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	Operations Procedure/Guidelines	Custodian: Alaska Logistics
	<b>Personnel Transfers between Vessels</b>	Revision: 1 Effective: 7/20/09

## OPERATING PROCEDURE

**Approval Date**      Approved for the Alaska Asset:

Shell Exploration & Production Company	Signature	Date
Kate Marstall / Head of Logistics - Alaska	<i>Approved – Signature on file</i>	7/20/09
Rick Fox / Alaska Asset Manager	<i>Approved – Signature on file</i>	7/20/09
Dwight Johnston / Operations Services Manager	<i>Approved – Signature on file</i>	7/20/09

**Custodian**      **\* Note \* Original signed copy of this procedure is filed in Alaska OWE**  
Lynn Craddock-Melin

**Compliance**      Compliance with this document will be audited via Level III audit using the:


- Level III Internal audits
- BBSM observations, and
- Level II Internal audits.

**Purpose/Scope**      The purpose of this document is to establish the minimum safety requirements and procedures for Shell Exploration & Production Company (SEPCo) and Marine Contractors involve in the Alaska Assets for the transfer of personnel between marine vessels over open water. Certain vessels contracted for offshore Alaska Operations do not have the ability to accommodate helicopter operations and/or personnel transfer baskets, so the transfer of personnel for crew change will at times require vessel to vessel transfers.

For vessels having the ability to transfer personnel via personnel transfer basket, refer to OPS0168A Personnel Transfer Safety Procedure for guidance.

**Applies to**      This Operations Procedure applies to all Shell Exploration & Production Company (SEPCo) employees and contractors.

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- Hazards/Risks** Individual(s) falling into open water:
- Cold water exposure/Hypothermia
  - Drowning
  - Pinched between vessels
  - Swept by strong currents

## Roles and Responsibilities

- Vessel Master** His/Her responsibilities will include, but are not limited to the following:
- Overall safety of the vessel, crew, passengers and the personnel transfer operations.
  - Designate Transfer Station PIC and Stern Watch (if applicable) and ensuring they are competent in the safety procedures and recovery/rescue measures.
  - Communication with the other vessel's master.
  - Ensuring appropriate communications; verifying procedure; and confirming that method of transfer, all equipment and weather conditions are safe for transfers.
  - Conducting a pre-transfer safety meeting and job hazard analysis review with crewmembers. Ensuring understanding of procedures and responsibilities aboard his/her vessel.
  - Remaining on the bridge during transfers.
  - Authorizing transfer operations.

- Transfer Station PIC** A competent crewmember shall be positioned at the transfer station on each vessel wearing the appropriate PPE for the conditions. If the vessel is operating in cold climate and not in protected waters such as a harbor, an anti-exposure suit designed for cold water shall be worn. His/Her responsibilities shall include, but are not limited to the following:
- Pre-use inspection of transfer station equipment and surrounding area.
  - Pre-use inspection of PPE including anti-immersion suits and PFDs for personnel to be transferred.
  - Ensuring the gangway, brow, accommodation ladder, pilot ladder or any other appropriate equipment is correctly rigged and secured with a safety

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net (if required).

- Monitoring transfer equipment for changing conditions and adjusting if necessary.
- Maintaining visual and/or radio communication with Vessel Master.
- Supervising transfer operations.
- Providing pre-transfer safety briefing to personnel.
- Ensuring personnel have properly donned PPE and footwear.
- Verifying names of personnel transferring.
- Providing vessel safety orientation for boarding personnel.
- Providing and collecting anti-exposure suits and PFDs.

**Transfer Station Attendant**


A competent crewmember shall be positioned at the transfer station on each vessel wearing the appropriate PPE for the conditions. If the vessel is operating in cold climate and not in protected waters such as a harbor, an anti-exposure suit designed for cold water shall be worn. His/Her responsibilities will include, but are not limited to the following:

- Pre-use inspection (if not conducted by Transfer Station PIC) of an approved life ring or equivalent device, lanyard(s), portable spotlight for nighttime operations, and any other access or rescue equipment.
- Staging rescue equipment for transfer operations.
- Assisting Transfer Station PIC with personnel transfer.

**Stern Watch/Rescue**

A competent crewmember shall be positioned at the stern of either vessel for rescue wearing the appropriate PPE for the conditions. If the vessel is operating in cold climate and not in protected waters such as a harbor, an anti-exposure suit designed for cold water shall be worn. Vessel's master will determine if a Stern Watch is needed and which vessel will provide the Stern Watch. His/Her responsibilities will include, but are not limited to the following:

- Attentive to transfer operations.
- Stand by on stern with a life ring or equivalent device, lanyards, boat hook, and, if conducting nighttime operations, a portable spot light.
- Maintain visual or radio communications with Transfer Station PIC.

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## General Requirements/Guidelines

### Personal Protective Equipment (PPE)

1. Individuals transferring and crewmembers involved must wear the appropriate PPE for the conditions. An anti-exposure suit, if worn, must be USCG approved:
  - a. Be one-piece construction.
  - b. Have integrated reflective tape.
  - c. Be a high visibility color or multicolored.
  - d. Must be in good condition and free from tears or deterioration.
2. A USCG approved PFD, (if the anti-exposure suit is not so equipped) must be worn during transfers and while awaiting transfer on the weather deck of any vessel. PFDs must be: Type V equipped with a light, whistle, and reflective tape.
3. Appropriate Footwear is required and must have:
  - a. Rubber soles
  - b. Closed toe and heel (No sandals, flip flops etc.)
4. **Shoes with leather soles are prohibited** (example; dress shoes, cowboy boots, etc.)

Note: Appropriate footwear is the responsibility of the individuals.


### Transfer Conditions

Transfer conditions and sea state must be favorable for the safe transfer of personnel. Prior to commencement of transfer operations, the following criteria shall be evaluated for acceptability and a Job Safety Analysis (JSA) completed.

- Vessel Maneuvering Characteristics
- Freeboard of both vessels
- Weather Conditions
- Sea State

The Vessel Master shall be the approving authority signing the JSA with a concurring signature by the appropriate Shell Representative.

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## General Requirements/Guidelines, continued

- Communication Protocol**
1. VHF communication must be established between Vessels Masters and monitored during transfers.
  2. Radio and/or visual communications must be established and maintained during transfers between:
    - a. Transfer Station PIC and Vessel Master
    - b. Transfer Station PIC and/or Stern Watch


**Passenger Manifest** Once a transfer is complete, the Master will forward a crew list and passenger manifest to the project manager and Shell Journey Management at:  
[GXEPWAKTravelNotification@shell.com](mailto:GXEPWAKTravelNotification@shell.com).


- Mooring/Station keeping of Vessels** Both Vessels' Masters will discuss and agree on approach, securing, and let go:
1. If possible, the larger vessel will create a lee for the smaller vessel.
  2. The vessel with the higher point for the transfer deck shall be considered the lead vessel.
  3. Vessels will breast to one another as agreed upon.
  4. One of the vessels shall deploy fenders and the fenders shall not keep the vessels apart by more than 36" at the main deck.
  5. Depending on conditions, the Vessels' Masters will determine the need for lines. The use of mooring lines to secure the vessels together will be determined prior to approach.

**Transfer Stations and Areas** Transfer Station is defined as a engineered area on a vessel that may consist of steps, platforms, U frames, ladders, rope, etc. that is the designated point of transfer between vessels.

1. Transfer Station and waiting area for personnel transferring/boarding will be/have:
  - a. Clear, unobstructed access
  - b. Protected area
  - c. Appropriate non-slip material
  - d. Appropriate rescue equipment
  - e. Adequate lighting

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## General Requirements/Guidelines, continued

### Transfer Equipment

Equipment for transfers are:


1. Brow – platform designed to provide a walkway between vessels.
  - a. Must be of sufficient length to extend 2 feet onto each vessel
  - b. Must be equipped with handrails
  - c. If needed, steps will be provided on both vessels to reach the brow to create a natural step up or down from the deck of the vessels.
  - d. Must be correctly secured
  - e. If the brow extends over an open space greater than 24”, a Safety Net will be rigged.
    - i. The Safety Net shall be rigged to extend 3 feet beyond each side of the brow and underneath without touching the water.
  
2. Gangway – may be temporarily fixed on one end using pins.
  - a. Must be of sufficient length to extend at least 2 feet onto the receiving vessel
  - b. Must be equipped with handrails
  - c. If needed, steps will be provided on both vessels to reach the gangway to create a natural step up or down from the deck of the vessels.
  - d. Must be correctly secured.
  - e. If the gangway extends over an open space greater than 24”, a Safety Net will be rigged.
    - i. The Safety Net shall be rigged to extend 3 feet beyond each side of the gangway and underneath without touching the water.
  
3. Accommodation Ladder – is permanently fixed on one end and has the ability to move in two planes. These ladders pivot on platforms, can be raised and lowered, have lower platforms, and have integrated handrails.
  - a. When lowered, the platform at the bottom of the accommodation ladder shall be adjusted as close as practicable to a horizontal

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**Transfer  
Equipment,  
continued**

