

A photograph of an offshore oil rig at sunset. The rig is silhouetted against a sky with orange and yellow clouds. The rig's reflection is visible in the calm water below. The background has a dark blue gradient with a pattern of small white dots.

BSEE Risk Based Inspections – Using Data to Drive Performance

A COS Webinar
July 22, 2021



No discussion or agreements, either explicit or implicit, regarding prices of particular products, services, or commodities nor of individual company scenarios, business plans, purchasing plans, or pricing.

ANTITRUST

Agenda



Introduction

Russell Holmes



BSEE RBI Presentation

Jason Mathews



Q&A

Jason Mathews



Conclusion

Russell Holmes



COS Overview

The Center for Offshore Safety is designed to promote the highest level of safety for the offshore oil and gas industry through effective leadership, communication, teamwork, use of disciplined management systems and independent third-party auditing and certification.

COS will achieve operational excellence by:

- Enhancing and continually improving industry's safety and environmental performance.
- Improving public confidence and trust in the oil and gas industry.
- Increasing public awareness of industry's safety and environmental performance.
- Fostering collaboration between industry, the government, and other stakeholders to develop and share good practices and learnings.



SEMS AUDIT & CERTIFICATES



DATA COLLECTION, ANALYSIS & REPORTING



GOOD PRACTICE DEVELOPMENT



SHARING INDUSTRY KNOWLEDGE

Using Data to Drive Performance

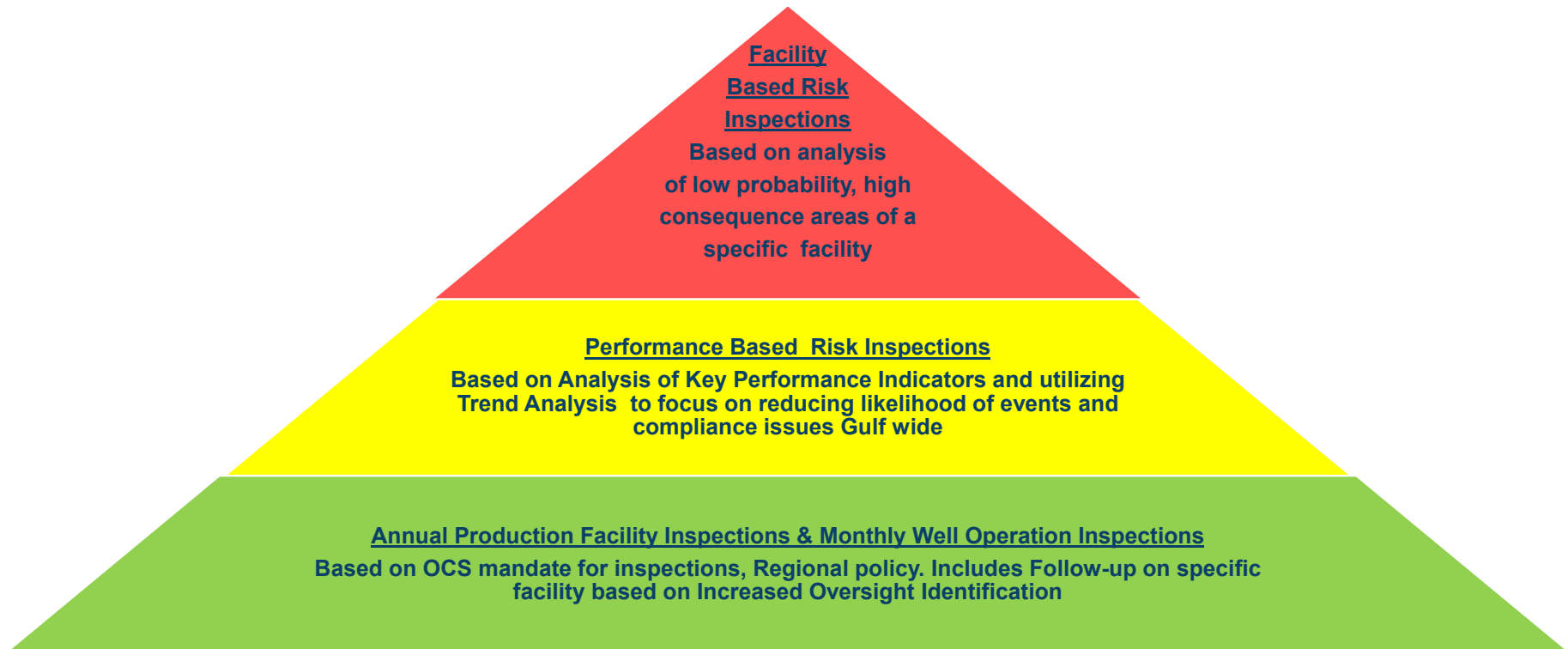
Office of Safety Management

Gulf of Mexico Region

“To promote safety, protect the environment and conserve resources offshore through vigorous regulatory oversight and enforcement.”



