

Bunker Checklist

Alcohol Based Series

Multiple Trucks to Ship bunker operations

Version M

Bunker operations that are supervised by
a Bunker Facility Operator

The different versions of the IAPH Truck to Ship bunker checklists are based upon the number of involved trucks, location and supervision during the alcohol based fuel bunkering as per table below:

Bunker operation	Supervision	Location	Checklist to be used
Single Truck to Ship	BFO	Bunker facility	TTS version A
Single Truck to Ship	Receiving vessel	Site outside a terminal	TTS version B
Multiple Trucks to Ship	BFO	Bunker facility	TTS version M
Single Truck to Ship	BFO	Terminal	TTS version T

This document is the Multiple Trucks to Ship bunker checklist version M for alcohol based fuels

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Who is this checklist for?

This document is **version M** of IAPH's Truck to Ship bunker checklist series for alcohol based fuels using multiple trucks. This checklist is suitable for flammable and toxic liquids, among others methanol, bio-methanol, e-methanol, ethanol and bio-ethanol.

This version is for the Bunker Facility Operator (BFO) and the receiving vessel. It has been developed specifically for the bunkering of vessels using multiple trucks connected to a multiple manifold rig at a bunker facility under supervision of the Bunker Facility Operator (BFO). The BFO is fully responsible for the land based activities of the bunkering, the trucks operations and bunkering area.

Safe bunker operations depend on good closed-loop communication between all parties involved in the bunker operation, and on compliance with the agreed safety procedures at all stages. This bunker checklist helps to ensure that all appropriate checks are formally agreed, carried out and recorded.

The checklist has been developed in coöperation with maritime industry partners that have expertise on Multiple Truck-To-Ship bunkering of vessels with alcohol based fuels. The checklist mitigates the risk of the flammable and toxic nature of the liquid fuel.

The bunker process is divided into six phases and the checklist has therefore six main parts:

Part A – Preparation phase

Part B – Pre-operation phase

Part C – Alignment and agreement phase

Part D – Connection testing phase

Part E – Transfer phase

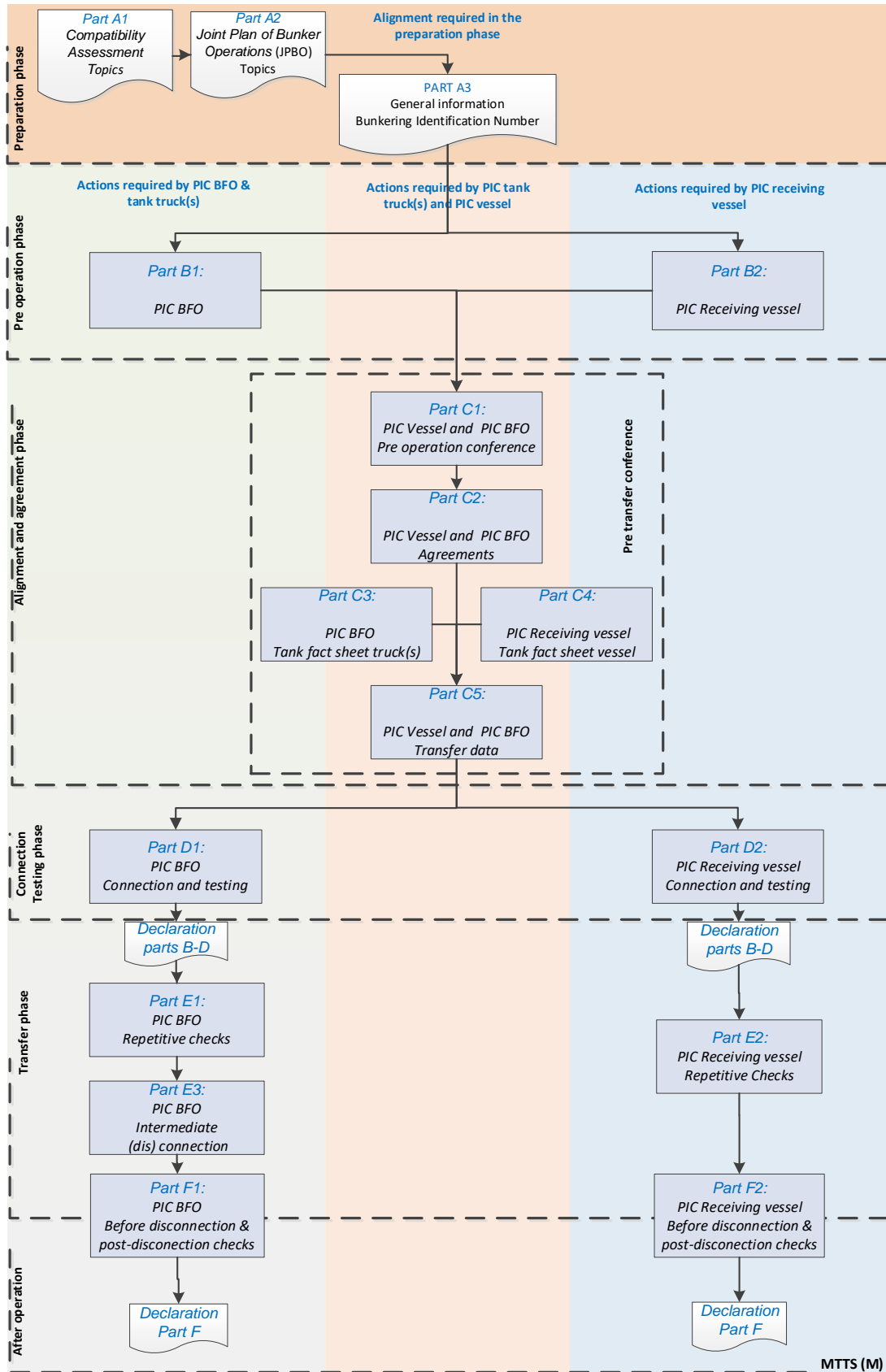
Part F – Post-operation phase

Used abbreviations

BFO	Bunker Facility Operator
BIN	Bunker Identification Number
JPBO	Joint Plan of Bunker Operations
BMP	Bunkering Management Plan
ESD	Emergency Shut Down
MTTS	Multiple Trucks to Ship
(P)ERC	(Powered) Emergency Release Coupling
PIC	Person in Charge
PPE	Protecting Personal Equipment
QCDC	Quick connect and disconnect coupling
SIMOPS	Simultaneous Operations
TTS	Truck to Ship

Schematic overview of the bunker process

Below is an overview of the specific MTTs bunker process in which the Bunker Facility Operator has supervision.



Instructions for completing the Truck-to-Ship bunker checklist

The checklist consists of six main parts, A - F. The main parts are divided into multiple sub-parts for individual completion by either Bunker Facility Operator (BFO), Person in Charge (PIC) of the receiving vessel, or the site operator. In Part C the sub-parts are completed together during the pre-transfer conference.

Part A: Preparation phase

In the preparation phase the bunker facility operator (BFO) together with the receiving vessel operator shall start a compatibility assessment. **Part A1** with topics for the compatibility check can be used to check if all issues are addressed.

The BFO and vessel operator then agree on who will draft the Joint Plan for Bunker Operations (JPBO). The agreed party will draft the JPBO based on the operation manual of the trucks, the bunker management plan of the involved vessel, the site- and local specific information and the agreements made during the compatibility check. **Part A2** with topics for the Joint Plan of Bunker Operations can be used to check if all items are addressed. The agreed party shall send the JPBO to all parties involved.

If there are any outstanding issues this should be explained in the communication for pre-arrival review by the representatives.

Upon receipt of the JPBO, parties involved shall complete **part A3** with the general bunker information and an agreed unique 'Bunker Identification Number' (BIN). This BIN shall be entered in the top right corner on each sub-part throughout the checklist.

Part B: Pre-operation phase

The person in charge (PIC) of the BFO shall complete **part B1**. The PIC of the receiving vessel shall complete **part B2**. Both parties then review and finalize the JPBO. Copies of part B1 and B2 shall be exchange with the other parties a.s.a.p., but not later than the pre-transfer conference.

