MMS Safety Alert

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

Notice No. 166

June 11, 1996

Lifting of Personnel by Crane Proves Fatal

Recently, personnel aboard a jack-up drilling rig were in the process of removing tie ropes used for mooring supply boats and workboats from the legs of the rig. One of the personnel was fitted with a workvest life jacket and a safety riding belt that was shackled to a 30-foot-long, two-legged choker sling cable, which weighed approximately 80 pounds. The D-ring of the choker sling cable was secured with the safety latch for the port crane's fast line ball hook. The crane operator proceeded to lower the employee between the rig leg and rig hull when the D-ring slipped past the safety latch and off the crane's fast line ball hook. The employee fell into the Gulf of Mexico. Divers found his body with the safety riding belt still attached to the choker sling cable.

The safety latch being used for the crane's fast line ball hook was not of the type that should be used for lifting personnel. Therefore, it is recommended that all crane safety latches being used to lift personnel be checked to ensure that these safety latches are of the type that should be used for this type of operation.

MMS is the federal agency that manages the Nation's natural gas, oil and other mineral resources on the Outer Continental Shelf, and collects, accounts for, and disburses about $4 billion yearly in revenues from mineral leases on federal and Indian lands.

-MMS-GOMR-

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MMS Safety Alert

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

Notice No. 125

March 27, 1984

Crane Accidents

The Risk and Safety Analysis Unit of Minerals Management Service's (MMS) Regional Office for Rules and Production in Metairie, Louisiana, has just completed a review and analysis of 50 crane related accidents. These accidents occurred in the Gulf of Mexico OCS between January 1, 1971, and June 30, 1983, and resulted in 37 fatalities and 26 injuries. The major findings of the MMS review are as follows:

1. Crane accidents are more likely to cause injuries and/or deaths than many other types of accidents.

2. Employees attaching or releasing the load experience a greater risk to their lives, and are more likely to be injured or killed as a result of an accident.

3. The major contributing cause of crane accidents has been employee negligence and/or error.

4. About 44 percent of the crane accidents involved some type of equipment failure due to poor maintenance and/or overloading of the crane.

To reduce the risks and hazards associated with crane operations, lessees, operators, and contractors should analyze their training programs for personnel involved in crane related operations. API RP 2D, "Recommended Practice for Operation and Maintenance of Offshore Cranes," is an excellent foundation for a training program. Special attention should be given to the following areas:

1. Proper use of all equipment with particular concern to preventing equipment overload.

2. Proper maintenance of all equipment.

3. Short pre-job meetings with the personnel to be involved with crane related operations to remind them of the associated risks, procedures to be followed, and the proper use of the equipment.

[signed] D.W. Solanas

Regional Supervisor

Rules and Production

MMS
Safety Alert

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

Notice No. 124

March 27, 1984

Pedestal Crane Boom Wire Rope Failure

The following Safety Alert, dated January 6, 1984, received from Department of Energy, Petroleum Engineering Division, Thames House South, Millbank London, describes an undesirable situation which also could be applicable to Gulf of Mexico OCS operations:

"A recent failure occurred on a boom wire rope after only ten months service.

It had apparently been properly lubricated.

"Subsequent detailed examination of the failed rope discovered no metallurgical defect and correct construction from satisfactory material in the correct condition. However, there was evidence of some damage of a sharp cutting nature which could be seen on individual strands. Because of the hardness of the material it was considered that there were relatively few agents on the installation which could have caused this type of damage. However, it was noted that grit blasting had taken place on the installation over a period of about three months prior to this incident. It would therefore, appear that some of the abrasive grit may have contaminated the wire rope lubricant leading, in turn, to premature failure.

"The above should be borne in mind during grit blasting operations and during crane inspections. Particular attention should be given to wire ropes exhibiting any broken individual strands. Obviously effective segregation of lifting gear and grit blasting operations is important."

[signed] D.W. Solanas

MMS Safety Alert

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

Notice No. 104

July 28, 1981

OCS Operations Safety Alert

Crane Accident

One of the most frequent type of accident occurring on OCS structures is crane failure. They often cause injury or death, result in very high repair cost, and could usually have been avoided with proper preventive maintenance or proper use. The accident described below is a case in point.

When lifting a moderate load, a 30-ton crane broke off at the turntable and rolled over on the deck. The crane operator and a roustabout standing-by to unhook the load were both injured. The crane belonged to a workover contractor. The lease operator reports that the workover contractor will hire a crane consultant to inspect all of their cranes every 60 days to help prevent recurrence of this type of accident.

