From: Chief, Berchant Vessel Inspection Division

To: Commentant

Via: Chief, Office of Morchant Merico Sefety

Subj: Marine Board of Investigation; SS SILVERFEAK, pumproon easualty at Carteret, New Jersey, on 17 August, 1953 with loss of life

- 1. On 17 August 1953 the SS SILVERPEAK, a tender of 10,448 g.t., was discharging her sarge of gasoline at Certeret, New Jersey. Due to transfer pump packing gland lookage, 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 asphyziation.
- 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 revisued 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. OVERDIER

FIRST ENDORSEMENT ON MVI memorandum of 6 January 1954

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18 January 1911

From: Chief, Office of Merchant Marine Safety

To: Gommandant

Forwarded, recommending approval.

H. C. SHEPHEARD

APPROVED:

20 JAN 1954

Vice Admiral, U. S. Coast Guard

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 easualty 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 SILVERPRAK a casualty occurred which resulted in the death by asphyxiation of the First Assistant Engineer, Mr. Anthony J. Blasejowics and the hospitalisation of the Second Assistant Engineer, Mr.

On 29 August 1953 aboard the same tank ship, the SS SILVERPEAK, which was then discharging a cargo of grade "B" gasoline at South Korfolk, Virginia another similar casualty occurred which resulted in the hospitalisation of the Pumpman, 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 rons, 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.
- 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.

1953		commence Officer				ı	was 1	n char	ge, a	sais	ted 1	by Chie	f Pun	t pman
		_	and	the	watch	on	deck	consi	sting	of	Able	Seamar	Ŋ.	
and	Ordinary	Seaman										200	94 Y.	196

- 5. The pumpman, 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 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. was seated in the stateroom.
- 7. The second assistant engineer, Mr. 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. Blasejowics of the leaking pump. While attempting to locate Mr. Blasejowics, he notified the chief engineer of the leaking pump.
- 8. The second assistant engineer, Mr. 1988, 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. 1988, followed the second assistant engineer, Mr. 1988, into the pumproom and was followed in turn by the chief officer, Mr. 1988, again descended into
- 9. The chief officer and the chief engineer came out of the pumproon a little groggy because of the heavy concentration of gasoline fumes. The second assistant, Mr. remained below in the pumproom. The chief officer, Mr. upon reaching the main deck told the second mate, Mr. to watch the engineers in the pumproon below.
- 10. The second mate then at approximately 3:20 p.m., saw the second assistant engineer, Mr. pass out on the floor plates in the pumproom. The word was passed to obtain fresh air breathing apparatus.
- ll. The chief engineer, the chief officer and the second mate went down into the pumproom and attempted to carry out the unconscious Mr.

 The attempt was unsuccessful and the first assistant engineer,

 Mr. Blazejowicz, assisted in lowering the body of Mr. The 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 at about 3:20 p.m. that Mr. was unconscious in the pumproom and that he, Mr. 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. Blasejowicz, 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 purpose. 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. whom the master had found unconscious on the floor plating in the vicinity of the stripping pump.
- 15. This second attempt to get Mr. would 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. 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 process, in making two trips into the pumproom to assist in getting the unconscious Mr. see the first assistant engineer, Mr. Blauejowics, in the pumproom.
- 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.
- 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. Established could not move him.

 Mr. The chief mate, Mr. The could not move him.

- 20. Able Sesman 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.
- 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 SILVERFEAK was discharging a cargo of grade "B" gasoline at the American Oil Company Terminal at South Morfolk, Virginia.
- 24. The number three cargo pump was started at about 8 a.m. and when checked by the pumpman, 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.
- able seaman, was standing by the upper part of the after pumproom keeping a chack on the pumpuan. He was unable to see or hear the pumpmen moving about for a period of five minutes and notified went immediately to the pumproom and disthe master. Captain regarding his own safety instructions descended into the pumproom where he found the pumpean, unconscious on the floor plates. He placed a belt on the pumpman and then, assisted by Able Seaman . attempted to haul the pumpman, out of the pumproom. The attempt failed and the pumpmen slipped into the bilges. The chief officer, Mr. put on a fresh air mask and attempted unsuccessfully to dislodge the pumpman. The chief officer came back on deck and Captain 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. Rospital, Borfolk, Virginia.

