

101
8 January 1954
(SILVERPEAK - a-3 hd)

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

Subj: Marine Board of Investigation; SS SILVERPEAK, pierproc casualty
at Carteret, New Jersey, on 17 August, 1953 with loss of life

1. On 17 August 1953 the SS SILVERPEAK, a tanker of 10,448 g.t., was discharging her cargo of gasoline at Carteret, New Jersey. Due to transfer pump packing gland leakage, a heavy volume of vapors concentrated in the pump room, which vapors could not be exhausted due to the fact that the mechanical exhaust fan rotor was operating in a reverse direction or backwards. While engaged in the repair of the leaking packing gland and unaware of the deficiency in the exhaust system, the First Assistant Engineer was overcome by the heavily concentrated vapors which resulted in his death by asphyxiation.

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

3. It is recommended that the Findings of Fact, Opinions and Recommendations of the Marine Board of Investigation convened to investigate subject casualty be approved.

(signed) P. A. Ovenden

P. A. OVENDEN

FIRST ENDORSEMENT ON MVI memorandum of 8 January 1954

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18 January 1954

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

Forwarded, recommending approval.

(signed) H. C. Shephard
H. C. SHEPHEARD

APPROVED:

(signed) Merlin O'Neill

MERLIN O'NEILL

Vice Admiral, U. S. Coast Guard
Commandant

20 JAN 1954

REPORT OF A
MARINE BOARD OF INVESTIGATION

Convened on board
the SS SILVERPEAK at Norfolk, Virginia
on 29 August, 1953

To inquire into and investigate the pumproom casualty on board
the tanker SS SILVERPEAK, at Carteret, New Jersey, on 17 August, 1953
with loss of life.

After full and mature deliberation, the board finds as follows:

FINDINGS OF FACT

While discharging grade "B" gasoline at Carteret, New Jersey on 17 August 1953 aboard the tank ship SS SILVERPEAK a casualty occurred which resulted in the death by asphyxiation of the First Assistant Engineer, Mr. Anthony J. Blazejowicz and the hospitalization of the Second Assistant Engineer, Mr. Eugene F. Feuchts, who had been almost asphyxiated.

On 29 August 1953 aboard the same tank ship, the SS SILVERPEAK, which was then discharging a cargo of grade "B" gasoline at South Norfolk, Virginia another similar casualty occurred which resulted in the hospitalization of the Pumpman, Ellsworth M. Smith, after his having been overcome by fumes in the pumproom.

The circumstances surrounding both casualties were similar. On 17 August 1953 at Carteret, New Jersey the packing failed on the No. 1 cargo pump causing the pump glands to leak badly. On 29 August 1953 at South Norfolk, Virginia, the packing failed on the No. 3 cargo pump, causing that pump's glands to leak badly. In both instances the mechanical exhaust ventilating system in the after pumproom was ineffective in removing the gasoline fumes due to the fact that the mechanical exhaust fan rotor was operating in a reverse direction or backwards.

1. The vessel involved was the SS SILVERPEAK, official No. 245 497; modified type T-2 SEA-1 tank vessel; home port, Wilmington Delaware; gross tons, 10,448; built, 1944; hull, steel; last inspected, 9 June 1953 at Jacksonville, Florida. She was owned and operated by the National Bulk Carrier's Inc., 600 Fifth Avenue, New York, N. Y.

2. The weather was clear at the time of the casualty on 17 August 1953; however, it had been raining practically all that day. The wind velocity was calm to light airs. Temperature, 69° F.

3. The vessel arrived at the Pan-American Oil Dock, Carteret, New Jersey, with a cargo of grade "B" gasoline consisting of 33,000 barrels of Amoco unleaded gasoline and 103,000 barrels of Housebrand gasoline at about 1:45 p.m. of 17 August 1953.

4. On commencing discharge operations at about 2:00 p.m., 17 August 1953, Chief Officer Henry B. Hannum was in charge, assisted by Chief Pumpman Ellsworth M. Smith, and the watch on deck consisting of Able Seaman Bishop and Ordinary Seaman Welling.

5. The pumpman, Smith, was excused from the watch after lining up, starting and checking the discharging pumps. He was excused because he had worked long hours just prior to the commencing of the unloading operation. He was not awakened until action in regard to the casualty had been completed.

6. At about 2:45 p.m. Chief Officer Hannum went aft and in the first assistant engineer's quarters, in the presence of the first and second assistant engineers, requested that one of the engineers check the cargo pumps before leaving the vessel that evening. The first assistant engineer, Mr. Blazejowicz, was taking a bath at the time and the second assistant engineer, Mr. Feuchts, was seated in the stateroom.

