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

ACCIDENT INVESTIGATION REPORT

For Public Release

	OCCURRED DATE: 31-MAY-2017 TIME: 1410 HOURS OPERATOR: Arena Offshore, LP	STRUCTURAL DAMAGE X CRANE OTHER LIFTING DEVICE DAMAGED/DISABLED SAFETY SYS.
	REPRESENTATIVE: TELEPHONE: CONTRACTOR: ISLAND OPERATORS CO. INC. REPRESENTATIVE: TELEPHONE:	INCIDENT >\$25K H2S/15MIN./20PPM REQUIRED MUSTER SHUTDOWN FROM GAS RELEASE OTHER
3.	OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR ON SITE AT TIME OF INCIDENT:	6. OPERATION: X PRODUCTION
4.	LEASE: G02118 AREA: EI LATITUDE: BLOCK: 338 LONGITUDE:	DRILLING WORKOVER COMPLETION HELICOPTER MOTOR VESSEL
5.	PLATFORM: K RIG NAME:	PIPELINE SEGMENT NO. OTHER
6.	ACTIVITY: EXPLORATION(POE) X DEVELOPMENT/PRODUCTION	8. CAUSE: EQUIPMENT FAILURE
7.	TYPE: HISTORIC INJURY X REQUIRED EVACUATION 1 LTA (1-3 days) X LTA (>3 days 1 RW/JT (1-3 days) RW/JT (>3 days) Other Injury FATALITY	X HUMAN ERROR EXTERNAL DAMAGE SLIP/TRIP/FALL WEATHER RELATED LEAK UPSET H2O TREATING OVERBOARD DRILLING FLUID OTHER 9. WATER DEPTH: 270 FT.
	POLLUTION FIRE EXPLOSION	10. DISTANCE FROM SHORE: 67 MI.
	LWC HISTORIC BLOWOUT UNDERGROUND	11. WIND DIRECTION: SPEED: M.P.H.
	SURFACE DEVERTER SURFACE EQUIPMENT FAILURE OR PROCEDURES	12. CURRENT DIRECTION: SPEED: M.P.H.
	COLLISION HISTORIC >\$25K <=\$25K	13. SEA STATE: FT.
		14. PICTURES TAKEN:
		15. STATEMENT TAKEN:

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On May 31, 2017 at approximately 1410 hours, an employee was severely injured by a construction tool house that was being moved with the platform crane.

A crane operator was attempting to relocate a construction tool house from the cellar deck to the drill deck. The tool house weighed approximately 10,000 lbs. The rigger was located on the cellar deck hooking up the tool house to the slings. The crane operator could not see the rigger on the cellar deck; therefore, radios were used between the rigger and the crane operator to communicate. As the tool house was being lifted, it came in contact with a piece of channel iron. The channel iron was located behind the tool house approximately 9 1/2 ft. above the deck connected to a structural member. The channel iron extended approximately 1 ft. but it's reason for being there is unknown to the employees on board. The crane operator stated he noticed the weight indicator increase briefly, and then went back to the previous reading.

During the lift, additional third party personnel were located on the drill deck looking down at the rigging operations. As the crane operator began the lift, a third party employee observed the tool house coming in contact with the channel iron. Due to the height of the tool house, the rigger could not detect any hazards associated with the lift. The third party employee attempted to get the crane operators attention to stop the lift but was unsuccessful.

The rigger inadvertently placed himself between the tool house and a handrail allowing a possible pinch point hazard. Once the load separated from the channel iron, it shifted causing the rigger to get wedged between the tool house and the hand rails. Following the contact with the handrails, the rigger complained of pain in his left hip. The injured employee sustained a fractured pelvis and has undergone surgery.

The BSEE Lafayette District conducted an onsite investigation June 7, 2017.

*As per Wood Group's GOM-SWP-Cranes and Lifting Equipment Standard 4.10 Signal states signals to operators shall include use of the hand, voice and/or audible method. Means of transmitting the signals (direct line of sight, radio, etc.) must be suitable and appropriate for the site conditions.