- 26. The leather rescue harness which was used to remove Hr.

 from the pumproon 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 matural draft coul-type supply ventilators and a mechanical exhaust ventilation system taking suction through ducts under the pumproon gratings and discharging through a mush-room venthead about thirty feet above the main deck. The pumproon ventilation system design meets the requirements of the tank vessel regulations.
- 26. 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 pusprocm.
- 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 Morfolk, Virginia on 29 August 1953 when the packing on the number three cargo pump failed.
- 33. The pumproon 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 pumproon 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 purproon is to be thoroughly gas freed.
- 2. The pumps are to be thoroughly checked, particularly in way of drive shafts. The packing resoved, shafts emmined, and, if found in order, repeated.
- 3. Thoroughly search pumproon for further sources of leaks, eg. valve glands, etc.
- 4. Remove exhaust blover fan and emmine.
- 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, Morfolk, 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 -	Hester, 85 SILVERPEAK
	, Chief Engineer, SS SILVERPEAK
	Chief Mate, SG SILFERPRAK
Comparing	Port Captain, National Bulk Carriers and Affiliated
	Ordinary Seamen, SS SILVERFRAX
	Able Seaman, SS SILVERPEAX

or or other

- 1. That the first assistant engineer, Mr. Hampjories, descended into the after purgrees while Mr. Pendits use trying to least him (Mr. Blassjories) and that Mr. Blassjories never again energed from the purgrees until he was bested out dead.
- 2. That the presence of Mr. Blassjoudes in the purpross was not known to anyone until Mr. Blassjoud in lowering the unconscious body of Mr. Blass to the floor plates when the first attempt to carry Mr. Penalts out of the purpross failed.
- 3. The immediate cause of the committee was the failure of the mechanical exhaust ventilation system to remove the gaseous atmosphere from the purproon.
- 4. A contributory cause of the cusualty on 17 August 1953, in which Mr. Blassjovies lost his life, was the complete disregard of the elementery safety precention of posting a lookout on the part of the first assistant engineer, Mr. Blassjovies, and the second assistant engineer, Mr. Elementer the pumproon in which they had reason to suspect the atmosphere was extravely gaseous.
- 5. That the cargo pump gland packing was unsuitable or of poor quality and that the gland looks can be minimised 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 pumproon 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 reperse 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 aption of the pumpean, in descending into the pumpeous 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 tankerson of trusting to their one sense. The actions of Mr.

 Ar. and, in fact, of all parties involved in
 the ossualty of 17 August 1953 regarding entering the pusperon 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 purpreon medical enthust blower system had been properly checked for effectiveness after the motor had been overhealed or repaired.
- 11. The casualty could have been avoided had Mr. Poster and Mr. posted lookouts at the top of the pumproon while they descended into the pumproon.
- 12. That the pumpmen, the lementary safety presention of posting a lookout or watchesn before entering the pumproon on 29 August 1953.
- 13. That while all hands pitched into the resons operations to the best of their abilities, even to the point of completely disregarding all safety precentions as far as they themselves were concerned, the overall resons operations were not well co-ordinated due to the fast that all of the responsible officers participated in the resons 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 resons operations.
- 14. The chief engineer and the first assistant engineer exhibited a lack of professional skill and scalousness in that they failed to suspect that there was anything wrong with the mechanical exhaust ventilation system serving the pumproom, despite the fast that it had been necessary to rig large temporary blowers to clear the atmosphere in the pumproom on several occasions during recent operations.

RECOMMENDATIONS

- That a report of this casualty be publicated in the Merchant
 Marine Council Proceeding to prevent similar casualties in the future.
- That a study be initiated to determine the adviseability 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 pumproces.

- 3. That consideration to given to encouraging or requiring tank vessels, which have proprocess with a depth in encourage of twenty feet, to hold periodic energency drills in recoting dischled personnel from those pumproces.
- A. That consideration to give to designing, furnishing and requiring to be posted in meas, rooms and pumprouse a set of safety instructions for pumprouse in placerd or poster form.
- 5. That consideration be given to requiring all vessels having auxiliary machinery with shalls penetrating buildheads to indicate the correct direction of rotation of each shaft on both sides of the buildhead.
- 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 COM, Norfolk, We. as a result of compliance with requirements 6 and 7 of exhibit two a supplementary report will be submitted.

ROSERLL E. WOOD Rear Admiral, U. S. Coast Coard, Chairman

Commander, U. S. Coast Guard, Member

JOHN P. FOR Commander, U. S. Coast Guard, Member