UNITED STATES COAST GUARD

MVI
4 April 1957
(JEANNY a-12 Bd)

Commandant's Action

on

Marine Board of Investigation; explosion and fire on SS JEANNY at Todds Shipyard, Alameda, California, 29 January 1957 with loss of life

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

2. On 29 January 1957 the T-2 Tanker JEANNY, of 10,633 g. t., was moored at Todds Shipyard, Alameda, California. The JEANNY, a laid-up tanker, had been recently purchased from the U. S. Maritime Administration by the Sheffield Tankers Corporation, and was undergoing necessary repairs and reactivation for service as a tankship. The fuel oil in the port aft deep tank was being heated so that it could be pumped, atomized and effectively burned to facilitate the drying out of new brick work in the boilers. The fuel oil was heated to the extent that it was bubbling and volatile vapors were escaping through the tank openings, including a Butterworth hole from which the cover was removed. Under these circumstances of heated fuel in the port aft deep tank with strong volatile vapors escaping from an uncovered Butterworth hole, a worker began welding a blank to cover a porthole on the forward side of the deck house, only a few feet above the open Butterworth hole, from which heated volatile vapors were escaping. At about 1510 the welding operation ignited the vapors, resulting in severe explosions, extensive damage and fire in the machinery spaces, and loss of life of ten workmen, including an assistant ship's chief engineer. The damage to the vessel was estimated at $500,000.

3. The Findings of Fact, Opinions, and Recommendations of the Marine Board of Investigation convened to investigate subject casualty are approved. The Commander, 12th Coast Guard District is directed to furnish a copy of the Record of Proceedings and Report to the California State Division of Industrial Safety.

(signed) A. C. Richmond

A. C. RICHMOND
Vice Admiral, U. S. Coast Guard
Commandant

18 March 1957

Marine Board of Investigation; explosion and fire with resulting loss of ten lives aboard the Tankship JEANNY at Todds Shipyard, Alameda, California, 29 January 1957

FINDINGS OF FACT

1. The American Tankship JEANNY, while undergoing extensive repairs at Todds Shipyard, Alameda, California, suffered two severe explosions and fire on 29 January 1957 at 1510 hours, PST, resulting in the deaths of nine (9) shipyard workers and one (1) crewmember, as well as extensive damage to the after part of the vessel, including the engine room, the after port deep tank and the after house directly above it.

2. The vessel was the JEANNY, a U. S. T-2 tankship of 10,663 gross tons, official number 247 177 built in 1945 of steel hull materials, home port New York, New York, owned by Sheffield Tankers Corporation, Marine Transport Lines, Agents, 11 Broadway, New York City, N. Y. At the time of the explosion the vessel was undergoing extensive alterations and repairs, having just been pulled out of the "lay-up" fleet, and had applied for a new Certificate of Inspection from the U. S. Coast Guard, but had not been issued one at the time. There was a skeleton crew aboard consisting of a Master, Alfred Kvitvaer, 33 First Place, Brooklyn, New York; a Chief Engineer and 2nd and 3rd Assistant Engineers; a Chief Steward and three firemen.

3. The weather at the time had no bearing on the casualty.

4. The JEANNY on 29 January 1957 was berthed starboard side to Pier 5 in Todds Shipyard at Alameda, California. The vessel had been towed into the yard from the "Mothball" fleet in Suisun Bay on 4 January 1957 after having been purchased by Sheffield Tankers Corporation, for extensive alterations and repairs of tanks, housing areas and a general machinery overhaul.

5. In the two after deep tanks or "settlers", there was a quantity of approximately 988 barrels of fuel oil, some 500 in the port tank and the remainder in the starboard tank. This fuel had been in the vessel when it was laid-up previously and was still in the same tanks when purchased by her new owners and towed into the shipyard.