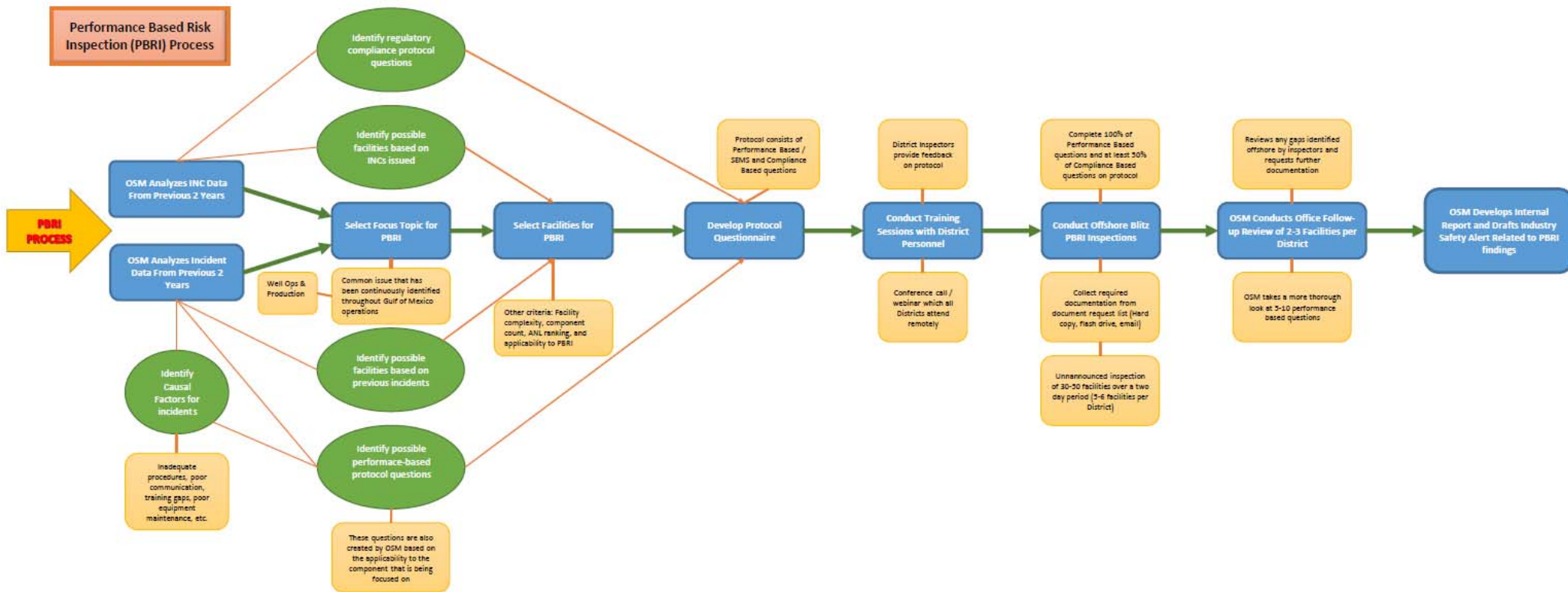
BSEE Inspection Program



BSEE RBI Program

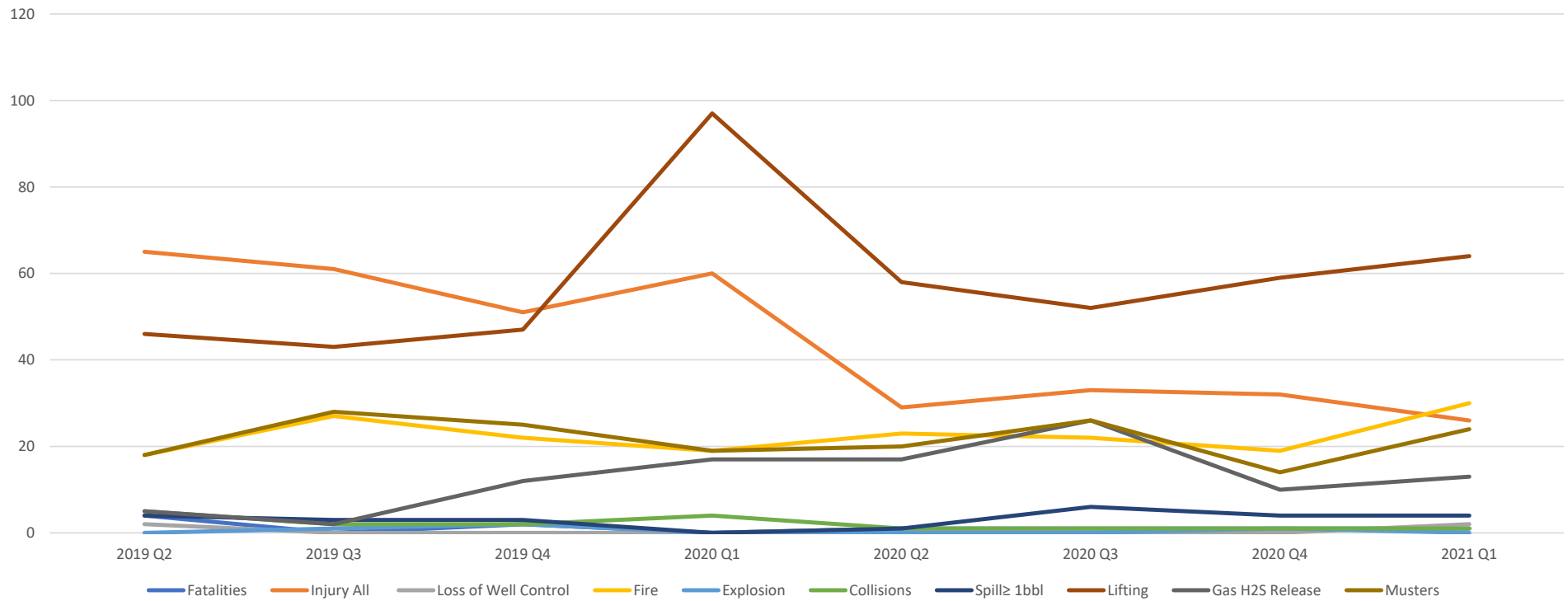


Overview of Dropped Object PBRI

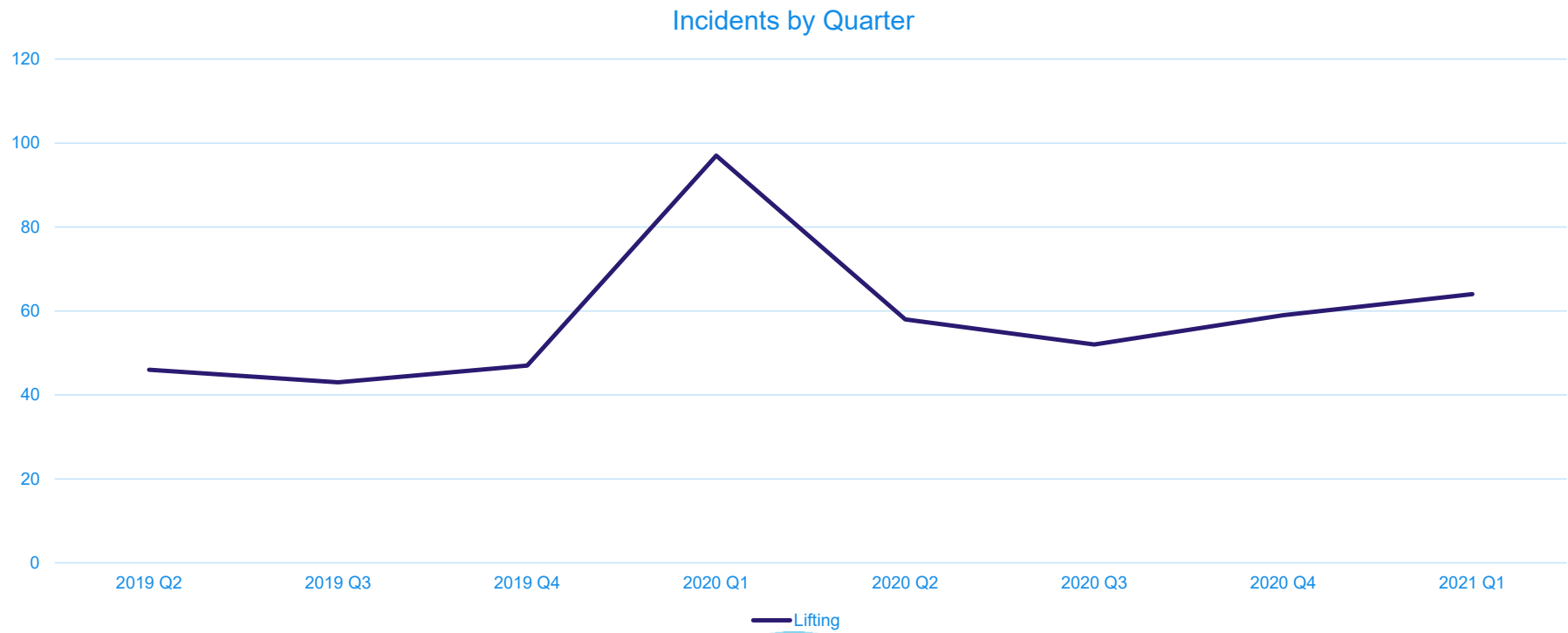


What was the data telling BSEE?

