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Continental Oil Company has advised that all of the platform equipment, with the exception of two water tanks and the heliport were so badly damaged by the fire that it was classified as junk and sold as such. The fire destroyed the physical evidence pertinent to the cause of the accident. Visual examination of the damaged equipment by Continental personnel did not shed any light on the cause of the casualty.

## PROBABLE CAUSE

The Safety Board concludes that the investigative record in this case does not contain sufficient information to provide a determination of the cause of this casualty. However, based on the most likely hypothesis, the Board concludes that the most probable cause was faulty operation of two of the four dump valves of the separators in a chain of events combined with a malfunction of the primary dump valve controller during the pipe cleaning operation which allowed a large volume of high pressure gas to enter the storage tank, rupturing it.

## RECOMMENDATIONS

The Safety Board concurs with the Commandant relative to the recommendations of the Marine Board. In addition, the Board makes the following recommendation:

M-69-60 1. That the Department of Transportation, in conjunction

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with the Department of the Interior, study the need for safety regulations or the revision of regulations for fixed and mobile drilling and production units operating on the outer continental shelf, including the operating equipment, the methods and operations used in drilling for and the production of oil, gas, or other subsoil minerals, and the transportation thereof by pipeline.

BY THE NATIONAL TRANSPORTATION SAFETY BOARD:

Adopted this 2/st day of May,

\_, 1969:

/John H. Reed, Chairman

Ocean M. Lourel Monton

Joseph J. O'Connell, Jr., Member

Louis M. Thayer, Member/

Francis H. McAdams, Member

- 20. There is no evidence that any law or regulation relating to Fixed Structures on the Outer Continental Shelf has been violated.
- 21. There is no evidence that any personnel of the Coast Guard or any other government agency contributed to this casualty.

## Recommendations:

- 1. The provisions for tank venting similar to those set forth in 46 CFR 55.10-60, should be made applicable to storage tanks on platforms of this nature, on the Outer Continental Shelf.
- 2. At the present time 33 CFR 140.10-25 differentiates between a manned and unmanned structure by (a) continuous occupancy, (b) persons living and accommodated thereon. The primary consideration is duration of occupancy, and on the structure under investigation there is clear intent that it shall be manned on a twenty-four hour (12 by 12) watch basis. Therefore, the definition of a manned platform as set forth in 33 CFR 140.10-25 should be revised to include any structure which is occupied by personnel for a period in excess of twelve (12) hours.
- 3. All emergency bills and emergency drills should include instructions to personnel concerning procedures for entering the water from high elevations.
- 4. Hazardous areas should be recognized and so designated by the general arrangement of the artificial island. The Class-Division concept found in the National Electrical Code and as set forth in the Electrical Engineering Regulations (CG-259) should be made applicable to this type structure.
- 5. Provisions should be made for the requiring of the use of explosion-proof equipment according to the areas defined by paragraph 4. above, and included in Sub-chapter N.
- 6. The normal avenue of departure from the top level of a platform is via two remotely located escape routes to the water level boat landings. It appears that the location of some life preservers at the lowest level, and a means to remotely launch or release the life floats from this level, is desirable.
- 7. The outfitting of the main deck with a common collection sump is probably widespread throughout offshore platforms due to the need for the control of any pollution problem. Therefore, 33 CFR 143 should include requirements concerning a non-hazardous venting arrangement.

8. Provisions for distinctive shape and marking of emergency shutdown devices installed aboard the platform should be included in 33 CFR 146.05-35.

CAPTAIN, USCO

RICHARD O. HAUCH COMMANDER, USCG

LIEUTENANT, USCG