



## MARINE TRANSFER OF PERSONNEL

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# Table of contents

1. OFFSHORE PERSONNEL TRANSFER GUIDELINES .....	3
2. VESSEL SELECTION .....	6
3. TRAINING.....	8
4. RISK ASSESSMENT .....	9
5. PASSENGER MONITORING PRIOR TO BOARDING IN PORT .....	10
6. EMBARKATION IN PORT .....	11
7. PASSENGER INDUCTION FOR TRANSIT .....	12
8. PASSENGER EMBARKATION/DISEMBARKATION AT SEA .....	13
9. DISEMBARKATION IN PORT .....	14
10. PERSONNEL TRANSFER OPERATION (Capsule).....	15
11. PERSONNEL TRANSFER OPERATION (Walk to Work).....	18
Appendix 1 Risk Assessment Embarkation Transit Disembarkation .....	22
Appendix 2 Risk Assessment Personnel Transfer (Capsule) .....	31
Appendix 3 Risk Assessment Checklist (Capsule) .....	50
Appendix 4 Induction Checklist Example .....	56
Appendix 5 Offshore Gangway System Transfer Risk Assessment .....	59
Appendix 6 Offshore Gangway System Risk Assessment Checklist.....	68
Appendix 7 Offshore Crane and Capsule Compliance with LOLER.....	71





# Glossary

ARR	Arrival at field
DEP	Departure from field
DP	Dynamic positioning
ERRV	Emergency response and rescue vessel
ETA	Expected time of arrival
FMEA	Failure mode and effect analysis
FRC	Fast rescue craft
FRDC	Fast rescue daughter craft
GK	Gate keeper
GO	Gangway operator
HSE	Health & Safety Executive
IMCA	International Marine Contractors Association
IOC	Installation operating company
ISPS	International Ship and Port Facility Security
LOLER	Lifting Operations and Lifting Equipment Regulations
LSA	Life-saving appliances
MCA	Marine and Coastguard Agency
MHC	Mechanical handling contractor
MOB	Vessel mobilisation
OAS	Offshore access system
OGUK	Oil & Gas UK
OIM	Offshore Installation Manager
PLB	Personal locator beacon
PM	Project manager
PPE	Personal protective equipment
PTW	Permit to work
PTM	Prior to mobilisation
PUWER	Provision & Use of Work Equipment Regulations
REP	Appointed company rep on vessel (Master if not appointed)
SIMOPS	Simultaneous operations
SMS	Safety management system
SOLAS	International Convention for Safety of Life at Sea
STCW	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers
SWL	Safe working load
TBT	Task-based training
TBT	Tool box talk
TRA	Transit to field
TVO	Transfer vessel operator
VM	Vessel Master
W2W	Immediately before, during and after transfer



# 1. OFFSHORE PERSONNEL TRANSFER GUIDELINES

## 1.1 Introduction

The preferred method for the transportation of personnel offshore in the North Sea is by helicopter. There have been several recent examples of “exceptional circumstances” where this method of transportation has not been available. Since lack of availability of helicopters is a foreseeable event, the Oil and Gas UK Board have asked Step Change to form a Marine Safety Work Group to examine other methods of transporting personnel to offshore locations.

## 1.2. Terms of Reference

The Terms of Reference provided to the “Marine Safety” work groups were to develop guidelines for the safe transportation of personnel to and from offshore locations by marine methods. The guidance herein is for personnel transfer by a transfer capsule device and gangway walk to work system and includes;

- Method of transfer; including all vessel and equipment requirements
- Risk Assessments
- Procedures
- Training
- Personnel booking, tracking and security
- Briefings; both onshore and offshore.

## 1.3 Definition of Exceptional Circumstances

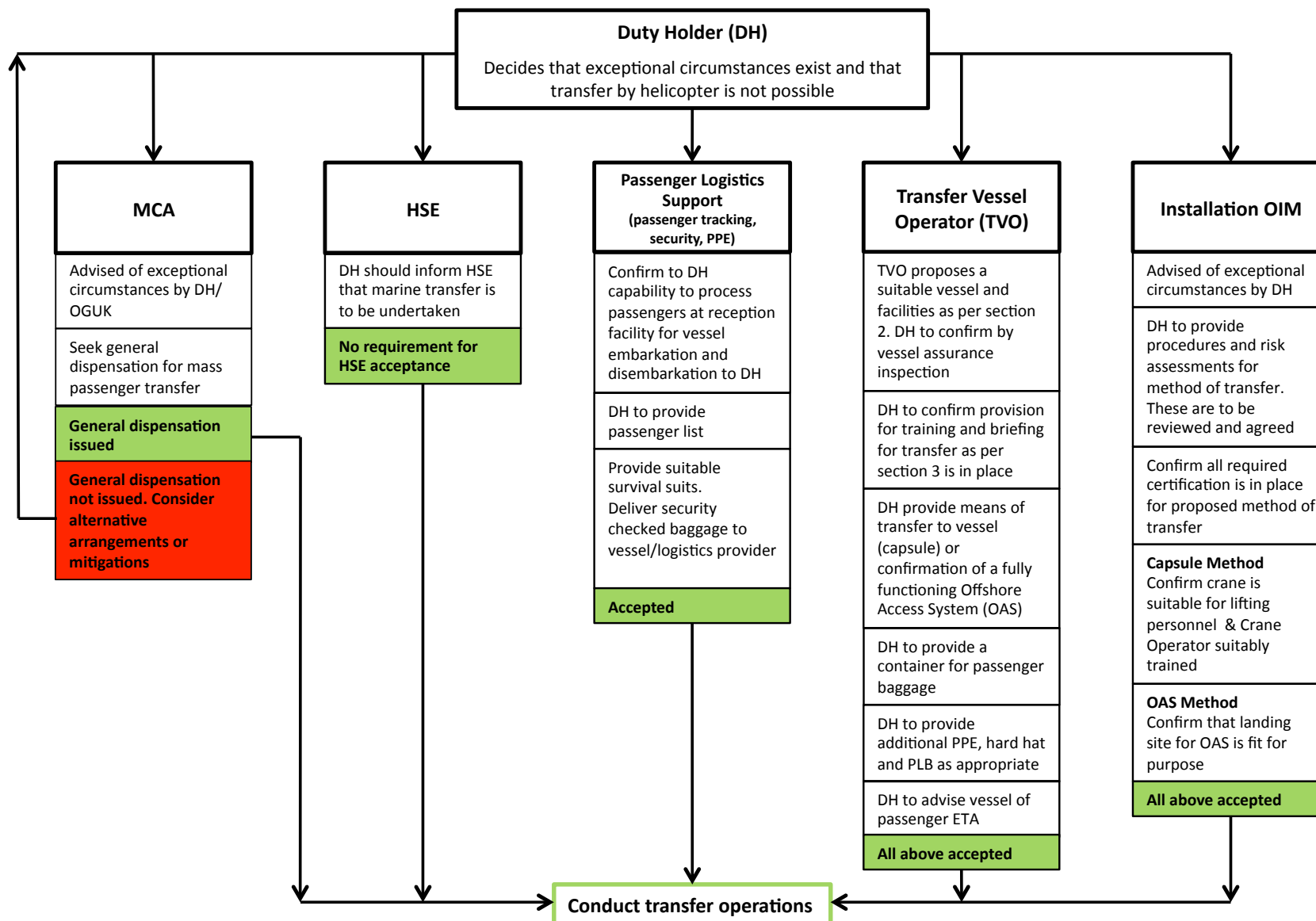
Operators, with the agreement of the MCA, may declare “exceptional circumstances” in a situation where it is not possible to use helicopters as the primary method of transferring personnel to or from Offshore Installations and marine methods have to be employed.