Incidents by Quarter



OCS Lifting Trend

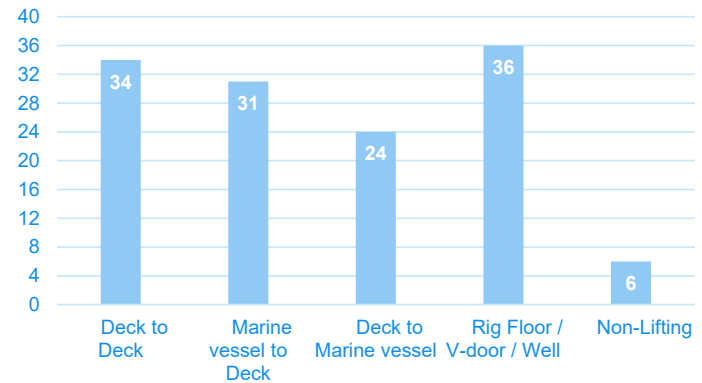


Nov 2020 – April 2021 Trends

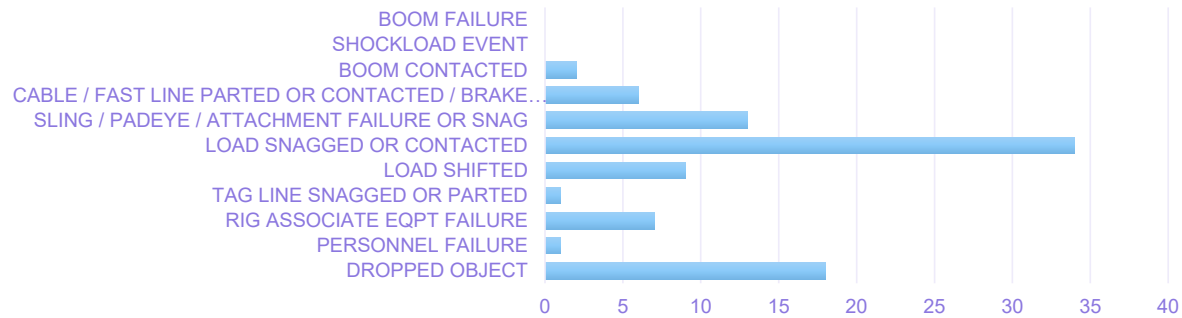
LIFTING INCIDENTS BY OPERATION TYPE



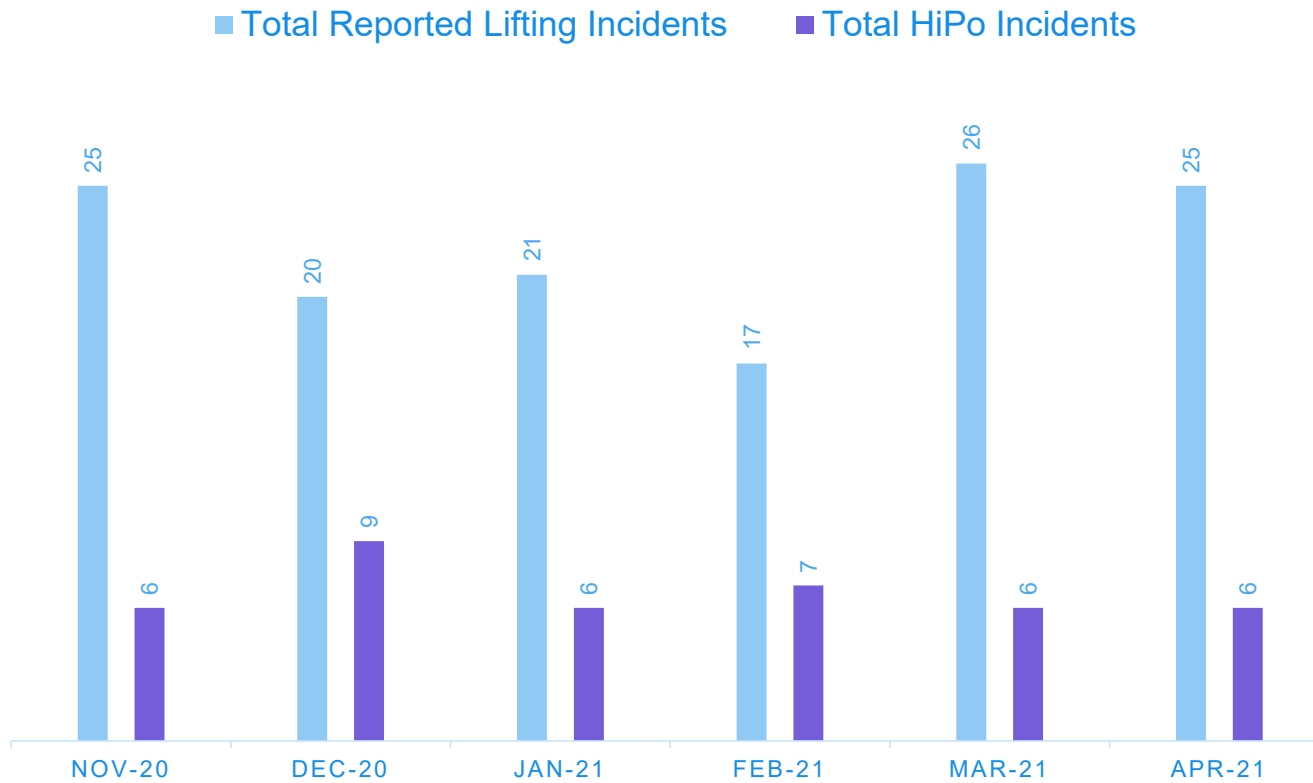
Lifting Incidents by Type of Lift



Types of Lifting Failures

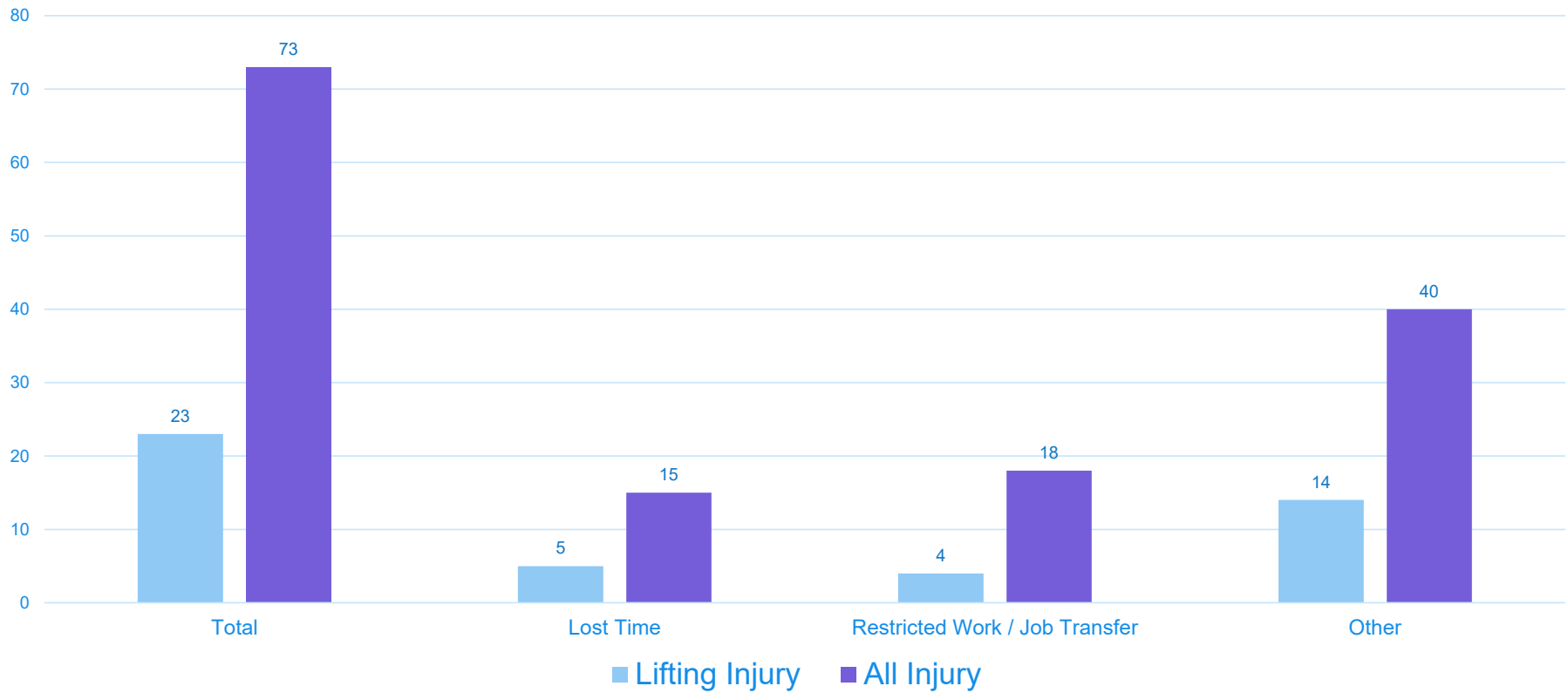


Nov 2020 – April 2021 Trends

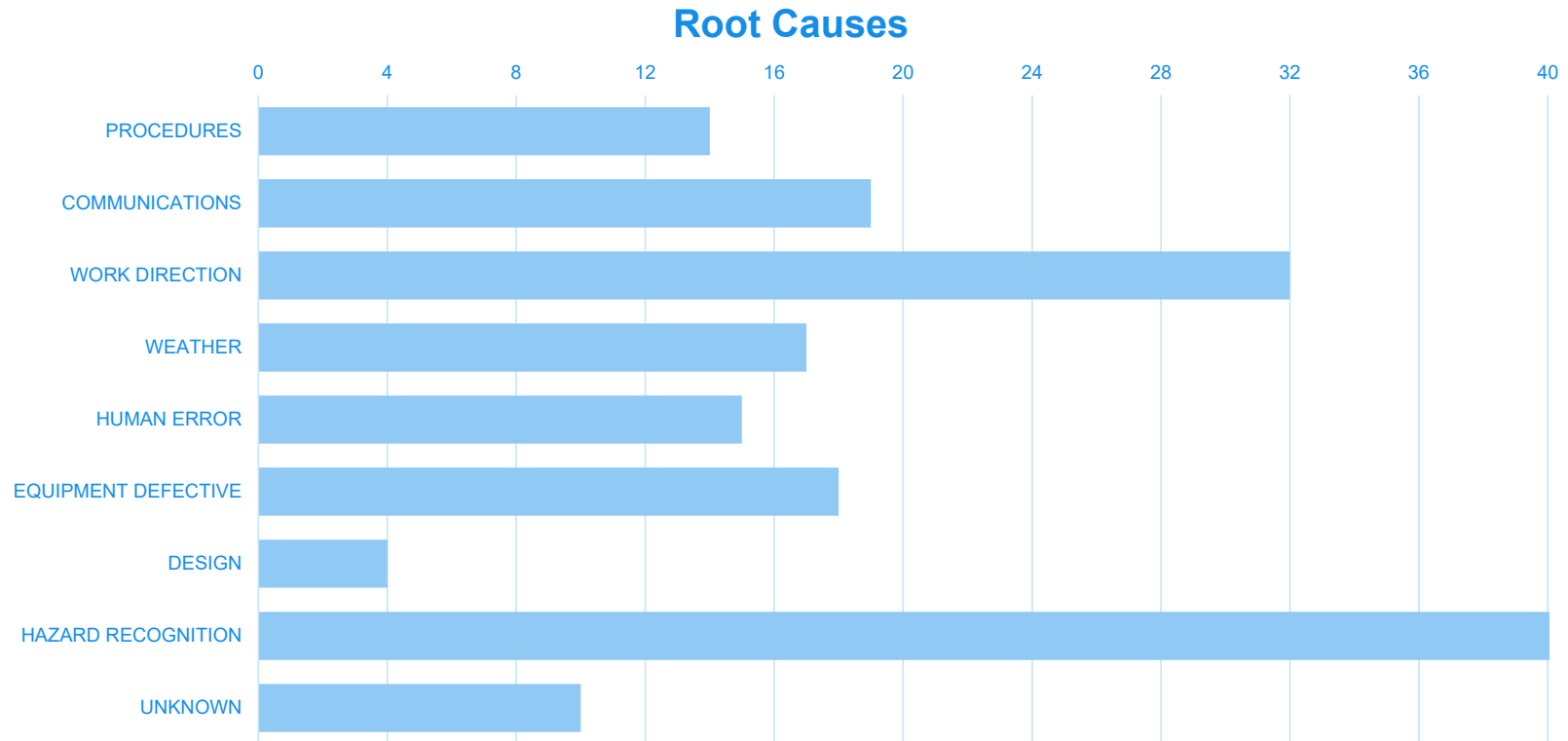


Nov 2020 – April 2021 Trends

GOM Lifting Injuries vs. Total Injuries

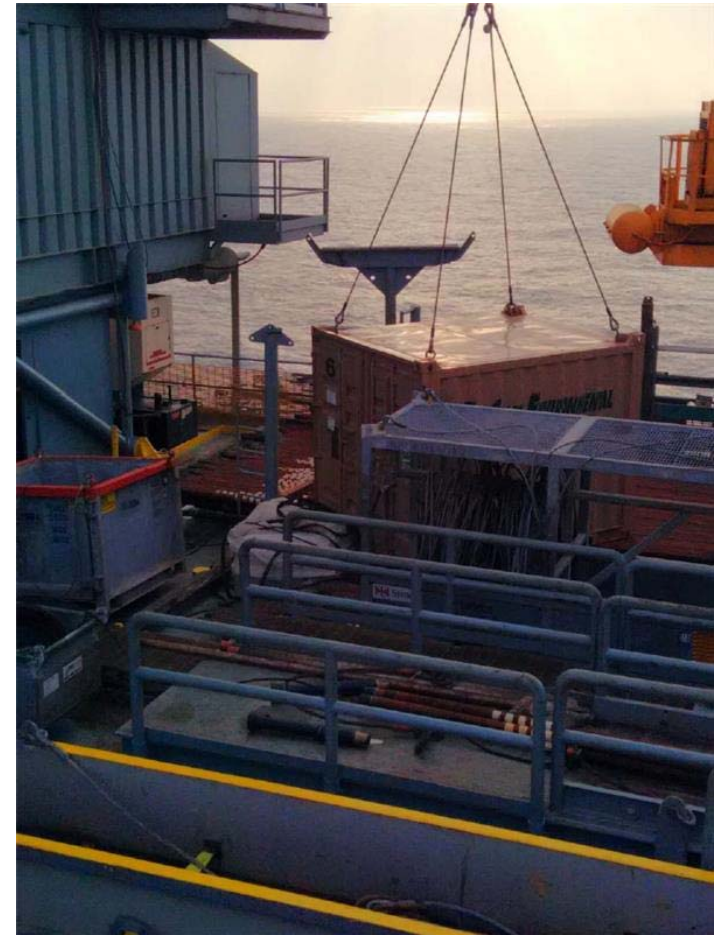


Nov 2020 – April 2021 Causal Factors



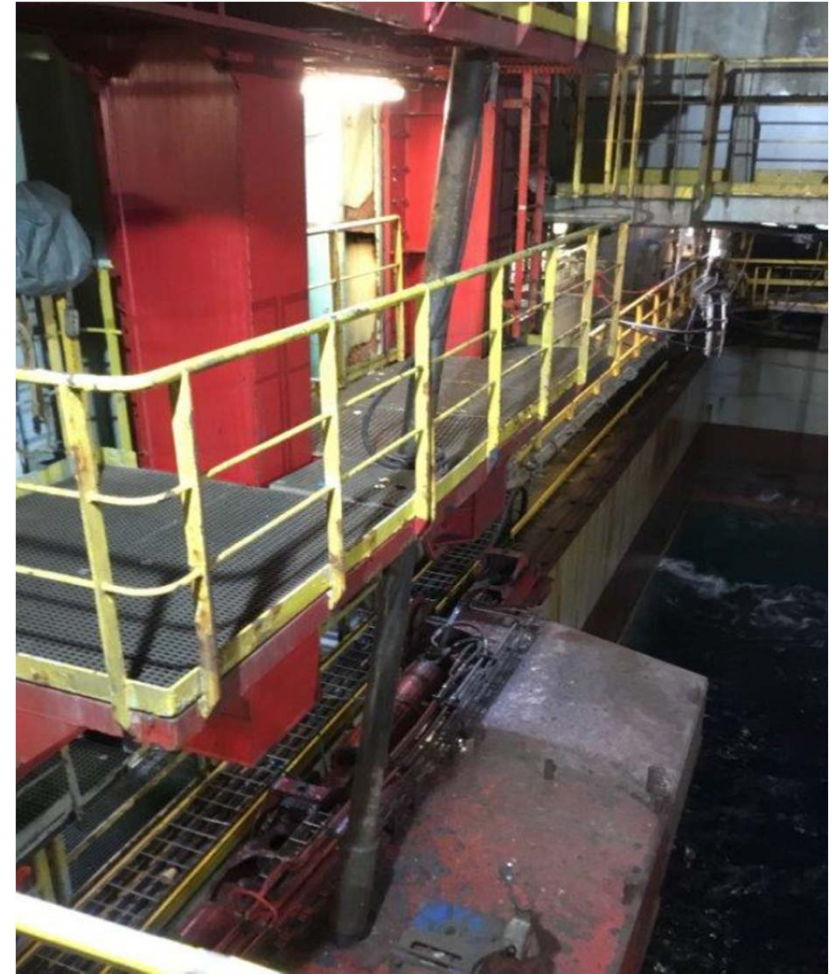
WORK DIRECTION - HiPo

- Path of load, safe zones, and escape routes were not discussed pre-job.
- Boom tip was not centered over the load, causing it to swing.
- Designated Signal Person (DSP) did not have a clear line of sight of the Injured Person (IP).



HAZARD RECOGNITION – HiPo

- Connection between test joint and lift sub were made up with chain tongs vs iron roughneck 32 hours prior to the incident.
- Motion of the vessel loosened the connection over the 32 hours.



HiPo Event with Multiple Common Root Causes

- No communication with M/V employees.
- No pre-job briefing or pre-lift meeting to assign roles.
- Wind caused basket to start rotating.



Expansion of Lifting Causal Factors

- Failed to confirm the load was centered prior to either commencing the initial lift or repositioning the load.
- Failed to ensure adequate clearance in the landing zone:
 - Crew did not recognize until load was closer to the landing zone that the area was too tight to fit the load.
- Potential obstructions failed to be identified during the pre-job reviews when determining the load travel path.
- Lack of timely communication between the Designated Signal Person (DSP) and the Crane Operator.
- Operations either conducted inconsistently or not covered under current established SOPs.