7. The second assistant engineer, Mr. Feuchts, shortly before 3:00 p.m., in response to the Chief Officer's request, descended into the pumproom and checked the pumps. He found the number one pump to be leaking and came up to notify Mr. Blazejowicz of the leaking pump. While attempting to locate Mr. Blazejowicz, he notified the chief engineer of the leaking pump.

8. The second assistant engineer, Mr. Feuchts, again descended into the pumproom after 3:00 p.m., to attempt to tighten the suction side packing gland of the number one pump. The chief engineer, Mr. Smith, followed the second assistant engineer, Mr. Feuchts, into the pumproom and was followed in turn by the chief officer, Mr. Hannum.

9. The chief officer and the chief engineer came out of the pumproom a little groggy because of the heavy concentration of gasoline fumes. The second assistant, Mr. Feuchts, remained below in the pumproom. The chief officer, Mr. Hannum, upon reaching the main deck told the second mate, Mr. Collette, to watch the engineers in the pumproom below.

10. The second mate then at approximately 3:20 p.m., saw the second assistant engineer, Mr. Feuchts, pass out on the floor plates in the pumproom. The word was passed to obtain fresh air breathing apparatus.

11. The chief engineer, the chief officer and the second mate went down into the pumproom and attempted to carry out the unconscious Mr. Feuchts. The attempt was unsuccessful and the first assistant engineer, Mr. Blazejowicz, assisted in lowering the body of Mr. Feuchts to the floor plates. It was at this time that the presence of Mr. Blazejowicz in the pumproom first became known to the chief engineer and the chief officer.

12. The chief engineer, the chief officer and the second mate then climbed out of the pumproom. The chief engineer had blanked out when he gained the main deck. The second mate notified the master, Captain Kapelowitz at about 3:20 p.m. that Mr. Feuchts was unconscious in the pumproom and that he, Mr. Collette, thought the first assistant engineer was also in the pumproom. The chief officer, upon reaching the main deck, ordered the fresh air mask rigged and hollered off to the dock personnel to get an ambulance and a first aid outfit.

13. The first assistant engineer, Mr. Blazejowicz, when last seen alive was well under the influence of gas vapors or "gassed up" and was attempting to get fresh air under the draft cowl-type supply ventilator.

14. Captain Kapelowitz, upon being notified of the casualty, departed immediately for the pumproom. He donned a fresh air breathing apparatus, which was on hand when he arrived, descended into the pumproom and attached a leather rescue harness to the second assistant engineer, Mr. Feuchts, whom the master had found unconscious on the floor plating in the vicinity of the stripping pump.

15. This second attempt to get Mr. Feuchts out of the pumproom, using for the first time a block and tackle, failed when the leather harness slipped on the sweaty body of Mr. Feuchts, and he was again lowered to the floor plates. The captain again descended into the pumproom and tightened the harness on the second assistant engineer and he was then hauled out on deck at about 3:40 p.m.

16. Captain Kapelowitz, in making two trips into the pumproom to assist in getting the unconscious Mr. Feuchts out of the pumproom, did not see the first assistant engineer, Mr. Blazejowicz, in the pumproom.

17. Emergency first aid treatment and oxygen was given to Mr. Feuchts by the Carteret First Aid Company. He was later removed, still unconscious, to the Perth Amboy Memorial Hospital, Perth Amboy, New Jersey. He regained consciousness at the Perth Amboy Memorial Hospital, Perth Amboy, New Jersey, and was removed on 20 August 1953 to the U. S. Public Health Service Hospital, Stapleton, Staten Island, New York.

18. After the second assistant engineer had been rescued, the master was told by the chief officer, Mr. Hannum, that the first assistant engineer, Mr. Blazejowicz, was still in the lower pumproom.

19. The chief mate, Mr. Hannum, then donned the fresh air breathing apparatus, descended into the pumproom and located the first assistant, Mr. Blazejowicz, unconscious and wedged between the port sea suction and the bulkhead in such a manner that he, Mr. Hannum, could not move him. Mr. Hannum then went immediately back on deck.

20. Able Seaman George Balshaco and Wiper L. Clark, both equipped with oxygen breathing apparatus, furnished by the Carteret First Aid Company, then went down into the pumproom, secured a line around the first assistant engineer, Mr. Blazejowicz, and guided the unconscious body of Mr. Blazejowicz as it was hoisted out of the pumproom at about 4 p.m.

21. The body of Mr. Blazejowicz was blue when removed from the pumproom and he was immediately given oxygen by the Carteret First Aid Company without success and was later pronounced dead by Dr. Lewis Downs of Carteret, New Jersey. The county coroner, Mr. Lee J. Thompson, came aboard, took possession of Mr. Blazejowicz's personal effects and authorized the removal of his body to the Flynn & Son Funeral Home.

