

MVI
27 January 1954
(UBL 315 - a-2 Bd)

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

Subj: Marine Board of Investigation; UBL 315 (Tank Barge), explosion,
Point Pleasant, W. Va., 22 December 1953 with loss of life

1. On 22 December 1953 the Tank Barge UBL 315, 726 g.t., divided into eight cargo compartments, was in the process of being stripped and cleaned for a change in the type of cargo to be carried. Six laborers were on board engaged in cleaning operations when an explosion occurred from an unknown origin which resulted in the death of all six laborers on board. Presumably the spark for the ignition was produced by the dropping and breaking of a portable electric light globe, or boiler on the derrick moored against the bow of the barge.
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, Conclusions, and Recommendations, has been reviewed and is forwarded herewith.

REMARKS

3. It is desired that the Board submit a supplemental report covering all details with respect to the manner, type of equipment, and procedure used by the Marietta Manufacturing Company in cleaning and stripping operations on tank barges similar to that involved at the time subject casualty occurred, together with the opinion of the Board with respect thereto.
4. Subject to the foregoing Remarks it is recommended that the Findings of Fact, Conclusions, and Recommendations of the Marine Board of Investigation convened to investigate subject casualty be approved.

(signed) P. A. Ovenden

P. A. OWENDEN

FIRST ENDORSEMENT ON MVI memorandum of 27 January 1954

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

29 January 1954

Forwarded, recommending approval.

(signed) H. C. Shepheard
H. C. SHEPHEARD

APPROVED: 1 FEB 1954
(signed) Merlin O'Neill
MERLIN O'Neill

REPORT
of a
BOARD OF INVESTIGATION
convened at
Point Pleasant, West Va.

To inquire into the marine casualty involving an explosion and subsequent fire on board the undocumented, unmanned Tank Barge UBL 315 resulting in major damage to the barge and the loss of six (6) lives, which casualty occurred at or about 9:45 A.M., E.S.T. on 22 December 1953 at the Marietta Manufacturing Company Shipyard, Point Pleasant, West Virginia.

FINDINGS OF FACT

There was involved in the casualty at the Marietta Manufacturing Company Shipyard, Point Pleasant, West Virginia, on the morning of 22 December 1953, one (1) unmanned tank barge having characteristics as follows:

1. That the tank barge UBL 315, carrier of liquid cargo in bulk, unmanned, non-propelled, undocumented at the time of this casualty, constructed of steel, built in 1939, size 195' X 35' X 10'6", 726 gross tons, 10,500 barrel capacity, owned and operated by Union Barge Line Corporation of Pittsburgh, Pennsylvania, was moored at the Marietta Manufacturing Company shipyard, Pt. Pleasant, West Virginia, mile 263.0 Ohio River, at approximately 0945 E.S.T. on 22 December 1953.
2. This was a trunk type barge with a bow and stern rake where no cargo was carried. The vessel had a center line liquid tight bulkhead extending from collision bulkhead of the bow to collision bulkhead on the stern. Three transverse, liquid tight bulkheads, evenly spaced between collision bulkheads, extended full width of the barge forming eight cargo compartments (four down each side).
3. The last annual inspection of the UBL 315 was made at Neville Island, Pennsylvania, 4 May 1953, certificated for the carriage of inflammable or combustible liquids of Grades "B" and lower.
4. The UBL 315 arrived at the Marietta Manufacturing Company yard on December 19th or 20th, both of which were non work days at this yard. However, Mr. Kenny, Production Manager, received a telephone call on 18 December from Mr. Epler (representative of Union Barge Line Corporation) and was told that the barge would be in for stripping and cleaning for a change of cargo. The barge was presently carrying low pressure distillate and was to be cleaned for carriage of Menthol. The vessel was not required to be gas freed as no repairs were to be made.
5. The cleaning was begun the morning of 21 December and continued on the morning of 22 December. No. 3 compartments, port and starboard, and No. 4 compartments, port and starboard, had been cleaned and the men were cleaning No. 1 and No. 2 starboard compartments at the time of the explosion at about 0945 on 22 December 1953.
6. There were six laborers and one labor foreman employed in the cleaning of the barge. Two men had gone into the No. 2 starboard cargo compartment with oxygen masks, wooden buckets and safety scoops. The third man stood at

the cargo hatch to tend the air lines to the masks and raise the buckets by a hand line when they were filled. Two others were preparing to enter the No. 1 cargo compartment starboard side with the third man standing by. The labor foreman, Garland Nibert, left the barge approximately three (3) minutes before the explosion to obtain some rags for wiping the holds. The six (6) men, all employees of the Marietta Manufacturing Company, who were on the barge at the time of the explosion were killed. Two bodies were found in the No. 2 cargo compartment starboard. One body was found on the main deck near No. 1 cargo compartment hatch, pinned beneath one of the metal skip boxes that was setting on the main deck. Three bodies were recovered from the river by dragging. The six men are listed as follows:

1. CHESTER ELLIOTT, Age 26, Ft. Pleasant, W. Va.
Survived by widow and two children
Found in No. 2 compartment starboard
2. HARRY BONECUTTER, Age 44, Ft. Pleasant, W. Va.
Survived by widow and 1 daughter
Found by dragging
3. WILLIAM FLETCHER, Age 36, Henderson, W. Va.
Survived by widow
Found on deck
4. CECIL RANDOLPH, Age 50, Ft. Pleasant, W. Va.
Single
Found by dragging
5. RAYMOND BELLER, Age 56, Leon, W. Va.
Survived by widow and 1 daughter
Found in No. 2 compartment starboard
6. JOHN WHEELER, Age 35, West Columbia, W. Va.
Survived by widow and 2 children
Found by dragging

7. At the time of the explosion all hatches of the barge were open, four had been cleaned and wiped down but not gas freed. There was no air being used except for the oxygen masks the men used while in the holds. There were no pumps or motors of any kind used during the cleaning operation. There were portable explosion safety lamps used in the cleaning of the holds. These lamps had been connected and placed on the barge by the yard electricians who also made frequent inspection of this equipment to keep it in good condition.

8. Upon examination of the barge by the Board, the electrical equipment was found to be of the approved type, however, several wires had been burned by the fire on the barge following the explosion. The undamaged wiring was carefully checked and showed no places where it might have shorted. The examination of the damage indicated that the explosion first occurred in No. 1 cargo compartment starboard, then to No. 2 starboard, to No. 2 port compartment, the deck of these compartments being blown off. There were also lesser explosions, one in No. 1 cargo compartment port and in No. 4 cargo compartment port. These explosions buckled the deck upward for approximately four feet. The section of deck plate and deck beams approximately 30' X 10' of the No. 3 cargo compartment starboard was blown approximately 200 feet up on the shore, striking a locomotive crane and concrete mixing truck, causing considerable damage. The section of deck plate approximately 30' X 10' from the No. 2 cargo compartment port side was blown several hundred feet out into the river.

9. The damage was estimated at \$30,000.00.

10. The weather at the time of the explosion was partly cloudy with light wind, temperature approximately 57 degrees.

11. Personnel with equipment from the Coast Guard Depot, Ft. Pleasant, W. Va. assisted in the dragging and the recovery of bodies from the Ohio River after the explosion.

12. A preliminary investigation was conducted by the Recorder on this Board immediately following the explosion on 22 December 1953.

After carefully considering the testimony and evaluating the results of its visits to the scene of the explosion, the Board concludes as follows:

CONCLUSIONS

13. In that there were no survivors of personnel on board the UBL 315 at the time of the explosion, no eye witnesses to the events immediately preceding the explosion, and that the testimony failed to adduce any pertinent facts thereto, the Board is unable to determine the exact cause of this casualty.

14. Testimony shows that the barge was not being gas freed, but only stripped and cleaned for a change of cargo, in the same manner and with the same type of equipment as had been used by the Marietta Manufacturing Company employees for several years. All of the men on this particular job were considered as well experienced men in work of this kind and had been employed by the Marietta Manufacturing Company for several years.

15. The barge being moored at the Marietta Manufacturing Company yard at the time of the explosion, there were no licensed or certificated personnel involved.

16. While there are no rules or regulations requiring that a barge be gas freed before stripping or cleaning, it is the opinion of the Board that the explosion would not have occurred had the barge been gas freed.

17. As far as can be determined there was no visible fire before the explosion.

18. In the absence of conclusive evidence that would enable the Board to determine the exact cause of this explosion, the Board can only presume that the explosion was most likely caused by one of the following:

- a. Dropping and breaking of a portable electrical lamp globe.
- b. Flash vapor fire ignited by the steam boiler on the derrick barge that was moored against the bow or upstream end of the UBL 315.
- c. The use of a galvanized scoop instead of a non-sparking type.
- d. Friction caused by metal usually found in footwear may have been a contributing factor.

19. There were no Coast Guard vessels, personnel, or aids to navigation involved in this casualty.

20. There were no injuries to any personnel.

21. There were no violations of Marine Laws or regulations.

RECOMMENDATIONS

22. That no further action be taken and the case be closed.

(signed) W. E. Schweizer

W. E. SCHWEIZER
Commander, U. S. Coast Guard

(Signed) Merton Hatfield
MERTON HATFIELD
Commander, U. S. Coast Guard

(Signed) Bernard T. Clark
BERNARD T. CLARK
Lt. Commander, U. S. Coast Guard

The Board then adjourned at 1700 to await the action of the convening authority.

(Signed) W. E. Schweizer
W. E. SCHWEIZER
Commander, U. S. Coast Guard, Chairman

(Signed) Bernard T. Clark
BERNARD T. CLARK
Lt. Commander, U. S. Coast Guard, Recorder