

Pauline

The following information is needed to complete the environmental review of the ancillary activities:

1.) Provide a copy of BPXA's Fluid Transfer Procedures.

\*It would be beneficial for BPXA to estimate which shore bases the vessel will be fueled from and identify specifically which Oil Discharge Prevention and Contingency Plans apply to those shore bases.

This information would inform specific mitigation to reduce the chance of a fuel transfer spill or mitigate the impacts through response should a small fuel transfer spill occur. Although BOEM can use the information supplied to satisfy NEPA, the details of the specific plans will help reduce the amount of analysis necessary.

2.) Provide the following information on area of activity:

-Area of activity in federal waters (mi<sup>2</sup>,km<sup>2</sup>);

-Area of overlap of "project area" and "sonar area", with "activity outside survey area" with federal waters (mi<sup>2</sup>,km<sup>2</sup>)

-Map legend on figure 1 describing polygon colors and defining areas of overlap shown.

This information is needed to understand the type and amount of activity that would occur in in federal waters and to assess the project's effects on all resources in federal waters.

3) Provide a summary of the primary vessel and support vessels to be employed. (Will support vessels be used? If so, how many? What is the frequency of round trip travel between shore and operations?)

4) Provide a summary of the types and volumes of the various waste anticipated and method of treatment or location of disposal.

-Include confirmation that the applicant will obtain required authorization from EPA for 2014 Small Vessel General permit for vessels < 79 feet in length operating in Federal Waters.

This information will be used for determining effects on water quality (discharge definitions and limitations imposed by the permit)

5) Provide a summary of permits and authorizations pertaining to water use/water quality that the applicant intends to obtain.

This information will be used for determining effects on water quality, fish and fish habitat (and other resources).

Please feel free to call me to discuss or we can discuss after the meeting tomorrow.