22. Sometime between 17 August 1953 and 29 August 1953 the master issued instructions to the crew at a crew meeting with regard to safety requirements in the pumproom.

23. On 29 August 1953 the SS SILVERPEAK was discharging a cargo of grade "B" gasoline at the American Oil Company Terminal at South Norfolk, Virginia.

24. The number three cargo pump was started at about 8 a.m. and when checked by the pumpman, Ellsworth Smith, at 10:30 a.m., was found to be leaking gasoline quite badly. The pumpman made several trips down into the after pumproom attempting to tighten the packing on the number three pump. He had a watchman posted in the upper pumproom as required by the master's recent verbal directions but was not wearing a harness and safety line as directed by the master.

25. James R. Bishop, able seaman, was standing by the upper part of the after pumproom keeping a check on the pumpman. He was unable to see or hear the pumpman moving about for a period of five minutes and notified the master. Captain Kapelowitz went immediately to the pumproom and disregarding his own safety instructions descended into the pumproom where he found the pumpman, Smith, unconscious on the floor plates. He placed a belt on the pumpman and then, assisted by Able Seaman Bishop, attempted to haul the pumpman, Smith, out of the pumproom. The attempt failed and the pumpman slipped into the bilges. The chief officer, Mr. Hannum, then put on a fresh air mask and attempted unsuccessfully to dislodge the pumpman. The chief officer came back on deck and Captain Kapelowitz put on the breathing apparatus and went into the pumproom and managed to free the pumpman, who was then hauled out on deck. The pumpman regained consciousness prior to being taken by ambulance to the U.S.P.H.S. Hospital, Norfolk, Virginia.

26. The leather rescue harness which was used to remove Mr. Feuchte from the pumproom on 17 August 1953 was not part of the U. S. Coast Guard required equipment but was part of the ship's safety equipment, which was secured about the second assistant engineer by means of a leather strap with conventional buckle which engaged holes in the strap spaced at regular intervals.

27. The vessel is fitted with two natural draft cowl-type supply ventilators and a mechanical exhaust ventilation system taking suction through ducts under the pumproom gratings and discharging through a main-deck room venthead about thirty feet above the main deck. The pumproom ventilation system design meets the requirements of the tank vessel regulations.

28. On removal of the exhaust fan housing, it was found that the motor was rotating the squirrel cage blades in the wrong direction causing the fan to act as an intake ventilator instead of an exhaust system as designed.

29. Two portable air supply blowers, with canvas chutes, were used aboard the SS SILVERPEAK on three separate occasions during the month of August 1953. These blowers were used to supply air to the pumproom when the atmosphere in the pumproom was excessively gaseous.

30. The first occasion during which the portable blowers were used was on 5 August 1953 at Philadelphia, Pa. when the packing on the number two cargo pump failed causing a bad gasoline leak in the pumproom.

31. The second occasion was at Carteret, N. J. on 19 August 1953, when the packing on the number one pump failed and resulted in a large gasoline leak in the pumproom.

32. The third occasion was at South Norfolk, Virginia on 29 August 1953 when the packing on the number three cargo pump failed.

33. The pumproom was fitted with a vertical ladder on the starboard side and a series of inclined ladders on the port side. Both ladders extended from the pumproom floor plates to the main deck level.

34. The pumproom mechanical exhaust blower controls and the blower motor are located in the engine room. The blower motor drives the fan rotor by means of a shaft extending into the pumproom.

35. During the course of the investigation the OCMI, Norfolk, laid the following requirements against the SILVERPEAK:

1. The pumproom is to be thoroughly gas freed.
2. The pumps are to be thoroughly checked, particularly in way of drive shafts. The packing removed, shafts examined, and, if found in order, repacked.
3. Thoroughly search pumproom for further sources of leaks, eg. valve glands, etc.
4. Remove exhaust blower fan and examine.
5. During current discharging operations exercise particular care.
6. A detailed report of the work done is to be mailed to the Officer in Charge, Marine Inspection, Norfolk, Virginia from first port of loading.
7. Upon arrival in first U. S. port the Officer in Charge is to be notified and his approval of all work done is to be obtained.
8. A complete examination of ventilators and ducts is to be made for effectiveness.

36. Witnesses interviewed:

Charles Kapelowitz, Master, SS SILVERPEAK

Fred T. Smith, Chief Engineer, SS SILVERPEAK

Henry B. Hannum, Chief Mate, SS SILVERPEAK

John C. Parker, Port Captain, National Bulk Carriers and Affiliated Companies

William R. Welling, Ordinary Seaman, SS SILVERPEAK

James R. Bishop, Able Seaman, SS SILVERPEAK

1. That the first assistant engineer, Mr. Blasejowicz, descended into the after pumproom while Mr. Fuchts was trying to locate him (Mr. Blasejowicz) and that Mr. Blasejowicz never again emerged from the pumproom until he was hoisted out dead.