Part C: Alignment and agreement phase

Before the operation starts the PIC of the BFO and the PIC of the receiving vessel shall meet to conduct a pre-transfer conference. They shall jointly complete **part C1** and the agreement sheet **part C2**. The PIC of the BFO shall complete **part C3** and share it with the PIC receiving vessel. The PIC of the receiving vessel shall complete **part C4** and share it with the PIC BFO. To finalize the pre-bunkering phase the PIC's shall jointly complete **part C5**.

Part D: Connection testing phase

Before the operation starts the PIC of the BFO shall complete **part D1**, the PIC of the receiving vessel shall complete **part D2**.

Pre-transfer declaration

Before transfer, the PICs of the BFO and the receiving vessel shall undersign the items checked in parts B - D.

Part E: Transfer phase

The PIC of the BFO shall complete the repetitive checks in **Part E1** at the agreed intervals. The PIC of the receiving vessel shall complete the repetitive checks in **Part E2** at the agreed intervals. Each involved party shall have the record available for review by another party.

Before disconnection of an empty truck and the connection of a new truck during the bunkering process (if applicable) the PIC of the BFO shall complete the checks in **part E3** “Intermediate (dis)connection”.

Part F: Post-operation phase

At the end of the transfer, before disconnection, the PIC of the BFO shall complete the checks “Before disconnection” of **part F1**, and the PIC of the receiving vessel shall complete the checks “Before disconnection” of **part F2**. When they have confirmed to each other that their pre-disconnection checks are satisfactory, they may disconnect. After disconnection the PIC of the BFO shall complete the **part F1** checks “Completion of operation”, the PIC of the receiving vessel shall complete the **part F2** checks “Completion of operation”.

Post-operation declaration

After transfer the PICs of the BFO and the receiving vessel shall undersign the items checked in part F.

Special notes

Checklist code

The codes that are used in the checklist columns indicate:

- A To be entered in the agreement sheet: Part C2
- R Subject to a repetitive check: Part E1, E2, E3
- JPBO See the Joint Bunker Management Plan for details

If the “ *Not applicable*” tick box is used, then all the involved parties must agree that the relevant safeguard is not applicable.

When unable to check the Yes box

If during the use of the checklists in phase B – F it isn’t possible to satisfactorily tick a “Yes” box while the check is applicable, then the issue shall be brought to the immediate attention of the other parties and corrected before the start of the operation. If it is not possible to correct the issue, then a further joint review should be undertaken to confirm whether the bunkering can safely proceed and whether additional mitigations are required to be agreed.

Agreed Physical Quantity

To avoid any confusion during the operation, in Part C5 an agreed decision shall be made on the physical quantity unit:

Agreed Physical Quantity Unit (PQU)
Note the agreed Physical Quantity Unit (PQU): <input type="checkbox"/> m ³ or <input type="checkbox"/> tonnes or _____

In this block the agreement is noted on the unit for quantity or volume that will be used during the exchange of information on the quantity or volume.

Part A1 Preparation - Compatibility assessment topics

The list of topics is an unlimited open guidance and can be expanded with other topics.