6. On 29 January, work was proceeding in the boiler room to dry out new brick work which had been installed in the boilers. This was being accomplished by lighting a small burner for a few minutes out of every twenty or thirty. To do this it was necessary to heat the fuel oil so that it could be pumped and atomized sufficiently so that it would burn. At 0800 on the 29th, steam was applied to the settlers and at 1000 the first fire was lit, and intermittent "lighting off" was continued up until the explosion occurred; however, at the time of the explosion there was no burner afire.

7. At approximately 1000, or shortly thereafter, welders working on the main deck near the after house noticed gas fumes and called it to the attention of one of the welding leadermen, who in turn notified one of the yard firemen, who went below to the fireroom and inquired of the ship's engineers if they were transferring fuel and was informed that they were pre-heating fuel oil. He then returned on deck and contacted the other yard fireman and together they checked the expansion trunks to the after deep tank which had been left with their covers swung wide open and temporarily covered with loose plywood covers. Lifting these covers, they could hear the oil bubbling below in the tanks and the smell of fumes and vapors was very strong. They then called a couple of yard boilermakers who closed and secured the permanent trunk covers. Apparently the firemen failed to notice the unsecured Butterworth hole leading to the port deep tank, which hole was found uncovered by the Chief Engineer of the vessel a few minutes after the first explosion, who hastened to close the internal gate valves of the port settler which were located near the Butterworth hole, noticed that the hole was completely uncovered, picked up the cover which was lying a few feet away and laid it over the hole on top of the studs since he couldn't seat it in place because the nuts had been screwed part way onto the studs.

8. On the afternoon of the 29th a welder was working on deck blanking off two portholes by welding blank metal inserts over them on the outside of the bulkhead on the forward end of the after-house. They were located one on the starboard side, main deck level, and one on the port side (see exhibit 6). The welder had finished the work on the starboard side and had been welding for several minutes on the port side porthole (see exhibit 6), and had just stopped for a moment to replace a welding rod in his "stinger" (see exhibits 10 and 11), for, as he stated, "I broke a rod and I had to step down to change it," dropping the old one onto the deck, when at approximately 1510, from directly beneath him at his feet, an explosion took place emanating from the Butterworth hole over the port after deep tank, which apparently was not tightly covered (see exhibits 3 and 7). The explosion was so severe that it lifted him several feet into the air amid a hot searing flame and when he came down in a heap on the deck his clothes were aflame. He scrambled away from the area forward on deck and a nearby worker came to his assistance and helped beat out the flames.

9. The explosion, confined to the port deep tank, was so great that the force of it bulged and blew it open in several places, outward through the skin, inward into the engine room, and upward through the main deck under the forward rooms of the after-house. Dense black smoke poured up and out of these areas and a fire alarm was sounded.

10. The Yard and Alameda City Fire Departments raced to the scene, as well as many Yard hands, arriving in a few minutes, followed by units from the adjacent U. S. Naval Air Station and from the Coast Guard.

11. Men began fighting their way out of the engine room as best they could amid the black smoke through the pitch black caused when the explosion blew out all of the electrical circuits. Workers on deck crawled through the deck house and into the upper engine room flats to assist those located therein to safety. There appeared to be no resulting fire or further danger when, about 10 minutes after the first explosion, another occurred in the same areas, and this was accompanied with more dense black smoke and considerable fire in the engine room spaces.

12. Fire apparatus was put aboard and the Alameda Fire Chief took charge of the fire fighting. Efforts were made to enter the engine room from the main deck, but the smoke and heat were intolerable. Water and foam lines were extended into the engine room and into the burning fuel tank through breaks in the deck and via the expansion trunk.

13. The fire was brought under control and out by 1700.

14. Thereafter crews entered the engine room and searched for persons who were trapped. One injured man was found and removed and eventually a total of nine bodies were found, all in the engine room spaces. The injured man later died in a hospital. In addition to these ten, there were approximately 43 persons who suffered injuries and burns. These were taken to nearby hospitals as rapidly as possible, given emergency first aid, and those who required it were hospitalized. Of those dead and injured, two who were injured were Westinghouse Electric Company employees; one was Frank Sousa, the vessel's 3rd Assistant Engineer, whose body was found in the vicinity of the engine room; and the remainder were Todds employees.

