SOP-GEN-008 Bunkering

1.0 Introduction

The purpose of this procedure is to standardize the fuelling procedures aboard TDI-Brooks Vessels.

2.0 Definitions

Bunkering- Common marine term for loading fuel oils, sludge, waste oil or liquid cargoes to or from a vessel.

Bunkering Checklist- Inspection checklist completed and approved by both the vessel PIC and the Supplier/ Receiver PIC before transfer may begin.

Bunker Delivery Note (BDN) - When a fuel supplier delivers fuel to a vessel, he is required to supply a Bunker Delivery Note and a sample of the fuel being delivered. This is a requirement of **MARPOL Annex VI Regulation 18** – Fuel Oil Availability and Quality. At a minimum, the BDN should contain: Name and IMO number of receiving ship, port name, date of delivery, name address and telephone number of marine fuel supplier, product name, quantity in metric tons, density and sulfur content.

Loading Plan- The Bunker Loading Plan determines the quantity of fuel needed, plans the filling sequence and notes the final tank levels to be expected upon completion of fueling. The Master is responsible for completing this plan and providing a copy to the (PIC).

Declaration of Inspection- The Bunkering Checklist section must be completed and

signed and a copy given to the Supplier/ Receiver PIC before the transfer begins. After the transfer is complete, the Declaration of Inspection is completed and signed by both PICs and a copy of the completed DOI is given to the Supplier/ Receiver.

Fuel Sample- When a fuel supplier delivers fuel to a vessel, he is required to supply a Bunker Delivery Note and a sample from the fuel being delivered. Upon completion of the bunker operations, the fuel sample is to be sealed and signed by the supplier's representative and the Master or PIC. This is a requirement of **MARPOL Annex VI Regulation 18** – Fuel Oil Availability and Quality.

Fuel Sample Storage- Fuel samples are to be kept in a safe storage location, outside the ship's accommodation and where personnel would not be exposed to released vapors. It should be a sheltered location not subject to elevated temperatures. Samples are to be kept for 12 months or until the fuel has been consumed, whichever comes first.

Job Safety Analysis (JSA)- A Job Safety Analysis is required before bunkering may begin. All persons who participate in the bunkering process, including fuel delivery personnel, must participate to ensure that every person involved has a clear understanding of each team member's responsibilities.

Oil Transfer Procedures (OTP) - Each vessel has a vessel specific SOP containing the applicable steps, procedures, instructions, vessel specific tank plans, valve and piping arrangements.

Person In Charge (PIC)- The PIC by regulation must be a licensed Topside or engineering officer. For TDI-Brooks vessels this is usually the Chief Engineer, or in his absence a Licensed Officer.

Supplier/ Receiver Person in Charge- Just as TDI-Brooks has a PIC of the vessel side of the operation, the Supplier/ Receiver will have a PIC in charge of their side of the operation.

Pre-Transfer Conference- The Persons in Charge from TDI-Brooks and the Receiver/ Supplier meet with the bunkering team to discuss and agree on the points in the Pre-Transfer Conference.

3.0 Responsibilities

The **Person In Charge (PIC)** is responsible for ensuring:

- All steps/ documents are completed properly and in order.
- All persons participating in the bunkering understand their responsibilities.
- He/ she or a qualified alternate PIC remains physically on site and nearby for entire bunker procedure.
- Environmental spills are reported immediately to the DPA, Port Captain, Port Engineer & appropriate authorities.
- Will complete all manual soundings of the designated loading fuel tanks during the entire fuel transfer or designate a qualified engineer to do the same.
- All paperwork is filed correctly.
- A work order is created in the Quality and Compliance program.
- Samples and records are retained for the appropriate amount of time.

The **Deck Rover** is responsible for monitoring the following continuously for leakage, spillage or damage during the bunkering operation:

- Moorings and gangway- allow for tide, wind, weather conditions
- Manifolds
- Hoses and connections
- Overflow valves and containment areas

The **Point of Transfer Watch** is responsible for monitoring the point of transfer manifold and connections for the entire duration of the transfer.

4.0 References

US Flag Vessels: 33 CFR 155.700 through 155.820
Transfer Procedures, Personnel, Equipment and Records: 33 CFR 155.720 and 155.820
Declaration of Inspection: 33 CFR 156.150 and 46 CFR 35-30
Person In Charge: Duties/ 46 CFR 35.35-35, Designation/ 33 CFR 155.700 and Qualifications/ 33 CFR 155.710

International Flag Vessels:
Fuel Sample and Bunker Deliver Note: MARPOL Annex VI Regulation 18 – Fuel Oil Availability and Quality
SOPEP Plans: MARPOL Annex I Regulation 37- Shipboard Oil Pollution Emergency Plan

Additional state or local regulations may also apply.

5.0 Procedures

There are several required forms and steps to be completed for bunkering and they must be done in a specific order. These steps are outlined with instructions and the required forms are combined in the **Unified Bunkering Form.**

The **Port Engineer** has defined the minimum level of fuel to be retained onboard to be 20% of the total fuel capacity. The **Chief Engineer** will monitor the fuel level onboard at all times to ensure that the minimum fuel is not below the set value.

6.0 Vessel to Vessel Fuel Oil Transfers

- Fuel oil for the vessels is expected to come from a land-based facility or truck.
- **Vessel to vessel fuel oil transfers are not allowed**. In the rare event that a vessel to vessel transfer is needed, a Management of Change must be completed by the vessel and approved by thePort Captain.

7.0 Oil Spill Preparedness and Response

Fuel Spills contained on the deck or dock:

- The fuel transfer must be stopped and cleaned up immediately to prevent the spill from entering the environment. Utilize all available resources to contain the spill to the immediate area. This is to include the vessels SOPEP drums which include absorbent booms, pads, scupper blocks, kitty litter, etc.
- Fuel Transfers may not resume until the cleanup has been completed and the problem is corrected.
- Report the spill to the Master and/ or Chief Engineer

Fuel Spills entering the environment:

- The fuel transfer must be stopped and clean up must commence immediately.
- Report the Spill to the Master and/ or Chief Engineer.
- Activate the TDI-Brooks Non-Tank Vessel Response Plan or SOPEP as appropriate to operations (domestic US or foreign).
- Notify the appropriate authorities (found in the NTVRP and SOPEP).
- Spills of either type are to be entered into the Quality & Compliance program as an incident.
- Spills into the environment automatically activate the vessel SOPEP or NTVRP plan, which requires immediate notification of the DPA and appropriate authorities. The PIC is responsible for ensuring that environmental spills are reported immediately.

8.0 Reporting

Bunkering operations are to be recorded as a Work Order in the Maintenance

program following this naming protocol:

Title: **"BUNKERING-(TYPE)"** Types would include FUEL OIL, SLUDGE or WASTE OIL

9.0 Records and Sample Retention Times

Staple together the Unified Bunkering Form and the Bunker Delivery Note and file in a manner so that it can be correlated to the Oil Record Book Entry.

The **transfer delivery note** is to be retained for **three years**.
All other documents are internal and are to be kept for a minimum of **three years.**
Fuel sample is to be retained for **one year or until the fuel is consumed**, whichever is greater.

10.0 Bunkering Hand Signals