Signals between the Crane Operator and designated signal person shall be discernible, audibly or visually at all times. The Crane Operator shall not respond unless signals are clearly understood.

A signal person must be provided for the following situations:

- 1. The point of operation is not in full view of the operator
- 2. The view is obstructed when the equipment is traveling
- 3. The operator or the person handling the load determines it is necessary due to site specific concerns

*As per Island Operating's Safe Practices Manual

- 28.45 Crane movement shall always be governed by a standard set of signals, transmitted to the operator by a signalman.
- 28.47 Signalers should be provided with a clearly identifiable marking, such as a conspicuous arm band, hat, glove or other badge of authority.
- 28.48 Where visual or audible signals are inadequate, telephone or portable radio communication should be used.
- *As per Island Operating's Job Safety Analysis dated May 31, 2017, Section 5-Always watch out for your co-worker to insure that they are in a safe place and out of the line of fire before making lift from the platform.

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

The rigger inadvertently placed himself in a hazardous location allowing the tool house and a handrail to be a possible pinch point hazard.

- 19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:
 - *As per Wood Group's GOM-SWP-Cranes and Lifting Equipment Standard 4.10 Signals states signals to operators shall include use of the hand, voice and/or audible method. Means of transmitting the signals (direct line of sight, radio, etc.) must be suitable and appropriate for the site conditions.
 - Signals between the Crane Operator and designated signal person shall be discernible, audibly or visually at all times. The Crane Operator shall not respond unless signals are clearly understood.
 - A signal person must be provided for the following situations:
 - 1. The point of operation is not in full view of the operator
 - 2. The view is obstructed when the equipment is traveling
 - 3. The operator or the person handling the load determines it is necessary due to site specific concerns
 - *As per Island Operating's Safe Practices Manual
 - 28.45 Crane movement shall always be governed by a standard set of signals, transmitted to the operator by a signalman.
 - 28.47 Signalers should be provided with a clearly identifiable marking, such as a conspicuous arm band, hat, glove or other badge of authority.
 - 28.48 Where visual or audible signals are inadequate, telephone or portable radio communication should be used.
 - *As per Island Operating's Job Safety Analysis dated May 31, 2017, Section 5-Always watch out for your co-worker to insure that they are in a safe place and out of the line of fire before making lift from the platform.
- 20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

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ESTIMATED AMOUNT (TOTAL):

N/A

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The BSEE Lafayette District office makes no recommendations to the Regional Office of Incident Investigations (OII).

- 23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES
- 24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G110 (C) Does the Lessee perform all operations in a safe and workmanlike manner and provide for the preservation and conservation of property and the environment?

Upon the BSEE onsite Accident Investigation, the following items were found to be part of an unsafe crane operation which caused severe injury to a lessee contract representative.

Number 1 task step listed on the potential hazard section of the Job Safety Analysis (JSA) focuses on poor communication not understanding hand signals. The investigation revealed lack of communication in regards to rigging personnel not effectively communicating with the crane operator in a timely fashion to eliminate this undesirable event. It is important to note that there was no line of sight during signals so the signals so the signals were communicated via radio, in which the crane operator never heard the communication trying to be established with him to stop the lift.

Number 5 task step listed on the potential hazard section of the JSA focuses on making lifts. Hazard controls on this section of the JSA stresses "staying out of the line of fire". The injured person (IP) was located directly in between a major pinch point (large, 10,000 lb. construction tool box and handrails). The load (top of)came in contact with a piece of metal channel iron which protrudes from one of the structural members. Once the load broke free from the bind (structural member metal channel iron), it smashed the IP who was locted in between the two aforementioned items, also which would be defined as in the line of fire.

25. DATE OF ONSITE INVESTIGATION:

07-JUN-2017

26. ONSITE TEAM MEMBERS:

Raymond Johnson / John Mouton / Wade Guillotte /

28. ACCIDENT CLASSIFICATION:

29. ACCIDENT INVESTIGATION PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Elliott Smith

27. OPERATOR REPORT ON FILE:

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APPROVED

DATE: 27-JUL-2017

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