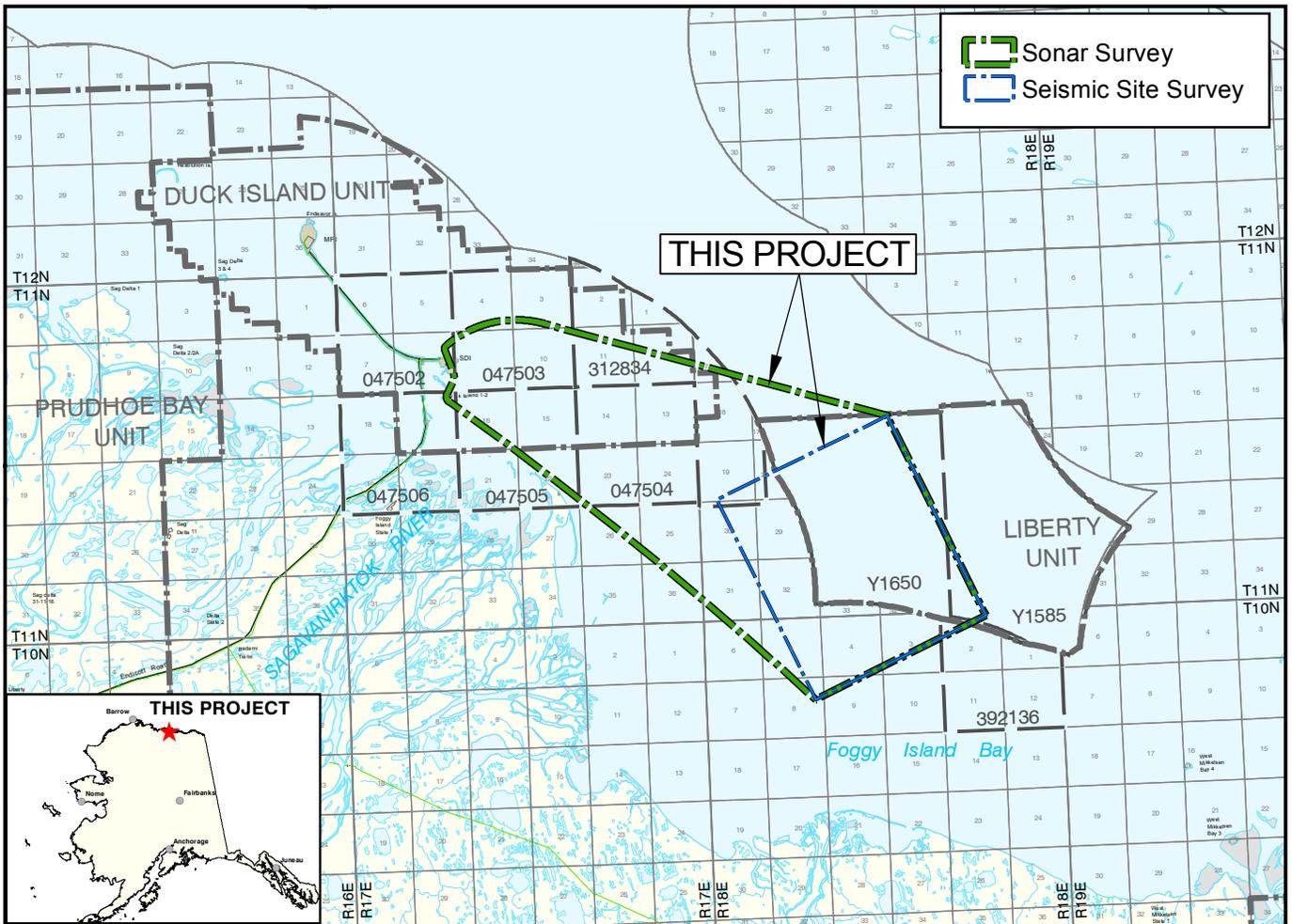
Comment Number	BOEM Comment	BPXA Response
1A	Provide a copy of BPXA's Fluid Transfer Procedures.	See attached Fluid Transfer Procedure UPS-US-AK-ALL-ALL-HSE-DOC-01682-2.
1B	Estimate which shore bases the vessel will be fueled from and identify specifically which Oil Discharge Prevention and Contingency Plans apply to those shore bases.	Refueling of the vessel is planned at West Dock. The Greater Prudhoe Bay Oil Discharge Prevention and Contingency Plan, May 2012 (UPS-US-AK-GPB-ALL-HSE-DOC-00164-3) applies to fuel transfers at West Dock.
2A	Area of activity in federal waters (mi <sup>2</sup> ,km <sup>2</sup> );	The total area of activity within Federal Waters is 8.52 mi <sup>2</sup> /22.07 km <sup>2</sup>
2B	Area of overlap of "project area" and "sonar area", with "activity outside survey area" with federal waters (mi <sup>2</sup> ,km <sup>2</sup> )	The Sonar area is 28.70 mi <sup>2</sup> /74.34 km <sup>2</sup> and the Site survey area is 11.81 mi <sup>2</sup> /30.60 km <sup>2</sup> , which includes state and federal waters. From that total area, Sonar survey area within federal waters is 8.52 mi <sup>2</sup> /22.07 km <sup>2</sup> , site survey activity within federal waters amounts to 6.74 mi <sup>2</sup> /17.46 km <sup>2</sup> , and therefore sonar survey-only activity within federal waters amounts to 1.78 mi <sup>2</sup> /4.61 km <sup>2</sup> .
2C	Map legend on figure 1 describing polygon colors and defining areas of overlap shown.	Please see new figure attached with updated legend.
3	Provide a summary of the primary vessel and support vessels to be employed. (Will support vessels be used? If so, how many? What is the frequency of round trip travel between shore and operations?)	<p>Support vessels are not planned to be used. The proposed survey vessel (R/V Thunder or equivalent) is about 70 x 20 feet (ft) in size and is outfitted with an 8-person self-launching survival raft in the event of an emergency.</p> <p>The estimated frequency of round trips between shore and operations include a shift change every 12 hours at Endicott unless weather precludes this location, then West Dock as primary back up, for the length of the surveys. Approximately 7 working days per survey is anticipated. Two round trips are anticipated to West Dock to mobilize and demobilize for each project phase.</p>

