burning from without. There were no indications of any fire below the main deck of the HARRON.

"7. Consideration was given also to the type of material that might have caused the fire and here too direct evidence was lacking. The lifebelts used by the survivors showed no evidence whatsoever of having been in contact with any petroleum or derivative of petroleum. As a matter of fact, one of the block cork type belts which had been used was remarkably clean. Other than the cook, who was not considered the most reliable witness, none of the survivors tasted oil on the water when they jumped overboard, nor did any complain of any oily substance in their eyes or ears, an almost inevitable concomitant of swimming in oil polluted water.

"8. Representatives of the City of Philadelphia Fire Department and the U. S. Army Corps of Engineers attended the investigation and each confessed himself to be as baffled as the Board as to the material that caused the fire or an explanation for its presence on the river.

7. Since [redacted], the helmsman, and only possible eye-witness to the start of the fire, died as a result of this casualty; and since the combustible material on the surface of the water was consumed by the fire, it is considered that the two best sources which could have led to some identification of the agent which caused the fire were destroyed by it. It is further considered that the casualty was of the "freak" variety, a combination of circumstances so unusual as to render a recurrence extremely unlikely."

5. The Board made the following Recommendation:

"1. Inasmuch as no licensed or certificated personnel were involved in the casualty, no action under R.S. 4450 is considered indicated and none is recommended. Further, the HARRON was uninspected and no Coast Guard approved material was involved. It is therefore recommended that the case be closed with no further action."

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6. It is recommended that the Findings of Fact, Conclusions, and Recommendation of the Marine Board of Investigation be approved.

/s/EDW. A. RICHMOND
EDW. A. RICHMOND
Acting

MVI ENDORS-INT TO MVI memorandum of 30 January 1953

3 February 1953

From: Chief, Office of Merchant Marine Safety
To: Commandant

Forwarded, recommending approval.

/s/H. C. SHEPHEARD
H. C. SHEPHEARD

MVI INT: 4 FEB 1953

/s/ MERLIN O'NEILL
MERLIN O'NEILL
Vice Admiral, U.S. Coast Guard
Commandant