## 1.4. Decision Protocol Flowchart



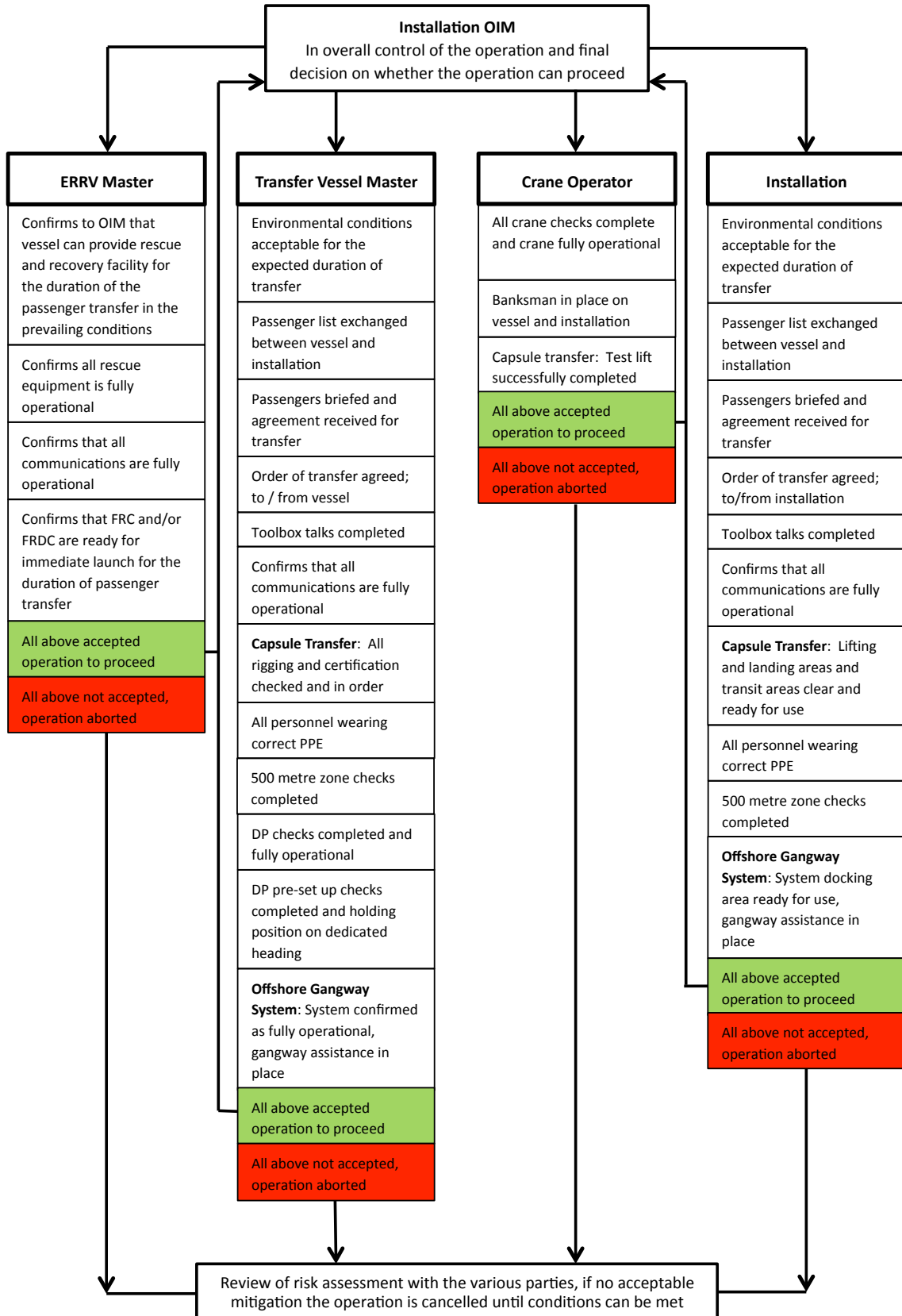


**TRANSFER OF OFFSHORE PERSONNEL DECISION FLOWCHART (ONSHORE)**





**TRANSFER OF OFFSHORE PERSONNEL DECISION FLOWCHART (OFFSHORE)**





## 2. VESSEL SELECTION

2.1. The Duty Holder will need to ensure that the selection process identifies that the vessel has facilities for the number of passengers expected. This is to be confirmed by the vessel Owner/Operator and by vessel inspection in accordance with the Duty Holder Vessel Assurance System. The vessel selection must ensure that the vessel meets the requirements of the Flag State (MCA for the UK). The vessel selection process must be risk assessed and a checklist in place to ensure that the vessel selected does not suffer rejection of endorsement from the MCA, if applicable.

- The vessel is to be in class, including compliance with the ISPS Code (if applicable), and must be verified by vessel assurance process.
- Vessels must be equipped with a fully functioning DP 2 system, in accordance with IMCA guidelines, as applicable to the vessel type. IMCAM182 (The Safe Operation of Dynamically Positioned Offshore Supply Vessels). IMCA M103 [1] (The Design and Operation of Dynamically Positioned Vessels). In addition, the selected vessel must be able to;
  1. Hold position in set weather limits utilising a maximum of 45% of available power.
  2. Hold position with the available power within a capability plot footprint of 2 metres.

Consideration should be given to the DP reference systems available on the selected vessels and their suitability towards the installation they are intended to support.

- Where applicable the vessel must be verified as permitted to carry passengers over and above the vessels normal manning levels. This may require an exemption from the MCA.
- Accommodation must, as a minimum, meet the requirements of the Merchant Shipping Act, Statutory Instrument 1997 No. 1508. The Merchant Shipping (Crew Accommodation) Regulations 1997, and when practicable be of single and or two man cabins.
- The number of passengers and crew must not exceed the capacity of the LSA on-board in order to meet the requirements of SOLAS. Chapter III Regulation 7.
- The vessel to have adequate arrangements for passenger reception.
- The vessel must be supplied with the appropriate guidelines, procedures and risk assessments for the method of transfer.
- The vessel must have a suitable induction process in place to ensure passenger safety and welfare while on board the vessel.
- English language to be used throughout the operations. Language to be verified in the vessel selection process.
- A suitable gangway is available that meets the requirements of; Statutory Instrument 1988 No. 1637-The Merchant Shipping (Means of Access) Regulations 1988.
- Facilities to include the provision of meals if required. This may require the supply of additional stores and provision of additional clean bedding.
- The vessels may require up-manning and manning levels will need to be agreed with the vessel Owner/ Operator. Up-manning may include additional catering and stewarding staff.
- Facilities will need to include the provision of sea sickness tablets, sick bags and receptacles in cabins.



- The vessel will need to be provided with a container for passenger baggage. If the container is of an open top type, a waterproof cover is to be provided.
- The vessel is to be provided with the transfer equipment and certification / documentation if the transfer equipment is not available at the installation. The equipment is to be inspected at regular intervals out with the required periodical inspections.
- Sufficient clear deck space should be available for equipment storage and for the transfer of passengers operation. There should be a clear and unobstructed access and egress from the vessels loading/landing area to the dedicated reception area.
- The duty holder will need to consider an appropriate place for storage of the transfer equipment when the equipment is not in use.

**Offshore Gangway System Requirements in addition to above.**

- Where an offshore gangway is already on a vessel:
  - There must be evidence that the gangway has been fully commissioned and interfaced with the vessel, in accordance with supplier's requirements and approved by class, with certification as appropriate.
  - The gangway must be positioned in order to connect to the installation, at the required height above LAT, within safe operating parameters.
- Prior to selecting an offshore gangway system vessel:
  - Ensure there is sufficient space at the required height (main deck level may not be high enough) with adequate deck strength to accommodate the footprint of the gangway system and operational area around it.
  - Ensure there will be a safe access route from the accommodation to the gangway boarding position once fitted.







### **3. TRAINING**

- 3.1. The vessel crew are to be confirmed as trained and qualified in accordance with STCW 95 and have Flag State Endorsements if applicable.
- 3.2. The installation crew and passengers will be trained and qualified in accordance with Offshore Training requirements. Refer to notes on training.
- 3.3. Vessel, installation crew and passengers, will be trained and briefed in the method of transfer to be used and briefings will be conducted prior to any transfer operation. The Briefing to include;
  - Review of the risk assessment.
  - Toolbox talk and operation checklist.
  - Passengers given final opportunity to decline transfer.
  - Passengers to understand that declining transfer will mean remaining on the vessel / installation dependant on location.

#### **Capsule**

- 3.4. Nominated Banksman on the vessel and installation will be qualified as Banksman to their employing company competence requirements.
- 3.5. Crane operators to be trained and competent to Stage 3 or equivalent national standard.
- 3.6. Crane Operator to conduct one or more test lifts of the transfer capsule prior to lifting of personnel to:
  - Confirm lift-off and landing points are acceptable in terms of deck area available (Frog has recommendations associated with each version)
  - Ensure Crane Operator has an unobstructed view of lift-off and landing areas
  - Gain an understanding of the pattern of movement of the vessel in terms of pitch, roll and heave
  - Gain an understanding of the characteristics of the personnel carrier during lift-off, transit and landing
  - Assess the behaviours of the respective Banksman, in terms of signalling and Deck Crew in relation to handling of the personnel carrier during lift-off and landing on Installation and Vessel, and confirm as being acceptable
- 3.7. Operators of the offshore gangway system to be trained and qualified in the operation of the specific equipment fitted.
- 3.8. Notes on Training:
  - If it is confirmed that the method will be by transfer capsule, the transfer capsule DVD should be supplied to the vessel. To avoid any anomalies the method and equipment should be standardised for all passenger transfers. Training should be delivered by persons familiar with the equipment use possibly by the manufacturer representative.
  - Alternatively instruction/training could be given by the Manufacturer to the Duty Holder who can assign personnel to deliver the briefing to passengers and vessel crew.
  - Copies of the video should be available on all installations and designated vessels.
  - In the long term this training should be included in the offshore emergency training and refresher training courses for offshore personnel.
  - Pre-set training programmes for vessel crews are undefinable, however, such training could be included in the on board training and exercise drills. This could include an exercise between installations and vessels that are likely to be used as identified in the vessel selection process.



## **4. RISK ASSESSMENT**

4.1 The vessel and installation are to be supplied with a generic risk assessment that must be reviewed and discussed by the vessel Master, Installation OIM and other appropriate vessel and installation staff. The risk assessment is to be amended to be vessel and installation specific. The risk assessment will include provision for;

- Passenger safety and welfare during embarking, disembarking and transit. Refer to Appendix 1.
- Passenger, installation and vessel crew safety throughout the transfer operation. Refer to Appendix 2.
- Offshore Gangway System transfer risk assessment. Refer to Appendix 5.
- Checklist for the capsule lifting transfer operation. Refer to Appendix 3.
- Check list for the offshore gangway Risk Assessment. Refer to Appendix 6.
- Tool box talk prior to transfer operation.
- The empowerment of all involved to stop the job.





## **5. PASSENGER MONITORING PRIOR TO BOARDING IN PORT**

- 5.1. The passenger list and their ETA to be made available to the vessel prior to passenger arrival. Alternatively the passenger list can be given to a nominated leader of the passenger group to deliver to the vessel.
- 5.2. Passengers must be added to the vessel's muster list.
- 5.3. Vessel Master to have appointed a dedicated person/s to provide inductions, passenger monitoring during transit and briefing for transfer.
- 5.4. Passengers to check in at heliport or other suitable venue nominated by the Duty Holder for vantage checks, installation-specific baggage security checks and baggage / passenger weighing as appropriate. It is suggested that all passengers undergo normal checks at this location as it would not be advisable to put the onus on the vessel crew to conduct baggage search on all passengers.

**NOTE:** For passenger transfers by a vessel with an offshore gangway system or for duty Holders not utilising the Vantage system; equivalent measures must be in place for monitoring and security.

- 5.5. Baggage to be security sealed for transportation to the vessel.
- 5.6. Heliport to provide a helicopter survival suit for the transfer from the vessel. Heliport will have all sizes and passengers will be familiar with its use. Also, if flights are resumed, allocated PPE for the passengers transferred will be on the installation and can be returned as usual practice. The Duty Holder will provide; PLB and hard hats to the vessel as required.
- 5.7. Passengers to be transported directly from the heliport to the vessel. Passengers should arrive at the vessel in sufficient time to cater for inductions prior to the allotted sailing time. This could reasonably be expected to be 3 hours prior to sailing.