Comment Number	BOEM Comment	BPXA Response
4	Provide a summary of the types and volumes of the various waste anticipated and method of treatment or location of disposal. Include confirmation that the applicant will obtain required authorization from EPA for 2014 Small Vessel General permit for vessels < 79 feet in length operating in Federal Waters.	<p>This project will develop a Waste Management Plan before field work begins. Except for allowable effluent discharges, wastes are transferred for disposal at approved onshore facilities. Typical wastes include - trash, packaging material, food waste, batteries, and aerosol cans. These transferred wastes would not affect water quality.</p> <p>Anticipated volumes are minimal and in line with normal volumes associated with a vessel of like type, size and number of personnel on board.</p> <p>Waste will be transferred for disposal at existing waste treatment/disposal facilities. Waste management guidelines for segregation and disposal from the Alaska Waste Disposal and Reuse Guide (RedBook) will be followed.</p> <p>Currently, the Small Vessel General Permit for vessels under 79' is not in effect. Effluents will be discharged in accordance with the conditions set forth in applicable regulations.</p>
5	Provide a summary of permits and authorizations pertaining to water use/water quality that the applicant intends to obtain.	No further permits or authorizations are required for this project.

**Attachments:**

Figure 1 including Updated Legend

Fluid Transfer Procedure UPS-US-AK-ALL-ALL-HSE-DOC-01682-2



This map is based on U.S.G.S quad Beechey Point (A-1, A-2, B-1, B-2) and on the Unit Operator's Facility Maps.



**PROJECT LOCATION:**

DUCK ISLAND UNIT - SATELLITE DRILLING ISLAND

NAD83

LAT. = 70° 19' 18.786" / DD 70.321885

LONG. = -147° 51' 56.266" / DD -147.865629

ALASKA STATE PLANE ZONE 4, NAD83

X = 1,903,616.63 FEET

Y = 5,971,775.36 FEET

SEC. 2-6, 8, 9 T10N, R18E UMIAT M.

SEC. 3, 4, 8-17, 21-26, 36 T11N, R17E UMIAT M.

SEC. 7, 17-20, 29-34 T11N, R18E UMIAT M.

ADL # 047502, 047503, 047504, 047505, 047506,  
312834, 392136

OCS # Y1585, Y1650

DATUM: MEAN SEA LEVEL

PURPOSE: GEOHAZARD SURVEY

ADJACENT PROPERTY OWNER:

STATE OF ALASKA

**BP EXPLORATION (ALASKA) INC.**

**LIBERTY 2014  
SHALLOW GEOHAZARD SURVEY AREA**

DATE:  
March 2014

SCALE:  
1" = 3 Miles

FIGURE:  
1



## Fluid Transfer Procedure

Document Number: UPS-US-AK-ALL-ALL-HSE-DOC-01682-2

<b>Authority:</b>	North Slope Environmental TL	<b>Custodian:</b>	Spill Prevention Compliance Advisor
<b>Scope:</b>	BPXA	<b>Document Administrator:</b>	AK, HSSEE Reg. Env. Doc. Admin.
<b>Issue Date:</b>	December 14, 2001	<b>Issuing Dept:</b>	RCE
<b>Revision Date:</b>	February 11, 2013	<b>Control Tier:</b>	2 – BPXA
<b>Next Review Date:</b>	February 11, 2016	<b>OMS:</b>	3.6, Environment; 7.1, Regulatory Compliance

### 1.0 Purpose/Scope

This procedure provides requirements for fluid transfers in order to help prevent spills. The procedure is mandatory and applies to all contractors and BPXA personnel actively involved in transferring fluids on or at BPXA leases and facilities.

### 2.0 Definitions

- **Receiver** – The person/operation receiving fluids such as a tanker/vac truck driver or the operator of the tank being filled.
- **Off-loader** – The person/operation relinquishing fluids such as a tanker/vac truck driver or the operator of the tank being offloaded.
- **Fluid Transfer Lead** – May be either the Receiver or the Off-loader; it is the person most familiar with the fluid and the area where the transfer will occur.
- **Closed System** – Includes stationary tanks, vessels, sumps, pumps, meters, gauges, etc., and the connected hard-piping. Closed systems do not include portable or temporary tanks with flexible hosing and/or temporary secondary containment.
- **Ullage** - The headspace or unfilled space in a tank or vessel. The tank ullage must be measured or calculated prior to receiving fluids.
- **Hydrocarbon Fluids (i.e., 'oil')** – Fluids containing any amount of hydrocarbon ('oil'), including produced water, wash-waters, and oil-based chemicals. Examples of oil and non-oils are listed in the Tier 2 procedure 'Compliance with Oil Spill Prevention Regulations' (UPS-US-AK-ALL-ALL-HSE-DOC-01838-2). Contact your Environmental Advisor or the Spill Prevention Compliance Advisor (Eppie Hogan, 564-5296) if you have questions about 'oils/non-oils'.
- **Overfill Protection Device** – High liquid level alarm, high liquid level cut-off mechanism, cut-off type nozzle, audible air vent, direct vision gauge (e.g., sight glass), or monitored liquid level indicator.

### 3.0 General Requirements

Except for the exemptions listed below, this procedure must be followed during fluid transfers.

**Exemptions:**

- Vehicles fueled at dedicated fueling stations or by the field fueler.
- De-watering of oil/sheen-free well cellars, reserve pits, and ponded water in secondary containments.
- Any fresh/potable water transfers and seawater transfers in a 'seawater' environment (i.e., Endicott, MPU F Pad, Niakuk, Point Mac, Northstar, STP).
- Pumping fluids within a 'Closed System' (see definition in Section 2.0).

Fluid transfers by vacuum trucks, including domestic wastewater trucks and supersuckers are not exempt from this procedure.

**Fluid Off-loaders and Receivers must use a fluid transfer checklist.** An example checklist outlining the steps to follow before, during, and after a fluid transfer is included as an attachment to this procedure. The checklist may be modified to fit the user's specific needs.

NOTE: A fluid transfer checklist must be followed, but unless otherwise required by the facility operator (e.g., CIC), hardcopy records of completed transfers do not need to be maintained. One suggestion is to laminate the example checklist provided at the end of this procedure and keep it on-hand.

**4.0 Key Responsibilities**

Responsibilities for Receivers, Off-loaders and Fluid Transfer Leads are outlined in detail in the following sections.

Supervisors of personnel performing fluid transfers are responsible for ensuring their personnel are trained on this procedure and understand their responsibilities. Supervisors also are responsible for performing periodic field observations.

BPXA Environmental Advisors perform annual compliance reviews of select fluid transfers.

**5.0 Procedure**

While every transfer requires an Off-loader and a Receiver, some fluid transfer may need more intensive monitoring and oversight than others.

**By agreement between BPXA and the Alaska Department of Environmental Conservation (ADEC), transfers of hydrocarbon ('oil')-containing fluids to tanks greater than 10,000 gallons that are not equipped with an overfill protection device (see definition in Section 2.0) require an Off-loader and Receiver ('two-persons') to be present during the entire transfer. The Receiver is responsible for continuously monitoring the fluid level of the receiving tank. THERE ARE NO EXCEPTIONS.**

## 5.1 Prior to Transfer

Before a fluid transfer begins, the Receiver and Off-loader must communicate face-to-face or via radio. Radio is acceptable for routine/regular transfers while a face-to-face meeting is required for unusual or uncommon transfers. The Fluid Transfer Lead is responsible for initiating this discussion and addressing the responsibilities of each participant. For jobs requiring multiple tank truck loads to complete a fluid transfer, the pre-job meeting is only required for the first load.

### The Fluid Transfer Lead will:

- ✓ Identify and evaluate hazards posed by other activities in the immediate area, and determine if the fluid transfer can be performed safely.
- ✓ Ensure all participants know the emergency shut-off procedures and how to stop a transfer in case of an alarm.
- ✓ Ensure the fluid truck driver knows the correct tank and connection location.

### The Receiver will:

- ✓ Confirm that the receiving tank has adequate capacity to receive the fluid.
- ✓ Confirm fluid volume brought/available from Off-loader.
- ✓ Verify the Off-loader is transferring the correct fluid to the correct tank.
- ✓ Ensure spill response materials (sorbents, shovels, bags, etc.) are readily available.

### The Off-loader will:

- ✓ Confirm the receiver (tank) has adequate capacity to receive the fluid and verify the volume of fluid to be transferred.
- ✓ Verify the fluid is compatible with tank.
- ✓ Place liners at inlet and outlet points, hose/pipe joints, and other critical transfer components that are outside of containment.
- ✓ Ensure valves in the transfer system are in the correct position.
- ✓ Inspect valves, piping and hoses for damage, defects, and leaks.
- ✓ Check that manifolds and valves not in use are blind-flanged or capped.
- ✓ Ensure the transfer equipment (e.g. hoses) is rated for the transfer pressure.
- ✓ Confirm grounding straps are connected.
- ✓ Verify the lowermost drain and outlets of the truck are not leaking.
- ✓ For Tiger tanks, verify that the demister has been drained, and the sump and vent bucket are empty.

Note: For chemical transfers where CIC is both the Off-loader and Receiver: the pre-job communication must be done face-to-face; the Off-loader and Receiver must verify the facility, tank ID, chemical product, and fill point; and a fluid transfer checklist must be completed.

## 5.2 During Transfer

### Scenario A. Truck to tank, where truck capacity is greater than the tank capacity (Risk of overfill if tank ullage is less than fluid on board truck)

1. The Receiver will monitor the tank's fluid level. Flow rate will be reduced at the beginning of the transfer until each person is satisfied there are no problems.
2. The Off-loader will monitor the connections, valves, flanges and other locations where leaks are most likely to occur and be in position to immediately stop the transfer if necessary.

Note: If the transfer is occurring to a non-hydrocarbon (non-oil) tank, then the area operator may function as both the Off-loader and Receiver.

### Scenario B. Truck to tank, where tank capacity is greater than the truck capacity (Risk of overfill eliminated when tank ullage is greater than truck capacity)

Unless it is a chemical transfer by CIC, the receiving tank level does not require constant monitoring.

1. The Receiver will approve the transfer with instructions to the Off-loader to start and end the transfer using a reduced flow rate. The Receiver will be present at the start of transfers for uncommon or unusual transfers.
2. The Off-loader will inspect and monitor connections, hoses, valves, flanges and anywhere that leaks are most likely to occur, and notify the Receiver when the transfer is complete.

### Scenario C. Stationary Tank to a Truck

1. The Receiver (i.e., truck driver) will:
  - ✓ Approve the transfer with instructions to the Off-loader to start the transfer at a reduced rate flow rate and stop the transfer if there are problems/issues.
  - ✓ Inspect and monitor connections, hoses, valves, flanges and anywhere that leaks are most likely to occur.
2. The Off-loader will initiate the transfer, using a reduced flow rate at the beginning and end of the transfer.

Note: Except for chemical transfers conducted by CIC personnel, one person may serve as both Receiver and Off-loader if the fluid transfer occurs within secondary containment, and the loading area has an emergency shut-off within immediate reach.

### Scenario D. Temporary Tank to a Permanent Tank, Sump, or Vessel

The area operator may function as both the Off-loader and Receiver

1. Inspect and monitor the connections, hoses, valves, flanges and anywhere that leaks are most likely to occur.
2. Periodically check that the transfer is proceeding properly.
3. If transfer pumps are variable rate, reduce the flow at the end of the transfer and/or when receiving tank or container is approaching the target fill level.

### **Scenario E. Fluid Transfers Circulated Downhole (well service activities excluding activities contained within the confines of a drilling or workover rig)**

1. The Off-loader will:

- ✓ Monitor the connections, valves, flanges, and anywhere that leaks are most likely to occur.
- ✓ Look for damage or defects in hoses.
- ✓ If fluids are going to a bleed trailer, truck, Tiger tank, or other temporary tank, confirm that the receiving trailer, truck or tank has adequate capacity to receive the fluid and monitor the fluid level throughout the transfer.

Note: Be aware that the ADEC 'two-person' rule for oil transfers may apply. See Section 5.0.

### **5.3 After Transfer**

1. The Off-loader and Receiver demob the transfer operation following the steps below.

- ✓ Drain and purge hoses before disconnecting.
- ✓ Close valves, cap ends, and perform disconnects over drip pans or liners.
- ✓ Clean liners with absorbent material and manage as oily waste.
- ✓ Check the area for spills and report spills immediately.
- ✓ Verify the lowermost drain and outlets of the truck are not leaking.

NOTE: For chemical transfers where CIC is both the Off-loader and Receiver, a checklist must be completed and both the Off-loader and Receiver must sign the form.

### **6.0 Records Retention**

- Fluid transfer records may be required by facility/operation

### **7.0 Key Documents/Tools/References**

- Fluid Transfer Checklist (see attachment for an example)
- Tier 2 procedure 'Compliance with Oil Spill Prevention Regulations' (UPS-US-AK-ALL-ALL-HSE-DOC-01838-2)
- Fluid Transfer Guidelines as outlined in the 'North Slope Environmental Field Handbook' (UPS-US-AK-ALL-ALL-HSE-DOC-00060-2)
- Surface Liner/Drip Pan Use Procedure (UPS-US-AK-ALL-ALL-HSE-DOC-00046-2)

## Revision Log

Revision Date	Authority	Custodian	Revision Details
December 14, 2001	George Snodgrass	Brad Chastain	Initial Version
January 24, 2002	George Snodgrass	Brad Chastain	Revision to clarify exemptions, one-person transfer directions.
February 29, 2004	Stan Gates	Kymber Dixon	Administrative Change. Authority changed due to reorganization.
January 15, 2006	Len Seymour	Mike McDaniel / John Booth	Triennial review
September 27, 2007	Len Seymour	Mike McDaniel / John Booth	Replaced reference to ASA with SOC (S.Kane).
September 1, 2009	Len Seymour	Mike McDaniel / Chuck Wheat	Revision to clarify responsibilities, remove substitution of unit work permit for fluid transfer procedure, better define "closed system," and changing checklist from a fillable form to a reference format; added changes from ACT reviews.
February 11, 2013	Tom Barrett	Eppie Hogan	Revision includes change of Authority and Custodian roles; removed table listing 'oils / non-oils'; added reference to Tier 2 spill prevention procedure; eliminated or combined redundant requirements; clarified that the use of the fluid transfer checklist is mandatory, but recordkeeping is optional. AMOC-All Alaska-1237

# EXAMPLE

## Fluid Transfer Checklist

### ***Before Transfer***

Pre-job meeting between Receiver and Off-loader. For common, routine transfers with nothing new or unusual, this may be done via radio. Otherwise, a face-to-face meeting is required. If receiving tank capacity is less than the delivery truck fluid volume, then Receiver must be present throughout transfer. For multiple-load transfers, only one pre-job discussion is required if communication and logistics for all loads is addressed.

### **Fluid Transfer Lead**

1. Evaluate hazards from other activities in the area.
2. Inform other participant in the transfer of location, appearance, and/or sound of high level alarms.
3. Ensure Fluid Truck Driver knows correct tank and connection location.

### **Receiver**

1. Confirm the receiving tank has adequate capacity (calculate ullage).
2. Verify that the fluid is correct (right fluid, right concentration, no unexpected additives or contaminants) and paperwork identifies correct receiving tank.
3. Have adequate spill response materials (sorbents, shovels, visqueen, etc.) at hand.
4. Monitor the liquid level in fuel tanks without overfill protection devices.

### **Off-loader** (or truck driver if transferring to truck tank)

1. Place adequately sized liners at connections & critical transfer equipment.
2. Verify tank ullage can accommodate delivery volume.
3. Check condition of transfer equipment:
  - ✓ Valves are in correct position
  - ✓ Piping and hoses in good operating condition
  - ✓ Unused manifolds and valves blinded or capped
  - ✓ Equipment in good condition, correct pressure ratings
  - ✓ Grounding straps installed
  - ✓ Connections properly installed, and tightened or wired
  - ✓ Gaskets, fittings, and hatch and flange bolts tight
  - ✓ Lowermost drain and outlets of truck's oily fluid tank not leaking
  - ✓ Tiger tank demister drained, sump/vent bucket empty
3. Check facility, tank ID, product on tank label against delivery ticket and verify fill point.
4. Tank Truck Loading Areas: confirm secondary containment > largest truck compartment.

Establish communication method (hand signal, radio) and test.

Receiver & Off-loader must both know emergency shut off procedure & both able to stop the transfer.

## ***During Transfer***

### **Truck to receiving tank with less capacity than volume of fluid on truck:**

#### **Receiver**

1. Present throughout transfer. Low flow at start and monitor level throughout transfer
2. Reduce flow at end of transfer and direct Off-loader to stop when target level is reached

#### **Off-loader**

1. Follow the Receiver's direction to start and stop transfer, and alter flow rate.
2. Monitor connections, valves, hoses and flanges for leaks, and stop transfer if a leak occurs.

### **Truck to receiving tank with more capacity than volume of fluid on truck**

#### **Receiver**

1. Approve Off-loader to start transfer, and use reduced flow at start.
2. Be present at start for uncommon transfers or changes to personnel, equipment, etc.

#### **Off-loader**

1. Follow Receiver's direction and notify them of problems, or if something unexpected occurs.
2. Monitor connections, valves, flanges and hoses and stop transfer if a leak occurs.
3. Notify Receiver when transfer is complete.

### **Stationary tank to a truck**

#### **Receiver** (truck driver)

1. Follow Off-loader's direction. Stop and radio Off-loader if there are problems, or something unexpected occurs.
2. Monitor connections, valves, and flanges for leaks, and stop transfer if a leak occurs.

#### **Off-loader**

1. Initiate transfer using reduced flow at start.

### **Temporary tank to permanent tank or vessel, or permanent tank, vessel or sump to temporary tank**

1. Area operator may function as both Off-loader and Receiver
2. If pumping rate is adjustable, start transfer at low flow until confirm there are no problems.
3. Monitor connections, valves, hoses and flanges for leaks, and stop transfer if a leak occurs.
4. Throughout transfer, routinely check that transfer is proceeding with no problems.

### **Circulated Downhole (includes well service activities involving portable or temporary tanks, excludes activities contained within drilling and workover rigs)**

1. Monitor connections, valves, and flanges for leaks, be prepared to stop transfer if leaks occurs.
2. If fluids are going to bleed trailer, truck, or tank, monitor fluid level in receiving tank.

## ***After Transfer***

### **Off-loader and Receiver**

1. Drain and purge hoses before disconnecting.
2. Close valves, cap ends, and perform disconnects over drip pans or liners.
3. Clean drip pans or liners with absorbent and bag as oily waste
4. check area for spills, and report all spills immediately