

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

For Public Release

1. OCCURRED

DATE: 21-SEP-2016 TIME: 1915 HOURS

2. OPERATOR: Fieldwood SD Offshore LLC

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR:

REPRESENTATIVE:

TELEPHONE:

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR
ON SITE AT TIME OF INCIDENT:

4. LEASE: G02650

AREA: EB LATITUDE:

BLOCK: 110 LONGITUDE:

5. PLATFORM: A-Tequila

RIG NAME:

6. ACTIVITY: EXPLORATION(POE)
 DEVELOPMENT/PRODUCTION
(DOCD/POD)

7. TYPE:

- HISTORIC INJURY
- REQUIRED EVACUATION
 - LTA (1-3 days)
 - LTA (>3 days)
 - RW/JT (1-3 days)
 - RW/JT (>3 days)
 - Other Injury

- FATALITY
- POLLUTION
- FIRE
- EXPLOSION

- LWC HISTORIC BLOWOUT
- UNDERGROUND
 - SURFACE
 - DEVERTER
 - SURFACE EQUIPMENT FAILURE OR PROCEDURES

COLLISION HISTORIC >\$25K <=\$25K

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K **Crane failure**
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

6. OPERATION:

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER **Plug and Abandon Operations**

8. CAUSE:

- EQUIPMENT FAILURE
- HUMAN ERROR
- EXTERNAL DAMAGE
- SLIP/TRIP/FALL
- WEATHER RELATED
- LEAK
- UPSET H2O TREATING
- OVERBOARD DRILLING FLUID
- OTHER _____

9. WATER DEPTH: 660 FT.

10. DISTANCE FROM SHORE: 75 MI.

11. WIND DIRECTION: SSE
SPEED: 5 M.P.H.

12. CURRENT DIRECTION: SSE
SPEED: 3 M.P.H.

13. SEA STATE: 4 FT.

17. INVESTIGATION FINDINGS:

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On September 21, 2016, at approximately 19:15 hours, the crane crew was in the process of repositioning three Product Tanks(P-Tanks)on the deck of the Motor Vessel (MV) Candy Barrel. One tank had been sucessfully moved to the Port side of the boat. The second P-Tank was lifted and repositioned along side of and Starboard of the first P-Tank. Initially, the second P-Tank was placed on the deck with the legs touching the first tank which caused it to be sitting at an angle and not flat on the deck. The Crane Operator was instructed by a person on the platform to pick up on the tank and reposition it again. The Crane Operator picked the tank up and swung it to the left (port side) over the water, then back towards the boat. As the load was swinging Starboard, the Crane Operator stopped it over the first tank. The vertical movement of the boat caused the bottom tank to strike the suspended tank several times which caused the crane to be shock loaded. After the crane became shock loaded the wire rope parted, causing the suspended tank attached to the crane to fall on top of the tank below that was situated onto the deck of the MV Candy Barrel. As a result of the crane being shock loaded the boom buckled and fell onto the Gulf of Mexico.

1. Crane Operator did not know the boom radius at the time of the incident and may have allowed the boom to extend beyond the safe lifting radius of the crane.
2. Crane Operator failed to hoist the load to a safe level above the boat allowing the tank to contact equipment on the boat several times prior to the incident.
3. Crane Operator was receiving signals from multiple personnel both on the boat and the platform.
4. Crane was shock loaded causing the wire rope and boom to fail.
5. Crane Operator was new to the platform and had only operated the crane for the previous two weeks.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

1. Crane Operator did not know the boom radius at the time of the incident and may have allowed the boom to extend beyond the safe lifting radius of the crane.
2. Crane Operator failed to hoist the load to a safe level above the boat allowing the tank to contact equipment on the boat several times prior to the incident.
3. Crane Operator was receiving signals from multiple personnel both on the boat and the platform.
4. Crane was shock loaded causing the wire rope and boom to fail.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

1. Crane Operator was new to the platform and had only operated the crane for the previous two weeks.

20. LIST THE ADDITIONAL INFORMATION:

None

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Crane Boom
Wire Rope
Fast ball and hook
Pendant lines
Supply Boat

Crane Boom
Wire Rope
Fast ball and hook
Pendant lines
Supply Boat

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ESTIMATED AMOUNT (TOTAL): **\$800,000**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

Lake Jackson District has no recommendations at this time.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **YES**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

- **Job Safety Analysis failed to identify this as a heavy lift.**
- **Crane Operator was unaware of the boom radius of the crane at the time of the incident.**
- **Crane Operator was receiving multiple signals from persons other than the Designated Signal Person.**
- **Personnel failed to "Stop Work" when multiple signals where being utilized.**
- **During the repositioning of the second P-tank, the crane was shock loaded resulting in the crane boom parting from the heel and falling into the Gulf of Mexico.**

25. DATE OF ONSITE INVESTIGATION:

22-SEP-2016

26. ONSITE TEAM MEMBERS:

**Ed Keown / Daniel Gonzalez / David
Kearns / James Holmes /**

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

Stephen P. Martinez

APPROVED

DATE: **28-NOV-2016**

Crane/Other Material-Handling Equipment Attachment

Equipment Information

Installation date: **01-JAN-84**

Manufacturer: **SEAKING**

Manufacture date: **01-DEC-83**

Make/Model: **1400 / 1400**

Any modifications since manufactured? Describe and include date(s).