BSEE Recommendations to Industry

- Continuously reinforce hands-off policies during pre-job meetings.
- When deviations occur, stop work and reassess the job scope.
- When communicating real-time work instructions to personnel involved in the task, do not disregard any newly introduced hazards (i.e., abrupt heightened weather conditions).
- Inspect loads at dock prior to transportation to verify certification dates, weights, working limits, condition of slings, shackles, thread protectors, etc.
- Re-emphasize the importance of red zones and monitoring moving equipment on the rig floor.



BSEE Actions

- Multiple Applicable Safety Alerts have been drafted and are currently in review by BSEE GOM Regional Management:
 - Recent Uptick in Lifting Injuries due to Unrecognized Pinch Point Hazards
 - Miscommunication of Manifest Weights
 - Jacking Up Lift-Boat During Crane Operations Causes Injury
- Active Participant in API Safe Lifting Conference in Sept. 2021
- Dropped Object Performance Based Risk Inspection (PBRI) June 2021




Dropped Objects PBRI

- 20 facilities/rigs inspected over the course of 2 weeks across the GOM.
- 18 Protocol Questions that covered JSAs, SWPs, OPs, Training, etc.
 - 90 BSEE personnel trained over 4 sessions
- 14 Unique Operators
- Follow-up meetings and reports outs to Designated Operators on a facility-by-facility basis



Dropped Object PBRI Protocol



BSEE
Bureau of Safety and
Environmental
Enforcement

Revised 5/13/2021

BSEE Performance Based Risk Inspection
Inspection Form: Dropped Objects PBRI

BSEE Inspector Printed Name: _____ Date Recorded: _____
 BSEE Inspector Printed Name: _____ Date Recorded: _____
 BSEE Inspector Printed Name: _____ Date Recorded: _____
 Location (Area Block and Name): _____ Rig/Plat ID: _____
 Designated Operator: _____ Operator Representative: _____
 Facility/Rig Contractor: _____ Contractor Representative: _____