The list of dead is as follows:

Roosevelt McIntyre	William Luther Evans
Frank Raymond Sousa	Elbert Nathan Player
William Martin Maas, Jr.	Robert Patrick Gainey
Pete Stanovich	Floyd Harper
Herbert Joseph Gauthier	Max Joseph Gladstone

15. The vessel suffered extensive damage to the port after deep tanks, to the housing area over it and to the engine and boiler rooms, the total being estimated at $500,000.

16. The vessel had been issued a permit to weld by the Alameda Fire Department in accordance with local regulations when the ship was located at Pier 3 after arrival at the yard. The ship had thereafter been moved to Pier 5 where welding had been performed without the Fire Department being notified of the change as required. The yard chemist, a Todd employee, had inspected the vessel at various intervals after 4 January 1957 and had issued some 13 gas free certificates covering various areas in the vessel for work to be performed which included the engine room, where a fire-watch was to be in attendance, and including one for ladders to be installed in the cofferdams just forward of the port and starboard deep tanks. These ladders were to be welded to the bulkhead separating the deep tanks and the cofferdams. Prior to issuance on 22 January 1957 of the certificate for this work, the chemist had personally tested the deep tanks for gas and had issued the certificate with the provision that a fire watch enter the deep tank and remain there during the welding and that blowers be operating during that time into the deep tanks. The fire watch had entered the tanks through the expansion trunks and blowers had been installed through the Butterworth holes for each tank (see exhibits 3 and 7). This work had been completed. There was no evidence that the cover had been replaced thereafter on the port side Butterworth hole and prior to the explosion, although the hole apparently was covered in some way so as to prevent debris and people from falling into it.

17. There had been two men assigned to fire-watch duties aboard the vessel on the 29th, but neither was in the vicinity of the welder and the port side of the forward end of the after house at the time of the explosion.

18. An analysis was made after the casualty of samples of the fuel in both of the after deep tanks by the Petroleum Products Laboratory of the Department of Agriculture of the State of California, reports of which

are appended as exhibit 14. These indicated that the fuel in both tanks contained some volatile substances which had a flash point of between 75 and 80 degrees Fahrenheit, although the bulk of the fuel consisted of normal hydrocarbons.

OPINION

It is the opinion of the Board that the explosion resulted from the ignition of vapors emanating from the Butterworth hole in the after port deep tank, and though the source of the ignition was not definitely ascertained, it probably originated from the activity of the welder working on the port hole a few feet away. It is further the Board's opinion that the fuel oil was contaminated by materials having a flash point of less than 150 degrees Fahrenheit and that the presence of this material was unknown to the vessel's operators and crew. It is further the opinion of the Board that the vessel's personnel were not negligent, but that there was evidence of slipshod safety practices indulged in by the shipyard, among others, the failure to notify the Alameda Fire Department of the shifting of the vessel prior to welding at the new berth; leaving the openings to the tanks containing fuel oil open and loosely covered with plywood; and failing to secure the Butterworth hole leading to the port deep tank after the fuel had been heated and while welding was being performed nearby; as well as not having a firewatch in attendance while it was being done; and the failure to hang fire buckets over the vents to the after deep tanks in accordance with usual practice while welding was being performed nearby. There was no negligence of any Coast Guard personnel. There were no violations of Federal Laws or regulations requiring further action either administratively or through the Attorney General.

RECOMMENDATIONS

It is recommended that a copy of the Record of Proceedings and of this report be forwarded to the California State Division of Industrial Safety.

No other action is recommended.

(Signed) [illegible]
[illegible], Commander, USCG
Chairman

(Signed) [illegible]
[illegible], Commander, USCG
Member

(Signed) [illegible]
[illegible], LCDR, USCG
Member - Recorder