



Procedure for Man Riding Operations

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1 INTRODUCTION

Man-riding operations should only take place if no other means can be found to carry out the task.

Man-riding operations shall be conducted under a Permit to Work, with a Level 2 Risk Assessment conducted and in line with a site / installation specific procedure containing a rescue plan.

1.1 PURPOSE

The purpose of this Safe System of Work is to provide information and guidance on the safe use of man-riding operations and baskets for transferring personnel between vessels and structures.

Information is provided on individual responsibilities, planning and risk assessment, basket transfer use, and the maintenance and inspection of associated equipment.

1.2 SCOPE

The contents of this procedure are applicable to all BP owned and managed sites / installations in Azerbaijan and Georgia. Contractors working on BP owned or managed sites / installations are also responsible for alignment with this procedure.

- Operating Management System OMS Essentials 3.2.1 and 4.5.1
- BP Group Defined Practice for Control of Work GDP 4.5-0001(Paragraph 3.7)

This document does not replace the procedures prepared and adopted by specialist contractors. Neither does it supersede any national and local regulatory requirements.

All guidelines contained shall be regarded as the minimum requirements for BP owned or managed sites / installations in Azerbaijan and Georgia.

1.3 LEGISLATION & STANDARDS

The aim of this Safe System of Work is to achieve "no accidents", "no harm to people" and "no damage to the environment". To achieve this aim, this SSOW complies with National Legislation, the terms of the Production Sharing Agreement (PSA) and mandatory BP Standards.

The best International Oil Industry practice and relevant goal setting legislation have been adopted to reduce the level of risk to as low as reasonably practicable and therefore well below that mandated by applicable statutory laws and regulations.

In the absence of local regulations, BP Group Standards will apply. In addition, appropriate UK and US regulations and industry best practice have been considered in setting suitable goals and targets.

The equipment to which this document applies includes, but is not necessarily limited to:

- Man Baskets / Work Baskets / FROG / Billy Pugh
- Man-riding equipment used in drilling operations (harnesses and winches)
- Forklifts and attachments
- Cranes used for basket transfers
- All associated lifting equipment used during basket transfer (for example, slings, shackles, etc).

1.4 COMPANY REQUIREMENTS

It is a company requirement that all tasks are subjected to an assessment of risk to demonstrate that risks have been reduced to as low a level as reasonably practicable (ALARP). This can be achieved

by complying with the Company's existing standards. Where compliance with Company standards cannot reasonably be achieved, a formal level 2 Risk Assessment will be undertaken to identify any additional controls and demonstrate that risks remain as low as reasonably practicable. Whether by compliance with Company Standards or through level 2 Risk Assessment, the Company's Golden Rules of Safety must be complied with. Golden Rules are non-negotiable.

1.5 STOPPING UNSAFE WORK

To stop the continuation of potentially unsafe work at the earliest possible stage, the Control of Work (CoW) Policy and this procedure for Man Riding Operations make it very clear that all personnel are obliged and have the authority to **"STOP"** the work that they consider to be unsafe.

1.6 DEVIATIONS

This procedure is written in sufficient detail that it should be able to be applied consistently at all sites / installations. There may still be the requirement for some local rules covering site / installation specific logistical/administrative arrangements and local variations in responsibilities to reflect differences in organisational arrangements. These local rules should not deviate from the core processes within this document. Any form of deviation from this procedure, including but not limited to local rules, shall be requested and authorised in accordance with SSOW, Deviations from Regulations and Procedures (Doc. No: AZSPU-HSSE-DOC-00011-2).

1.7 DOCUMENT REVIEW

This document will be reviewed on an annual basis when users from the sites / installations will have an opportunity to propose changes to the existing processes and procedures. The document Technical Authority will be responsible for coordinating this review.

1.8 SSOW SPECIFIC CROSS REFERENCE

This procedure shall, where appropriate, be used in conjunction with this suite of AzSPU Procedures referenced below.

Document Number	Title of Procedure
AZSPU-HSSE-DOC-00011-2	Deviations from Regulations and Procedures
AZSPU-HSSE-DOC-00060-2	Permit To Work
AZSPU-HSSE-DOC-00063-2	Task Risk Assessment
AZSPU-HSSE-DOC-00056-2	Lifting Operations
AZSPU-HSSE-DOC-00002-2	BP Control of Work Standards

1.9 LANGUAGE FACILITATION

Due to the various languages spoken at sites / installations, there is a necessity to assist all with "an ease of understanding". Therefore, the development and use of information tools are available.

1.10 PROCEDURE SUMMARY

A Procedure Summary has been developed in a form of a leaflet, which can be carried by the Line Supervisors while conducting their day-to-day work tasks. The Leaflet summarizes the contents of this procedure for Man Riding Operations. The Procedure Summary can also be used as a guideline for Line Supervisors to deliver their daily toolbox talk. (See Appendix B)

2 DEFINITIONS

SM	Site Manager
SC	Site Controller

OIM	Offshore Installation Manager
ALARP	As Low as Reasonably Practicable
COW	Control of Work
PTW	Permit to Work
SSOW	Safe System of Work
gHSEr	Getting HSE Right
PSA	Production Sharing Agreement
AzSPU	Azerbaijan Strategic Performance Unit

3 RESPONSIBILITIES

3.1 SITE MANAGER (SM) / SITE CONTROLLER (SC) / OFFSHORE INSTALLATION MANAGER (OIM)

The Site Manager / Site Controller / Offshore Installation Manager shall be responsible and accountable for the application of this procedure in his area of responsibility, He shall ensure:

- That adequate numbers of Competent responsible persons are appointed to manage and maintain the requirements of this procedure
- All man-riding operations are controlled under the Permit to work system and site / installation specific procedure
- That this procedure is strictly adhered to for all occasions when it is identified that man riding basket operations are to take place.
- He appoints a competent person to inspect and certify man riding baskets as safe to use.
- That all transfers by man basket are subjected to a Risk Assessment
- The review of all Risk Assessments
- That all equipment associated with basket operations is regularly inspected and maintained and has all relevant up-to-date certification
- Training records are maintained and updated

3.2 PERSONNEL SUPERVISING MAN RIDING OPERATIONS

Personnel supervising man-riding operations are responsible for ensuring:

- The safety of all personnel involved in the activity
- That all required equipment is suitable for use and is within test date
- That the operation has been risk assessed and properly planned
- A rescue plan is in place
- That all personnel involved in the operation have been properly briefed on their roles and responsibilities and their required response in an emergency
- That the activity is executed in accordance with the plan
- That all man-riding operations are halted if conditions become, or are likely to become, unsafe
- That transferred personnel are guided to registration and to the person who will provide their induction briefing.

3.3 CRANE / FORKLIFT OPERATORS

In order to be appointed, all crane operators must satisfy the requirements of Safe System of Work *AZSPU-HSSE-DOC-00056-2 Lifting Operations*. In addition, in order to operate a crane for man basket operations they must have at least one years operating experience.

During man-riding operations, crane drivers are responsible for:

- Ensuring that they have a full understanding of their roles and responsibilities for basket operations
- Observing absolute care and safety at all times during man basket operations
- Not performing any other work or leaving their position at the controls until the basket has been safely landed
- Ensuring that they have visual contact with the banks-man and the basket at all times during the operation
- Halting operations and informing the supervisor whenever they consider the activity is unsafe or likely to become unsafe.

3.4 BANKS-MAN

Basket transfers shall not take place without a banks-man. Banks-men are responsible for:

- Ensuring that they have a full understanding of their roles and responsibilities for man-riding operations
- Observing absolute care and safety at all times during man-riding operations
- Maintaining visual contact with the basket and the crane operator at all times during the operation
- Adhering to the system of communication with the crane operator that was agreed in the plan, including radios and hand signals
- Assisting the crane operator in ensuring that the transfer is carried out safely
- Halting operations and informing the supervisor whenever they consider the activity is unsafe or likely to become unsafe.

3.5 BASKET PASSENGERS

During work or transfer, basket passengers are responsible for:

- Behaving in a safe and responsible manner
- Complying with instructions provided by the person supervising the transfer
- Attending fully to any passenger safety and instruction briefing provided prior to the transfer
- Halting operations and informing the supervisor whenever they consider the activity is unsafe or is likely to become unsafe
- Clear communications to banks-man or crane operator
- Wearing fall protection at all times during the transfer

4 MAN (WORK) BASKET CONSTRUCTION

4.1 CONSTRUCTION

The following guidelines apply to the construction of all man baskets used by BP in Azerbaijan and Georgia:

Passengers must be protected from harm: man baskets should be of sound construction, in good and safe condition, and must be fully enclosed to prevent passengers from falling, being crushed, trapped or struck.

In an emergency, passengers should not be exposed to any further danger: should personnel become trapped in a man basket, they should not be exposed to any further danger and they must be capable of being freed.

The basket must be protected from falling: fall arrest devices must be in place to prevent the basket falling if the primary means of support fails (this can entail suitably rated ropes with independent anchorages).

In the absence of specific design criteria for fabricated man-riding personnel baskets, guidance on certain safety features can be adopted from the **British Standard BS 2830** – which addresses Suspended Work Platforms.

This guidance gives:

- A minimum height from the floor to the underside of the top handrail to prevent persons toppling over. (Minimum height = 910mm but recommended height of 1150mm preferred).
- A maximum vertical distance between the handrail/intermediate rails to prevent persons falling through. (Max = 500mm)
- A minimum of 4 Lifting points must align to centre of lift
- Floors to be slip-proof and must be a minimum area for each person working in the basket. (Minimum area per person recommended = 600mm x 600mm)
- A stipulation that toe boards must be fitted all around the flooring if the basket is open sided. (Minimum depth 150mm.)
- Mesh sides to aid visibility from basket or visibility for crane operator / banks-man
- Internal handrails to prevent hands/fingers being trapped if the basket swings against an obstruction.
- Doors (if fitted) must open inwards and have a locking mechanism to prevent inadvertent opening. Or integral ladder for access/egress
- Basket should have internal anchor points for safety harnesses.
- The lifting slings, if fitted with a fifth leg (top lifting leg) should have a sixth leg in parallel as a safety back-up. (Safety Factor for wire rope slings should be not less than 10:1)
- It must be marked with a SWL and that it is suitable for man-riding
- Certification data plate and markings board

In addition, it is recommended that the following safety features are incorporated.

Note: These are not mandatory but considered good practice/design:

- A roof to protect personnel from falling objects.
- The base of the basket should have rubber buffers to prevent jarring of the spine when being landed.
- Certification data plate and markings board

The certification for the basket (including slings/shackles etc.) must be current, i.e.:

- It must have a proof load test certificate.
- It must have been inspected by a competent person within the previous 6 months

Note: The basket and accessories must also be inspected immediately before each use by a competent person.

4.2 FROG / BILLY PUGH

Numbers of recorded personnel transfer basket incidents are low, but basket transfers to or from offshore installations are considered a high-risk operation. The Billy Pugh type of personnel transfer basket does not comply with regulation 5 of the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) but it can be used in exceptional circumstances, ie emergencies or when transfer is essential and it is not practicable to gain access by less hazardous means. Alternative forms of basket such as FROG are available which duty holders should consider if they offer a safer means of personnel transfer for their needs. These are used for transfer of personnel only and no work is carried out from them and specific manufacturers criteria for use are to be adhered to.

For additional guidance refer to Offshore Operations Management of Marine Activities within 500 Meter Zone AZSPU-HSSE-DOC-00038-3 Section 5.3 Transfers by Frog Personnel Transfer Capsule

4.3 RIDING BELTS

Riding belts are work restraint, work positioning (including rope access and positioning techniques), fall arrest or rescue systems.

Ridding belts can be used only if:

- A risk assessment has demonstrated that work can, so far as is reasonably practicable, be performed safely while using the ridding belt
- The use of other, safer work equipment is not justified
- The user and a sufficient number of available persons have received adequate training, including rescue provision
- The riding belt is securely fitted
- The various components of the riding belt are of sufficient strength to support all known loads

The manufacturer's instructions should be checked to consider whether the item is compatible with other equipment being used. All equipment used in conjunction with ridding belts should be strong enough to withstand any forces placed upon it and should include an adequate margin for safety. The equipment's safe working loads (or minimum static strength), working load limits or maximum (and sometimes, minimum) rated loads should be checked.

Any equipment used for work at height is required to meet relevant European Standards (i.e. it is CE marked and tested to relevant European norms (EN) and all new PPE should be traceable to a certificate of conformity. The equipment should also be marked with a unique identification number so that it can be traced back to its point of origin and any test certificates and examination reports.

The need for rapid and effective rescue is particularly important when using riding belts where a delay may have severe consequences, i.e. when someone is left hanging motionless in a harness after a fall resulting in 'suspension trauma' as a result of restricted blood circulation. The time before loss of consciousness can vary from about 6 minutes to 2 hours, depending on physical capability and incident severity. Suitable rescue equipment and competent personnel must be available on site at all times during the completion of tasks at height.

4.4 FORKLIFT CAGES / INTEGRATED WORKING PLATFORMS

In the absence of specific design criteria for fabricated integrated working platforms guidance on certain safety features can be adopted from the HSE **Safety Notice: PM28** December 2005.

- Platforms for use on the fork arms of a truck shall have fork pockets on their underside that will accommodate the fork arms spaced at the widest practicable distance apart without excessive clearance between the pockets and forks.
- The locating (i.e. pickup) points on carriage mounted and fork arm mounted working platforms shall be symmetrical about the centre line of the working platform.
- The dimensions of the platform shall be as small as possible, compatible with the number of persons that it is intended to carry and the work they are likely to undertake.
- The platform dimension parallel to the fork arms, i.e. forward length of the platform, shall not exceed 2 times the rated load centre distance of the truck. The width of the platform shall not exceed the outside width over the truck load wheels by more than 250mm either side.
- A positive locking device shall be included on the platform to retain it on the truck when in use.
- The floor of the platform shall be of adequate strength, horizontal when attached to the truck in its elevated position, slip resistant and designed to prevent the accumulation of liquid. Any openings in mesh floors or between the floor and toe-guards or access gates shall be dimensioned so as to prevent a sphere of 15mm diameter passing through.
- A top rail being between 1000mm and 1100mm from the platform floor; and at least one intermediate rail, equally spaced between the top of the toe board and the under side of the top rail
- A toe-board, having a minimum height of 150mm
- Suitably sized and positioned handholds shall be fitted within the confines of the working platform. To allow for safe use, e.g. to allow use with gloved hands, it is recommended that there is a gap of 90mm between any handhold and the side of the platform.
- Other equally effective means of guarding between the top rail and floor, such as infilling with robust wire mesh, panelling and/or safety glazing may be used.
- Gate access should be provided and shall open inwards, upwards or sideways and return automatically to the closed position. It is strongly recommended that a device is provided that locks the gate automatically and ensures it cannot be opened once the platform is raised.
- Safety harness anchorages shall be included on the working platform

5 INSPECTION AND MAINTENANCE

Man-riding equipment shall be inspected and maintained by a competent person in accordance with AZSPU-HSSE-DOC-00056-2 Lifting Operations.

In particular, man baskets must be:

- Inspected immediately prior to use
- Thoroughly examined before first use and thereafter every six months
- In possession of all relevant up-to-date certification and have a valid thorough examination record.

In addition to regular inspections, man baskets shall be thoroughly inspected whenever the integrity of the basket may have been jeopardised or whenever other risks are identified.

6 CRANE / WINCH SPECIFICATIONS FOR MANRIDING

6.1 INSPECTION, EXAMINATIONS AND CERTIFICATION

All cranes shall be operated and maintained in accordance with AZSPU-HSSE-DOC-00056-2, *Lifting Operations*.

Cranes / winches which are suitable for lifting people should be clearly marked at the crane operator's location 'SUITABLE FOR LIFTING PEOPLE' or 'SUITABLE FOR MAN-RIDING' and marked with the maximum number of people it can carry. Any crane that is not marked should not be used to lift people or for man-riding.

In particular, the following guidelines apply to all cranes and associated lifting equipment used for lifting personnel:

- All necessary certification for the crane or winch, winch ropes, crane ropes, end terminations, hook blocks and other associated equipment must be current
- The crane / winch and associated equipment must have undergone a thorough inspection by a suitably competent person within the previous twelve months
- The crane must be in good condition and must have a full and complete documented inspection record
- All crane safety systems must be fully functional, including Rated Capacity Indicators, over hoist limiters, emergency stop facilities, etc.

6.2 CRANE OPERATING REQUIREMENTS

Cranes used for lifting people should be equipped with hoist brakes that can be operated mechanically under all load conditions. The brakes should be able to support the specified test overload for the equipment.

The brakes should be automatically applied when the drive is in the 'OFF' or 'NEUTRAL' position, and on failure of the power supply to the motor or control device. The braking operation should be progressive, to avoid any shock loading of the hoisting system.

A second brake system should be provided for emergency use in case the normal braking system fails. For cranes this should be fitted to both load and boom hoist systems and be located as near to the hoist drums as possible. This brake should be strong enough to hold indefinitely the weight of the carrier/slides and the number of people carried. For hydraulic transmission system cranes, the braking effect of the hydraulic system itself would be considered as meeting the requirement for a secondary brake.

Clutches or other means of disengaging the drive train are prohibited for personnel-lifting operations. This is unless there is a fail-safe interface making it impossible to disengage the clutch when the drive train is in motion or when there is a load on the hook. Free fall operation of load hoist or boom hoist systems is dangerous and should be avoided. Any speed-change gearbox should be of constant mesh type and designed so that it is not possible to change the gear ratio while the hoist system is carrying any load.

The crane should be fitted with an emergency stop located for the operator to use. It should be protected against accidental use. Operating the emergency stop should arrest all motions of the crane. In the event of failure to re-start the prime mover, it should be possible to recover the carrier by manual methods.

In the event of total power failure the crane should be fitted with a means of lowering the work basket to a safe location.

Cranes used for man basket transfers must be capable of:

- Maintaining the basket in a safe condition in the event of a power or system failure (for example, primary brake system failure), and of allowing the safe lowering of the basket (manually if necessary) to a safe position for the passengers to be recovered safely
- Preventing free-fall of the basket in the event of a primary brake or transmission system failure
- Preventing inadvertent free-fall when the drive train is in motion or whenever the hook is loaded

6.3 WINCH REQUIREMENTS

Winches used for man-riding should be specifically designed for the task and fitted with the correct safety devices consisting of the following:

- Independent second brake system
- Limited line pull device (Normally set to 150KG)
- Slack line shut-off mechanism
- Upper and lower limit switches
- Emergency raise / lowering facilities (backup power, air supply)
- Correctly terminated winch rope / accessories with a safety factor of not less than 10:1
- Functional rope spooling device
- Rope drum guard
- Clearly marked emergency stop button within easy reach of operator's hand
- Clearly marked control leavers (UP, Down, Raise, lower or similar)
- A clearly visible sign 'Suitable for lifting people'

Additionally the sheave / snatch block used at the crown block shall have a minimum diameter of 19 x the rope diameter.

6.4 FORKLIFT REQUIREMENTS

Primarily Forklift trucks are intended for lifting materials and not equipment. However, they can be used with integrated working platforms to allow people to work at height.

It is essential that the working platform is compatible with the truck on which it is used.

Before any combination is used for the first time the working platform and truck manufacturer/supplier must be consulted. It is particularly important to ensure that:

- The truck/working platform combination has adequate stability under all circumstances in which it is intended to be used, and shall only be used on firm, well-maintained and level surfaces. Gradients and uneven or inconsistent ground conditions can affect the stability of the truck.
- The platform can be securely attached to the truck.
- People on the platform cannot reach hazardous moving parts or controls on the truck.
- The weight of the platform together with its load of people, tools, materials etc. shall be not more than half of the actual capacity of the truck at the rated load centre distance, maximum lift height and maximum out reach in the case of telehandlers and reach trucks.
- Personnel on the working platform must wear fall protection at all times

The following functions shall '**NOT**' be capable of movement whilst they are working; tilt, side shift,

chassis or mast levelling.

The truck should not be moved while the working platform is elevated, however, minor controlled positional adjustments are acceptable if they are necessary to allow the task to be carried out safely.

The parking brake shall be applied whenever the working platform is elevated and all wheels chocked. Where applicable, the transmission placed in neutral before elevating the platform.

The user shall ensure that the platform is positively locked onto the truck with which it is to be used.

If the platform is fork mounted then the fork arms on the truck shall preferably extend fully into the fork pockets. If not this is possible, they shall extend to a distance of at least 75% of the platform length measured parallel to the axes of the fork arms.

Where possible it is advisable to have a secondary restraining sling from the platform to the mast.

Pre-use checks shall be carried out by an authorised person to ensure that the working platform is properly located and secured to the truck each time and before it is used.

7 COMMUNICATIONS

Communications for man-riding shall be clearly defined pre task. If radios are to be used care should be taken to have only the people involved in the operation on the radio channel. Care should be taken to ensure the radios have sufficient battery charge for the whole operation.

Where possible a banks-man should form part of the work party to communicate to the crane operator.

Hand signals are acceptable if the crane operator and banks-man have clear vision of the work party at all times.

7.1 HAND SIGNALS FROM RIDING BELTS

These signals are unique to riding belt operations; the personnel involved with this operation should be appropriately trained.

Pre task the person in the riding belt and the winch operator will confirm the hand signals that will be used.

Hand signal posters should be readily available and posted in the appropriate areas.

7.2 FORKLIFT / INTEGRATED WORKING PLATFORM COMMUNICATIONS

There shall be adequate communication between the truck operator and persons on the platform especially when raising and lowering. Hand held communication devices or a system of signals should be used where communication is difficult.

When using hand signals an agreed system should be used and all involved trained in its proper use. An example of commonly used hand signals is given in BS 7121 part 1.

8 RISK ASSESSMENT AND PLANNING

8.1 RISK ASSESSMENT

All man basket operations must undergo a Risk Assessment in accordance with *AZSPU-HSSE-DOC-00063-2 Task Risk Assessment*.

The Risk Assessment shall determine:

- The nature and degree of all the risks involved
- What extra precautions should be taken to mitigate those risks, including increased levels of supervision and the competence of the personnel involved
- Whether a practicable alternative and safer means of personnel transfer is available.

Note: If an alternative safer and practicable method of transfer is recognised, it shall be used in preference to the use of a man basket.

8.2 PLANNING

Following a Risk Assessment, a procedure shall be produced that addresses:

- All identified risks
- The resources, procedures and responsibilities required to ensure a safe operation
- The contingency plans to be employed in the event of an emergency.
- The Equipment used for man riding is of appropriate specification
- Personnel have been trained, Have Experience of Work or transfer from baskets.
- The crane operator or winch man has been trained and assessed as competent for this type of operation.
- An operator / Mechanic capable of operating / repairing the equipment are available in the event of an emergency.
- A line of communication has been established between the operator and the personnel involved in the operation. (including a dedicated banks-man if required)
- Man-riding operations have adequate communication if working blind to winch or crane operator.

Note: All involved personnel shall be made aware of their function and responsibilities included in the procedure.

9 HARNESS &

SAFETY EQUIPMENT

Harness must be worn at all times during man-riding operations, Harness can be worn in different configurations and the appropriate securing equipment must be available i.e. safety reels, lanyards to allow for work restraint, fall arrest, and work positioning.

9.1 HARD HATS

Hard hats should be fitted with a chin strap to ensure that they are **NOT** capable of falling from an elevated work site.

10 RESCUE PLANS

It is difficult for one procedure to specify an appropriate rescue plan for an explicit site, however, each BP site where people are exposed to work at height or man riding operations must have a rescue plan and this must form an integral part of the emergency control procedures.

Most plans will deal with the rescue of a person left suspended in either fall arrest, work positioning or

rope access equipment. For the latter, the specialist contractor will already have a plan, equipment and personnel as part of their standard procedures. In the case of fall arrest or work positioning equipment, a separate plan should be developed as follows:

- ☐ When considering Fall Protection Systems, suspension trauma must be considered
- Identify the equipment required. This may include:
 - Fall arrestor with retrieval handle
 - Specialist rescue equipment such as the GOTCHA System
 - Crane and crane basket
 - MEWP
 - Man-riding winch and basket
 - Forklift with personnel basket
 - Scaffolds and ladders
- Identify personnel to carry out the rescue.

Note: Most service providers will supply rescue equipment and competent personnel to perform this work. The worksite may deem this adequate however it is recommended that on sites such as platforms, personnel in the fire team/rescue team are provided with the appropriate equipment to perform this task.

Consider the level of medical treatment that may be required (refer to the following paragraph)

Suspension trauma is a medically recognised condition. Everybody who is suspended in a safety harness runs the risk of shock and unconsciousness due to blood flow insufficiency. Unconsciousness can become life threatening after only a few minutes.

Shock, caused by a lack of blood flow, is due to the blood accumulating in the lower parts of the body as a result of the muscles relaxing and the 'muscle pump' effect stopping. The need for rapid and effective rescue is particularly important when using personal protective systems where a delay may have severe consequences, i.e. when someone is left hanging motionless in a harness after a fall. The time before loss of consciousness can vary from about 6 minutes to 2 hours, depending on incident severity.

Further information can be found in the HSE Contract Research Report 451/2002, Harness Suspension: Review and Evaluation of Existing Information. Contact Occupational Health for the latest advice regarding suspension trauma.

11 MAN (WORK) BASKET TRANSFER OPERATING GUIDELINES

The use of a crane to hoist personnel from one structure or vessel to another is a potentially hazardous operation if not carried out correctly.

The use of a man basket will only be sanctioned after a Formal Risk Assessment and may only proceed if no other means of access is available or practicable. (This section is not applicable to Frog Operations which are covered in Offshore Operations Management of Marine Activities within 500 Meter Zone AZSPU-HSSE-DOC-00038-3 Section 5.3 Transfers by Frog Personnel Transfer Capsule)

Note: Any equipment not specifically designated for lifting persons shall not be used in this manner.

11.1 OPERATING REQUIREMENTS

The duties of people in supervising or actually carrying out the personnel basket transfer shall be clearly defined. People usually covered are the Installation Manager, the crane operator, the Master of the Vessel, and other people nominated by the OIM or the ship's Master to undertake specific duties. The procedure setting out those involved in the transfer operation should cover the following:

The Offshore Installation Manager should:

- Be satisfied with the fitness, training and briefing of the people to be transferred
- Be content with the suitability of the vessel
- Know the limitations of visibility and sea state
- Be aware of the limitations on transfer by night
- Be aware of the suitability of the crane for personnel transfer
- Check the wind speed limitations on crane operations
- Establish and maintain communication with the Master of the Vessel
- Brief the Master of the Vessel
- Be satisfied with the competence and experience of the crane operator
- Ensure appropriate emergency precautions are in place, e.g. notify the standby vessel before the transfer
- Be satisfied with the inspection and testing of the personnel basket

The Master of the Vessel should confirm to the OIM that:

- The transfer has been accepted and the procedures understood
- The vessel has a satisfactory station keeping capability
- The deck crew have been fully briefed
- The people to be transferred have been adequately briefed and are fit to be transferred

The crane operator should establish that:

- The crane is fully operational
- The wind speed is satisfactory for safe operation
- The requirements and procedures have been understood
- The banks-man has an unobstructed view and the transfer areas are clear
- Adequate communications have been established with the vessel Master and banks-man

The crane operator shall have been trained and assessed as competent for basket transfer operations.

In addition, an operator / mechanic, capable of operating the crane, shall be available in case of an emergency.

The Banks-man and Deck Supervisor should ensure that:

- The transfer procedure is understood
- They can be clearly identified as banks-man and deck supervisor
- The personnel basket is correctly used
- The individuals are fit to transfer and have understood the procedures
- Proper communications have been established
- They each have a full view of the transfer area
- Adequate landing area is available for the basket

Individuals to be transferred should:

- Ensure that the transfer procedure is understood
- Confirm they agree to the transfer

- Be able to use correctly the safety equipment provided

Except for emergencies, man riding operations shall only take place in daylight and in good visibility:

- The basket shall not be used if wind speed is in excess of 7 metres/second, (14 knots) or the limitations determined by Risk Assessment, if lower.
- Man baskets should not be used in the following conditions:
 - Electrical storms
 - Snow or ice
 - Fog
 - Sleet
 - Other weather conditions as determined by risk assessment that could affect the safety of personnel

11.2 SUITABILITY OF VESSELS FOR TRANSFER OPERATIONS

The type of vessel considered suitable to carry out a transfer should be determined by its ability to maintain station alongside the installation and should have sufficient clear deck space to safely receive the basket.

11.3 WEATHER CONDITIONS

Weather conditions are very important factors which should be taken into account, and include visibility, wind and sea state. Duty holders should specify the maximum wind speed and sea state beyond which basket transfer is not permissible and the wind speed limitations for the crane operations.

11.4 COMMUNICATIONS

Both radio and visual communication should be established and maintained between the people actually conducting the operation.

11.5 SAFETY RESCUE EQUIPMENT

People being transferred in emergencies shall wear self inflating life jackets, suitable clothing and immersion suits. All life jackets should be equipped with suitable means of illumination during night transfers. Appropriate rescue and recovery arrangements must be in place (e.g. standby vessel equipped with a fast rescue craft ready to launch).

11.6 TRAINING

Personnel will be transferred by basket in greater safety and with less apprehension if they have received training in the techniques involved. The type of training should be included in installation drills. Inexperienced people or those not trained in the use of personnel baskets should always be accompanied. At least one person in each transfer must have previously ridden in a man basket.

Note: Transfer by basket is voluntary.

11.7 PRE-TRANSFER OPERATIONS

Prior to transfer operations:

- A toolbox talk will be held for all relevant personnel
- The basket shall be thoroughly inspected by the person supervising the transfer
- It must be ensured that landing and lifting areas are clear of all obstructions and that there is sufficient space to allow secure and safe operation of the basket
- The standby vessel shall be informed of the impending transfer
- People working from the basket or platform wear a safety harness throughout the operation;
- During transfer over the sea, passengers are provided with survival suits and life jackets of an approved type.
- Effective emergency arrangements must be in place throughout the transfer, the rescue and recovery arrangements must be capable of recovering people from the sea within specified performance standards. Where transfer operations over water are carried out in harbours, passengers should be provided with life jackets as a minimum requirement

11.8 TRANSFER OPERATIONS

During transfer operations:

- The crane driver shall concentrate completely on the transfer operations
- The banks man shall have visual contact with the crane operator and the basket at all times
- Direct radio contact shall be maintained at all times between the basket, crane operator, and banks man
- All instructions shall be given in metres where radios are employed for communication
- The basket shall only be lifted to a height sufficient to clear any obstacles prior to being lowered.

11.9 POST-TRANSFER OPERATIONS

The person supervising the transfer operation is responsible for guiding transfer personnel to registration and to the person who will provide their induction.

APPENDIX A: PRE START CHECKLIST

<http://docs.bpweb.bp.com/dkAzSPU:/content/hse/spu/documents/AZSPU-HSSE-DOC-00128-2>

Revision/Review Log

Revision Date	Authority	Custodian	Revision Details
05 October 2004	Central Engineering Senior Authority	Man Riding Operations Technical Authority	Initial Issue as controlled document
07 September 2007	Alan McNulty CHSSE Manager	John Thompson Eldar Fiahardinov Barry Riddell (Man Riding Operations Technical Authority)	<p>General: Throughout the procedure the document numbering for referred procedures has been changed from UNIF to AzSPU.</p> <p>Section 1. Introduction: 2 paragraphs entered in the <u>Introduction</u>. 1.1 Purpose; Wording changes. Following inclusions to Section 1 are; 1.2 Scope; Wording changes. 1.3 <u>Legislation & Standards</u>, 1.4 <u>Company Requirements</u>, 1.5 <u>Stopping Unsafe Work</u>, 1.6 <u>Deviations</u>, 1.7 <u>Document Review</u>, 1.8 <u>SSOW Specific Cross References</u> (new doc control numbers), 1.9 <u>Language Facilitation</u>, 1.10 <u>Procedure Summary</u>.</p> <p>Section 2. Responsibilities: Is now "<u>Definitions</u>". New section.</p> <p>Section 3. Man Basket Construction: Is now "<u>Roles and Responsibilities</u>". Changes made to the responsibilities of SM/SC/OIM, <u>Personnel Supervising Man Riding Operations</u>; 3.2 Additional bullet point added – 'A rescue plan is in place'. <u>Crane / Forklift Operators</u>, <u>Banksman</u> and <u>Basket Passengers</u>; 3.5 Additional bullet point added – 'Clear communications to Banksman or Crane Operator.</p> <p>Section 4. Inspection and Maintenance: Is now "<u>Man Basket Construction</u>". Additional sub-sections added.</p> <p>Section 5. Crane Specifications for Man Basket Transfer: Is now "<u>Inspection and Maintenance</u>". Additional paragraph added.</p> <p>Section 6. Risk Assessment and Planning: Is now "<u>Crane / Winch Specifications for Man Riding</u>". Additional sub-section added.</p> <p>Section 7. Man Basket Operating Guidelines: Is now "<u>Communications</u>".</p> <p>Section 8 Is now "<u>Risk Assessment and Planning</u>". It was Section 6 in the previous revision. It now has additional bullet points under 8.2 Planning.</p> <p><u>The following Sections have been added</u></p> <p>Section 9. Harnesses and Safety Equipment Section 10. Rescue Plans</p> <p>Section 11. Man Basket Transfer Operating Guidelines</p>

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16 February 2009	Yuliy Zaytsev Safety & Compliance Systems Manager	Eldar Fiahardinov, Lifting Operations Technical Authority	<p>Appendices. 3 appendices included to the document as Follows:</p> <p>Appendix A: Pre-Start Checklist Appendix B: Procedure Summary Appendix C: Feedback & Improvement Suggestions</p> <p>Paragraph 3.5 Basket Passengers Additional new bullet regarding fall protection is added to the paragraph</p> <p>Paragraph 4.1. Construction Additional new bullet regarding certification data plate is added to the paragraph</p> <p>Paragraph 6.3 Winch Requirements Additional new bullet regarding visible signs is added to the paragraph</p> <p>Paragraph 6.4 Forklift Requirement Additional new bullet regarding fall protection is added to the paragraph.</p> <p>Requirement regarding wheels choke to a working platform is added to the content of the paragraph as well.</p> <p>Paragraph 11.1. Operating Requirements Additional requirement regarding adequate landing area is added to the paragraph</p> <p>Paragraph 11.5 The title of paragraph is changed and now is 'Safety Rescue Equipment'.</p>
17 August 2009	Yuliy Zaytsev Safety & Compliance Systems Manager	Eldar Fiahardinov, Lifting Operations Technical Authority	<p>Paragraph 4.2 Frog / Billy Pugh Additional wording along with the reference to Offshore Operations Management of Marine Activities Within 500 Meter Zone Procedure is added.</p> <p>Section 11 Man Basket Transfer Operating Guidelines. Additional wording with the reference to Offshore Operations Management of Marine Activities Within 500 Meter Zone Procedure is given in paranthesis.</p>
26 April 2010	Yuliy Zaytsev	Eldar Fiahardinov,	Extension of review date for the procedure

	Safety & Compliance Systems Manager	Lifting Operations Technical Authority	requested due to need for additional research time
05 August 2010	Yuliy Zaytsev Safety & Compliance Systems Manager	Eldar Fiahardinov, Lifting Operations Technical Authority	Additional time for research requested in line with embedded regular frog capsule passenger transfer taking place on offshore facilities
08 December 2010	Yuliy Zaytsev Offshore Health & Safety Manager	Lifting Operations Technical Authority	Section 1 Purpose and Scope Removed reference to Getting HSE right and replaced with OMS, Group requirements