## **6. EMBARKATION IN PORT**

- 6.1. A quayside berth for passenger embarkation is to be mandatory; many of the passengers will not be used to boarding vessels.
- 6.2. The vessel to be boarded by a fully rigged and monitored gangway only.
- 6.3. Embarkation on the gangway should be no more than one at a time.
- 6.4. Passengers should have both hands free, unhindered by baggage, whilst embarking to effectively hold the handrail / ropes. Passenger baggage to be left on the quayside and lifted on board by vessel or quayside crane.
- 6.5. Passengers should have a nominated lead person to supervise the passenger group and liaise with vessel crew. The lead person must board first.
- 6.6. Passengers should be gathered at reception point for the induction process. At this point passengers are to be advised that they are not to leave the vessel prior to departure.
- 6.7. Crew should inspect baggage seals and, if found broken or missing, the passenger and his/her baggage will be isolated for further investigation. Baggage confirmed as sealed can be returned to the passenger.
- 6.8. Passengers allocated a berth and muster number.
- 6.9. Passengers to be issued with sea sickness tablets, recommended dose to be taken as immediately as possible, and preferably no later than 2 hours prior to departure. Passengers should be advised that when and if sea sick, it is important that they take on fluids to help with dehydration and to prevent stomach cramps and pains associated with "dry vomiting".





## **7. PASSENGER INDUCTION FOR TRANSIT**

- 7.1. The induction process (refer to Appendix 4) should include as a minimum;
- Vessel alarm systems identification.
  - Muster stations and procedure.
  - Locations of LSA.
  - The method of donning the vessels lifejackets and survival suits.
  - Locations of portable fire fighting equipment.
  - Locations of fire alarms.
  - Persons on board to be contacted in case of medical or other emergencies.
  - Vessels housekeeping rules.
  - Designated smoking areas.
  - Restrictions on mobile phone use.
  - Restricted areas.
  - The use of hand and grab rails.
- 7.2. Transits to installations are expected to be relatively short (MCA typically restrict voyage duration to a maximum of 36 hours) and the passengers should remain in designated accommodation areas and on external accommodation walk ways only. When in the accommodation and on external accommodation walkways; handrails and grab rails provided must be held on to at all time.
- 7.3. When on external accommodation walkways, passengers must not be alone and are to be advised to be in pairs, or seek the assistance of the crew designated for passenger welfare.
- 7.4. Passengers are to be made aware of meal times. Dependent on the facilities on board, passengers may have to have meals at a separate sitting from the vessels normal meal times.
- 7.5. Prior to arrival at the installation, all passengers are to attend the passenger briefing on the method and conduct of transfer. The briefing is to be conducted by a person trained and experienced in the method of transfer and to include;
- Transit from the accommodation to the lifting/landing area, or transfer area for Gangway Walk to Work System.
  - Donning of PPE.
  - Conduct during the loading phase.
  - Passengers to ensure that all personal items are in baggage and ready for loading to the baggage container.
  - Baggage restrictions. Passengers to be made aware that they are not permitted to take baggage into the personnel transfer device, capsule or Gangway Walk to Work System.
  - Passengers to be made aware that they still have the right to decline transfer.



## **8. PASSENGER EMBARKATION/DISEMBARKATION AT SEA**

- 8.1. Passenger list received onboard from installation. OIM confirms identified lead passenger to liaise with vessel crew. Confirm sea sickness tablets have been taken 2 hours prior to transfer if required.
- 8.2. Vessel crew briefed and reception prepared. There is to be sufficient clear space for the transfer operation, including passenger transiting areas.
- 8.3. Vessel Master to have appointed a dedicated person/s to provide inductions, passenger monitoring during transit.
- 8.4. Passenger list is to be forwarded to shore by the installation once all passengers are confirmed on board.
- 8.5. Passengers transferred from installation to vessel. Refer to Section 10, items 10.5 and 10.6.
- 8.6. Passengers to be escorted to reception point and held until all passengers are confirmed on board.
- 8.7. Transfer PPE (Helicopter suit) to be stored for collection in port, hard hats and PLB's where issued to be returned.
- 8.8. Passengers to be given vessel safety induction. The induction is to be given before the passengers are allocated cabins. Induction to follow process as described in Section 7, items 7.1 to 7.4.



## **9. DISEMBARKATION IN PORT**

- 9.1. Vessel to advise shore of ETA with a confirmed number of passengers on board. Quayside berth to be requested and availability confirmed.
- 9.2. Passengers to be briefed on disembarkation process prior to arrival in port; including;
  - Any port/operator berth PPE requirements if applicable.
  - Gangway procedure prior to departing vessel.
  - Disembarking in an orderly fashion; hands free of baggage and one at a time.
- 9.3. Passenger transportation from quayside, to airport or rail, arranged by the Duty Holder/Operator.
- 9.4. Transfer PPE to be prepared for collection and return to heliport by the Duty Holder/Operator.
- 9.5. Passenger baggage to be transferred to quayside by vessel or quayside crane.





## 10. PERSONNEL TRANSFER OPERATION (Capsule)

### 10.1. Legal Requirements.

In the UK Sector, all capsule transfer operations will be in compliance with;

- The Lifting Operations and Lifting Equipment Regulations (LOLER) SI 1998/2307.
- The Provision and Use of Work Equipment Regulations (PUWER) SI 1998/2306.
- The Health and Safety at Work Act 1974.
- The Management of Health and Safety at Work Regulations 1999/3242.
- The Offshore Installations (Safety Case) Regulations 2005.
- The Supply of Machinery (Safety) Regulations SI 2008/1597.

Note 1: Should the personnel transfer capsule carry five or more personnel at a time, such an operation then falls within the Safety Case regime and will need to be addressed accordingly (for instance the submission of a material change to the Safety Case if this activity is not already covered in the Safety Case)

Note 2: Appendix 7 gives details of the requirements that a crane and the capsule must have for them to be considered as suitable for undertaking personnel transfer operations in compliance with the LOLER Regulations.

### 10.2. Pre-lift Planning.

All equipment and rigging to be visually inspected and certification is to be in date and valid, including;

- Certification of the crane including certification for man riding.
- Transfer capsule to be certified and maintained as per manufacturer's instructions.
- Any defects reported in the LOLER Report of Thorough Examination for the cranes, capsule or the lifting accessories must be remedied as detailed in the Report.
- The engineering design of the transfer capsule is to be independently verified by a recognised authority and the SWL should be clearly identified.
- Transfer capsule certification to be provided to nominated vessel and Installations prior to deployment.
- The capacity of the capsule must not be exceeded. It is recommended that passenger load in any case should not be more than 5 persons.
- Transfer capsule to be inspected prior to operation. To include checks of passenger securing, integrity of floatation and the fixed lifting point.
- Lift rigging to be compatible with the transfer capsule fixed lifting points. Hook to be secure snap lock type. Tag lines in place.
- A task specific Lift Plan must be in place.
- All communications, including backup systems to be tested and confirmed as operational. Method of communications agreed and set up with Deck/Bridge/Crane Operator.
- Lift controlled by an identified banksman on both vessel and installation.
- Crane planned maintenance must be up to date with no critical systems regimes overdue.
- Cranes and lifting gear to be checked prior to operation. Lifting to be conducted by installation cranes only.
- All crane checks to be completed and confirmed by the crane operator.
- PTW prepared. To be issued when all checks are confirmed as completed.
- TBT prior to lift, attended by all involved in the lift, held on the installation and vessel.
- Conduct test lift of empty transfer capsule.





### 10.3. **Personal Protective Equipment.**

All personnel involved in the lifting operation to be wearing correct PPE as required. Consideration should be given to the compatibility of the helicopter survival suits and lifejackets provided when used together.

- Vessel to Installation: Passengers to wear helicopter survival suits issued at the heliport; PLB (if applicable), hard hats and marine life jackets provided on the vessel.
- Installation to vessel: Helicopter survival suits, hard hats, life jackets and PLBs (if applicable) issued. Survival suits are to be returned to heliport after arrival in port.

### 10.4. **Environmental Conditions.**

The Master of the transfer vessel, Installation OIM and ERRV Master must discuss the prevailing environmental conditions and decide if the transfer can proceed. Operations should preferably be conducted in the hours of daylight only and other conditions must not exceed;

- Set parameters for crane operation, the transfer vessels capability to hold position for the period of transfer and the ERRV capability to provide rescue and recovery facilities.
- Suggested parameters; Wind speed 20 knots, significant wave height 2.5 metres. Visibility; horizontal, not less than 500m at sea level and vertical at 100 metres above sea level.
- The transfer vessels must be able to operate in DP 2 mode, and in any case must be able to operate in the conditions using a maximum of 45% of available power, and within a capability plot footprint of 2 metres.
- Operation to be conducted on the leeward side only.
- The Vessel Master to confirm following 500 m zone pre-entry checks and pre-setup checks inside the 500m zone (75m-100m from installation), that they are able to maintain station for the expected duration of the transfer before final approach and set up.
- Transfer vessel motion to be assessed for pitch roll and heave.
- The ERRV must locate itself in a position that does not interfere with the transfer operation.
- The ERRV should locate itself at a safe distance from the operation, as with helicopter operations, and have FRC/FRDC ready for launch.

### 10.5. **Personnel.**

The Installation OIM and Vessel Master and/or delegates must be present on the bridge /control room at all times for the duration of the passenger transfer phase and ensure that;

- The passenger list is confirmed.
- Reception facilities are prepared on installation/vessel.
- The order of transfer and numbers of personnel transferred are agreed between the vessel and installation.
- Vessel and installation personnel are stationed at the landing/loading area, transit area and reception.
- Passengers have been weighed to ensure compatibility with the transfer capsule SWL.
- Passengers have been assessed for fitness for transfer.
- Vessel only. The installation is to be informed prior to the loading of any sea sick passengers in the transfer capsule, if applicable. It may be that some passengers are suffering from sea sickness. Those passengers should be integrated into a group of passengers that are fit and well. Once off the vessel and on the installation, passengers who are sea sick will quickly recover.
- Sufficient barriers are in place to prevent unauthorised access to the lifting/landing area.



#### 10.6 **Passenger Loading to Transfer Capsule.**

- The transfer capsule must be on deck and stable before passenger approach for loading and unloading.
- Passengers to be escorted to landing/loading area for loading to the transfer capsule.
- Passengers are to approach the capsule one at a time.
- Passengers to be secured in the transfer capsule as per Manufacturer's User Guidance before commencing the lift.
- The capacity of the capsule must not be exceeded. It is recommended that passenger load in any case should not be more than 5 persons.
- No baggage is to be taken into the capsule. Baggage to be transferred in separate baggage container.