PIC=Person In Charge OP=Operator Rep

Compliance (C) - PBRI (PB)	Number	Task Mark, if Completed	Task Mark, if Not Completed	Task Mark, if Not Applicable	Additional Documentation Required	BSEE Inspector(s) Task Initials	District or OSM	Operator SME	Task Time Estimate	Procedure / Tasks <i>(Words in parentheses are intended to inform the person administering the evaluation and do not need to be asked.)</i>	Comments Section Note: Deficiency & comments document below
PB	1							N/A	10min	<p>Does the Operator / Contractor have a dropped object prevention program implemented at the subject facility? If applicable, ask for the latest dropped object inspection(s). Quickly review and determine if any corrective actions should have been undertaken in a timely manner based on the dropped object inspection(s) / hazard hunt(s).</p> <p>Inspection should be scheduled at a suitable frequency taking into account the types of activities being undertaken in an area and should identify all potential opportunities for items to become dislodged or damaged during normal operations.</p> <p>These inspections should look at the primary and secondary methods (i.e. secondary retention) of securing for items and if either is defective then this should be identified and remedied accordingly through a Mechanical Integrity / work order system.</p>	
PB	2							OPI/PIC		<p>When was the last Hazard Hunt conducted by the operator / contractor for dropped objects on the subject facility? BSEE teams should walk the facility with platform representative and look for:</p> <ul style="list-style-type: none"> • Unsecured objects stored or unsecure at height • Items left on top of containers / skid frames / grating etc • Items stored inappropriately at height • stacking material next to handrails • Items that are locally modified / homemade and not certified • Items loaded with inadequate means to secure properly • Uncertified lifting equipment (slings, rigging, etc...not up to date) 	



Focus – Lifting, Dropped Object

Outcome Calculator

Height: 30 ft

Mass: 1.1 lb

Outcome: Minor

Outcome Calculator

Height: 25 ft

Mass: 2 lb

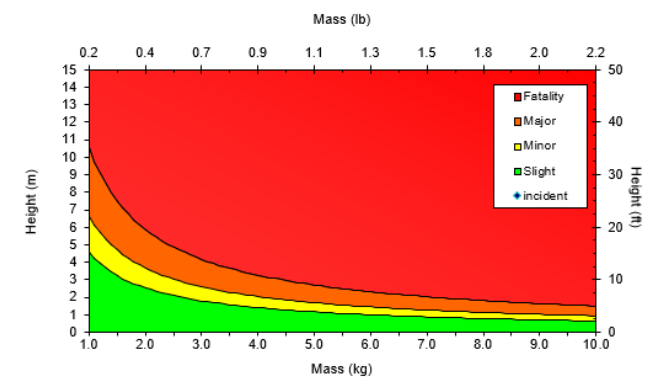
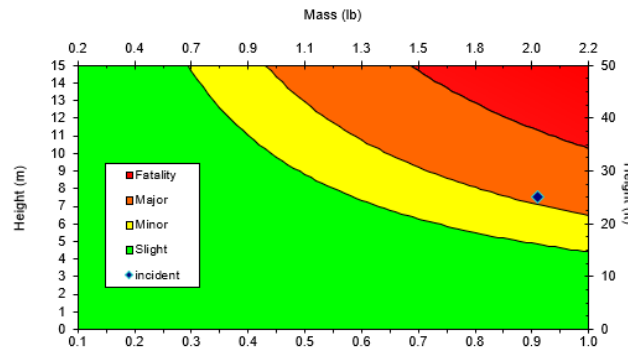
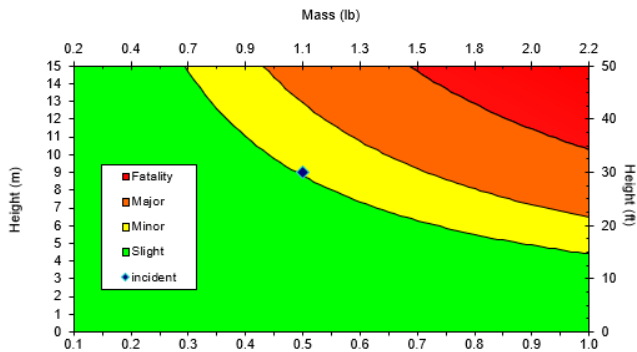
Outcome: Major

Outcome Calculator

Height: 26 ft

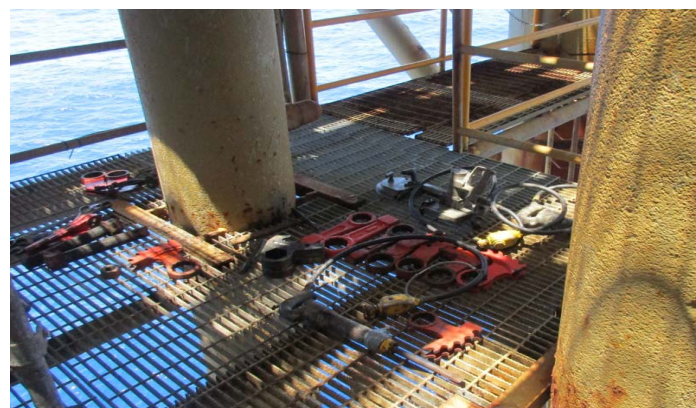
Mass: 5.9 lb

Outcome: Fatality







Dropped Object PBRI Finding & Recommendation

- During the PBRI, 10-percent of the facilities inspected were issued incidents of noncompliance (INCs) for issues associated with the Dropped Objects inspection.
- Recommendation: OCS Operators should review the results of the Dropped Objects PBRI and use it as a basis for conducting focused Hazard Hunts on their GOM facilities to reduce the likelihood of similar incidents. Operators should continuously inspect their assets for any potential drops (lifting and non-lifting) to prevent the occurrence of dropped objects, and document the findings and associated corrective actions accordingly.



Dropped Object PBRI Finding & Recommendation

- BSEE concluded the majority of inspected production facilities did not have an implemented dropped object prevention program; however, programs on deep-water drilling rigs appeared to be implemented for identifying and mitigating the hazards associated from objects that have the potential to fall from height.
- Recommendation: Offshore Production Operators and Contractors should develop a Prevention of Dropped Objects strategy and action plan to identify and assess individual work areas and activities for dropped object potential. This strategy should cover both dynamic and static dropped objects. A dynamic dropped object is an object that falls from its previous position due to applied force. A static dropped object is an object that falls from its previous position under its own weight without any applied force.

																	
QUALITY ENTERPRISE MANAGEMENT SYSTEM																	
HEALTH, SAFETY AND ENVIRONMENT MANUAL																	
LEVEL 2: PROCEDURE																	
TITLE: DROPPED OBJECT PREVENTION PROGRAM																	
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<table border="1"> <tr> <td colspan="2" style="text-align: center;">  </td> </tr> <tr> <td colspan="2"> <small>CREATED / REVISED BY:</small> RICHARD GRAYSON </td> </tr> <tr> <td style="width: 50%;"> <small>APPROVED BY:</small> CLYDE D. LOLL </td> <td style="width: 50%;"> <small>DATE:</small> April 26, 2018 </td> </tr> <tr> <td> <small>AUTHORIZED BY:</small> STEVEN T. WILLIAMS </td> <td> <small>DATE:</small> April 26, 2018 </td> </tr> </table>			<small>CREATED / REVISED BY:</small> RICHARD GRAYSON		<small>APPROVED BY:</small> CLYDE D. LOLL	<small>DATE:</small> April 26, 2018	<small>AUTHORIZED BY:</small> STEVEN T. WILLIAMS	<small>DATE:</small> April 26, 2018	<table border="1"> <tr> <td><small>DOCUMENT NUMBER</small></td> <td>HSE-PRO-010</td> </tr> <tr> <td><small>REVISION</small></td> <td>1</td> </tr> <tr> <td><small>NUMBER OF PAGES</small></td> <td>12</td> </tr> <tr> <td><small>*NUMBER OF APPENDICES * If NONE, write "NONE"</small></td> <td>1</td> </tr> </table>	<small>DOCUMENT NUMBER</small>	HSE-PRO-010	<small>REVISION</small>	1	<small>NUMBER OF PAGES</small>	12	<small>*NUMBER OF APPENDICES * If NONE, write "NONE"</small>	1
																	
