



**U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region**

Notice No. 072

August 21, 1978

OCS Operations Safety Alert

Explosion -- Fire

A gas explosion and a fire occurred on an offshore supply vessel engaged in acidizing operations on a platform gas well. Two men were killed, two were injured, and the vessel was severely damaged.

The well treatment consisted of both hydrochloric and hydrofluoric acid followed by diesel oil. Gas lift was initially employed to remove the spent acid, but was turned off when the well began to flow. The spent acid and other well products were flowed into improperly vented tanks, which were also enclosed in the superstructure of the motor vessel. The tanks were not approved for storage or processing of diesel oil or natural gas, and gas was free to escape from an open manhole cover. The only precautions that had been taken shipboard was to secure the galley range and to forbid smoking. The shipboard electrical system was not explosion-proof, and had not been deenergized during this operation.

When sufficient gas reached the galley, it ignited, apparently by an electrical spark from the freezer, refrigerator, or some other electrical device. The explosion was so severe that the quarters and wheelhouse were blown into the Gulf and the ensuing fire did additional damage to the motor vessel.

To prevent this type of disaster in the future, the operator will require use of only closed tanks with proper ventilation. The vent will be at least eight feet above the tank, not enclosed inside a MV superstructure, and be piped to the downwind side of any potential ignition source. In addition, if the wind velocity is less than five miles per hour, venting will be through a boom burner.

[signed] D.W. Solanas

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Field Operations

Gulf of Mexico Area