#### 10.7. **Lifting Operation.**

- All checks have been completed and the OIM confirms with the vessel Master that they are in readiness for transfer.
- Banksman is in place on both installation and vessel.
- The Crane Operator confirms line of sight with the banksmen.
- The crane hook is in place and suspended well clear of the transfer capsule, but not below head height, until all passengers are secured within the transfer capsule.
- The rigging must have sufficient "play" to allow for vessel movement, with the hook remaining above head height while the transfer capsule is on deck.
- Transfer capsule lifted as signalled to the Crane Operator by the banksman.
- Tag line/s held to control initial lift from deck to overside. Note: the use of taglines to be subject to risk assessment.
- Transfer capsule lifted above the deck to a height sufficient to clear the ship's car-rail/structure.
- Transfer capsule slewed over the sea.
- Commence lift to installation.
- Crane to lift the transfer capsule to a position adjacent to lifting/landing area before slewing inboard above the lifting/landing area.
- Transfer capsule lowered to lifting/landing area; stop before landing to clear taglines and to steady transfer capsule with tag lines before landing.
- Transfer capsule landing; passengers to remain seated and secured until transfer capsule is stable on the deck.
- Passengers to wait for assistance from installation personnel before passenger securing is removed.
- Passengers assisted from the transfer capsule and escorted to reception.



## 11. PERSONNEL TRANSFER OPERATION (Gangway Transfer)

### 11.1 Legal Requirements.

In the UK Sector all gangway transfer operations are to be in compliance with:

- The Provision and Use of Work Equipment Regulations (PUWER) SI 1998/2306.
- The Lifting Operations and Lifting Equipment Regulations (LOLER) SI 1998/2307 (only if the design is such that persons are lifted or lowered)
- The Health and Safety at Work Act 1974.
- The Management of Health and Safety at Work Regulations 1999/3242.
- The Offshore Installations (Safety Case) Regulations 2005.
- The Supply of Machinery (Safety) Regulations SI 2008/1597.

### 11.2 Pre-transfer Planning

Prior to any transfer, the following should be taken into consideration in planning the operation:

- Transfer time to be agreed;
- Weather forecast and conditions to be reviewed;
- Transfer location (where choice is available) to be most suitable for environmental conditions;
- Optimum vessel heading to be agreed;
- Sequence of passenger transfer to be agreed and communicated;
- Risk Assessment review and Tool Box Talk to be held in advance of operation with representation from:
  - Bridge Team
  - Gangway Operators
  - Passengers
  - Transfer support personnel
  - All personnel to be briefed;
- Communications to be established and tested:
  - Bridge / gangway / transfer support, on vessel
  - Vessel & Installation to ERRV
  - Vessel to installation control
  - Vessel to installation gatekeeper
  - Pre-transfer check lists have been completed with acceptable results;
- All of the following are to give approval and positive confirmation that all systems and measures under their control are conducive to safe personnel transfer operations, prior to connection for the transfer of personnel:
  - Installation OIM
  - Installation Gatekeeper
  - Vessel Gangway Operator
  - Vessel Master
  - ERRV Master



### 11.3 Personal Protective Equipment

All personnel involved in the transfer of passengers / industrial personnel by gangway operation to be wearing correct PPE as required.

- Vessel to installation: Passengers to wear helicopter survival suits issued at heliport, PLB (if issued), hard hats, safety glasses, gloves, boots and lifejacket (as issued for the transfer).
- Installation to vessel: Passengers to wear helicopter survival suits issued at heliport, PLB (if issued), hard hats, safety glasses, gloves, boots and lifejacket (as issued for the transfer). Survival suits returned to heliport after arrival in port.

### 11.4 Environmental Conditions

The Master of the transfer vessel, Installation OIM and ERRV Master must discuss the prevailing conditions and decide if the transfer can proceed. Operations should be conducted in the hours of daylight only and other conditions must not exceed;

- Set parameters for gangway operation, the transfer vessel's capability to hold position for the period of transfer and the ERRV capability to provide recovery and rescue facilities.
- Suggested parameters; Wind speed 20 knots, significant wave height 2.5 metres. Visibility; horizontal, not less than 500m at sea level and vertical at 100 metres above sea level.
- The transfer vessels must be able to operate in DP 2 mode, be able to operate in the conditions using a maximum of 45% of available power and within a capability plot footprint of 2 metres.
- The Vessel Master to confirm following 500 m zone pre-entry checks and pre-setup checks inside the 500m zone (75m-100m from installation), that they are able to maintain station for the expected duration of the transfer before final approach and set up.
- Transfer vessel motion to be assessed for pitch roll and heave.
- The ERRV should locate to a position that does not interfere with the transfer operation.
- The ERRV should position itself at a safe distance from the operation, as with helicopter operations, and the FRC must be ready for immediate launch or the FRDC launched prior to commencement and remain close by during the transfer operation, but not under the lift at any time.





### 11.5 Personnel

The Installation OIM and Vessel Master and / or delegates must be present on the bridge/control room at all times for the duration of the passenger transfer phase and ensure that;

- The passenger list is confirmed.
- Reception facilities are prepared on installation/vessel.
- The order of transfer and numbers of personnel transferred are to be agreed.
- Vessel and installation personnel are stationed at the gangway area, transit area and reception.
- Passengers have been assessed for fitness for transfer.
- Vessel only - The installation is to be informed prior to the transfer of any sea sick passengers via the gangway, if applicable. It may be that some passengers are suffering from sea sickness. Those passengers should be integrated into a group of passengers that are fit and well. Once off the vessel and on the installation, passengers who are sea sick will quickly recover.
- Sufficient barriers are in place to prevent unauthorised access to the gangway area.

### 11.6 Passenger Transfer by Gangway

Transfer methodology varies depending on the type of gangway in use for the operation. Specific guidelines and operating procedures should be established in accordance with gangway operating procedures. The points below are generic:

- Passenger transfer is to commence only if all identified parties have confirmed readiness.
- Passengers to be escorted to the gangway access area.
- Passengers only to use gangway at the direction of the gangway operator.
- The capacity of the gangway is not to be exceeded.
- Passenger baggage is not to be carried on gangway. Baggage to be transferred in separate baggage container.





# ADDENDUM 1 OFFSHORE GANGWAY SYSTEM PROCESS LIST

WHO	WHAT	WHEN	
IOC	SELECTION AND PROCUREMENT OF SUITABLE VESSEL	PTM	
IOC	SELECTION AND PROCUREMENT OF SUITABLE GANGWAY SYSTEM	PTM	
IOC	ENGAGEMENT WITH MCA & FLAG STATE, INFORMING HSE	PTM	
IOC	VESSEL ASSURANCE PROCESS	PTM	
IOC	IDENTIFY ADDITIONAL WELFARE RELATED EQUIPMENT AND SYSTEMS		
IOC	MOBILISATION PLANNING AND PROJECT MANAGEMENT WITH VESSEL OWNER AND GANGWAY OPERATING COMPANY	PTM	
PM	INSTALLATION, COMMISSIONING AND APPROVAL OF GANGWAY SYSTEM (INCLUDING CERTS)	MOB	
PM	INSTALLATION OF PERSONNEL WELFARE EQUIPMENT AND SYSTEMS	MOB	
IOC	SUPPLY OF HELI SUITS, LIFEJACKETS, PPE ETC	MOB	
IOC	SECURITY PROCESSING OF PERSONNEL	MOB	
IOC	SUPPLY OF CONTAINER FOR TRANSFER OF BAGGAGE	MOB	
VM	MARINE SAFETY INDUCTION FOR PASSENGERS	MOB	
GO	FAMILIARISATION WITH GANGWAY SYSTEM FOR ALL PERSONNEL	MOB	
VM	ENSURE ALL PASSENGERS HAVE SEEN FAMILIARISATION VIDEO	TRA	
REP	ENSURE ALL PASSENGERS UNDERSTAND THEIR RIGHT TO REFUSE TRANSFER	TRA	
VM	ESTABLISH COMMUNICATIONS WITH OIM	ARR	
VM	DP2 FIELD ARRIVAL TRIALS	ARR	
OIM	ESTABLISH SUITABLE TIME FOR TRANSFER	W2W	
OIM	ADVISE ERRV	W2W	
VM	CONFIRM WEATHER CRITERIA IS SUITABLE FOR TRANSFER	W2W	
OIM	CONFIRM PASSENGER TRANSFER LISTS AND ORDER OR TRANSFER	W2W	
VM	AGREE TRANSFER LANDING LOCATION AND TRANSFER HEADING, WHERE A CHOICE EXISTS	W2W	
VM	TOOL BOX TALK ON VESSEL, WITH DIAL IN FROM INSTALLATION	W2W	
VM	500M ZONE PRE-ENTRY CHECKS	W2W	
OIM	APPROVE 500M ZONE ENTRY	W2W	
OIM	ON STATION IN CONTROL ROOM, CONFIRMS APPROVAL TO PROCEED	W2W	
VM	ON STATION ON VESSEL BRIDGE	W2W	
ERRV	ERRV MASTER CONFIRMS COVER IS IN PLACE	W2W	
VM	COMMUNICATIONS CHECKS TO ALL STATIONS ONBOARD	W2W	
VM	COMMUNICATIONS CHECKS FROM VESSEL STATIONS TO INSTALLATION CONTROL AND GATEKEEPER	W2W	
VM	VESSEL CONFIRMED STABLE IN DP2, ON WORKING HEADING, STANDING OFF TRANSFER LOCATION	W2W	
GO	GANGWAY PRE-START AND START UP CHECKS	W2W	
GK	CONFIRMS READINESS TO RECEIVE GANGWAY	W2W	
GO	CONFIRMS GANGWAY IS READY FOR TEST	W2W	
GO	TEST CONNECTION MADE (VARIES ACCORDING TO TYPE)	W2W	
GO	CONFIRM SYSTEM TEST IS GOOD AND READY TO TRANSFER	W2W	
VM	DELEGATED PERSONNEL ESCORTS PASSENGERS TO GANGWAY ACCESS AND CHECKS NAMES	W2W	
VM	MASTER CONFIRMS OIM, GK, GO AND PASSENGERS HAVE COMPLETED ALL NECESSARY CHECKS AND ARE READY TO GO	W2W	
VM	APPROVAL TO COMMENCE TRANSFER	W2W	
OIM	DELEGATED PERSON UPDATES POB SOFTWARE AS PASSENGERS ARE CONFIRMED ON/OFF	W2W	
VM	CONFIRM ALL PASSENGERS HAVE BEEN TRANSFERRED AND CONFIRM NAMES ARE ALL CORRECT	W2W	
GO	STOW GANGWAY	W2W	
VM	MARINE SAFETY INDUCTION FOR PASSENGERS	DEP	
IOC	SECURITY PROCESSING OF PERSONNEL	DEP	
KEY		KEY	
IOC	INSTALLATION OPERATING COMPANY	GK	GATEKEEPER
OIM	OFFSHORE INSTALLATION MANAGER	PTM	PRIOR TO MOBILISATION
VM	VESSEL MASTER	MOB	VESSEL MOBILISATION
ERRV	EMERGENCY RESPONSE AND RESCUE VESSEL MASTER	TRA	TRANSIT TO FIELD
REP	APPOINTED COMPANY REP ON VESSEL (MASTER IF NOT APPOINTED)	ARR	ARRIVAL AT FIELD
PM	PROJECT MANAGER	DEP	DEPARTURE FROM FIELD
GO	GANGWAY OPERATOR	W2W	IMMEDIATELY BEFORE, DURING AND AFTER TRANSFER