[signed] D.W. Solanas

Deputy Conservation Manager

Offshore Operations Support

Gulf of Mexico OCS Region

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MMS Safety Alert

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

Notice No. 096

June 20, 1980

OCS Operations Safety Alert

Crane Accident

Two recent accidents occurred involving cranes. One accident happened while off-loading a bunkhouse from an offshore production platform. The second accident involved a rotary table being off-loaded from an offshore drilling rig. In both cases, the operator estimated the load to be lighter than the actual weight. Other contributing factors were the excessive boom angle of the cranes and broken weight indicators. These combined factors caused the cables to part and the loads to fall. There were no injuries to personnel.

To prevent a recurrence of this type of accident, the lessees are taking the following action:

1. Crane operators will be trained, experienced, and certified.

2. Weights of all loads will be known and weight indicators operational before use.

3. A monthly inspection of the cranes and preventive maintenance will also be emphasized.

[signed] D.W. Solanas

Deputy Conservation Manager

Offshore Operations Support

Gulf of Mexico OCS Region

MMS Safety Alert

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

Notice No. 095

January 22, 1980

OCS Operations Safety Alert

Crane Accident -- Fatality

A crane accident occurred recently on an offshore production platform resulting in the death of the crane operator.

Well workover equipment was being offloaded from a field boat to the platform. A 100 barrel mud tank, containing some water, was picked up by the crane and hoisted to the handrail level. It was swung a short distance when the crane engine loaded up, burning brakes were smelled, and the load was lowered or was slipping. When it was about 40 feet above the water, the crane broke loose from its pedestal and fell into the water with the operator in the cab.

Investigation of the accident showed that the tank weighed 23,000 pounds, which overloaded the crane by 9,100 pounds. The crane was recovered and a detailed inspection showed no evidence of wear or malfunction in any of the clutches or brakes. In addition, lab tests of the hook rollers and brackets indicated no apparent defects in material at the fracture surface and no evidence of fatigue failure. Failure was a result of overload.

To prevent a recurrence of this type of accident, the operator is taking the following action:

1. Reinstruct personnel to closely monitor load weight, crane capacity and operating radius on lifts.

2. Reinstruct personnel not to offload open tanks with fluid in the compartments.

3. Insure compliance with company operating safety and training procedures.

4. Reemphasize use of company established heavy lift procedures.

[signed] D.W. Solanas

Oil and Gas Supervisor

Operations Support

Gulf of Mexico Area

MMS Safety Alert

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

Notice No. 079

November 8, 1978

OCS Operations Safety Alert

Fatality and Injury -- Crane Accident

Two employees were being lifted from the deck of an offshore supply vessel to the upper deck of a platform when the personnel basket became disengaged from the crane's hook. The basket fell and hit the deck of the supply boat, killing one and seriously injuring the other.

All of the equipment was found to be in good working condition. There was no damage to the crane's safety hook, or to the basket connection ring. Along with the personnel basket, a sling was also hanging from the crane's hook. It is assumed that this cable became entangled with the crane's hook, causing the spring-loaded safety latch to open. At the same time the basket must have been jolted, causing the connection ring to jump out of the safety hook.

To prevent a recurrence of this type of accident, the operator has instructed all crane operators:

1. To remove any unnecessary sling or other item suspended from the crane's hook whenever personnel or other objects are being handled.

2. To transfer personnel and equipment according to the procedures set forth in API RP 2D; that is, to position the crane load over water while lifting or lowering.

3. To raise and lower all loads slowly, thus avoiding any jolting of the cargo.

[signed] D.W. Solanas

Oil and Gas Supervisor

Operations Support

Gulf of Mexico Area

MMS
Safety Alert

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

Notice No. 065

June 13, 1977

OCS Operations Safety Alert

Fatality -- Crane Accident

Another fatal accident involving crane operations recently occurred on an offshore drilling rig.

An employee was acting as flagman for the crane operator because the end of the boom was not visible from the cab with the boom in a raised position. The employee did not signal the crane operator to stop the crane; instead, he bent over and started tying the sling to material on deck. When the employee stooped over, the crane operator stopped booming down, however, not soon enough. The operating port side crane struck the boom of the starboard crane which had not been placed in its cradle. As a result of the collision, the load limit switch box for the whip line was torn loose from the port side crane boom. The box fell, striking the employee on the back of the head and shoulders.