2. That the presence of Mr. Blasejowicz in the pumproom was not known to anyone until Mr. Blasejowicz assisted in lowering the unconscious body of Mr. Fuchts to the floor plates when the first attempt to carry Mr. Fuchts out of the pumproom failed.

3. The immediate cause of the casualties was the failure of the mechanical exhaust ventilation system to remove the gaseous atmosphere from the pumproom.

4. A contributory cause of the casualty on 17 August 1953, in which Mr. Blasejowicz lost his life, was the complete disregard of the elementary safety precaution of posting a lookout on the part of the first assistant engineer, Mr. Blasejowicz, and the second assistant engineer, Mr. Fuchts, before entering the pumproom in which they had reason to suspect the atmosphere was extremely gaseous.

5. That the cargo pump gland packing was unsuitable or of poor quality and that the gland leaks can be minimized by the use of better or more suitable packing which is available.

6. There was no physical or design failure of any material or equipment other than the cargo pump packing.

7. The failure of the mechanical exhaust ventilation system to exhaust the gaseous atmosphere of the pumproom was not a design or material failure but was caused by improper servicing of the electric motor driving the exhaust fan rotor. This improper servicing resulted in reverse operation of the fan rotor.

8. That the U. S. Coast guard approved fresh air breathing apparatus was satisfactory for the purpose intended.

9. There was no culpable misconduct, incompetence, negligence, inattention to duty or willful violation of the law or regulations, on the part of anyone involved in the casualty. The action of the pumpman, Ellsworth Smith, in descending into the pumproom on 29 August 1953, without wearing a rescue harness was contrary to the master's orders but was not of too serious a nature as the consequences fell only upon himself and was in keeping with the almost universal trait

of tankermen of trusting to their own senses. The actions of Mr. Feuchte, Mr. Blasejovics and, in fact, of all parties involved in the casualty of 17 August 1953 regarding entering the pumproom without posting a lookout were not at that time in violation of any precept except that of common sense.

10. The casualty could have been avoided if the pumproom mechanical exhaust blower system had been properly checked for effectiveness after the motor had been overhauled or repaired.

11. The casualty could have been avoided had Mr. Feuchte and Mr. Blasejovics posted lookouts at the top of the pumproom while they descended into the pumproom.

12. That the pumpman, Ellsworth Smith, is alive today only because he followed the elementary safety precaution of posting a lookout or watchman before entering the pumproom on 29 August 1953.

13. That while all hands pitched into the rescue operations to the best of their abilities, even to the point of completely disregarding all safety precautions as far as they themselves were concerned, the overall rescue operations were not well co-ordinated due to the fact that all of the responsible officers participated in the rescue to the extent that they were partially gassed or physically exhausted and consequently no one with a clear mind and single purpose remained on deck in overall charge of the rescue operations.

14. The chief engineer and the first assistant engineer exhibited a lack of professional skill and zeal in that they failed to suspect that there was anything wrong with the mechanical exhaust ventilation system serving the pumproom, despite the fact that it had been necessary to rig large temporary blowers to clear the atmosphere in the pumproom on several occasions during recent operations.

RECOMMENDATIONS

1. That a report of this casualty be publicized in the Merchant Marine Council Proceeding to prevent similar casualties in the future.

2. That a study be initiated to determine the advisability of amending the Tank Vessel Regulations (Operation), to require the posting of lookouts or attendants at all times when personnel are working in tanks or pumprooms.

3. That consideration be given to encouraging or requiring tank vessels, which have pumprooms with a depth in excess of twenty feet, to hold periodic emergency drills in rescuing disabled personnel from these pumprooms.

4. That consideration be given to designing, furnishing and requiring to be posted in mess rooms and pumprooms a set of safety instructions for pumprooms in placard or poster form.

5. That consideration be given to requiring all vessels having auxiliary machinery with shafts penetrating bulkheads to indicate the correct direction of rotation of each shaft on both sides of the bulkhead.

6. Subject to any action deemed necessary on the recommendations listed above, it is recommended that no further action be taken in this case and that the case be closed. However, should any additional pertinent information be received by OCM, Norfolk, Va. as a result of compliance with requirements 6 and 7 of exhibit two a supplementary report will be submitted.

(signed) Russell E. Wood
RUSSELL E. WOOD

Rear Admiral, U. S. Coast Guard, Chairman

(signed) Arthur W. Johnson
ARTHUR W. JOHNSON

Commander, U. S. Coast Guard, Member

(signed) John P. Fox
JOHN P. FOX

Commander, U. S. Coast Guard, Member