## **APPENDIX 1**





DYNAMIC RISK ASSESSMENT FORM								
Tasks List individual tasks	Hazards Identify Hazards associated with each task	Initial Risk Assessment Level		Actions taken to mitigate risk Methods or steps taken to reduce the risk for each hazard identified	Revised Risk Assessment Level			
<b>RISK ASSESSMENT LEVEL (Consequence and Likelihood)</b>				<b>HIERARCHY OF CONTROLS</b>				
<b>CONSEQUENCE</b> (How Bad)		<b>Likelihood (How Often)</b>					<b>Elimination</b>	<b>The complete elimination of the hazard.</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Substitution</b>	<b>Replacing the material or process with a less hazardous one.</b>
		<b>Highly Unlikely</b>	<b>Reasonably Likely</b>	<b>Even Chance</b>	<b>Highly Likely</b>	<b>Almost Certain</b>	<b>Redesign</b>	<b>Redesign the material or process with a less hazardous one.</b>
<b>1</b>	Minor Injury. Cuts, abrasions, minor skin or eye irritation etc. No sick leave required.	1	2	3	4	5	<b>Separation</b>	<b>Isolating the hazard by guarding or enclosing it.</b>
<b>2</b>	Injury requiring first aid. 1-3 days sick leave.	2	4	6	8	10	<b>Administration</b>	<b>Providing controls such as training, procedures etc.</b>
<b>3</b>	Injury or industrial disease requiring medical treatment. Deep wounds, fractures, burns, scalds, eye injuries, hearing loss, temporary blindness. More than 3 days off sick.	3	6	9	12	15	<b>PPE</b>	<b>Use properly fitted PPE where other controls are not practicable.</b>
<b>4</b>	Serious injury or long term medical effects. Loss of fingers or toes, eye damage, serious medical effects. Weeks or months off, hospitalisation.	4	8	12	16	20	Originator	
<b>5</b>	Major injury or fatality. Loss of limbs, sight, long term illness, death. Permanent disablement, long term sick leave.	5	10	15	20	25	Signed	
<b>1-4</b>	<b>LOW</b>	May be required to reduce the risk although if within range the time and effort required to reduce further would be disproportionate with the risk.		RA Acceptable <input type="checkbox"/> Yes		Job Number		
<b>5-12</b>	<b>MEDIUM</b>	Action required. (Consider Hierarchy of Controls).		RA Not Acceptable <input type="checkbox"/> No – Reason		Client		
<b>15-25</b>	<b>HIGH</b>	Action required urgently to control the risks before carrying out the task.						





Site or area being assessed			Embarkation, Transit, Disembarkation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Duty Holder.	Vessel acceptability.	Vessel rejection Note; The risk is to business, i.e delay lost time to project.	3	3	9	Vessel selection and inspection process.  Adequate facilities and manning on board for passenger care and welfare.  Facilities to include LSA for all personnel expected, and not to exceed vessels LSA capacity.  Robust induction process for passengers.  Confirmation from MCA of vessels suitability for carriage of passengers.	Duty holder to have confirmation from vessel owner - operator, and by vessel inspection that suitable facilities and manning are on board and that an adequate induction process is in place.	1	3	3	



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Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Duty Holder/vessel.	Security breach.	Passenger rejection causing delay. Prohibited items on vessel and installation. Note; The risk is to business, i.e delay lost time to project.	3	3	9	Heliport procedures.  Check in and baggage search at heliport.  Check for prohibited items.  Vessel ISPS code.  Existing procedures and logistics arrangements for offshore gangway systems vessels when applicable.	It is suggested that the passengers undergo the normal checks at this location. It would not be advisable to put the onus on the vessel crew to conduct baggage search on all passengers. Baggage to be security sealed prior to transit to the vessel.  Vessel crew to identify unsealed or damaged seals on baggage.  Baggage and passenger isolated for baggage search. Refusal of search will result in rejection from the vessel.	1	3	3	



Site or area being assessed			Embarkation, Transit, Disembarkation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Duty Holder/ vessel.	Passenger tracking and identification.	Passenger rejection causing delay. Unauthorised personnel on board Note; The risk is to business, i.e delay lost time to project.	3	3	9	Passenger list to be provided to vessel. Nominated lead passenger to liaise with vessel crew.  Master to appoint dedicated crew for reception and induction.  List to be sent direct to vessel or delivered by a nominated lead passenger.  Passengers to be transported directly from the heliport to the vessel.  Passengers to be processed through the Vantage system and have photo ID at vessel boarding.  Only passengers listed to be allowed on the vessel.  Passengers added to vessel muster list.	For boarding from Installation, passenger list to be provided by OIM. Prior to passenger embarkation to vessel.  Nominated lead passenger must be the first person to be checked in at vessel reception. To stay with reception until all passengers are confirmed.	1	3	3	
						Passengers not to leave the vessel after signing in at reception.	In port only. Passengers must remain onboard unless vessel sailing is cancelled by the operator.				



Site or area being assessed			Embarkation, Transit, Disembarkation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers.	Boarding/ disembarking by gangway.	Injury or death from falling at height, or drowning if falling into the water.	3	5	15	Boarding/disembarking via suitably rigged and monitored gangway.  Boarding/disembarking at quayside berth only.  Boarding/disembarking passengers to be directed/ escorted to reception area via unobstructed safe routes clear of working areas.	Boarding/disembarking to be hands free.  Boarding/disembarking via the gangway one at a time only.  Small baggage items may be allowed; such as bags with shoulder straps, or small rucksacks. Heavy holdalls and or suitcases to be lifted on board or discharged at embarkation by vessel stores crane.	1	5	5	



Site or area being assessed			Embarkation, Transit, Disembarkation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers.	Vessel motion.	Sea Sickness, loss of balance general illness causing vomiting, weakness and dehydration.	5	3	15	Sea sickness tablets to be taken immediately as practicable after boarding, not less than 2 hours prior to sailing.  The Master should consider weather limitations and a favourable forecast for expected conditions at transfer. The Master has the final decision on sailing.  Boarding from installation; Installation personnel to ensure sea sickness tablets taken 2 hours before transfer.	Sick bags and receptacles to be available in cabins.  Passengers to be advised to take on fluids and to avoid large meals if feeling unwell. Movement around vessel to be kept to a minimum; passengers to remain seated or in bunks when possible. When moving around the use of handrails and grabs is compulsory.	2	3	6	



Site or area being assessed			Embarkation, Transit, Disembarkation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers.	Uncontrolled movement around the vessel.	Injury, falling overboard, interference with vessel operations.	5	5	15	Vessel safety induction;  Passengers to be made aware of restricted areas such as; machinery spaces and workshops, the deck working areas, the bridge and other areas marked as unauthorised access. Vessels housekeeping rules, designated smoking areas and the restrictions of mobile phone use.  Passengers should remain in designated accommodation areas and external accommodation walk ways only.  When on external accommodation walkways, passengers must not be alone and should be advised to be in pairs, or seek the assistance of the crew designated for passenger welfare.  Passengers to be made aware of meal times.	Movement around vessel to be kept to a minimum; passengers to remain seated or in bunks when possible. When moving around the use of handrails and grabs is compulsory.  Dependent on the facilities on board, passengers may have to have meals at a separate time from the vessels normal meal times.	1	5	5	



Site or area being assessed			Embarkation, Transit, Disembarkation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers.	Unfamiliarity with vessel systems.	Fire and other emergencies, resulting in injury or death.	5	5	25	<p>Vessel safety induction to include as a minimum;</p> <p>Vessel alarm systems identification.</p> <p>Muster stations and procedure.</p> <p>Locations of LSA, firefighting equipment within passenger dedicated areas.</p> <p>Donning of life jacket and survival suits.</p> <p>Location and operation of fire alarms and escape routes.</p> <p>Persons on board to be contacted in case of medical or other emergencies.</p>		1	5	5	



## **APPENDIX 2**





**DYNAMIC RISK ASSESSMENT FORM**

Tasks		Hazards	Initial Risk Assessment Level	Actions taken to mitigate risk		Revised Risk Assessment Level		
List individual tasks		Identify Hazards associated with each task		Methods or steps taken to reduce the risk for each hazard identified				
<b>RISK ASSESSMENT LEVEL (Consequence and Likelihood)</b>				<b>HIERARCHY OF CONTROLS</b>				
CONSEQUENCE (How Bad)		Likelihood (How Often)					Elimination	The complete elimination of the hazard.
		1	2	3	4	5		
		Highly Unlikely	Reasonably Likely	Even Chance	Highly Likely	Almost Certain		
1	Minor Injury. Cuts, abrasions, minor skin or eye irritation etc. No sick leave required.	1	2	3	4	5	Substitution Replacing the material or process with a less hazardous one.	
2	Injury requiring first aid. 1-3 days sick leave.	2	4	6	8	10		
3	Injury or industrial disease requiring medical treatment. Deep wounds, fractures, burns, scalds, eye injuries, hearing loss, temporary blindness. More than 3 days off sick.	3	6	9	12	15		
4	Serious injury or long term medical effects. Loss of fingers or toes, eye damage, serious medical effects. Weeks or months off, hospitalisation.	4	8	12	16	20		
5	Major injury or fatality. Loss of limbs, sight, long term illness, death. Permanent disablement, long term sick leave.	5	10	15	20	25		
1-4	LOW	May be required to reduce the risk although if within range the time and effort required to reduce further would be disproportionate with the risk.		RA Acceptable <input type="checkbox"/> Yes		Originator		
5-12	MEDIUM	Action required. (Consider Hierarchy of Controls).		RA Not Acceptable <input type="checkbox"/> No – Reason		Signed		
15-25	HIGH	Action required urgently to control the risks before carrying out the task.				Job Number		
						Client		