<p>Local and Site requirements:</p> <ul style="list-style-type: none"> - Local regulations and approvals - Site electrical equipment in the Hazardous zone - Control zones and safety measures - Controlled access to safety and hazardous zone - Approved safety distance to public (external safety) - Maximum permitted load of the quay or jetty <p>Mooring:</p> <ul style="list-style-type: none"> - Mooring analyses - Mooring points - Mooring loads - Mooring lines - Mooring gear load limits (bollards, chocks, rollers etc.) - Fendering - Hull form flat side - Overall dimensions - Bridge wings - Freeboard <p>Equipment:</p> <ul style="list-style-type: none"> - Approved transfer equipment - Electrical insulation - International shore connection - Crane and crane reach - Hoses - Hose support equipment - Vessel bunker manifold - Truck connecting manifold - Bonding truck connecting manifold - Deluge System - Drip trays, gutters 	<p>Manifold:</p> <ul style="list-style-type: none"> - Distancing - Spacing, orientation - Height and strength - Layout - Instrumentation - Connectors and connections - Connections, size and design - QCDC - Spill containment <p>Connection:</p> <ul style="list-style-type: none"> - Lifting arrangements - Bunker hose configuration - Distancing (between manifold and bunkerstation - height and length) - ESD, ESD interlink - (P)ERC / Dry break away coupling <p>Bunkering and safety measures:</p> <ul style="list-style-type: none"> - Freeboard differences during bunkering - Draft and tidal changes - Weather and Wave conditions - Bunkering procedures including purging and tests - Transfer data - Maximum allowable parameters - Vapour management - Hazardous area classification and control - SIMOPS - Supervision by BFO 	<p>Trucks:</p> <ul style="list-style-type: none"> - Routing at the site - Shore bunker location arrangement - Shore waiting location - Bonding of trucks - Engine switch off - Pump - Weels chock measures <p>People:</p> <ul style="list-style-type: none"> - Personnel Instruction - Incident response instruction and training - Familiarity of personnel with safety areas and safety measures during bunkering - Emergency stop signal and shutdown procedures - Organisation - Roles and Responsibilities - PIC appointment <p>Incident response:</p> <ul style="list-style-type: none"> - Fire control plan - Emergency Response procedures - Contingency planning <p>Communication:</p> <ul style="list-style-type: none"> - Joint Plan of Bunker Operations (JPBO) - Means of communication - Communication procedures and contact - Details involved parties - Language - Communication PICs Truck(s) and Ship - Data communication between safety and ESD systems
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Part A2 Preparation - Joint Plan of Bunker Operations topics

The list of topics is an unlimited open guidance and can be expanded with other topics.

<p>General</p> <ul style="list-style-type: none"> - Unique Bunker Identification Number (BIN) - Purpose and scope of the JPBO - Report of the Compatibility check <p>Transfer system</p> <ul style="list-style-type: none"> - ESD link - ESD test - Emergency Release System - Spill /gas detection and control systems <p>Roles and Responsibilities</p> <ul style="list-style-type: none"> - Organization - Responsibilities BFO-PIC vessel, truck drivers and manifold crew in charge - Mandatory permissions <p>Bunker operation</p> <ul style="list-style-type: none"> - Approach - Mooring - Shore bunker location arrangement - Shore waiting area trucks - Handling and connection of bunker hose and vapor return hose (if applicable) - Hose Saddle, Deluge System, Manifold Connection, Drip trays, gutters. - Truck connection manifold, connection of trucks - Connection, pressure test, purging, cooling down, gassing up - Intermediate change of trucks - Environmental Operating Limits - Sequence of actions in case of a spill - PPE, personal safety - Draining, purging disconnecting, inerting - Post transfer procedures - Unmooring 	<p>Vessels details</p> <ul style="list-style-type: none"> - Description of the involved vessel - Specification of the vessel - Access to the vessel and access control of safety zones (including supervision) <p>BFO and truck details</p> <ul style="list-style-type: none"> - Description of the BFO - Description of the involved trucks - Specification of the involved trucks - Access control of safety zones (including supervision) around the trucks <p>Bunker preparation</p> <ul style="list-style-type: none"> - Mooring analyses report, mooring plan - Description of location, bunkering zones - Description of the truck routing on the site - Description of safety zones - Fendering / mooring - Checklist to be used, latest version - Safety meeting - Bunker transfer: equipment and procedures - Energy carrier supply specification - Volumes (Quantities and characteristics) - Communication (e.g. language), contact details - SIMOPS - Control zones, safeguards <p>Emergencies</p> <ul style="list-style-type: none"> - Emergency preparedness and response - Emergency shutdown system - Dry break away coupling
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Part A3
General information and bunkering identification number

Bunker Identification Number (BIN): _____

JPBO version number: _____

Planned date and time: _____

Port and Berth: _____

Applicable fuel: Methanol / _____

Receiving vessel: _____

Bunker Facility Operator: _____

BIN: _____

Part B1
Pre-operation - Bunker Facility Operator

B1	Check	Status	Code	Remarks
1	Required permissions are granted and observed	<input type="checkbox"/> Yes		
2	Firefighting equipment is ready for use	<input type="checkbox"/> Yes		
3	Sufficient area illumination	<input type="checkbox"/> Yes	A - R	
4	The trucks are able to move under their own power in a safe and non-obstructed direction	<input type="checkbox"/> Yes	R	
5	Access to the site is controlled	<input type="checkbox"/> Yes	R	
6	The bunker location is accessible for the trucks	<input type="checkbox"/> Yes		
7	A safe emergency escape route is established	<input type="checkbox"/> Yes		
8	Site personnel is acquainted with the restricted area and applicable restrictions	<input type="checkbox"/> Yes	A	
9	Appropriate personal protective equipment is identified and available	<input type="checkbox"/> Yes		
10	Site's emergency response team is instructed.	<input type="checkbox"/> Yes		
11	Underground or subterranean waterdrains in the quay surface in the hazardous and safety zone are closed	<input type="checkbox"/> Yes		
12	JPBO, supervision and responsibilities are known by the involved truck drivers	<input type="checkbox"/> Yes	JPBO	
13	Allocation for bunkering and arrangement of the trucks and additional equipment is conform to JPBO	<input type="checkbox"/> Yes	JPBO	
14	The restricted area is free of unauthorized persons, objects, and ignition sources	<input type="checkbox"/> Yes	R	
15	Means to avoid backfilling are in place	<input type="checkbox"/> Yes	R	
16	Bunker pumps are ready for use	<input type="checkbox"/> Yes		<input type="checkbox"/> Not applicable
17	The trucks are electrically grounded and the wheels are chocked or mechanically blocked	<input type="checkbox"/> Yes	R	

18	Truck engines are switched off during the connection, purging and disconnection of the bunker hoses	<input type="checkbox"/> Yes		<input type="checkbox"/> <i>Not applicable</i>
19	Control valves are well maintained and in good working order	<input type="checkbox"/> Yes		
20	Waiting area trucks is established in accordance with JPBO arrangement	<input type="checkbox"/> Yes	JPBO	
21	Safety area around waiting trucks is established in accordance with JPBO	<input type="checkbox"/> Yes	JPBO	
22	Safety distances between trucks are established	<input type="checkbox"/> Yes	JPBO	
23	Multi manifold rig and additional equipment is installed and leak tested	<input type="checkbox"/> Yes		
24	Multi manifold rig is grounded in accordance with JPBO	<input type="checkbox"/> Yes	JPBO	
25	Multi manifold rig is secured to assure the proper working of the dry break away coupling	<input type="checkbox"/> Yes		<input type="checkbox"/> <i>Not applicable</i>

BIN: _____

Part B2
Pre-operation - PIC receiving vessel

B2	Check	Status	Code	Remarks
1	Mooring arrangement is effective	<input type="checkbox"/> Yes	R	
2	Firefighting equipment is ready for use	<input type="checkbox"/> Yes		
3	Fire control plans are readily available	<input type="checkbox"/> Yes		
4	International Shore Fire Connection is available.	<input type="checkbox"/> Yes		
5	Sufficient area illumination	<input type="checkbox"/> Yes	A - R	
6	The receiving vessel can sail under its own power in a safe and non-obstructed direction	<input type="checkbox"/> Yes	R	
7	The restricted area is free of other ships, unauthorized persons, objects, and ignition sources	<input type="checkbox"/> Yes	R	
8	Vessel entrance is controlled, and proper safety information is provided at the gangway	<input type="checkbox"/> Yes	R	
9	Safety measures within the safety area are observed	<input type="checkbox"/> Yes		
10	External doors, portholes and accommodation ventilation inlets are closed as per operations manual	<input type="checkbox"/> Yes	R	
11	Appropriate personal protective equipment is identified and available	<input type="checkbox"/> Yes		
12	Safety shower and eyewash are ready for use	<input type="checkbox"/> Yes		
13	Spill arrangements are effective and suitable for the applicable fuel	<input type="checkbox"/> Yes		
14	Scuppers and save-alls are plugged, spill trays are empty and drains are closed.	<input type="checkbox"/> Yes		
15	Inert gas system is in good working order	<input type="checkbox"/> Yes		
16	Control valves are well maintained and in good working order	<input type="checkbox"/> Yes		
17	Unused bunker connections are blanked and fully secured	<input type="checkbox"/> Yes		