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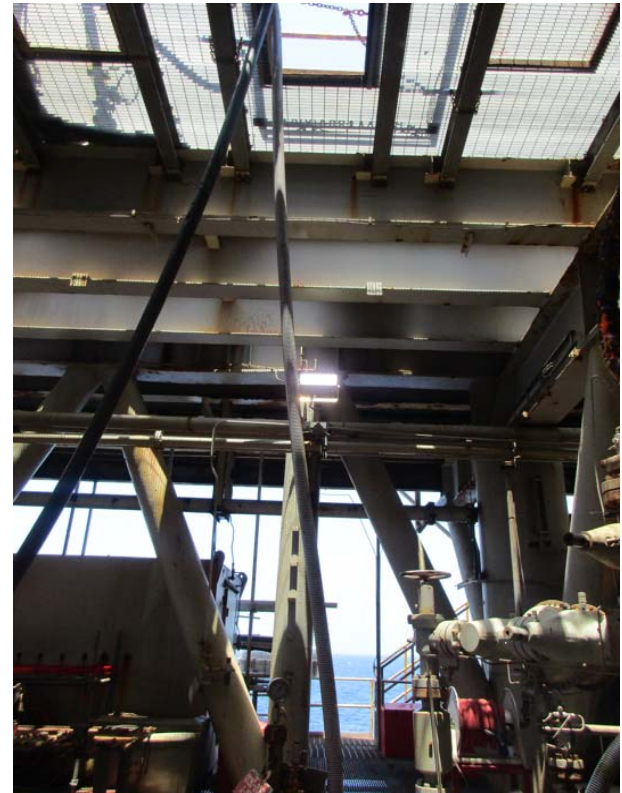
Dropped Object PBRI Finding & Recommendation

- BSEE concluded most of the facilities inspected had some version of a Hazard Hunt, but only a limited portion focused on the potential of dropped objects on the subject facilities. Additionally, BSEE inspection teams confirmed the majority of hazard hunts were not documented, and BSEE identified hazards on multiple facilities that had never been identified in previous Hazard Hunts conducted by either the Operator or Contractor representatives.
- Recommendation: Operators and Contractors should establish regular inspection frequencies of areas for identifying any potential dropped objects and record the results within a work order register. At a minimum, inspections should focus on a specific area and include procedures to look for unsecured objects stored or unsecured at height; items left on top of containers / skid frames / grating etc.; items stored inappropriately at height; stacking material next to handrails; items that are locally modified / homemade and not certified; items loaded with inadequate means to secure properly; and uncertified lifting equipment (slings, rigging, etc...not up to date).



Dropped Object PBRI Finding & Recommendation

- During the Dropped Object PBRI, BSEE identified good practices of barrier management while lifts were taking place and in the presence of moving equipment on the rig floor. On lifts not associated with the rig floor and work above decks on production facilities, restricted access areas need improvement.
- Recommendation: Operators and Contractors should identify those areas on the facility where there is a significant risk of being struck by dropped objects or moving equipment. Once the areas are identified, the information shall be communicated to offshore personnel, and the areas should be appropriately marked with signs and/or barriers. Dropped Object Prevention Programs should be inclusive of pedestal cranes and other lifting devices; not exclusively associated with well operations in and around the rig floor.



Dropped Object PBRI Finding & Recommendation

- BSEE concluded the majority of the Operators did not have specific training requirements for the prevention of dropped objects for the offshore personnel at the facilities.
- Recommendation: Operators and Contactors should develop standalone training requirements for those individuals exposed to or undertaking the inspection of potential dropped objects. The individuals should be given suitable information and guidance on how to identify, categorize, and mitigate items with the potential to become a dropped object.



TRAINING MATRIX (GOM)

Training Course	Regulatory Reference	Refresher Interval	Rig Manager/Pusher	Driller/Assistant Driller/Pit Assistant Driller	Deck Foreman	Derrickhand	Floorhand	Crane Operator	Roustabout	Field Coordinator/Rig Clerk	Mechanic	Motorman	Electrician	HYD Technician	Equipment Technician	Field Technician	Electrician/Roustabout	Welder	
Stop & Talk About Risk - STAR	Best Practices	Once	X		X														
Back Safety	Best Practices	1 yr.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
BBSP	Best Practices	Once	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Bloodborne Pathogens	OSHA 29 CFR 1910.1030 (g)	1 yr.	X	X	X			X		X									
Confined Space	OSHA 29 CFR 1910.146 (g)	3 yr.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dropped Objects Prevention	NOC	1 yr.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Dropped Object PBRI Finding & Recommendation

- During the Dropped Object PBRI, BSEE concluded JSAs were completed for operations at the time of the inspection; however, multiple gaps were identified by BSEE teams that need improvement. For example, JSAs were not completed at the worksite to visually inspect for hazards; JSAs were limited to pre-printed text and not further analyzed; and JSAs with lifts, e.g. Pick-up Pipe from V-door, completely negated the potential for dropped object potential.
- Recommendation: Operators and Contactors should evaluate all lifting JSAs to ensure they address: the control of objects with the potential to fall; the work area was visually inspected for loose items; any areas below elevated work decks / mezzanine decks with the potential for dropped objects are secured with barrier and warning tags identifying the hazard; and evaluating the condition of work baskets, lifting contents, and rigging equipment (e.g. shackles, slings, etc.).

Rig	MOO	Operator	ENVEN	Location	EW 873 A13 BP2	Date	6-19-2021
Title of Job Safety Analysis		Unloading Backhoat boat with Nabors crane		Reference(s)		GENERAL SAFETY MANUAL LIFTING CRANE OPERATION, HSE-PRO-01 LINE	
Location where work will be performed		Nabors crane		NOTE: LOWER PIPE RACK MAX WT = 300K		NOTE: LOWER PIPE RACK MAX WT = 200K	
Is the task being performed considered a non-routine job? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
NOTE: All employees are responsible for utilizing Stop Work Authority in accordance with Nabors Procedure HSE-PRO-010 whenever the need arises by stopping forward to stop the job whenever they have a question or concern regarding the control of HSE risk.							
CRITICAL STEPS: Work must be stopped if any of the job steps checked as "CRITICAL" are not executed exactly as planned.							
Critical Steps	Sequence of Basic Job Steps	POTENTIAL ACCIDENTS OR HAZARDS	Recommendations to Eliminate or Reduce Potential Hazards	Person Responsible for Eliminating or Reducing Hazards	Signature of Person Verifying that all Hazards have been Reduced or Eliminated		
C	Check wind and sea states and follow as per NCC policy	<ol style="list-style-type: none"> 1. Document potential hazards. 2. Could a team member be seriously or fatally injured conducting this step? If yes, how? 3. Could the hazards associated with this step lead to property damage? How? 4. Could the hazards associated with this step lead to loss of containment? How? 5. List potential dropped objects associated with this step. 6. List potential confined spaces associated with this step. 7. Through sees / blinds - Unsafe conditions for working with crane and lift. 8. No - Barriers tags should not occur. 9. Yes - Property damage could occur if boom were to strike work at the load work to strike other equipment (on the rig or barge). 10. No - LOPC should not occur. 11. No - Dropped objects should not occur. 12. No - Confined spaces should not occur. 13. Rigging to poor practice, damaged, or out of date. 	Crane Operator is to follow NCC policy on wind / sea states (refer to EOC if needed)				
D	Dropped loads for potential drops (loads moving with crane) Hook onto load with crane rigging	<ol style="list-style-type: none"> 1. Inspect rigging to ensure rigging is not damaged, worn, or out of date. Rigging shall be rated for the load for which it is utilized. Do not place fingers / hands between pad eyes or equipment while installing shackles to same to prevent potential crushed hand/finger hazards. 					



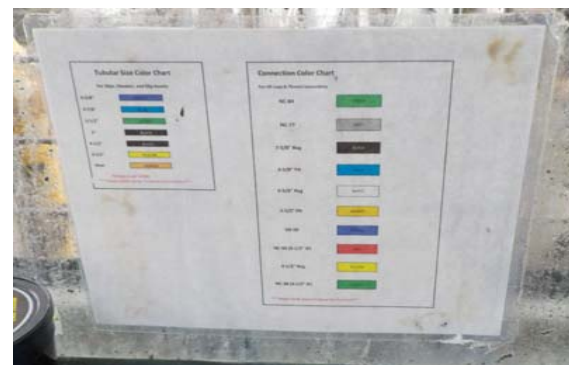
Dropped Object PBRI Finding & Recommendation

- BSEE concluded lift area controls were implemented on all inspected facilities, but there was a wide range of control measures based on the risk associated with the lift. Examples of some of the control measures identified were bump guards, securing secondary retention wires and physical barriers to limit personnel access and exposure. BSEE also identified gaps on some facilities with working with tools at height.
- Recommendation: To ensure lift and work areas are controlled, Operators and Contactors should assess the operation and/or work area to prohibit incursion by personnel not involved in the operation, ensure procedures require workers to firmly secure tools while working at heights, and adequate communication exists to signal the start of a lift.