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
								Likelihood	Severity	Risk Rating	
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating						
Passengers/ vessel crew.	Falling from Transfer Capsule to the sea.	Injury and or death from drowning or impact with the water. Cold shock and or hypothermia.	2	5	10	<p>Manufacturer's Transfer Capsule User Guidance and PMS.</p> <p>Passenger and crew briefings.</p> <p>Passenger safety harnesses checked before loading.</p> <p>Passenger safety harnesses final check before lifting.</p> <p>Passenger PPE, including life jacket and survival suits.</p> <p>ERRV in place for rescue and recovery.</p>	<p>Heliport to provide helicopter survival suits for the transfer from the vessel. Heliport will have all sizes and passengers will be familiar with use. Also, if flights are resumed allocated PPE for the passengers transferred will be on the installation and can be issued prior to transfer and be returned as usual practice.</p> <p>Vessel to be supplied with Marine Lifejackets and PLBs.</p> <p>Consider supplying hard hats or bump caps at vessel for transfer.</p> <p>The ERRV will be at a safe distance from the operation, as in helicopter operations, and that FRC/FRCO are launched prior to commencement and remain close by during the transfer operation, bearing in mind that they are not to be too close to the transfer vessel, nor be in a position under the lift at any time.</p> <p>Consider stipulating that FRC should be in the water. Transfers should not be undertaken when it is not safe to deploy an FRC.</p>	1	5	5	



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
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Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers.	Hard landing of Transfer Capsule.	Injury to passengers. Damage to Transfer Capsule.	3	4	12	Crane operator training and competence.  Transfer Capsule design offers some protection.  Weather parameters set.  Passenger PPE.  Test run prior to operation.	Does PPE at airport include hard hat.  If not, installation/vessel to provide. See above comment ref Hard Hat, PLBs and marine life jackets.  Capsule service kits to be replaced annually, or: at intervals stipulated by the manufacturer if the total number of transfers permitted is exceeded in the annual period.	1	4	4	



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers.	Transfer Capsule lands in water.	Injury, drowning, cold shock, hypothermia.	2	5	10	Crane operator training and competence.  Test run prior to operation.  Transfer Capsule has buoyancy and self-righting capability.  ERRV on station for rescue and recovery.  Weather parameters set.  Passenger PPE, including life jacket and survival suits.		1	5	5	



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers and vessel crew.	Falling from Transfer Capsule onto the vessel.	Injury or death due to impact.	2	5	10	Lift plan.  Transfer Capsule lifted above the deck to a height sufficient to clear the rail and swung over the rail to over the sea before lifting to Installation.  Vessel crew not to stand under load and be well clear during lifting.  Lift controlled by banksman in sight of crane operator.  Passenger and crew briefings.  Passenger safety harnesses checked before loading.  Passenger safety harnesses final check before lifting.		1	5	5	



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers, vessel and installation crew.	Lifting equipment failure.	Crane failure resulting in uncontrolled fall of Transfer Capsule.	2	5	10	LOLER Compliance, UK sector. NORSOK and other for non UK sectors.  Two load paths from transfer capsule to crane hook.  Crane checks and test lift prior to operation.  Lift plan to include crane checks.  ERRV in place for rescue and recovery.		1	5	5	



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers, vessel and installation crew.	Lift rigging failure and or incorrect rigging.	Transfer Capsule falls to vessel, sea or installation.	2	5	10	LOLER Compliance, UK sector. NORSOK and other for non UK sectors.  Rigging checks and test lift prior to operation.  Lift plan to include rigging checks; inclusive of Transfer Capsule fixed lifting points. Note: Capsules may be designed with 2 lifting points.  Passenger loaded capacity not to exceed Transfer Capsule SWL.  ERRV in place for rescue and recovery.					



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers.	Crane failure.	Load suspended, passenger exposure to elements.	2	5	10	LOLER Compliance, UK sector. NORSOK and other for non UK sectors.  Crane checks and test lift prior to operation.  Lift plan to include crane checks.  Passenger PPE.		1	5	5	





Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
All personnel.	Dropped objects from Transfer Capsule, installation or vessel.	Injury or death caused by dropped objects.	3	5	15	Lift plan, pre lift checks for dropped objects.  All baggage items to be transferred up in a dedicated container. If open top type container to be used, cover to be provided.  No personnel to stand under load.  Non-essential personnel to be prohibited from the area.  Lifting/landing area to be cordoned, entry by authorised personnel only.		1	5	5	



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
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Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers, vessel/ installation, and installation/ vessel crew.	Crane operator incapacitated.	Uncontrolled crane operation.	1	5	5	All crane operators to be trained and qualified level 3. Other crane operator on standby as a contingency.  Contingency crane operator to be included in pre-operations planning.  Contingency crane operator to be in cab to operate emergency stops.  Crane operators to confirm fitness and wellbeing prior to operation.  In date offshore medicals.	Crane operators to confirm fitness prior to operation.	1	5	5	



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Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers, vessel and installation crew.	Snagging.	Transfer Capsule snagged on vessel/ installation structures. Possibly leading to crane/ equipment failure.	4	4	16	Weather parameters limited and set.  Vessel has included the ability to effectively hold station during the operation in vessel set up prior to lifting operations.  Unobstructed landing/lifting area.  Transfer Capsule lifted to above rail height before swinging over sea.  Banksman on installation and vessel has clear sight of and communication with crane operator during lifting/lowering to vessel/installation.  Assessment of vessels motion to be undertaken. There should not be excessive pitch roll and heave.		1	4	4	



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers.	Uncontrolled movement of Transfer Capsule.	Injury caused by impact to vessel or installation.	4	4	16	Weather parameters and vessel motion limited and set for crane and vessel operation.  Ensure design of transfer capsule offers passenger protection.  Effective use of taglines.  Test lift without passengers.  Training and competence of crane operators.		1	4	4	



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
All personnel.	Uncontrolled movement of vessel.	Injury or death caused by impact to the installation Damage to vessel and installation.	3	5	15	Weather parameters limited and set for vessel operation. Leaside operation only.  Suggested parameters; Wind speed 20 knots, Significant wave height 2.5 metres  Weather monitored during operation.  Pre operation set up to confirm vessels ability to hold station.  Master and OIM to agree that operation can proceed.  Crane operator to confirm operation can proceed by successful test lift.	Operation to be conducted in DP2 mode.  The transfer vessels must be able to operate in DP2 mode, be able to operate in the conditions using 45% of power, and have a capability plot footprint of 2 metres.  Passengers to be assisted and monitored on the vessel at all times during the transit to/from the loading/landing site and, the embarkation as disembarkation of the Transfer Capsule.  Vessel to conduct 500m zone pre-entry checks and pre-setup checks inside the 500m zone to confirm that they are able to maintain station for the expected duration of the transfer before final approach and set up.	1	5	5	



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
All personnel.	Lack of training and competence.	Injury or death.	4	5	20	<p>All personnel to be trained and competent in the tasks they are to perform. Including STCW training for vessel crews and offshore training if applicable. Offshore training as applicable to installation personnel.</p> <p>Passenger and crew Transfer Capsule training and briefing.</p> <p>Test run with empty Transfer Capsule prior to operation; crane operators and all others directly involved in the lift.</p> <p>TBT and lift plan discussed prior to operation.</p> <p>Crane operator training and experience.</p> <p>Banksman training and experience.</p>	<p>Briefing to be delivered to passengers via the Transfer Capsule video by the manufacture's representatives. They could also deliver training/ instruction to vessel crew.</p> <p>Alternatively instruction/training could be given by manufacturers to the Duty Holder who can assign personnel to deliver the briefing to passengers and vessel crew. Copies of the video should be available on all installations and designated vessels.</p> <p>In the long term, training should be included in the offshore emergency training and refresher training courses for offshore personnel. Long term set training programmes for vessel crews are undefinable. However, such training could be included in the on board training and exercise drills. This could include an exercise between installations and vessels that are likely to be used as identified in the vessel selection process.</p>	1	5	5	



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
All personnel.	Lack of or misunderstanding of communications.	Injury or death. Damage to installation, vessel and Transfer Capsule.	3	5	15	Communications set up agreed with; Installation control room and deck, crane operator, vessel bridge and deck, ERRV.  All communications checked and confirmed as fully operational.  Radio checks prior to operations.  Common language English.  Banksman on installation/vessel and crane operator to agree hand signals method to avoid confusion.  Banksman to be distinctly identifiable and visible to crane operator.		1	5	5	



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
All personnel.	Conflicting operations.	Confusion of operation causing injury, death or damage to installation/ vessel.	3	5	15	Vessel not to conduct any other operation such as bunker transfers during transfer operation.  All other vessel operations to be suspended until transfers are completed.  Installation to suspend work in the vicinity of the transfer lifting/ landing area.	Hazardous operations on the installation that may interfere with transfer operations to be suspended, or risk assessed for mitigation if critical to safe operation.  Discharges to the sea in the vicinity of the vessel to be suspended.  Note: The Master will still have the right to suspend operations if overboard discharges adversely affect the safety of his crew or passengers to be transferred.	1	5	5	





Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment							
Assessor						Next review date							
Reasons why review is required													
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required		
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating			
All personnel.	Prevailing environmental or forecasted conditions.	Injury to personnel, damage to vessel/ installation equipment.	3	4	12	The Master of the transfer vessel, Installation OIM and ERRV Master must discuss the prevailing and forecasted conditions and decide if the transfer can proceed.  Access to accurate and frequent weather forecasts.  Monitoring of conditions during transfer operation.  Operation to be conducted on the leese side only.  Operation to be conducted in the hours of daylight only. Suggested parameters; Wind speed 20 knots, Significant wave height 2.5m Visibility; Horizontal, not less than 500m at sea level and vertical at 100m above sea level. Crane operator to have clear sight of the lifting/landing areas.				1	4	4	



Site or area being assessed			Personnel Transfer by Capsule - Lifting Operation			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
All personnel.	Inadequate operational overview.	Lack of operational control.	3	4	12	Undertake operations during daylight hours where possible.  Deck lighting to be adequate for operations and confirmed operational prior to operation on the installation and vessel.	Vessel Master to have clear sight of the lifting/landing area. Alternatively, a clear view can be provided by CCTV.  The Installation OIM and Vessel Master must be present on the bridge/control room at all times for the duration of the passenger transfer phase.	1	4	4	
Passengers. Vessel and installation personnel.	Passenger behavior, co-operation.	Injury to personnel.	4	3	12	Transfer Capsule training video. Briefing and vessel induction. Passenger consent to transfer. Effective monitoring during transit to and from lifting/landing area.	Both risk assessment to be amalgamated in to one?	1	3	3	
Other SMS Requirements: Lifting operation PTW issued. Risk assessment reviewed for the transfer. TBT held with all personnel involved in the transfer operation. All personnel including passengers aware of the empowerment to STOP THE JOB.											