18	Planned SIMOPS are in accordance with the safety procedures and risk mitigation in ship's operational documentation and JPBO	<input type="checkbox"/> Yes	R - JPBO	<input type="checkbox"/> <i>Not applicable</i>
19	SIMOPS will be compliant with local regulations and restrictions	<input type="checkbox"/> Yes		<input type="checkbox"/> <i>Not applicable</i>
20	Mandatory signalling for bunkering is shown	<input type="checkbox"/> Yes	A	<input type="checkbox"/> <i>Not applicable</i>

BIN: _____

Part C1
Alignment and Agreement - PICs BFO and receiving vessel

C1	Check	BFO	Vessel	Code	Remarks
1	Present weather and wave conditions are within the agreed limits	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	A - R	
2	JPBO procedures are known by personnel involved	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	JPBO	
3	Access between the ship and shore is safe and controlled	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	R	
4	Operation supervision and watchkeeping is adequate	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		
5	Means of communications agreed upon	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	A - R	
6	Emergency stop signal and shutdown procedures have been agreed upon, tested, and explained to all personnel involved.	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	A	
7	Emergency procedures and plans and the contact numbers are known to the persons in charge	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		
8	Predetermined restricted areas are established and appropriate signs marking these areas are in place	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	A - R	
9	Agreed safety measures within the safety area are in place including the use of proper PPE	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		
10	Measures for the prevention of falling objects are observed	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		<input type="checkbox"/> Not applicable
11	Safety Data Sheets are available	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		
12	Requirements concerning ignition sources and toxicity are observed	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	R	
13	Bunker system gauges, high level alarms and high-pressure alarms are agreed upon	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	R	
14	Sampling tools agreed upon	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		<input type="checkbox"/> Not applicable
15	Vapour management agreed upon	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		<input type="checkbox"/> Not applicable
16	ESD system agreed upon. Vessel PIC can activate ESD trucks, BFO PIC can activate ESD vessel	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	A	
17	Emergency release system agreed upon	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	A	<input type="checkbox"/> Not applicable

18	Adequate electrical insulation for the bunker transfer equipment is in place	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	A	<input type="checkbox"/> <i>Not applicable</i>
19	Competent authorities are notified of the start of bunker operations as per local regulations	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		<input type="checkbox"/> <i>Not applicable</i>
20	Safety procedures and risk mitigation for SIMOPS are conform to the ship's operational documentation and the JPBO	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	JPBO - R	<input type="checkbox"/> <i>Not applicable</i>

BIN: _____

Part C2
Alignment and Agreement - PICs BFO and receiving vessel

C2	Reference to check	Description	Agreement
1	A3	Latest version of the JPBO	Reference: Date / version:
2	C1-18	Electrical insulation	Method:
3	C1-8	Control zones	Reference: Agreed signs:
4	C1-1	Weather and wave limitations	Limits:
5	B1-3 B2-5	Bunker area illumination	Method:
6	C1-5	Communication	VHF / UHF Channel: _____ Language: _____ Primary System: _____ Backup System: _____
7	C1-6	Emergency stop signal and shutdown procedure	Reference: Alarm signal:
8	C1-16 C1-17	ESD system	System: Link: Closing time ESD valve receiving ship: _____ seconds Closing time ESD valve Trucks: _____ seconds ERC <input type="checkbox"/> Yes Dry Break Coupling <input type="checkbox"/> Yes
9	B2-20	Signalling	Mandatory signalling during bunkering:

BIN: _____

Part C3
Alignment and Agreement - PIC Bunker Facility Operator

Tank factsheet truck

Status prior to bunker operations			
C3		Tank truck ID:	
1	Quantity per tank:		m ³
2	Temperature:		°C / °F ¹⁾
3	O2 %		%