Dropped Object PBRI Finding & Recommendation

- BSEE concluded (on those applicable facilities) offshore personnel were aware of the hazards associated with pipe-handling and most of the contractors had programs to ensure tubular running system is correctly sized.
- Recommendation: Prior to use, Operators and Contractors shall verify all pipe handling systems are fully functional, interlocking safety systems are confirmed to be functional, and all pipe handling equipment (slips, elevators, pipe racking systems, finger board spacing, etc.) are dimensionally correct for tubular handling. A Change-Out Log should be utilized when changing elevator sizes to document and confirm the appropriate size is latched for the string.



Dropped Object PBRI Finding & Recommendation

- BSEE concluded multiple good practices were in place with the coordination and lifting of cargo to and from offshore facilities. Minimal items were identified during the Dropped Object PBRI that need improvement. These areas include communication with shore-bases and platforms, color and shape marking labels of certain weights and dimensions, assessment of slings and rigging in pre-use inspections, and pre-lift inspections of cargo (container, tubulars, or other loads).
- Recommendation: Operators and Contractors should review their lifting practices to ensure it addresses the design, material, manufacture, inspection, repair, maintenance, and marking requirements for offshore cargo carrying units (CCU) and other cargo lifting sets and loads. Operators and Contractors should continue to adequately conduct preliminary checks prior to offloading/onboarding, with an emphasis on confirming manifest weights, determining environmental conditions (i.e. wave height, wind speed, etc.), and inspecting all lifting and rigging equipment thoroughly.



Dropped Object PBRI Finding & Recommendation

- The inspection concluded there was a broad range of lifting condition parameters / limits (e.g., maximum permissible wind speed, sea state, etc.). Also, the defined parameters in the inspected programs were either “sustained” or “reach/exceed” which led to additional disparity between facilities.
- Recommendation:** Operators and contractors should consider adding a lift checklist to the Job Safety Analysis prior to making lifts. Factors in the checklist should include, but not be limited to, wind speed, wind direction, sea state, visibility, and load characteristics. Operators and contractors should take into account evergreen weather hazards when conducting lifts on a continuous basis.

Table 2: Lifting Condition Parameters

Wind Speed (mph)	Significant Wave Height (ft)	Cargo Lifting	Personnel Lifting
0 to 20	0 to 6	Normal Lifting Operations	Normal Personnel Lifting Operations
21 to 25	6 to 8	Permit Required Lift	Permit Required Lift
greater than 25	greater than 8	No General Lifting Emergency lifting only (requires approval from the AOL Representative)	No Personnel Lifting

Dropped Object PBRI Finding & Recommendation

- BSEE determined that all the facilities that had rig floor equipment (pipe racking system, elevator, etc.) in use had good practices and communication with flaggers. BSEE also noted good practices of having three-part confirmation for latching and Drill Floor Observers to monitor activity on the rig floor when ancillary equipment is in motion.
- Recommendation: While ancillary equipment is in motion, Operators and Contractors should require an observer to monitor activity on the rig floor and stop the job if unsafe actions are witnessed. All lifting tasks should require the use of flaggers when rig floor equipment such as pipe racking systems, elevators, etc. is in operation.



Dropped Object PBRI Finding & Recommendation

- BSEE determined all PBRI facilities had an MOC program implemented; however, there were no recent MOCs (in the last six months) that were associated with mounting any new fixture to existing structures or equipment, including additional secondary securing methods, or installing new equipment at height.
- Recommendation: Operators should ensure all new equipment or structures added to their facilities trigger the MOC process to address newly introduced hazards as the result of the change. The MOC process should also ensure it does not compromise the safeguards that were built into the original design.



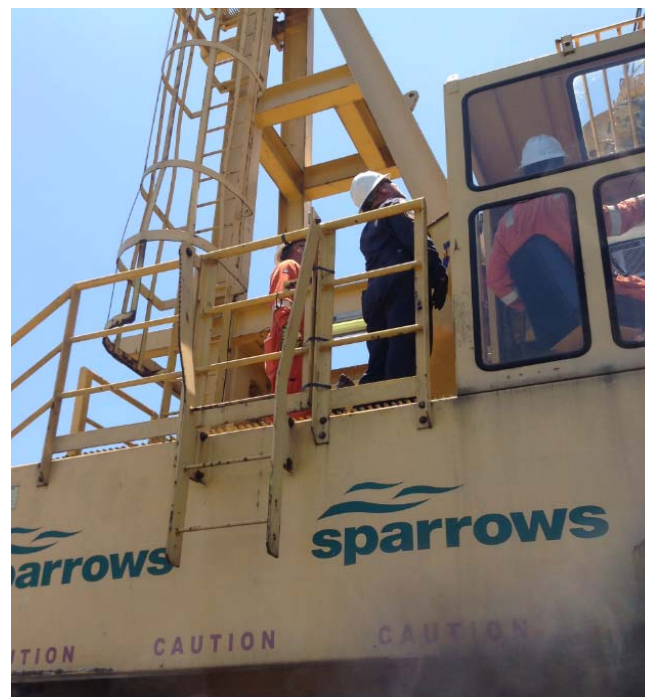
Dropped Object PBRI Finding & Recommendation

- BSEE determined multiple facilities had I-beam clamps that were not-in use with obvious metal loss and potential dropped objects hazards.
- Recommendation: Operators and contractors should review their facilities to determine if any I-beam clamps, or other similar components such as chain falls, are potential static dropped object hazards. Operators and contractors should ensure that I-beam clamps are dimensionally sound for their application. Additionally, operators and contractors should include I-beam clamps as part of their Preventative Maintenance programs for validating they remain in an adequate condition.



Dropped Object PBRI Finding & Recommendation

- BSEE determined that the majority of Operators and Contractors don't have a policy for bypassing the high angle kickout or the function to bypass is disabled in the crane. In those cases where the high angle kickout could be bypassed, it appears to have been done to place the crane into the rest for maintenance.
- Recommendation: Operators should review the cranes on their facilities and determine if the Crane Operator has the ability to bypass the high angle kickout. If the Crane Operator has the ability to bypass the device, either disable / remove the bypass option or ensure there is a safe process, method, and criteria in place for authorizing the bypass.



Dropped Object PBRI Finding & Recommendation

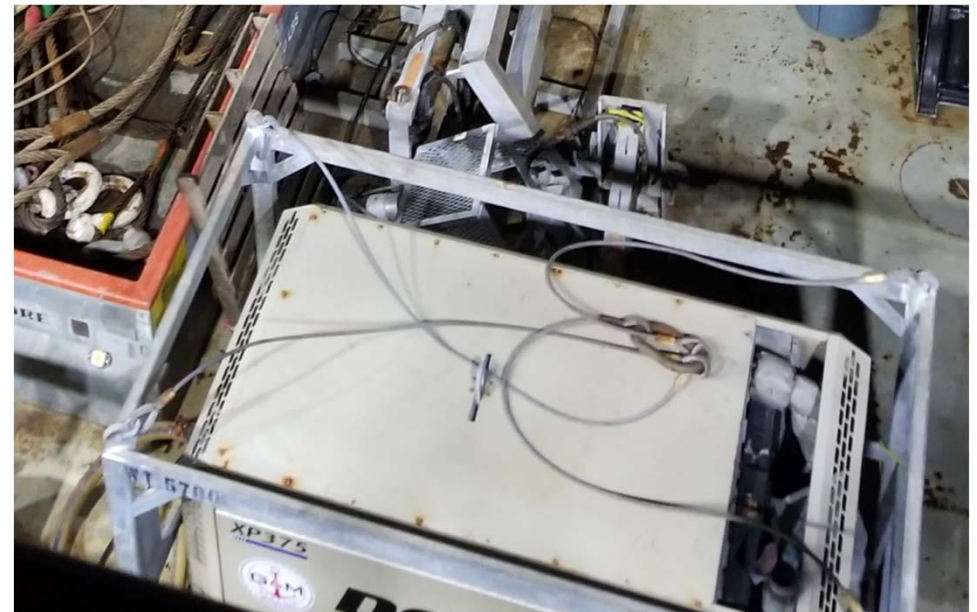
- BSEE determined that multiple High Potential incidents occurred on the subject facilities in the past year; however, they were not reported to BSEE because of the reporting requirements captured in 30 CFR 250.188.
- Recommendation: BSEE should evaluate their incident reporting rule requirements and determine whether dropped objects that do not result in another incident type (e.g. injury, property damage, marine debris, etc.) should be included into BSEE incident reporting requirements.

Occurred Date : 05/01/2021

Occurred Time : 11:00

Near Miss EMPLOYEE WAS IN THE PROCESS OF TIGHTENING SCAFFOLD CLAMPS USED AS HARD BARRICADES UNDER CRANE. HE REACHED OUTSIDE OF HANDRAILS, PUT ON CRESCENT WRENCH AND WHEN HE APPLIED FORCE THE WRENCH SLIPPED FROM HIS HANDS AND FELL 63.25' TO THE DECK BELOW. THE WRENCH STRUCK THE DECK AND SLID 22' TOWARDS THE INSIDE OF THE PLATFORM STOPPING APPROXIMATELY 5.5' NEAR AN EMPLOYEE THAT WAS WALKING BY. IT WAS A 15" ADJUSTABLE WRENCH THAT WEIGHS 2.5 LBS. THE NEAREST PERSON WAS 27' FROM INITIAL IMPACT.