What was the maximum lifting capacity at the time of the lift?

Static: Dynamic:

Was a tag line utilized during the lift? **N**

Were there any known documented deficiencies prior to conducting the lift? If yes, what were the deficiencies?

List specific type of failure that occurred during this incident. (e.g. cable parted, sticking control valve, etc.)

If sling/loose gear failure occurred does operator have a sling/loose gear inspection program in place?

Type of lift:

For crane only:

Type of crane: **HYDRAULIC**

Boom angle at time of incident: Degrees: **0** Radius: **0**

What was load limit at that angle? **38400**

Crane equipped with: **L**

Which line was in use at time of incident? **L**

If load line involved, what configuration is the load block: **4** part.

Load Information

What was being lifted?

Description of what was being lifted (e.g. 10 joints of 2 3/8-inch pipe, ten 500-lb. sacks of sand, 2 employees, etc.)

24000 lb Product Tank

Approximate weight of load being lifted: **24000**

Was crane/lifting device equipped with an operable weight indicator? **Y**

Was the load identified with the correct or approximate weight? **Y**

Where was the lift started, where was it destined to finish, and at what point in the lift did the incident occur? Give specific details (e.g. pipe rack, riser cart, drill floor, etc.)

If personnel was being lifted at the time of this incident, give specific details of lifting device and riding apparatus in use (e.g. 1) crane-personnel basket, 2) air hoist-boatswain chair, other)

Were personnel wearing a safety harness?

Was a lifeline available and utilized?

List property lost overboard.

CRANE BOOM

FAST LINE BALL AND HOOK

PENDANT LINES

WIRE ROPE

Rigger/Operator Information

Has rigger had rigger training? **Y**

If yes, date of last training: **12-JUL-13**

How many years of rigger experience did rigger have? **12**

How many hours was the operator on duty prior to the incident? **12**

Was operator on medication when incident occurred? **N**

How many hours was the rigger on duty prior to the incident? **12**

How much sleep did rigger have in the 24 hours preceding this incident? **12**

Was rigger on medication when incident occurred? **N**

Were all personnel involved in the lift drug tested immediately following this incident?

Operator: **N** Rigger: **N** Other:

While conducting the lift, was line of sight between operator and load maintained?

N

Does operator wear glasses or contact lenses? **N**

If so, were glasses or contacts in use at time of the incident? **N**

Does operator wear a hearing aid? **N**

If so, was operator using hearing aid at time of the incident? **N**

What type of communication system was being utilized between operator and rigger at time of this incident?

RADIO/VHF

For crane only:

What crane training institution did crane operator attend?

SEAKING

Where was institution located? **LAFAYETTE**

Was operator qualified on this type of crane? **Y**

How much actual operational time did operator have on this particular crane involved in this incident?

Years: **5** Months: **0**

List recent crane operator training dates.

21-MAY-2016

For other material-handling equipment only:

Has operator been trained to operate the lifting device involved in the incident? **N**

How many years of experience did operator have operating the specific type of

Inspection/Maintenance Information

For crane only:

Is the crane involved classified as Heavy, Moderate or Infrequent use.

H

Was pre-use inspeciton conducted? **Y**

For the annual/quarterly/monthly crane inspections, please fill out the following information:

What was the date of the last inspection? **26-AUG-16**

Who performed the last inspection?

Was inspection conducted in-house or by a 3rd party? **TP**

Who qualified the inspector? **GULF CRANE**

Does operators' policy require load or pull test prior to heavy lift? **N**

Which type of test was conducted prior to heavy lift? **P**

Date of last pull test: **26-AUG-16** Load test: **04-AUG-16**

Results: **P**

If fail explain why:

Test Parameters: Boom angle: **51** Radius: **60**

What was the date of most recent crane maintenance performed? **04-AUG-16**

Who performed crane maintenance? (Please clarify persons name or company name.)

Was crane maintenance performed in-house or by a third party? **TP**

What type of maintenance was performed?

replaced hoses, fittings, counter balanced valve

For other material-handling equipment only:

Was equipment visually inspected before the lift took place?

What is the manufacture's recommendation for performing periodic inspection on the equipment involved in this incident?

Safety Management Systems

Does the company have a safety management program in place?

Does the company's safety management program address crane/other material-handling equipment operations?

Provide any remarks you may have that applies to the company's safety management program and this incident?

Did operator fill out a Job Safety Analysis (JSA) prior to job being performed?

Did operator have an operational or safety meeting prior to job being performed?

What precautions were taken by operator before conducting lift resulting in ir

Procedures in place for crane/other material-handling equipment activities:

Did operator have procedures written?

Did procedures cover the circumstances of this incident?

Was a copy available for review prior to incident?

Were procedures available to MMS upon request?

Is it documented that operator's representative reviewed procedures before conducting lift?

Additional observations or concerns: