التعلم والاستفادة من الحوادث حوادث الربع الثالث من سنة 2021

### Learning from Incidents Third Quarter of 2021 Incidents





### **FOREWORD**



### **Dear Colleagues**,

Welcome to Mr. Musleh's Newsletter, a 'one stop shop' communication highlighting the learnings from incidents in PDO and the oil and gas industry.

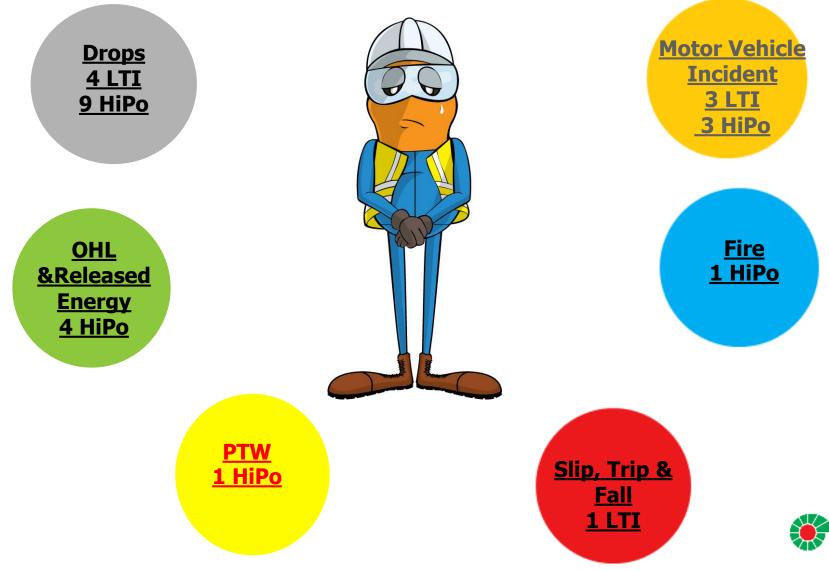
This quarter's Mr. Musleh summarizes the learnings from incidents related to Lost Time Injuries (LTIs), High Potential (HiPos) and High Value Learnings (HVL) which have occurred during this quarter.

We encourage you to read and reflect on the learnings from the incidents.

Regards, Mahmoud Al Shukri (MSEM)



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#	Short Description of Incidents	Actual Severity	Potential Severity
1	Erroneous selection of line for Cold Cutting	HiPo#36	C4P

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Date: 27.06.2021Incident Title: HIPO #36Pattern: PTW

Target Audience: Drilling, Logistics, Operation & Construction

#### What happened?

As per the normal cold cutting practice, contractor crew who were assigned for re-routing existing flow lines, identified, line walked and marked 'C" on a flowline at cut points using red paint. They also marked red "C" on adjacent Long Term Closed (LTC) flow line based on the verbal confirmation that it is hydrocarbon free. This was done to save time as this line was scheduled for cut on following day.

At the time of cold cut, additional red marking on the LTC line caused confusion resulting erroneous cutting of the wrong sequence line.

#### Your learning from this incident.

- Always verify identification of the lines before cold cut.
- Always seek clarification in case the procedures are not clear.
- Always follow reliable identification methods like hammering, pigging.
- Sign off flowline by all concerned Area Authority, Permit Applicant & Holder.
- Never take short cuts.
- Never allow the Permit holder to physically involve in carrying out activities.

#### **Shortcuts Cut Life Short**



Sign off on flow line by AA & PH before cold cut



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Date: 27.06.2021Incident Title: HIPO #36Pattern: PTW

As a learning from this incident and ensure continual improvement all contract managers must review their HSE HEMP against the questions asked below

### **Confirm the following:**

- 1. What are the methods you adopt to eliminate errors in identification of flowlines during normal and complicated environment?
- 2. How do you apply learning from past incidents to prevent potential dangerous occurrences?
- 3. Do you have an authorization process prior to cutting activity to ensure clear identification of the lines?
- 4. Have you ensure employees at site comply with the procedure?
- 5. Have you ensure adequate supervision available for the task?



# **MOTOR VEHICLE INCIDENT**



#	Short Description of Incidents	Actual Severity	Potential Severity
1	Trailer Driver hit camel	HiPo#49	D4P
2	Canter driver lost control over vehicle while avoiding camel and rolled over	HiPo#51	C4P
3	Pickup driver collided with a trailer while attempting to overtake	HiPo#54	C4P
4	A crane encountered a coming tipper from the opposite road while taking a left turn at T-Junction	LTI#17	D4P
5	OTO truck rollover resulted in driver death at the scene	LTI#20	D4P
6	A private vehicle attempted to overtake on a dust cloud and had a head on collision with the water tanker	LTI#22/FAT#02	D4P







**Target Audience:** Drilling, Logistics, Operation & Construction

#### What happened?

Trailer was moving on the black top and was transporting materials for the project. A camel suddenly ran across the highway. The driver tried to control the vehicle , however the prime mover hit the camel and it died few minutes later. No injuries to driver and minor damages to the prime mover

#### Your learning from this incident..

- Always ensure to apply defensive driving techniques
- Always slow down totally / stop whenever you notice camel crossing the road
- Always drives very cautious when approaching the wadi



#### Driver hit camel while driving



Driver shall slow down the vehicle and give way to the camels before proceeding







Date: 23.08.2021Incident Title: HIPO #49Pattern: MVI

As a learning from this incident and ensure continual improvement all contract managers must review their HSE HEMP against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure to routinely remind defensive driving techniques in Driver's Forums, TBT, etc?
- 2. Do you ensure drivers are cautious to note camel crossings on route ?
- 3. Do you ensure drivers notices all road safety signs and adopt appropriate driving controls?



Date: 14.09.2021Incident Title: HIPO #51Pattern: (MVI)

Target Audience: Drilling, Logistics, Operation & Construction

### What happened?

A 3 Ton canter while travelling from harweel to Marmul rolled over while controlling the vehicle to avoid camel hit, slight damage to the vehicle, no injury to the driver and the copassenger got slight injury on his right arm and he was shifted to PDO Marmul clinic there initial medical management done. Incident informed to ROP.