- position.
  - b. If conditions allow and the accommodation ladder is of sufficient length and it can rest safely on the other vessel such that the ladder will rise and fall with motion of the vessels, then tension may be taken off the falls. If not of sufficient length, then it will remain suspended on its falls and a pilot ladder will be rigged to facilitate the transfer.
  - c. If conditions do not allow the accommodation ladder to rest on the deck of the other vessel, but the ladder is of sufficient length to allow transfer without use of a “pilot ladder”, then a brow shall be used between the lower platform and the other vessel if the open space is greater than 18”.
  - d. If the open space between vessels is greater than 12”, a Safety Net shall be rigged.
    - i. The Safety Net shall be rigged below the accommodation ladder using lines from the rails or bulwark of the higher vessel. It shall be deployed such that the net will extend from 3’ forward of the transfer point and under the transfer location to 3’ aft of the transfer location. The net should not touch the water and the lower end of the net shall be secured to the lower vessel.
4. Pilot Ladder – a hanging ladder of ropes or chains supporting wooden, metal or plastic rungs/steps.
- a. If possible the ladder should be rigged to line up with openings in the rail on the main deck of both vessels. If not possible, then the Vessel Master of each vessel will agree to one vessel lining up the pilot ladder to an opening on the vessels’ rail.
  - b. The ladder shall be rigged so that it does not extend into the water, yet is below the main deck of the lower vessel.
  - c. The steps of the pilot ladder must be horizontal and no more than 1’ apart.
  - d. Side ropes on the pilot ladder must be at least ¾” in diameter
  - e. There shall be no shackles, knots or splices between steps
  - f. Where the Pilot Ladder is more than 9’ in length a spreader bar shall be used. The spreader bar shall not be lashed between the steps. It shall be located not less than 4 steps from and shall

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extend at least 18” to each side of the ladder.

- g. If the separation between the transferring vessels will be greater than 12”, a safety net shall be rigged to extend 3 feet on each side of the pilot ladder as well as underneath without touching the water as described above.
5. Transfer Rope – a fiber rope rigged to a designed U frame transfer station and used by transferring personnel to hold and support themselves while stepping from one vessel to another.
    - a. Rope diameter should be 1 ¼ to 1 ½ inches and the length must be no less than the distance from the pivot position of the rope at the top of the U frame to the opposing vessels’ landing platform.
    - b. If the open space between vessels is greater than 24”, a Safety Net will be rigged.
      - i. The Safety Net is rigged to adequately cover the open space without touching the water.
    - c. The open space between vessels will not exceed 36”.
  6. Safety Net – a net designed for the purpose of catching and preventing a person from falling into open water.

All equipment must be inspected prior to each transfer operation. Any unsatisfactory condition identified must be corrected before any transfer operations.


**Rescue Equipment**

Recommended rescue equipment staged at the Transfer Station and/or Stern:

1. Approved Life ring or equivalent device w/lifeline attached.
2. Portable spot light
3. Boat hook
4. Two heaving lines

All equipment to be staged prior to beginning transfer operations.

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## General Requirements/Guidelines, continued

### Baggage

No baggage or cargo is to be carried by personnel transferring.

1. All baggage or cargo is transferred after personnel transfers are completed.
2. Items less than 25 lbs may be hand passed between vessels by crewmembers.
3. Preferred method is for all baggage and cargo to be transferred by cargo net or lanyard (safe-lifting procedures are to be followed).

### Pre-Job Safety Meeting and Job Hazard Analysis

Vessels' master will conduct a pre-job analysis (JSA) in accordance with HSE0008 Safe Work Planning and Authorization (SWPA) System, including a pre-job safety meeting with:


- Transfer Station PIC
- Any additional crewmembers involved with personnel or baggage/cargo transfer for purposes of reviewing procedures, responsibilities, hazards etc.

### Personnel Transfer Training/Safety Briefings/Vessel Orientations

The Transfer Station PIC will provide:

- On-site procedural instructions prior to transfer operations for any personnel that have not conducted this type of transfer.
- A pre-transfer safety briefing and JSA review with all personnel.
- Ensure all personnel boarding receive a vessel safety orientation.

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## General Requirements/Guidelines, continued

### Emergency Actions MOB/Rescue

In the event of a person falling into the water, Man-Over-Board shall be instituted.

1. Individual in the water should take the following actions:
  - a. Protect self on impact
  - b. Remain calm
  - c. Follow instructions/directions of vessel crewmembers (Safety Watch)
  - d. Evaluate location relative to the vessels, avoid remaining between them, move aft if able
  - e. Position back of body to wind and waves to protect airway
  - f. Look for rescue equipment thrown from the vessels
  
2. Vessel personnel should:
  - a. Call to action vessel emergency response procedures
  - b. Keep person in sight (using spotlight if needed)
  - c. Throw life ring or equivalent device (keeping lifeline on vessel if possible)
  - d. Evaluate situation and provide instructions to the person
  - e. Manage person to a safe retrieval area and pull onboard the vessel
  - f. Initiate proper medical evaluation and treatment as necessary

### Stop Operations

Transfer of personnel will immediately stop if any of the following situations occurs:

- Communications fail between vessels, masters, or transfer station crewmembers.
- Weather or sea state becomes unfavorable.
- Emergency Alarm activated on either vessel.
- Either vessel experiences equipment malfunction or failure.
- Stern Watch crewmember or either vessels Transfer Station PIC crewmember leaves the area without a replacement.
- Each person to be transferred has the right to refuse the operation without fear of reprisal if conditions are not safe in his/her opinion.

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