¹⁾ delete as appropriate

BIN: _____

Part C4
Alignment and Agreement - PIC receiving vessel

Tank factsheet receiving vessel

Status bunker tanks prior to bunker operations						
C4		Tank:	Tank:	Tank:	Tank:	
1	Present fuel quantity bunker tank(s):					m ³
2	Temperature:					°C / °F ¹⁾
3	O2%					%
4	Remaining capacity for bunkering:					m ³
5	Inert gas:	<input type="checkbox"/> Nitrogen		Other:		

¹⁾ delete as appropriate

BIN: _____

Part C5
Alignment and Agreement - PICs BFO and receiving vessel

Transfer Data

C5		Agreed Physical Quantity Unit (PQU)	
1	The agreed Physical Quantity Unit (PQU):	<input type="checkbox"/> m ³ or <input type="checkbox"/> tonnes or _____	

C5	Agreed transfer data	Bunker Facility Operator	Receiving vessel
2	Temperature of the fuel during bunkering:		°C / °F ¹⁾
3	Volume of fuel to be bunkered:		m ³
4	Filling limit bunker tanks:		%
5	Available tank capacity is sufficient for bunker volume:	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
6	Starting rate:		PQU per hour
7	Max transfer rate:		PQU per hour
8	Topping up rate:		PQU per hour
9	Work pressure at manifold:		bar / psi ¹⁾ (rel)
10	Max pressure at manifold:		bar / psi ¹⁾ (rel)
11	Bunker line work pressure:		bar / psi ¹⁾ (rel)
12	Max pressure bunker line:		bar / psi ¹⁾ (rel)

1) delete as appropriate

Simultaneous operations

C5 13	Agreed simultaneous bunker operations (SIMBOPS) ¹⁾	Bunker Facility Operator	Receiving vessel
	<input type="checkbox"/> <i>Not applicable</i>	<input type="checkbox"/> Agreed	<input type="checkbox"/> Agreed

¹⁾ Note that for oil bunker operations a separate bunker checklist should be completed

C5 14	Agreed simultaneous operations during bunkering (SIMOPS)	Bunker Facility Operator	Receiving vessel
	<input type="checkbox"/> <i>Not applicable</i>	<input type="checkbox"/> Agreed	<input type="checkbox"/> Agreed

C5 15	Restrictions in Bunker / Cargo operations due to SIMBOPS or SIMOPS	Bunker Facility Operator	Receiving vessel
	<input type="checkbox"/> <i>Not applicable</i>	<input type="checkbox"/> Agreed	<input type="checkbox"/> Agreed

BIN: _____

Part D1
Connection Testing - PIC Bunker Facility Operator

D1	Check	Status	Code	Remarks
1	All means of communication are tested	<input type="checkbox"/> Yes	R	
2	Bunker transfer equipment is confirmed: <ul style="list-style-type: none"> - in good condition - of the appropriate type - sufficiently supported - properly fitted with gaskets/seals - lined-up correctly - properly rigged - secured to the manifolds - sufficiently supported 	<input type="checkbox"/> Yes		
3	Gas detection systems are tested and operational	<input type="checkbox"/> Yes		
4	Emergency stop signals and shutdown procedures are tested	<input type="checkbox"/> Yes		
5	Bunker system gauges, high level alarms are operational	<input type="checkbox"/> Yes		
6	Safety and control devices on fuel installations are checked and working properly	<input type="checkbox"/> Yes		
7	Truck ESD arrangements, including automatic valves, are tested and ready for activation	<input type="checkbox"/> Yes		
8	ESD inter-linked connections are established and tested conform the JPBO	<input type="checkbox"/> Yes	JPBO	<input type="checkbox"/> Not applicable
9	ESD's manual activation is tested	<input type="checkbox"/> Yes		
10	Control valves are in the correct initial positions	<input type="checkbox"/> Yes		
11	Vapour return system tested and ready for use	<input type="checkbox"/> Yes		<input type="checkbox"/> Not applicable
12	Transfer system tested and ready for use	<input type="checkbox"/> Yes		
13	Truck engine is switched off for bunkering	<input type="checkbox"/> Yes		<input type="checkbox"/> Not applicable
14	Other parties informed on ready to bunker	<input type="checkbox"/> Yes		