#### Your Learning from this incident..

- Always pay attention scan ahead while driving.
- Always be updated with surrounding environments.
- Always apply defensive driving techniques.
- Always pay attention to the traffic warning signs and react accordingly.
- Always include all road related hazards in Toolbox Talk with Drivers

#### Always expect an unexpected on Roads; Be vigilant







Date: 14.09.2021Incident Title: HIPO #51Pattern: (MVI)

As a learning from this incident and ensure continual improvement all contract managers must review their HSE HEMP against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure that all your Drivers apply defensive driving technique?
- 2. Do you ensure that your Drivers drive as per the Road conditions?
- 3. Do you ensure that your Drivers are aware about the road hazards?
- 4. Do you ensure that your Drivers have sufficient rest before work?
- 5. Do you carry out further IVMS data analysis to identify driver behavior and act accordingly?



Date:19/09/2021Incident title: HiPo#54Pattern: MVI

**Target Audience:** Drilling, Logistics, Operation & Construction

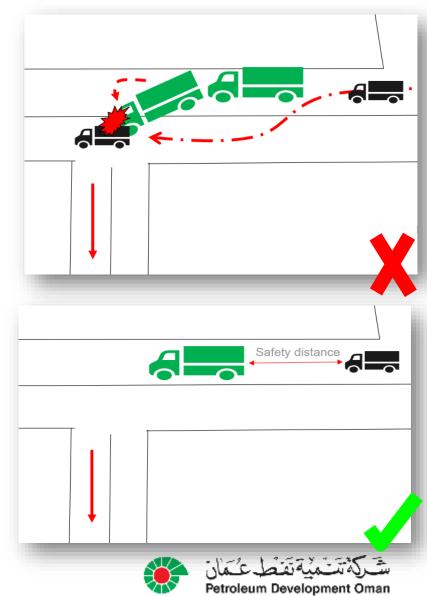
#### What happened?

Field specialist was driving Pickup heading to Nimr camp. At approximately 15:49 hrs., there was a trailer moving in front of Pick up. Both Vehicles were headed same direction. Pickup driver was behind attempted to overtake the trailer whilst the trailer was taking a turn on the left side. The pickup driver tried to avoid trailer but eventually that leaded to a collision between both, the pickup flipped on its left side resulted total damage . There was slight damage to the trailer. Pickup Driver and Passenger reported immediately to the Clinic for medical check and released with no injuries sustained.

### Your learning from this incident..

- Always ensure it is allowed to overtake before taking the decision.
- Always follow Sp2000 procedure and apply defensive driving skills.
- Always stop the driver if you observe any poor driving behavior.

Do not overtake at the T- Junction



Date:19/09/2021Incident title: HiPo#54Pattern: MVI

As a learning from this incident and ensure continual improvement all contract managers must review their HSE risk management against the questions asked below

### **Confirm the following:**

- 1. Do you ensure compliance to SP2000 and journey management system.
- 2. Do you ensure conduct defensive driving campaigns for drivers refreshing driving skills.
- 3. Do you ensure driving behavior hazard discussed and understood in morning meeting by all drivers.
- 4. Do you ensure effectively enforce STOP work authority.
- 5. Do you ensure adequate assurance of learning from incidents system.



Date: 14/07/2021Incident title: LTI#17Pattern: MVITarget Audience: Drilling, Logistics, Operation & Construction

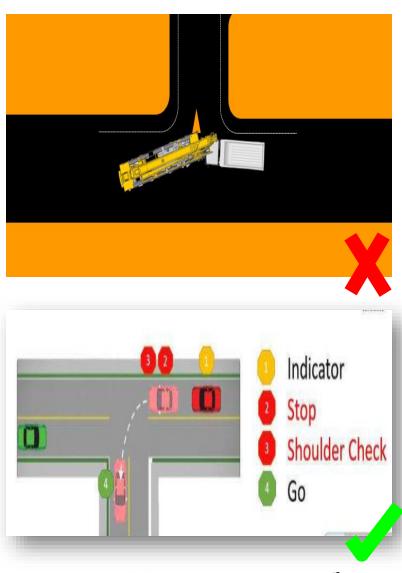
#### What happened?

A crane while taking a left turn at Marmul PDO T-Junction came in contact with a oncoming tipper which was coming from DWD station road. Rigger of the crane sustained injury to his right leg and both the vehicles moderately damaged. Fire and rescue services were initiated, and injured person medically evacuated to PDO Clinic and subsequently to SQH Salalah for further medical management

### Your learning from this incident..

- Always reduce speed while approaching road intersections
- Always wait for traffic at straight lane to clear before crossing the road
- Always make intention clear before commence turning by switching on indicators.
- Always follow defensive driving techniques while on road.

Always wait for traffic at straight lane to clear before crossing the lane







Date: 14/07/2021Incident title: LTI#17Pattern: MVI

As a learning from this incident and ensure continual improvement all contract managers must review their HSE risk management against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure that your drivers / operators are having adequate experience ?
- 2. Do you ensure that your drivers / operators are trained and assessed?
- 3. Do you ensure that Learning from Incidents are cascaded effectively to your drivers ?
- 4. Do you ensure that your drivers are internally assessed prior to mobilization?



 Date: 15/09/2021
 Incident title: LTI#20
 Pattern: Rollover

 Target Audience: Drilling, Logistics, Operation & Construction

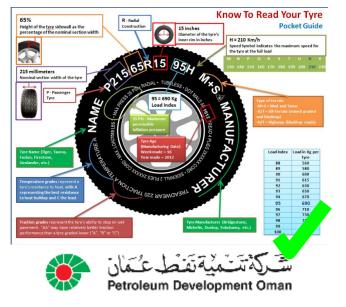
#### What happened?

MVI occurred involving an OTO driver travelling from Muscat to Nimr on a dual carriage-way blacktop, the trailer carrying 22 bulk bags of Potassium Chloride (non-hazardous chemical). The vehicle suffered a suspected blow out to the driver side front tyre, causing the vehicle to swerve to the driver side and straight into the central reservation embankment before rolling over and stopping at its final resting position on its back. This resulted in fatal injuries to the driver who was trapped inside the cabin. The loads were spilled from the trailer. Another OTO driver who happened to be in the area reported to CCC JMC, the emergency number was called

#### Your learning from this incident..

- Ensure your tyre quality is fit for purpose.
- Ensure tyre pressures are correct and tyre conditions are checked regularly.
- Check in your daily vehicle inspection before starting your journey.
- Ensure you take good rest prior to starting journeys.
- Always apply defensive driving while driving.





Date: 15/09/2021Incident title: LTI#20Pattern: Rollover

As a learning from this incident and ensure continual improvement all contract managers must review their HSE risk management against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure your vehicles are fitted with tyres with well known quality?
- 2. Do you ensure Compliance to SP2001 load security checks?
- 3. Do you have tyre inflation equipment and pressure gauges available for drivers to utilise?
- 4. Do you ensure drivers know how to react in the event of a tyre blow out?
- 5. Do you ensure drivers have been briefed to take rest if they feel fatigue during long journey?



 Date: 03/10/2021
 Incident title: LTI#22
 Pattern: MVI

 Target Audience: Drilling, Logistics, Operation & Construction

#### What happened?

While driving on Mabrouk-Saih Rawl graded road the vehicle was overtaking on a dust cloud and had a head on collision with the water tanker which was travelling from Mabrouk to Saih Rawl that resulted in a fatal injury to the driver and multiple fractures to the co-passenger.

#### Your learning from this incident..

- Ensure to use approved transportation for commuting
- Comply with speed limit and follow defensive driving techniques
- Follow company process when visiting the site
- Ensure that all the drivers have undergone DD training
- Ensure that the visits of coastal based employees of subcontractors are with due approvals
- Ensure that the visitors use only approved vehicles after the designated hubs in PDO concession areas
- Ensure access control in the camp and site
- Ensure immediate escalation to Senior management for any unauthorized unplanned visits observed

Do not overtake in dust cloud



The dust code when following a dust cloud: • Do not enter the dust cloud • Stay 4 Sec behind • Do not overtake







Date: 03/10/2021Incident title: LTI#22Pattern: MVI

As a learning from this incident and ensure continual improvement all contract managers must review their HSE risk management against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure that all the drivers have undergone DD training?
- 2. Do you ensure that all the vehicles are in compliance to SP-2000 requirements?
- 3. Do you ensure that the visits of coastal based employees of subcontractors are with due approvals?
- 4. Do you ensure that the visitors use only approved vehicles after the designated hubs in PDO concession areas?
- 5. Do you ensure access control in the camp and site?
- 6. Do you ensure immediate escalation to Senior management for any unauthorized unplanned visits observed?
- 7. Do you ensure the intervention when you witness an unsafe act or unsafe condition?



# **SLIP, TRIP & FALL**



#	Short Description of Incidents	Actual Severity	Potential Severity
1	<u>Air winch operator fell from the rigfloor at height around 8-meter to the ground</u>	LTI#19	C4P



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 Date: 20/08/2021
 Incident title: LTI#19
 Pattern: Fall from height

 Target Audience: Drilling, Logistics, Operation & Construction

### What happened?

On August 20th, 2021, at around 05:30 hours, the operational team removed the off-driller side (ODS) plate to connect the off drillers side MRC (mast raising cylinder) to lower the rig floor. Once the floorplate was removed, the air winch operator floorman stayed at the ODS air winch area, whereas his coworkers resumed other tasks. Suddenly the rig floor crew members (driller/ assistant driller and one Floor man) heard yelling from the substructure and realized that their coworker Air winch operator fell (fall distance 08.35 m height) and rested on the substructure area. The rig medic administered first aid to the Floor man before transporting him to Nimr PDO facility via MEDIVAC. The Floor man was conscious, oriented, and responding during his evaluation to Nimr clinic, then referred to Salalah hospital for further medical care. The floor man sustained head trauma (superficial wound), Pelvic fracture.

### Your learning from this incident..

- Ensure that step by step activity, risk, control and responsibilities are discussed with all involved personnel.
- Always ensure to intervene and apply the stop-work authority when deemed necessary.
- Always ensure to always supervise the task physically. Never leave the work site unattended
- Always ensure to maintain good housekeeping at the work area.
- Always stick with the plan otherwise inform your supervisor.
- Apply dynamic risk assessment review for any changes in the activity.

Always ensure to barricade immediately any opening/gaps or shifted handrails







Date: 20/08/2021Incident title: LTI#19Pattern: Fall from height

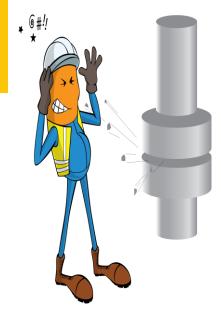
As a learning from this incident and ensure continual improvement all contract managers must review their HSE risk management against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure effective management of change to control deviation from procedure?
- 2. Do you ensure effective dynamic risk review when workplace condition changed?
- 3. Do you ensure effective task supervision?
- 4. Do you ensure effective monitoring of employees' mental state?



# **OHL& RELEASE ENERGY**



#	Short Description of Incidents	Actual Severity	Potential Severity
1	A tipper encountered an OHL resulting in tripping of few wells and compressor	HiPo#39	C4P
2	<u>A crane operator moved his crane with the raised boom and damaged the overhead powerline</u>	HiPo#41	??
3	<u>Tip of a tipper in a lifting activity encountered an overhead line causing damage to</u> the isolated line	HiPo#52	C4P
4	The restraining chains holding the crane on a lowbed trailer got disconnected from the prime mover and the crane fell on ground.	HiPo#53	B4P



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Date: 23.05.2021Incident Title: HIPO #39Pattern: OHL

Target Audience: Drilling, Logistics, Operation & Construction

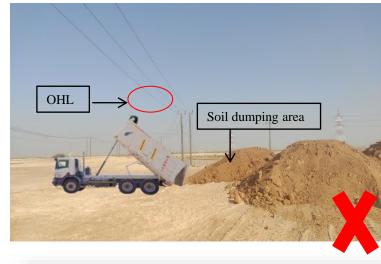
### What happened?

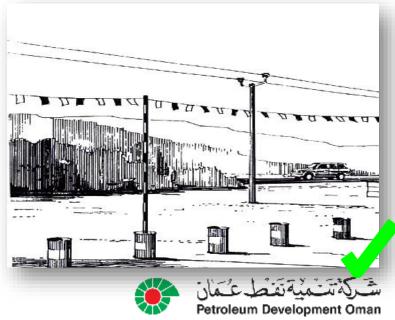
On 23.05.2021 at 1449 Hrs., tipper (Regn # 9172 WK) was unloading soil transported from borrow pit (#06) for Switch Rack Demolition works at BGS, when it came in contact with the OHL resulting in tripping of few wells and compressor (K3614) of Birba Station.

### Your learning from this incident..

- Always ensure availability of Banksman with vehicles while loading/unloading and reversing activity.
- Always maintain safe horizontal and vertical working distance and provide safety barriers for work in the vicinity of OHL.
- No work in the vicinity of OHLs shall be carried out without having an OHL clearance.

Always maintain safe clearance from Over Headlines





Date: 23.05.2021Incident Title: HIPO #39Pattern: OHL

As a learning from this incident and ensure continual improvement all contract managers must review their HSE HEMP against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure Permit Applicant and Permit Holder visit the site together and the tasks are discussed and agreed for safe execution?
- 2. Do you ensure assessment of the area before allowing tipper operations for safe unloading of materials?
- 3. Do you ensure participation of drivers / operators in TBTs and that the hazards and controls related to vehicle / equipment movements are discussed?
- 4. Do you ensure availability of Banksman for guiding the vehicle / equipment movement safely?
- 5. Do you ensure safe distance is maintained whilst executing activities in the vicinity of OHLs?



Date: 31.07.2021Incident Title: HIPO #41Pattern: OHL

Target Audience: Drilling, Logistics, Operation & Construction

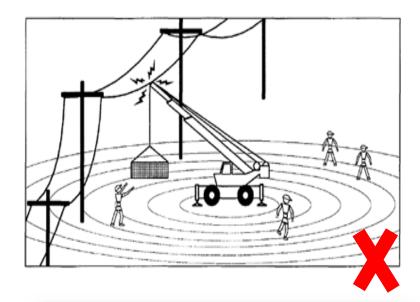
### What happened?

At 17.15 hrs, the crane operator moved his crane with the raised boom to offload a 20 ft container from the trailer (the trailer was parked outside the Rig 38 rig pad). While positioning the crane, the wire ropes (32 mm x 9m) attached to the crane hook block made contact with the overhead powerline, which was passing in the vicinity.

### Your learning from this incident..

- Always ensure boom of the crane is lowered and slings are removed during moving of the crane.
- Always operate the crane after receiving the signal from banks man.
- Always ensure all rig move team participates in TBT and on-site supervision is provided.
- Always ensure equipment are spotted away from vicinity of overhead powerlines.
- Always ensure out of site register is updated with rig move activities.
- Always maintain safe clearance from Over Headlines

Always be cautious about proximity hazards of overhead lines whilst operating crane





Date: 31.07.2021Incident Title: HIPO #41Pattern: OHL

As a learning from this incident and ensure continual improvement all contract managers must review their HSE HEMP against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure third party crane operating in the vicinity of powerline covered in out of sight register?
- 2. Do you ensure crane operators are not taking any short cuts?
- 3. Do you ensure all rig move team are attending TBT?
- 4. Do you ensure rig move parties are following procedures?



Date:21/08/2021Incident title: HIPO#52Pattern: OHL.

**Target Audience:** Drilling, Logistics, Operation & Construction

#### What happened?

At approximately 17:30 on the 21st of August , a subcontractor tipper while performing a sand dumping activity in Kawthar near RMS 2 station, drove under an isolated Overhead line, While lifting the tipper bed to dump the carried sand, the tip of the tipper came into contact with the line causing damage to the isolated line

### Your learning from this incident..

- A validated PTW must be available for the activity, a site-specific toolbox carried out by cascading all hazards and control measures
- Always ensure availability of Banksman with vehicles while loading/unloading and reversing activity.
- Always maintain safe horizontal and vertical working distance and provide safety barriers for work in the vicinity of OHL.

Ensure availability of Banksman with vehicles while loading/unloading









Date:21/08/2021Incident title: HIPO#52Pattern: OHL.

As a learning from this incident and ensure continual improvement all contract managers must review their HSE risk management against the questions asked below

### **Confirm the following:**

- 1. Do you ensure Permit Applicant and Permit Holder visit the site together and the tasks are discussed and agreed for safe execution?
- 2. Do you ensure assessment of the area before allowing tipper operations for safe unloading of materials?
- 3. Do you ensure participation of drivers / operators in TBTs and that the hazards and controls related to vehicle / equipment movements are discussed?
- 4. Do you ensure availability of Banksman for guiding the vehicle / equipment movement safely?
- 5. Do you ensure safe distance is maintained whilst executing activities in the vicinity of OHLs?



Date: 16/09/2021Incident title: HiPo#53Pattern: Released energy

**Target Audience:** All contractors within PDO concession

### What happened?

On the 16th September 2021 at approx. 10:15 an OFSAT prime mover and lowbed trailer were transporting an 80t capacity (rough terrain) crane to the old location of Rig 64 which was located in Burhan. When they were approx. 1 km from the old location, the driver and his passenger (crane operator) felt a sudden jerk, unusual noise and the front of the prime mover raised up slightly. After they had stopped, both occupants exited the vehicle to find that the lowbed trailer had disconnected from the prime mover, had fallen to the ground and the restraining chains holding the crane had snapped which allowed the crane to roll forward and off the trailer onto the side of the road

### Your learning from this incident..

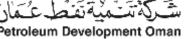
- Always ensure kingpins are inspected and certified.
- Always ensure to reduce speed if the road condition produces excessive vibrations.
- Always report poor road conditions or any other hazards.
- Always ensure restrain chains are inspected, in good condition and installed properly.

Ensure restrain chains are inspected









Date: 16/09/2021 Incident title: HiPo#53 Pattern: Released energy

As a learning from this incident and ensure continual improvement all contract managers must review their HSE risk management against the questions asked below

### **Confirm the following:**

- 1. Do you ensure all of your kingpins are readily inspected (NDT), visually checked and in good condition?
- 2. Do you ensure all of your drivers and helpers are competent and fully understand load security?
- 3. Do you ensure all of your drivers and journey managers are aware of road hazards reporting process?
- 4. Do you ensure all of your load restrain tackles are compliant to SP 2001, serviceable and in good condition?



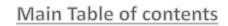




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1

Short Description of Incidents	Actual Severity	Potential Severity
While attempting to loosen the base plate inside 415 V feeder for demolition of redundant equipment, a flash occurred from the live, incoming area on top of the feeder	HiPo#45	B4P





Date: 10.08.2021 Incident Title: HIPO #45 Pa

Pattern: Electric Flash Causing Burns

Target Audience: Drilling, Logistics, Operation & Construction

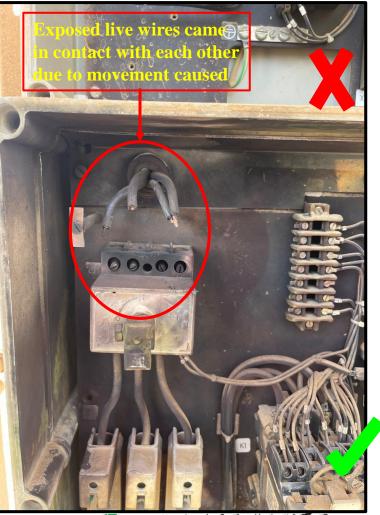
#### What happened?

On 10.08.2021, at around 11:05am, while attempting to loosen the base plate inside 415 V feeder for demolition of redundant equipment at Runib Station, a flash occurred from the live, incoming area on top of the feeder, and as its consequence, the Electrician suffered burns on his right hand.

#### Your learning from this incident..

- Do not work on / open live installations without proper authority.
- Use insulated gloves for working on or near live equipment.
- Do not be complacent; discuss the concerns with the Supervisor for a safe solution when faced with challenges.
- Never assume; ask, when in doubt.

Electricity kills; be sure and do not assume.





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Date: 10.08.2021Incident Title: HIPO #45Pattern: Electric Flash Causing Burns

As a learning from this incident and ensure continual improvement all contract managers must review their HSE HEMP against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure isolation of equipment before any work in it?
- 2. Do you ensure crew is briefed of the electrical safety precautions?
- 3. Do you ensure crew understands the hazards specific to the task and controls needed?
- 4. Do you ensure crew is aware of their authority to stop work when they feel unsafe?
- 5. Do you ensure right PPE for the task is used and correctly?



## DROPS

#	#	Short Description of Incidents	Actual Severity	Potential Severity
1	1	Release of the BHA from the BH elevator	HiPo#33	??
2	~ .	Truck bucket lost its stability and tilted to the ground while 2 linesman were working inside t.	HiPo#38 LTI#15 &16	A4P
3	3.	Elevator opened and drill pipe dropped near catwalk	HiPo#40	??
4	4	Elevator opened, leading to drop 50kg assembly nearly hitting the Floorman	HiPo#42	C4P
5	5	Surface tool got disconnected from Quantum Packer and dropped	HiPo#43A	??
e	6	Kelly hose, tubing dropped	HiPo#44	C4P
7	7.	Mast collapse due to raising cylinder failure	HiPo#46	D4P
8	8	Uncontrolled Descend of Traveling block	HiPo#48	C4P
9	9.	DP stand lifted using BX elevator and stand slipped out of elevator & fell	HiPo#50	C4P
1	10	Koomey unit dropped during lifting	HiPo#55	B4P











#	Short Description of Incidents	Actual Severity	Potential Severity
11	Fitter get hit by a flowline during lifting activity	LTI#18	D3P
12	During unloading of VFD panel, the load loss balance and fell on the technician foot	LTI#21	СЗР





Date: 22.06.2021Incident Title: HIPO #33Pattern: Drops

Target Audience: Drilling, Logistics, Operation & Construction

#### What happened?

After finishing making up 6 1/8" bit with the motor, the driller lifted the whole assembly by BX Elevator then pushed towards Drawworks /Mud tanks side and rested it on the rotary mat to allow the crew to remove the bit breaker by winch from well center. While winch was being prepared to lift the bit breaker, the BX elevator opened and as a result, the drilling assembly which was in a tilted position fell on the rig floor (between the DPs setback and adjacent V door post) and bounced off the rig floor and fell into the ground. Motor got bent, No injury to Personnel.

### Your learning from this incident..

- Always ensure the you are fully concentrated during operation and while dealing with equipment.
- Always ensure to keep attention to signs of fatigue during crew changes and manage them.
- Always ensure good communication between Driller & Crew.
- It is safer to keep the elevator door against the inclination of the assembly in case the elevator opens, the assembly will remain in the elevator housing due to tool inclination.
- Keep weight on elevator (don't slack off the full weight) to allow mechanism of locking pin engaged.

### **Observe fatigue during crew change-Empower to Stop**







Date: 22.06.2021Incident Title: HIPO #33Pattern: Drops

As a learning from this incident and ensure continual improvement all contract managers must review their HSE HEMP against the questions asked below

### **Confirm the following:**

- 1. Do you ensure your team has empowerment to STOP?
- 2. Do you have Fatigue management plan on your site?
- 3. Do you have Fatigue awareness training for your crews?
- 4. Do you ensure your team understands the limitation of the interlocks system?



Date: 07.07.2021

Incident Title: HIPO #38 (LTI#15 & 16)

**Pattern: Drops** 

Target Audience: Drilling, Logistics, Operation & Construction

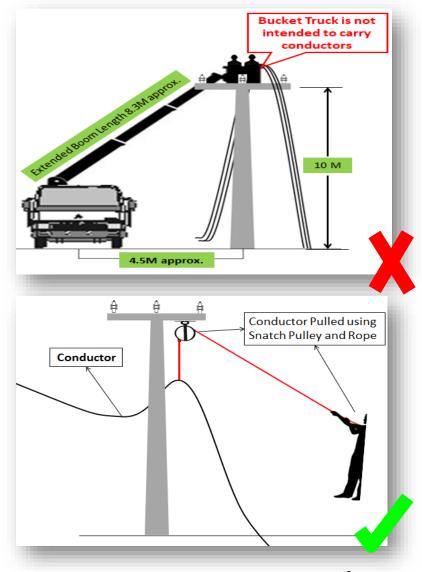
#### What happened?

On 07.07.2021 at 11:20 Hrs. Stringing team were engaged in stringing Over-Head line at Rabaa-34 location involving the use of bucket truck. Two linemen were working inside the Bucket Truck which is also loaded with three 33 KV OHL conductors & conductor rollers for installation on the pole's cross arm. While the linemen are in the process of placing the conductors on the cross arm, the Bucket Truck lost its stability and tilted to the ground along with the linemen inside the bucket. The incident resulted in injuries to both linemen, with one of them had a fracture to his right elbow and the other sustained hairline fracture of pelvic.Both the Injured persons were initially treated at Qarn Alam PAC clinic before been transferred to Bader Al Sama, Nizwa for further Treatment.

#### Your learning from this incident

- Always ensure work procedure is followed.
- Always ensure ground stability before use of any lifting equipment.
- Always ensure not to exceed the Safe Working Load of equipment.
- Always ensure equipment is used for intended purpose only.
- Ensure to conduct pre use inspection of equipment.
- Ensure equipment must comply with PDO and OEM specification.
- Ensure only Competent Operator are operating any equipment and machineries.

### Always ensure stability and working below the SWL of equipment







Date: 07.07.2021 Incident Title: HIPO #38 (LTI#15 & 16)

Pattern: Drops

As a learning from this incident and ensure continual improvement all contract managers must review their HSE HEMP against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure that supervisors are competent to undertake critical activities?
- 2. Do you ensure that you have a clearly defined process for developing, reviewing and approving of procedures?
- 3. Do you ensure that only fit for the purpose equipment are been used.
- 4. Do you ensure that all potential hazards are considered before start of the activities and communicated to the team?
- 5. Do you ensure that the site team is empowered to STOP activities if it is unsafe?
- 6. Do you ensure all equipment and machinery are inspected prior to mobilization?



Date: 24.07.2021Incident Title: HIPO #40Pattern: Drops

Target Audience: Drilling, Logistics, Operation & Construction

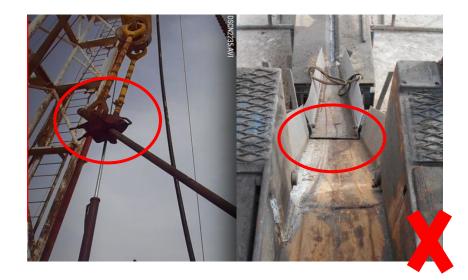
#### What happened?

The POOH of Polish mill assembly on 3 ½ IF DP string was in progress. At around 13.45 (24.07.) the 23rd joint was B/O with power tong and while laying the joint down the V-Door the Elevator suddenly opened when it was approx. 2.5mtrs above the rig floor. The joint was already in the V-Door with its half length once the elevator opened and the joint uncontrollably slid down the V-Door and rested on the right side of the pipe racks.

#### Your learning from this incident..

- Always Comply to Drops zone management, utilize step back safety zone whenever possible
- Always Observe the path of the elevator while tripping and during laying down the Tubular thru the V-Door (Tubular smooth motion)
- Always Ensure the Elevator is properly latched (Floorman to "thumb up" to the driller prior to picking the string)
- Straight line V-Doors is preferred, always inspect the equipment pre use, check the condition of the V-Door and catwalk groove

#### Ensure no objects come in contact with Elevator while in motion.









Date: 24.07.2021Incident Title: HIPO #40Pattern: Drops

As a learning from this incident and ensure continual improvement all contract managers must review their HSE HEMP against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure Compliance to Drops zone management and utilize step back safety zone whenever possible?
- 2. Do you ensure the Tubular slides down the V-Door in a smooth motion ?
- 3. Do you ensure nothing comes in contact with the Elevator after it is latched and in motion?
- 4. Do you ensure your supervisory staff up to the level to manage risks and hazards efficiently ?
- 5. Do you ensure the v-door condition is part of annual inspections as per the PMS system?



Date: 29.07.2021Incident Title: HIPO #42Pattern: Drops

Target Audience: Drilling, Logistics, Operation & Construction

#### What happened?

On 29th July 2021 at 17:10 hours, after TCP perforation and reverse circulation, the crew work to disconnect assembly of two crossover, safety valve and lifting-sub. Assistant driller open the elevator unintentionally while floor man used chain tong to unscrew the assembly at EUE connection causing the assembly to fall down on rig floor towards v-door direction. No injury and no equipment damage resulted from this incident.

### Your learning from this incident..

- Driller/AD should always focus on indicator panel to ensure equipment is in correct condition
- Ensure JSA is updated to include all job steps and hazards
- Ensure elevator is in correct operating position before caring out any task
- Always ensure to have a proper planning for the task and is understood by all involved.
- While rotating any equipment with chain tong crew, should be vigilant of overhead hazards.
- Always ensure to maintins red zone

#### Intervene and ask to raise MoC when deviating from procedure







Date: 29.07.2021Incident Title: HIPO #42Pattern: Drops

As a learning from this incident and ensure continual improvement all contract managers must review their HSE Risk Register against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure that adequate supervision for the ongoing jobs/activities all the time?
- 2. Do you ensure the crew are utilizing procedures/JSA?
- 3. Do you ensure your team conducts TBTs effectively?
- 4. Do you ensure your team intervene and stops third party operations if normal steps are not followed?



Date: 02.08.2021Incident Title: HIPO #43APattern: Drops

Target Audience: Drilling, Logistics, Operation & Construction

#### What happened?

On 2nd of Aug, a Thermal QUANTUM Packer assembly was picked up by a crane with two web slings and moved to the rig floor. The  $3\frac{1}{2}$ " hoist elevator was latched on to the handling sub of the assembly and continued to pick it up, while the crane continued to lower the assembly to the hoist floor. When the assembly was fully vertical and about 30cm from the hoist floor, the QUANTUM Packer assembly de-coupled from the service tool. The driller continued to pick up the service tool 1.2m till it was out of the QUANTUM Packer assembly , and the assembly dropped on the hoist floor causing First Aid for two IP's. Operation was suspended and the situation was assessed.

#### Your learning from this incident..

- Ensure the running tool is properly prepared before shipping to wellsite.
- Ensure appropriate lifting method is used to lift and run quantum packer.
- Ensure red zone is effectively managed
- Ensure adherence to procedure.

Ensure the running tool is properly connected to quantum packer prior to pick up to floor







Date: 02.08.2021Incident Title: HIPO #43APattern: Drops

As a learning from this incident and ensure continual improvement all contract managers must review their HSE HEMP against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure effective TBT conducted with the team and all hazard are mitigated & dynamic hazard highlighted as well?
- 2. Do you ensure all third-party tool connections are inspected & properly tightened?
- 3. Do you ensure the proper lift plan used for third party tools
- 4. Do you have empowerment to stop the job
- 5. Do you have the right procedure to follow



Date: 11.08.2021Incident Title: HIPO #44Pattern: Drops

Target Audience: Drilling, Logistics, Operation & Construction

### What happened?

RIH a gas lift completion on 2.3/8" NU tubing was in progress until a hold up observed on top of 4.5" liner, tried with working on the string but no success to pass obstruction. It was decided to connect a standpipe hose and try passing an obstruction by washing down. Operation is carried out by using of 2 3/8" completion Tubing + X/O + FOSV + Circulation head, the makeup done in the V-door due to the high stick up of the string once held up. After stopping of wash down the Tubing was B/O in order to be laid down and it immediately started tilting upside down due to the weight above the Elevator was bigger than the weight of the Tubing below the Elevator. The hanging assembly flipped 180 degrees and the Tubing slid down thru the Elevator dropping near the driller room and on the ground.

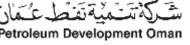
### Your learning from this incident..

- Always ensure relevant SOP is followed, otherwise manage process thru MOC with proper risk assessment done
- Always ensure AD not to be left acting alone on the brake in any non routine operations must be supervised by RM and carried out by the Driller
- Always ensure to utilize Power swivel regardless of string rotation is required or not (otherwise initiate an MOC)
- Always ensure positive Handover happen on the Site location.

#### **Utilize Power swivel for washing down operation**







Date: 11.08.2021Incident Title: HIPO #44Pattern: Drops

As a learning from this incident and ensure continual improvement all contract managers must review their HSE HEMP against the questions asked below

**Confirm the following:** 

1.Do you ensure MOC process is followed by front line supervisors?2.Do you ensure all your risks are managed appropriately by your supervisory staff?3.Do you ensure organization are having protocols for addressing personnel issues & Emergency ?4.Do you ensure Your Learning from incident process is effective?5. Do you ensure front line supervisors are monitored appropriately by line managers?6.Do you ensure a Positive handover happens in the Site location?



Date: 21.08.2021Incident Title: HIPO #46Pattern: Drops

**Target Audience:** Drilling, Logistics, Operation & Construction

#### What happened?

On 21st August 2021, at 17:30 hours, the off-driller side MRC failed at 20 degrees from vertical while lowering the mast. The failure of the off drillers side MRC caused the driller's side MRC to overload and sheared at the top of the fourth stage.

#### Your learning from this incident..

- Ensure to approach the OEM to provide proper inspection procedures for the appropriate NDT method to verify the integrity of the chrome-plated components.
- Ensure that UT or X-ray is used to inspect chrome-plated components for cracks.

Review all mast raising cylinders certificates, and identify gaps in major inspection specifications



Gustomer Name: National Drilling Servic			es Co	ns Co Repo		t No.: IR 0783		
Gustomer PO/Ref No.:		Email Confirmation		Report Date:		t Date:	23-Sep-2017	
Customer PO/Ref Date:		NA		7	TH Job No.:		TH001197	
Rig/Vessel: NA		NA			System/Equip Name:		Hydraulic Cylinder	
Rig/Vessel Location:		NA		System/Equip Location:			NA	
Model: Mast Raising Cyli			Gode / Serial No.:			/ Gerial No.:	NA	
		0	BSER	VATI	ONE	•		
-	ltem/Part		Accepted	Revort	Rejected	Romarka		Fig.
1	Cylinder barrel		1	197	1	Scoring lines observed inside the barrel		2-3
2	Gland		-	Nº.	1	Scoring lines observed on inner ID		4
з	4 <sup>on</sup> stage rod		-	P.	-	Pit marks observed on the outer surface & scoring lines found on inner surface Piston end rusted and pit marks observed on the outer surface & scoring lines found on inner surface surface & scoring lines found on inner surface.		5-6
4	3 <sup>re</sup> stage rod		-	in.	17			7-8-9 10
8	2 <sup>nd</sup> stage rod		r	1¢	<i>r</i> -			11-12
	1 <sup>st</sup> stage rod		- F	100	1	Pit marks observed on the outer surface.		13-14
7	Gland nut for 2 <sup>nd</sup> stage rod		1	1	19º	Threads found worn out		15
8	Gland nut for 1 <sup>st</sup> stage rod		-	-	100	Wear out observed		16
	Gland guide bush	( 2 Nos)	r	1	19	Found deformed		17
10	Seal kit		7	<b>F</b>	10	Wom out		18
11	Platon ring for 1"	stage platon	F	r	14	Wom out		10-20
12	Weld joints		12	r-	1	MPI done on weld joints		21-22





Date: 21.08.2021Incident Title: HIPO #46Pattern: Drops

As a learning from this incident and ensure continual improvement all contract managers must review their HSE HEMP against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure review of mast raising cylinders certificates, and identify gaps at major inspection activities?
- 2. Do you assess all mast raising cylinders major inspection OEM work instructions and Approach the OEM to provide additional inspection procedures to consider appropriate NDT method to verify the integrity of the barrel body, sleeves or plunger body. As most of NDT methods are not suitable with the chrome plating on?
- 3. Do you review Mast lowering / raising procedures and associated JSAs?
- 4. DO you ensure effective means of communication are utilized during critical operation?



Date: 24.08.2021Incident Title: HIPO #48Pattern: Drops

Target Audience: Drilling, Logistics, Operation & Construction

#### What happened?

Rig floor crew ware preparing for changing tubing tong jaw. The driller left the driller console after securing the travelling block hanging @3m above floor using draw works brake handle chained down without noticing the chain was stuck in the grating platform. The traveling block started descending down to the rig floor and continued to drag towards the V-door side and fell on the ground. All crew members safely came down using ODS (Off Driller side) ladder

### Your learning from this incident..

- Ensure the travelling block is correctly secured and brakes are engaged before leaving the Driller console.
- Check and ensure the chain locking mechanism is free from obstructions.
- Always ensure floor activities are performed under supervision.
- Ensure the SOP and HEMP is reviewed and updated to confirm it meets OEM/ Stds.

Ensure Emergency brake is engaged, and brake handle is correctly secured when Driller is away







Date: 24.08.2021Incident Title: HIPO #48Pattern: Drops

As a learning from this incident and ensure continual improvement all contract managers must review their HSE HEMP against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure the learning from incidents related to engineering control are implemented?
- 2. Do you ensure the procedures conforms to OEM/Standards and appropriate to working requirements?
- 3. Did you verify the personnel with safety critical roles fully aware of safe work arrangements?
- 4. Do you ensure the Draw woks brake is applied and verified whenever travelling block is stopped for any other task / leaving the drilling console ?
- 5. Do you ensure the chain securing mechanism is free from any obstruction?



**Pattern: Drops** 

Target Audience: Drilling, Logistics, Operation & Construction

**Incident Title: HIPO #50** 

#### What happened?

Date: 04.09.2021

At 18:01 hours, during RIH 4" Drill pipe by lifting stands from the v-door, Elevator was latched on the drill pipe stand. While lifting drill pipe stand, it slipped through elevator and fell down on pipe cat trough from height of approximately 10 meters. The stand hit tool joint of the pipe and trough on its way down and finally rested between pipe cat trough and V-door guardrail. Immediately stopped the operation, secured the area and prepared recovery plan. No injuries and damages observed. Red zone was well managed.

#### Your learning from this incident..

- Always store elevator segment in dedicated area under lock.
- Ensure to use PTW when you have to change BX elevator segment
- Ensure Red Zone and No-go Zone is always managed

Do not change segment size without raising PTW







Date: 04.09.2021Incident Title: HIPO #50Pattern: Drops

As a learning from this incident and ensure continual improvement all contract managers must review their HSE Risk Register against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure that drillers are aware of correct size of segment as per operational requirement?
- 2. Do you ensure elevator segment are stored at controlled place?
- 3. Do you ensure BX elevator procedure is updated and communicated with involved crew?
- 4. Do you ensure drillers consult with unit managers when they are in doubt?



Date: 26/09/2021Incident title: HiPo#55Pattern: Lifting/DropsTarget Audience: Drilling, Logistics, Operation & Construction

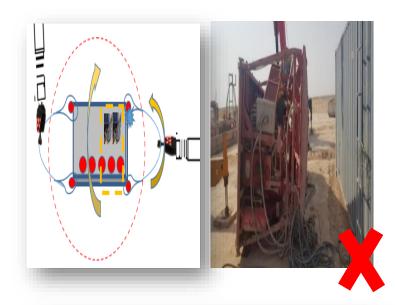
#### What happened

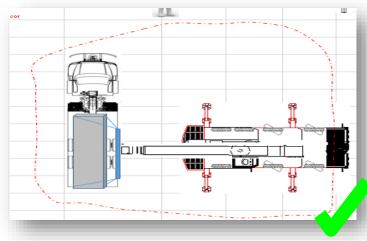
During rig Move/up activities, one of the tasks was to spot the (BOP HPU: Hydraulic Power Unit) next to the subbase. This requires loading it from its position near runoff area and placing it on Oil field truck, then offload the same on the target spot near subbase. When the loading started and at around a height of 1m above the ground, the load became unbalanced causing one of the sling to slip from the skid trunnion (lifting points ).The HPU unit then flipped 90 degrees to the side due the sudden unbalance at such height on both cranes . No one was injured.

### Your learning from this incident:

- Ensure Critical lifts must be supervised and led by competent lifting supervisor.
- Ensure the lifting attachments are fit for the task
- Ensure that any critical lifts has an approved lift plan which should be reviewed before the lift.
- Verify that the rigging method and sling selection is done in accordance with the lifting plan.
- Ensure the red zone is fully controlled before starting any lift.
- Do not start any lifting operation without the presence of lifting supervisor and completing the CoW process.
- Ensure that MOC is in place for all changes in accordance with PDO MOC procedure

### Always ensure critical lifting operation are conducted under competent lifting supervisor









Date: 26/09/2021Incident title: HiPo#55Pattern: Lifting/Drops

As a learning from this incident and ensure continual improvement all contract managers must review their HSE risk management against the questions asked below

### **Confirm the following:**

- 1. Do you ensure the MOC system is implemented upon change in people, operation or equipment?
- 2. Do you ensure Specific and detailed lifting plans are available and approved?
- 3. Do you ensure that all lifting operations are properly and effectively supervised and monitored?
- 4. DO you ensure proper premobilization system for 3rd party is working and effectively implemented?
- 5. Do you ensure to verify 3rd party workers competency and equipment integrity/availability through premobilization and pre-site entrance inspection systems?



 Date: 08/08/2021
 Incident title: LTI#18
 Pattern: Drops

 Target Audience: Drilling, Logistics, Operation & Construction

#### What happened?

On 08-08-2021 around 8:50 Hrs, A mechanical crew were shifting the pipes on the wooden skids after completion of welding. After complete shifting of one portion they moved another. While shifting it on the wooden skid, tripod jack got unbalanced and started to fall one by one. Pipe hit left side of the hip of fitter who was doing buffing activity inside welding booth. Resulted fracture injury on his LT pelvis.

#### Your learning from this incident..

- Always adhere with procedures and method statements.
- Always ensure to use H Beam support while performing welding activity.
- Always ensure the lifting area is free and barricaded.
- Always ensure proper communication between team members.
- Always ensure not to keep the pipes on jacks for long length.

Don't do shortcuts, comply with procedures









Date: 08/08/2021Incident title: LTI#18Pattern: Drops

As a learning from this incident and ensure continual improvement all contract managers must review their HSE risk management against the questions asked below

### **Confirm the following:**

- 1. Do you always ensure work procedure and method statement available and followed?
- 2. Do you always ensure daily activities are planned realistic in compliance with safety requirements?
- 3. Do you always ensure employees are not in line of fire?
- 4. Do you always ensure HEMP, JSP, TRIC covering all your activities?
- 5. Do you always ensure TBT is carried out effectively?
- 6. Do you ensure that the right equipment are available and used for the task.



Date: 22/09/2021

Incident title: LTI#21

Pattern: Toppling of lifted load

**Target Audience:** Drilling, Logistics, Operation & Construction

#### What happened?

An Electrician suffered injury while engaged in VFD (Variable Frequency Drive) panel replacement activity at MM-576 location as the lifted VFD panel toppled over him.

The panel brought from the supplier yard to site was unloaded to the ground from the canter using a crane, and was again lifted a feet above ground to remove the wooden base (shipping skid). The Electrician was hammering the wooden base to dislodge it when the panel lost balance and toppled over.

#### Your learning from this incident..

- Always refer to manufacturer instructions and follow the correct lifting procedure for safe lifting.
- Do not allow personnel within the lift radius and close to lifted load.
- Any work such as skid removal should be carried out on firm surface.
- Do not resort to short cuts; ask when in doubt.
- Use your empowerment to stop unsafe work.

Ensure to obtain lifting plan for all lifting activities







Date: 22/09/2021Incident title: LTI#21Pattern: Toppling of lifted load

As a learning from this incident and ensure continual improvement all contract managers must review their HSE risk management against the questions asked below

#### **Confirm the following:**

- 1. Do you ensure correct lift plan is established with reference to manufacturer instructions for the load to be lifted?
- 2. Do you ensure lift area is barricaded and personnel are kept away from the lifted load?
- 3. Do you ensure personnel are aware of the safe method of executing a task and are not taking shortcuts?
- 4. Do your ensure personnel are aware of their empower to stop unsafe work?

