

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: **18-JUN-2015** TIME: **1500** HOURS

2. OPERATOR: **ANKOR Energy LLC**

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR: -

REPRESENTATIVE:

TELEPHONE:

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

4. LEASE: **00830**

AREA: **SS** LATITUDE:

BLOCK: **229** LONGITUDE: -

5. PLATFORM: - **A**

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 **\$125,000+**

H2S/15MIN./20PPM

REQUIRED MUSTER

SHUTDOWN FROM GAS RELEASE

OTHER

6. OPERATION:

PRODUCTION

DRILLING

WORKOVER

COMPLETION

HELICOPTER

MOTOR VESSEL

PIPELINE SEGMENT NO.

OTHER

8. CAUSE:

EQUIPMENT FAILURE

HUMAN ERROR

EXTERNAL DAMAGE -

SLIP/TRIP/FALL

WEATHER RELATED

LEAK

UPSET H2O TREATING

OVERBOARD DRILLING FLUID

OTHER _____

9. WATER DEPTH: **130** FT.

10. DISTANCE FROM SHORE: **62** MI.

11. WIND DIRECTION: -

SPEED: M.P.H.

12. CURRENT DIRECTION:

SPEED: M.P.H.

13. SEA STATE: FT.

At approximately 1300 hours on June 18, 2015, an incident occurred on the Ship Shoal 229 A (SS-229A) structure, operated by ANKOR Energy LLC (Ankor). While attempting to offload equipment from the structure onto an offshore vessel, the platform crane boom suffered a major structural failure.

While lowering the load down to the vessel, the crane operator realized something was wrong when the booms swing control became inactive. The load was approximately 10 to 20 feet above the deck of the boat, with the boom at a 70 degree angle. The crane operator called his lead operator via company radio alerting him of the situation. Once the lead operator met him in the crane cab, both men noticed what sounded to them like failure of the boom hydraulic pistons and then realized that the boom and load were lowering uncontrollably. The crane operator then tried to raise the boom when it collapsed in the middle dropping the load onto the starboard side and deck of the vessel. The crane operator then lowered the load line block to enable the deckhand to unhook the slings, which allowed the vessel's captain to move away from the area. A company field mechanic was then brought to the platform to secure the crane boom in its cradle.

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

A. Information from Ankor's Employee Health, Safety, and Environmental Handbook states:-

1. Page 113, item 2: "Heavy materials/equipment being transported offshore shall be labeled to identify the 'weight' prior to being loaded onto the M/V."-

1a. The operator's shorebase cargo manifest dated 6/3/2015, shows the total (gross) weight of several loads rather than the actual weights of each individual load.-

2. Page 143 Crane Safety states: "It is Ankor's policy that all crane operations, maintenance and inspections shall comply with API-RP-2D current edition as per the federal registry."-

2a. API-RP-2D 3.2.1 c states in part: "The crane operator should verify that the hook-load is within the crane's applicable Onboard or Offboard Rated Load at the radius at which the load is to be lifted."-

2b. The crane operator was using an assumed load weight of 12,000 - 14,000 pounds rather than verifying the actual weight of 20,300 pounds. The maximum rated capacity for this crane at a boom angle of 70 degrees was 15,000 pounds. The actual weight of the load greatly exceeded the lifting capacity of the boom.-

Note: Although not required by RP-2D, a weight indicator in the crane may have aided in the prevention of this accident.-

3. Page 148 Lift Planning item 2 states: "Always consider the following questions when planning a lift: Equipment? Weight? Distance?"-

3a. It is the crane operator's responsibility to confirm the actual weight of the load-prior to lifting.-

4. Page 149 Safe Crane Operation Guidelines item 6 states: "No crane will be operated-beyond its rated load limits. If in doubt do not make the lift."-

4a. The operator should have realized something was wrong when the crane was previously unable to lift the load off of the boat deck on June 4, 2015.-

5. Page 154 Review of Critical Lifts item 1 states: "Identify the weight of the load to be lifted."-

5a. See 3a response.-

6. Page 155, item 1 states in part: "The crane load chart shall be reviewed."-

6a. See 3a response.-

7. Page 162 Safe Crane Operations Involving Marine Vessels item 3 states: "Cargo manifests showing both the loads and their weights should be faxed from the shore base to the affected offshore facility and communicated to the crane operator lift(s)

preparation."

7a. The information on the cargo manifest dated 6/3/2015, should have indicated actual weights per lift and not total weights. As shown on the manifest, the operators divided the 40,000-pound total weight by 3 to get the assumed (mistaken) weight of 13,300 pounds per lift. This error may be a leading factor in the crane boom failure.

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

- 1. When the offshore supply vessel arrived at the SS-229A structure on June 4, 2015, several attempts were made to offload the cargo basket without success. The operator brought in a third party crane inspector from one of their South Marsh Island platforms to service the crane. The crane inspector noted on his report that he increased the hydraulic relief pressure from 2000 psi to 2500 psi. He also noted on the report that the "totes" to be lifted were around 14,000 pounds. It was later found out that this assumption was far lower than the actual weight of 20,000 pounds.
- 2. The SS-229A structure has an adjoining structure, SS-229C. There is a larger Sea-King crane located on this structure with a weight indicator installed. If the operator had instructed the motor vessel to move over to the C structure upon realization of lifting difficulties, they might have discovered the true weights of the loads.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Platform crane boom
 Starboard side boat rail
 Some boat deck boards

Major damage to the crane boom
 Minor damage to the boats rail
 Potential replacement of some deck boards

ESTIMATED AMOUNT (TOTAL): \$125,000

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The Houma District has no recommendations for the Regional Office.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

- * The operator failed to follow company policy in several instances.
- * The operator assumed instead of verifying actual weights of individual loads.

* The operator chose to bring in a third party crane inspector to increase the lifting power of the crane prior to verifying the actual weight of the loads with the other available crane equipped with a weight indicator.

25. DATE OF ONSITE INVESTIGATION:

22-JUN-2015 -

For Public Release

26. ONSITE TEAM MEMBERS: -

Ryan Derbes / Curtis Phillips / -
Terry Hollier / -

29. ACCIDENT INVESTIGATION -

PANEL FORMED: - NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Bryan Domangue

APPROVED

DATE: 11-SEP-2015