## **APPENDIX 3**



INSTALLATION OIM AND VESSEL MASTER PRE-TRANSFER CHECKLIST				
Transfer Date	Transfer Time	Transfer From	Transfer To	
Wind Speed	Wave Height	Visibility	Reason for Transfer	
Print Name	Signed	Declaration		
		The OIM confirms that there is a need to transfer personnel to/from a transfer vessel and that no other safe or practicable means of transfer are available.		
	Control Check	Accepted	Not Accepted	Comment
Crane Integrity.	Certification in date and valid.			
	Crane fully operational.			
	Critical planned maintenance routines up to date.			
	Pre-operational checks competed with no known defects.			
Transfer Capsule Integrity.	Certification in date and valid. Certification to be on site, vessel and installation.			
	Planned maintenance routines up to date.			
	Passenger securing checked and operational.			
	Transfer Capsule SWL identified. Passenger payload not to exceed SWL.			
Lift Rigging integrity.	All lift rigging certification in date and valid.			
	Lift rigging visual inspection completed with no known defects.			
	Lift rigging compatible with Transfer Capsule manufacturer's specifications. Note: Capsule may be fitted with 2 lifting points.			
	Crane hook is fitted with safety latch or similar device.			
	Tag lines are in place.			
	Test lift of empty Transfer Capsule conducted.			
	Lift rigging compatible with known safe working loads.			
Crane Operator Competence	Crane operator certification is in date and valid.			
	Crane operators are familiar with the Transfer Capsule transfer operation.			
	Contingency crane operator allocated in operator cabin.			
Banksman	Banksman on vessel and installation are trained and qualified.			
	Banksman on vessel and installation have clear line of site with crane operator.			
	Banksman is clearly identifiable from other personnel.			
Assisting Personnel-Vessel and Installation	Personnel allocated to lifting/landing area, vessel and installation have been briefed on their roles and responsibilities.			
All personnel-Vessel and Installation.	All personnel have received training via the Manufacturer's Transfer Capsule video.			



Transferred Personnel	All personnel to be transferred have had a briefing and have viewed the Manufacturer's Transfer Capsule video.			
	All personnel to be transferred have been issued with appropriate PPE compatible with helicopter transfer. Note: Hard hats to be worn for Transfer Capsule transfer.			
	All personnel to be transferred have been advised of their right to decline transfer.			
	All personnel to be transferred have agreed to be transferred.			
	All personnel to be transferred are medically fit for transfer.			
	Installation OIM and transfer vessel Master to have agreed passenger list.			
Lifting/Landing Area	Lifting/landing area to be clear of obstruction.			
	Access and egress to lifting/landing area to be clear of obstruction.			
	All personnel to be transferred are to be escorted to the lifting/landing area.			
	Crane operator to have clear line of site of the lifting/landing area-vessel and installation.			
	Lifting/landing area- vessel and installation are adequately lit.			
	Passenger loading sequence agreed with transfer vessel Master and Installation OIM. Passenger capacity and weight to be in accordance with Transfer Capsule manufacturer's guidance.			



Environmental conditions	Prevailing weather and visibility is suitable for transfer and forecasted to remain so during the expected duration of the transfer.			
	The acceptance of weather criteria is agreed with the: <ul style="list-style-type: none"> <li>• Installation OIM</li> <li>• Transfer vessel Master</li> <li>• ERRV Master</li> </ul> Suggested parameters: Wind speed 20 knots, Significant wave height 2.5m. Visibility; Horizontal, not less than 500m at sea level and vertical at 100m above sea level. Daylight operations only.			
Station keeping	The vessel Master to confirm by 500m zone pre-entry checks and pre-setup checks inside the 500m zone, that they are able to maintain station for the expected duration of the transfer before final approach and set up.			
	Operation to be conducted in DP2 mode. Vessel not to utilise more than 45% power.			
	Crane operator and transfer vessel Master to confirm that vessel station keeping is well within the capability to conduct the operation once the vessel is set up alongside. Vessel to maintain station within a 2 metre footprint.			
	Vessel motion to be assessed for Pitch Roll and Heave.			



Communications	Communications equipment to be confirmed as fully operational.			
	Communications to be established with the: Transfer vessel bridge Transfer vessel deck Crane operator Installation control room ERRV bridge ERRV deck.			
Rescue and Recovery	ERRV confirms that vessel is in optimum position to effect launch and recovery.			
	All rescue and recovery equipment is fully operational.			
	FRC/FRDC are ready to launch, or are to be launched and on station for the duration of the transfer.			
	If launched and on location during transfer operation, FRC/FRDC to be clear of lifting operation and at no time to be under the suspended load.			
Baggage	All baggage to be lifted separately.			
	OIM and transfer vessel Master to agree baggage transfer method.			
	Requirement for certified container and lift rigging if applicable.			
SIMOPS	No non-critical SIMOPS are to be conducted during the transfer operation.			
	Critical SIMOPS to be risk assessed and verified by the OIM and agreed with the transfer vessel Master if appropriate.			
	Non-critical SIMOPS prohibited include but not limited to: Deck cargo operations Bulk cargo operations Crane operations Non-critical discharges.			
Other SMS Requirements	Lifting operation PTW issued. Risk assessment reviewed for the transfer. TBT held with all personnel involved in the transfer operation. All personnel including passengers aware of the empowerment to STOP THE JOB.			



PASSENGER LIST AND CONSENT FORM					
No.	Print Name	Position/Rank	Signed	Weight with PPE	Date
1					
2					
3					
4					
5					
6					
7					
10					
12					
13					
14					
15					
16					
17					
18					
<b>DECLARATION</b>					
I have agreed to be transferred by a personnel transfer device on the understanding that no other safe or practicable means of transfer are available. I have been briefed on the method and conduct of the transfer and currently have no known medical conditions that would preclude me from transfer.					





## **APPENDIX 4**



**PASSENGER INDUCTION CHECKLIST**

Date	Vessel	Induction Conducted by	Signature
Item	Induction Topic	Description	Completed
1	Vessel alarm systems identification	To be aware of the differences between alarm sounds and durations.	
2	Muster stations and procedure	To be aware of the muster station locations and their dedicated number and station.	
3	Locations of LSA	To be aware of the locations of dedicated LSA.	
4	Lifejackets and survival suits.	The method of donning the vessels lifejackets and survival suits.	
5	Portable fire fighting equipment	Locations of portable fire fighting equipment.	
6	Medical or other emergencies	Persons on board to be contacted in case of medical or other emergencies.	
7	Vessel's housekeeping rules	General conduct of housekeeping rules, work wear in accommodation, waste control etc.	
8	Designated smoking areas	Informed of locations of designated smoking areas and smoking restrictions in other areas.	
9	Mobile phone use	Applicable restrictions on mobile phone use.	
10	Restricted areas	Passengers should remain in designated accommodation areas and on external accommodation walk ways only.	
11	The use of hand and grab rails	When in the accommodation and on external accommodation walkways; handrails and grab rails provided must be held on to at all time.	
12	Lone passengers	When on external accommodation walkways, passengers must not be alone and are to be advised to be in pairs, or seek the assistance of the crew designated for passenger welfare.	
13	Meal times	Passengers are to be made aware of meal times. Dependent on the facilities on board, passengers may have to have meals at a separate sitting from the vessels normal meal times.	



**PASSENGER INDUCTION ATTENDANCE**

	<b>Passenger Name</b>	<b>Signature</b>	<b>Date</b>
<b>1</b>			
<b>2</b>			
<b>3</b>			
<b>4</b>			
<b>5</b>			
<b>6</b>			
<b>7</b>			
<b>8</b>			
<b>9</b>			
<b>10</b>			
<b>11</b>			
<b>12</b>			
<b>13</b>			
<b>14</b>			
<b>15</b>			
<b>16</b>			
<b>17</b>			
<b>18</b>			



## **APPENDIX 5**



DYNAMIC RISK ASSESSMENT FORM										
Tasks		Hazards			Initial Risk Assessment Level	Actions taken to mitigate risk			Revised Risk Assessment Level	
List individual tasks		Identify Hazards associated with each task				Methods or steps taken to reduce the risk for each hazard identified				
RISK ASSESSMENT LEVEL (Consequence and Likelihood)					HIERARCHY OF CONTROLS					
CONSEQUENCE (How Bad)		Likelihood (How Often)					Elimination	The complete elimination of the hazard.		
		1	2	3	4	5				
		Highly Unlikely	Reasonably Likely	Even Chance	Highly Likely	Almost Certain				
1	Minor Injury. Cuts, abrasions, minor skin or eye irritation etc. No sick leave required.	1	2	3	4	5	Redesign	Redesign the material or process with a less hazardous one.		
2	Injury requiring first aid. 1-3 days sick leave.	2	4	6	8	10				
3	Injury or industrial disease requiring medical treatment. Deep wounds, fractures, burns, scalds, eye injuries, hearing loss, temporary blindness. More than 3 days off sick.	3	6	9	12	15				
4	Serious injury or long term medical effects. Loss of fingers or toes, eye damage, serious medical effects. Weeks or months off, hospitalisation.	4	8	12	16	20	Administration	Providing controls such as training, procedures etc.		
5	Major injury or fatality. Loss of limbs, sight, long term illness, death. Permanent disablement, long term sick leave.	5	10	15	20	25				
1-4	LOW	May be required to reduce the risk although if within range the time and effort required to reduce further would be disproportionate with the risk.			RA Acceptable		<input type="checkbox"/> Yes <input type="checkbox"/> No – Reason			
5-12	MEDIUM	Action required. (Consider Hierarchy of Controls).			RA Not Acceptable		Reason			
15-25	HIGH	Action required urgently to control the risks before carrying out the task.			Reason		Reason			
							Originator			
							Signed			
							Job Number			
							Client			



Site or area being assessed			Transfer of personnel by offshore gangway			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers.	Gangway collapse.	Severe injury or death from impact.	1	5	5	Gangway is class approved.  Gangway has safety critical component redundancy documented in FMEA.  Approved installation of gangway on vessel.  Transfer operations take place only within the safe operating envelope of the gangway system / vessel station keeping parameters.  Gangway inspected by competent personnel prior to use.					