To prevent a recurrence of a similar incident, the operator has taken the following actions:

1. The load limit switch box on each of the cranes has been welded to the boom as well as being held by bolts.

2. A cable has been connected to the box and to the boom to prevent the box from falling if it were knocked off.

In order to reduce the number of accidents involving crane operations, it is recommended that operators review with all personnel at their safety meetings the proper procedures for safe crane operations, particularly as to the role of the flagman. Available publications containing information for use as guidelines for safe crane operations are as follows:

Offshore Operators Committee, *Manual of Safe Practices in Offshore Operations,* Section XII, "Crane Safety Procedures," New Orleans, Louisiana.

American Petroleum Institute, *API Recommended Practice for Operation and Maintenance of Offshore Cranes,* API RP 2D, Dallas, Texas.

[signed] D.W. Solanas

MMS Safety Alert

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

Notice No. 057

March 11, 1977

OCS Operations Safety Alert

Fatality -- Crane Accident

An accident during crane operations recently occurred on an offshore platform tender drilling rig resulting in fatal injuries to a roustabout.

The crane had picked up a bundle of tubing on the tender and had moved it to the platform catwalk. A roustabout who could not be seen by the crane operator was aligning the tubing. As soon as the load was aligned properly it was lowered to the catwalk striking the roustabout in the back and pinning him beneath it.

To prevent a recurrence of this accident the operator is taking the following action:

1. A flagman is now positioned on the platform any time equipment is being transferred by the tender crane to and from the platform.

2. The flagman is always to be in visual contact with the crane operator.

3. Both the crane operator and flagman have two-way radios.

[signed] D.W. Solanas

Oil and Gas Supervisor

Field Operations

Gulf of Mexico Area

MMS Safety Alert

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

Notice No. 047

July 9, 1976

OCS Operations Safety Alert

Fatality -- Man Struck by Falling Object

A fatality recently occurred at an offshore platform while offloading equipment from a workboat.

A 700 pound rotary base plate on the workboat had been attached to a crane hoisting cable by means of a chain welded to the base plate. The load was lifted vertically to the necessary height and then the crane boom was moved toward the platform. The chain attached to the base plate parted and the base plate fell to the workboat striking the boat skipper standing on the deck.

To prevent a recurrence of this type of accident the operator is taking the following action:

1. When offloading equipment of this nature, cables, hooks, strings, etc., should be attached to lifting lugs, holes, padeyes, etc., provided for this purpose.

2. A load should not be carried over workmen at any time.

[signed] D.J. Bourgeois

for D.W. Solanas Oil and Gas Supervisor

Field Operations

Gulf of Mexico Area

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MMS Safety Alert

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

Notice No. 036

February 2, 1976

OCS Operations Safety Alert

Fatality

A roustabout was fatally injured recently in an offshore accident during offloading operations from a workboat.

A living quarters was being offloaded from the workboat onto a platform using the platform crane. A roustabout fastened the lifting sling to the top of the quarters and climbed down to the boat deck between the quarters and the cabin of the boat. When the quarters was lifted, it shifted laterally and pinned him between the cabin and the skid of the quarters, inflicting fatal injuries.

To prevent a recurrence of this accident, the operator is taking the following action prior to commencement of extensive lifting operations:

1. All persons concerned will be instructed to avoid pinch points around the load.

2. A signal man will be designated prior to commencement of lifting operations.

The responsibility of this person will be:

(a) To direct all persons involved with lifting operations.

(b) To advise the crane operator when all persons are clear of the load so the load can be safely lifted.

[signed] D.W. Solanas

Oil and Gas Supervisor

Field Operations

Gulf of Mexico Area

MMS Safety Alert

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

Notice No. 020

February 24, 1975

OCS Operations Safety Alert

Crane Accident--Fatality

A recent accident occurred on a drilling rig while offloading a casing spider. The crane operator was booming down when the boom began to fall. The clutch was moved to the neutral position and the brake applied. The boom line parted and the falling line and ball on the fast line struck a roustabout, inflicting fatal injuries.

To attempt to prevent a recurrence of this type accident, the drilling contractor is more closely following the recommendations of the crane manufacturer in reconditioning and maintenance of the crane and is also requiring review of procedures for safe crane operations by all rig personnel.

Available publications containing information for use as guidelines for safe crane operations are as follows:

Offshore Operators Committee, *Manual of Safe Practices in Offshore Operations,* Section XII, "Crane Safety Procedures," New Orleans, Louisiana.

American Petroleum Institute, *API Recommended Practices on Care and Use of Oil- Field Equipment, RP 2D, Offshore Cranes,* Dallas, Texas.

[signature] D.W. Solanas

Oil and Gas Supervisor

Field Operations

Gulf of Mexico Area