Dropped Object Hazard Shared by Operator



Good Practices Observed in PBRI

- Dock Picture for Lift Planning



Good Practices Observed in PBRI

- Lift Witness - Dock takes pictures of all equipment sent out and verifies sizes/weights/rigging. If the load is over a certain weight, a Lift Witness must ride the boat and oversee the lift.

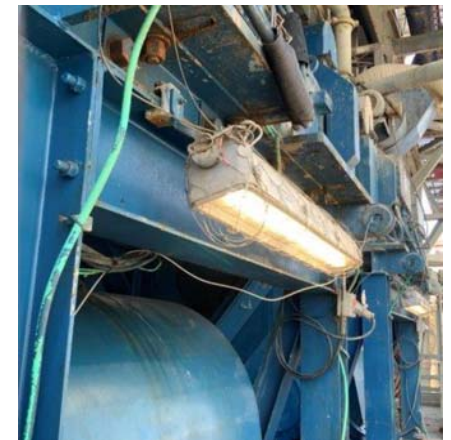
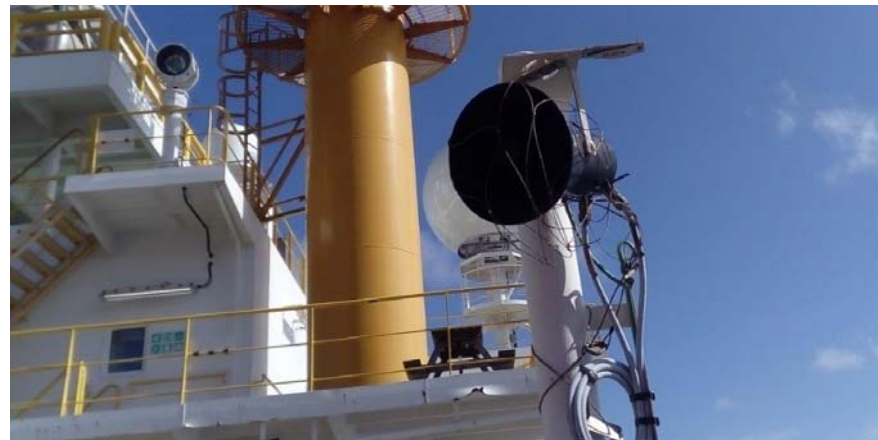
Good Practices Observed in PBRI

- Elevator Sign-off - Rig has a form when changing elevator sizes that must be signed off by Assistant Driller and Drill Site Manager. Shows new size or make and serial number and elevator insert size.

Date ¹	Time ²	Previous elevator size and type (slip-type or regular) ³	New elevator size and type (slip-type or regular) ⁴	New elevator serial number ⁵	Elevator load capacity (Weight the elevators are designed to lift with no safety factor) ⁶	New elevator visually inspected per business partner policy (Y or N) ⁷	Elevator/insert size confirmed with physical measurement by two people (Y or N) ⁸	Record elevator / insert size measured (Caliper or Elevator Test Pin (for slip type only) measurement) ⁹	AD (or above) name printed (AD (or above) is required to confirm ID of elevators with Caliper or Elevator Test Pin (for slip type only) measurement) ¹⁰	AD (or above) signature ¹¹	Chevron DSM name printed (DSM visually confirmed measurement performed by AD or above) ¹²	Chevron DSM signature ¹³
9-29-20	2338	5 1/8 BX5	6 5/8 BX5	NL 5748933	1000T	Y	Y	7"	Wise		M. Roach	
10-1-20	0915	6 1/4 BX5	5 7/8 BX5	111738349	1000T	Y	Y	6 1/8"	Brian D		M. Roach	
11-1-20	0500	5 7/8 BX5	6 5/8 BX5	NL 5748933	1000T	Y	Y	7"	Brian D		M. Roach	

Good Practices Observed in PBRI

- Netting - Different types of secondary retention on the lights (bars around lights, netting around lights, or cables)



Good Practices Observed in PBRI

- Drill Floor Observer - Drill Floor Observer (DFO) positions have been established to monitor activity on the rig floor when ancillary equipment is in motion. The DFO's sole role is to stop the job if unsafe actions are witnessed.

Good Practices Observed in PBRI

- Color Code Tubular - All elevator/slip inserts are color coded according to size.

Insert Size, In. & Lift Cap	Flue Size	Connection Size Lift Cap	Color
5 1/2"	6 1/2"	W200 or 2 - 10	GREEN
4 1/2"	4 1/2"	W141	BLUE
5 7/8"	5 7/8"	5 7/8"	YELLOW
6 5/8"	4 5/8"	4 5/8" FH	ORANGE
6 3/4"	6 3/4"	4 1/2" W	WHITE
6 1/4"	6 1/4"	6 5/8" Ring	BLACK
9 1/2"	9 1/2"	7 1/2" Ring	GRAY



Good Practices Observed in PBRI

- CCU Checklist - Eighteen (18) point checklist that is utilized to ensure cargo is compliant to ship in accordance with their safe work practices. Document is signed off on by an inspector and linked to a manifest.

12	ARE DANGEROUS GOODS IDENTIFIED AND CORRECTLY LABELLED ON ALL FOUR SIDES?			
13	HAVE ADEQUATE PRECAUTIONS BEEN TAKEN TO PREVENT SNAG HAZARDS? (E.G. REMOVAL OR COVERING OF HAZARDS)			
14	ARE DOORS OR LOCKING MECHANISMS SECURE WITH SECONDARY SECURING DEVICE ATTACHED (E.G. TIE WRAPS)?			
15	HAVE YOU CHECKED THAT THE LOAD LIFTS HORIZONTALLY?			
16	HAVE YOU CONFIRMED THAT THE ACTUAL GROSS WEIGHT IS LESS THAN OR EQUAL TO THE MAXIMUM GROSS WEIGHT?			
17	IS A HEAVY LIFT PENNANT ATTACHED FOR LIFTS OVER 24,000 LBS?			
18				
VESSEL NAME:		MANIFEST NO:		
INSPECTED BY:		DATE:	TIME:	

Good Practices Observed in PBRI

- Red Zone Management Log - On the rig floor there is a sign in/out log for going into the red zone and returning that must be signed off on by a supervisor.

Red Zone Management Log

Check Red Zone Clearance	Entering Red Zone Area						Exiting Red Zone Area		
	Dill Crew	Position	Reason for entering	Date	Time	Supv Signature	Date	Time	Supv Signature
	J. Campbell K. Covington K. Cochran S. Bennett J. Procell C. Springer C. Dwyer J. Mass	DC	work	8 Jun 21	0000	<i>[Signature]</i>	9:30 AM	1200	<i>[Signature]</i>
	J. Williams J. Fothergill V. Nicholson R. Turnage T. Hupp T. Creel	DC	work	8 Jun 21	11:00	<i>[Signature]</i>			
	Daniel Godsey D. Hays D. Hays D. Hays D. Hays D. Hays D. Hays	DC	work	8 Jun 21	1100	<i>[Signature]</i>	8:51	1430	<i>[Signature]</i>

Good Practices Observed in PBRI

- Training - Offshore Supervisors take an extra course for dropped object prevention/awareness.

Good Practices Observed in PBRI

- Data Trending - Information from dropped objects and dropped object good catch events is used to trend threats.

Good Practices Observed in PBRI

- Drops Warrior Program - Program consists of a different team member being selected each day. The person that is chosen has a specific area they inspect for any potential drops in the area. They document their findings on a card and turn it in to the HSE Advisor. The cards are tracked for the week, and a Drops Warrior for the Week is chosen and awarded during the Weekly Safety Meeting.



June 2021 HiPo Dropped Objects

- The drift (weighing 4 lbs) was not in the pin end of the joint of pipe and had fallen approximately 70 ft. and had landed inside of the red zone.
- The tool string was bumped up to the top of the lubricator causing the cable to pull out of the rope socket. The 47' long tool string assembly weighing 115 lbs fell 20' to the rig floor.
- A strut grating 2'x6' walkover plate, weighing 30 pounds, fell approximately 134 feet from the dynamic subbase to the production hull deck.

Revisit Opening Remarks

- “I know.”
- “We are the best.”
- “Turn information into insight within your company, insight with your personnel, and insight in your operations.”

Questions & Answers



Join Us!

COS Annual Forum

October 27, 2021

Registration Information: www.centerforoffshoresafety.org

- Spotlights on Excellence – finalists for the 2021 COS Safety Leadership Award
- Conversations with BSEE and USCG