Site or area being assessed			Transfer of personnel by offshore gangway			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers.	Fall from gangway.	Injury from impact with sea, cold water shock, hypothermia, drowning.	1	5	5	Gangway design protects passengers from falling into sea.  Passengers receive induction on the operation of the system and their part in the transfer.  Passengers crossing the gangway are controlled by competent operators and support personnel.  Transfer operations take place only within the safe operating envelope of the gangway system / vessel station keeping parameters.					



Site or area being assessed			Transfer of personnel by offshore gangway			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Installation personnel.	Uncontrolled contact between gangway and installation.	Impact injury from gangway or debris following impact.  Mechanical damage to gangway or installation.	1	4	4	Deployment of gangway is a controlled operation.  Checklist completed and key personnel must confirm it is safe to proceed prior to operations commencing.  Vessel has stable DP station-keeping prior to deployment.  Non-essential personnel are kept clear of gangway docking location and its vicinity.					





Site or area being assessed			Transfer of personnel by offshore gangway			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers.	Manual handling during gangway crossing.	Strain injury to personnel crossing gangway.	1	3	3	Passengers are not permitted to carry baggage across gangway (a small shoe bag may be issued to carry indoor footwear).  Baggage is transferred separately.					



Site or area being assessed			Transfer of personnel by offshore gangway			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Passengers.	Slips, trips and falls.	Minor injury to passengers during transfer.	1	3	3	Unobstructed access and egress to the gangway on vessel and installation.  Gangway operated inside safe operating envelope, avoiding excessive incline.  Hand rail to be held on gangway.  Non slip footing on gangway.  Work boots worn during transfer.					



Site or area being assessed			Transfer of personnel by offshore gangway			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Vessel personnel.	Dropped object from gangway.	Impact injury from dropped object on gangway.	1	3	3	DROPS assessment (?).  Gangway commissioned fit for purpose.  Pre-use visual checks.  Non-essential personnel kept clear during gangway operations.					



Site or area being assessed			Transfer of personnel by offshore gangway			Date of assessment					
Assessor						Next review date					
Reasons why review is required											
Identified Hazard			Risk Evaluation			Existing control measures or safeguards in place	Observations and recommendations on control measures: 1. Do they comply with legal requirements? 2. Are the measures adequate? 3. What improvements are required?	Revised Risk Evaluation after control			Date action completed and any further action required
People affected	Hazard (the potential to cause harm)	Risk	Likelihood	Severity	Risk Rating			Likelihood	Severity	Risk Rating	
Vessel personnel.	Dropped object from gangway.	Impact injury from dropped object on gangway.	1	3	3	DROPS assessment (?).  Gangway commissioned fit for purpose.  Pre-use visual checks.  Non-essential personnel kept clear during gangway operations.					
Notes 1 - Initial risk ratings are for hazards that have no control measures in place. 2 - Safety Handbook Revision C will strengthen the guidance on actions to take in event of a deviation from recognised practice and on site assessment.											



## **APPENDIX 6**



INSTALLATION OIM AND VESSEL MASTER PRE-TRANSFER CHECKLIST (For Non-emergency Offshore Gangway Transfer Only)				
Transfer Date	Transfer Time	Transfer From	Transfer To	
Wind Speed	Wave Height	Visibility	Reason for Transfer	
Print Name	Signed	Declaration		
		The OIM confirms that there is a need to transfer personnel to/from a transfer vessel and that no other safe or practicable means of transfer are available.		
	Control Check	Accepted	Not Accepted	Comment
Operational Readiness	Time of transfer agreed.			
	Installation OIM ready for transfer.			
	Installation Control ready for transfer.			
	Installation Gatekeeper ready for transfer.			
	Installation passengers ready for transfer.			
	ERRV ready for transfer.			
	Transfer vessel Master ready for transfer.			
	Transfer vessel Bridge ready for transfer.			
	Gangway operators ready for transfer.			
Gangway integrity	Transfer vessel passengers ready for transfer.			
	Gangway is fully commissioned and certified.			
	Pre-operational checks have been made by competent personnel.			
Gangway Operator Competence	Gangway is within safe operational envelope.			
	Gangway operator is deemed competent in accordance to gangway company's procedures.			
Assisting Personnel – Vessel and Installation	Personnel assigned to assist with the control of passengers have been briefed on their roles and responsibilities.			
Personnel Co-ordinators – Vessel and Installation	Personnel responsible for the electronic POB tracking of passengers have been briefed on their roles and responsibilities.			
	Personnel responsible for the electronic POB tracking of passengers are competent in the use of the database system in use.			
	Personnel responsible for the electronic POB tracking of passengers have transmitted/received the approved list of passengers for transfer in sufficient time for them to be made ready in an orderly manner.			
All Personnel – Vessel and Installation	All personnel have received training via the gangway company's familiarisation video. (where available).			



Passengers (Transferred Personnel)	All personnel to be transferred have received training via the gangway company's familiarisation video. (where available).			
	All personnel to be transferred have been issued with appropriate PPE compatible with helicopter transfer. Note: Hard hats to be worn for gangway transfer.			
	All personnel to be transferred have been advised of their right to decline transfer.			
	All personnel to be transferred have agreed to be transferred.			
	All personnel to be transferred are medically fit for transfer.			
	Installation OIM and transfer vessel Master to have agreed passenger list.			
Gangway Boarding / Installation Landing Area	Gatekeeper is in place and ready to supervise the transfer of passengers.			
	Gangway boarding / installation landing area is clear of obstruction			
	Access and egress to gangway boarding/landing area to be clear of obstruction.			
	All personnel to be transferred are to be escorted to the boarding area.			
	Gangway boarding/landing area - vessel and installation are adequately lit.			
	Passenger loading sequence agreed with transfer vessel Master and Installation OIM.			
Environmental Conditions	Prevailing weather and visibility is suitable for transfer and forecasted to remain so during the expected duration of the transfer.			
	The acceptance of weather criteria is agreed with the: Installation OIM Transfer vessel Master ERRV Master Suggested parameters; Wind speed 20 knots, Significant wave height 2.5 metres. Visibility; Horizontal, not less than 500m at sea level and vertical at 100 metres above sea level. Daylight operations only.			



## **APPENDIX 7**





# OFFSHORE CRANE AND CAPSULE REQUIREMENTS FOR THE TRANSFER OF PERSONNEL TO MEET THE REQUIREMENTS OF THE LOLER REGULATIONS

## 1. Definition of Exceptional Circumstances

Operators with the agreement of the MCA may declare “exceptional circumstances” in a situation where it is not possible to use helicopters as the primary method of transferring personnel to or from Offshore Installations and marine methods are to be employed.

## 2. Regulatory and Procedural Requirements

Personnel transfer by crane must comply with the relevant legislative requirements which include Lifting Operations and Lifting Equipment Regulations (LOLER), Provision and Use of Work Equipment Regulations (PUWER), The Supply of Machinery (Safety) Regulations SI 2008/1597, Offshore Installations (Safety Case) Regulations 2005 and their Approved Codes of Practice (ACoPs).

## 3. Capsule (Personnel Carriers) Requirements

Personnel carriers should as a minimum satisfy the appropriate sections of the machinery directive and be marked as such. The design of the personnel carriers should minimise the risk of persons being crushed, trapped, struck or falling from the carrier

## 4. Crane Requirements

Cranes that are to be used for the transfer of personnel should only be those which have been specifically designed to undertake the lifting of personnel. This can be achieved by having cranes built to the European Standard BS EN 13852-1: 2004 ‘Offshore Cranes’ or when existing cranes have been upgraded to meet the requirements for the lifting of personnel detailed in this standard

Note: it should be noted that the LOLER Regulations do allow cranes which have not been specifically designed to lift persons to be used for the transfer of personnel in ‘exceptional circumstances when it is not practical to gain access by less hazardous means’. The HSE publication HSG 221 gives basic guidance on what features a crane should have to enable it to be considered as suitable for the lifting of personnel in such circumstances. The term ‘exceptional circumstances’ used in the LOLER Regulations is narrower than that used in these guidelines in which personnel transfer could be a regular activity involving the transfer of large numbers of personnel. The LOLER ‘exceptional circumstances’ would be in an emergency such as the transfer of a casualty to a supply boat when helicopters cannot be used or as part of an installation evacuation.

## 5. Roles and Responsibilities

The Duty Holder appointed Technical Authority for Lifting Operations (TA) will:

- Decide if personnel transfer is to be allowed by declaring that exceptional circumstances exist
- Authorise the use of specific cranes for personnel transfer

### 5.1 Mechanical Handling Contractor

The Mechanical Handling Contractor (MHC) will verify the suitability of cranes for personnel transfer and provide technical support, Crane Operators and training.

### 5.2 Offshore Installation Manager or Site Controller

The Offshore Installation Manager (OIM) or Site Controller (SC) will authorise all personnel transfers by crane.



## **6. Assessment of Cranes Used for Personnel Transfer**

The Technical Authority for lifting will, with the support of the MHC, conduct a thorough formal technical review of the suitability and reliability of any cranes which are to be used for personnel transfer operations. A specific study is required for each crane. This should include but not be limited to the following:

- The crane's suitability against the requirements in BS EN 13852-1
- Maintenance records
- Modifications
- Other relevant information from incidents, failures, design studies, Failure Modes, Effects and Criticality Analysis (FMECA) etc
- Inspection, maintenance and integrity assurance reports
- Reports of thorough examination
- Manufacturers' data
- Known defects

## **7. Declaration of the Suitability of Cranes for Personnel Transfer**

The Technical Authority for lifting will, with the support of the MHC, conduct a thorough formal technical review of the s