BIN: _____

Part D2
Connection Testing - PIC receiving vessel

D2	Check	Status	Code	Remarks
1	All means of communication are tested	<input type="checkbox"/> Yes	R	
2	Bunker transfer equipment is confirmed: <ul style="list-style-type: none"> - in good condition - of the appropriate type - sufficiently supported - properly fitted with gaskets/seals - lined-up correctly - properly rigged - secured to the manifolds - sufficiently supported 	<input type="checkbox"/> Yes		
3	Gas detection systems are tested and operational	<input type="checkbox"/> Yes		
4	Emergency stop signals and shutdown procedures are tested	<input type="checkbox"/> Yes		
5	Bunker system gauges, high level alarms are operational	<input type="checkbox"/> Yes		
6	Safety and control devices on fuel installations are checked and working properly	<input type="checkbox"/> Yes		
7	Ship's ESD arrangements, including automatic valves, are tested and ready for activation	<input type="checkbox"/> Yes		
8	ESD inter-linked connections are established and tested conform the JPBO	<input type="checkbox"/> Yes	JPBO	
9	ESD's manual activation is tested	<input type="checkbox"/> Yes		
10	Control valves are in the correct initial positions	<input type="checkbox"/> Yes		
11	Vapour return system tested and ready for use	<input type="checkbox"/> Yes		<input type="checkbox"/> <i>Not applicable</i>
12	Transfer system tested and ready for use	<input type="checkbox"/> Yes		
13	Other parties informed on ready to bunker	<input type="checkbox"/> Yes		

BIN: _____

Declaration on parts B - D

We the undersigned have checked the items in the applicable parts B – D as marked and signed below:

	Bunker Facility Operator	Receiving vessel
JPBO received	<input type="checkbox"/>	<input type="checkbox"/>
Part B - Pre-operation	<input type="checkbox"/>	<input type="checkbox"/>
Part C - Alignment and agreement	<input type="checkbox"/>	<input type="checkbox"/>
Part D - Connection testing	<input type="checkbox"/>	<input type="checkbox"/>

We have satisfied ourselves that the entries we have made are correct to the best of our knowledge and that the parties involved agree to undertake the bunker operation.

We have also made arrangements to carry out repetitive checks as necessary and agreed that those items coded 'R' in the checklist, and noted in part E, which should occur at intervals not more than _____ hours.

If, to our knowledge, the status of any item changes, we will immediately inform the other party.

Bunker Facility Operator		Receiving vessel	
Name		Name	
Position		Position	
Signature		Signature	
Date and time		Date and time	

BIN: _____

Part E1
Transfer - PIC Bunker Facility Operator

Repetitive checks

Note interval: _____ hrs.

E1	Check	Time	Time	Time	Time	Time	Time	Remarks
-	Time of check							
1	Access ship shore is safe and controlled	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
2	Communication is functioning	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
3	Illumination is sufficient	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
4	The restricted area and safety zone requirements are observed	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
5	Ignition source and toxicity restrictions are observed	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
6	Back filling protection is operational	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
7	Trucks cannot move unintentionally	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
8	SIMOPS restrictions are observed	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> <i>Not applicable</i>
9	Fuel levels have been checked	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
-	Initials							

BIN: _____

Part E2
Transfer - PIC receiving vessel

Repetitive checks

Note interval: _____ hrs.

E2	Check	Time	Time	Time	Time	Time	Time	Remarks
-	Time of check							
1	Weather / wave conditions within limits	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
2	Mooring arrangement is effective	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
3	Access ship shore is safe	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
4	Communication is functioning	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
5	Illumination is sufficient	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
6	Ship can sail under its own power	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
7	Accommodation's external doors and ports are closed	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
8	The restricted area and safety zone requirements are observed	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
9	Vessel entrance is controlled, and proper safety information is provided at the gangway	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
10	Ignition sources and toxicity restrictions are observed	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
11	SIMOPS restrictions are observed	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> <i>Not applicable</i>
12	Fuel levels have been checked	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
-	Initials							

BIN: _____

Part E3

Truck exchange during bunker operation – Bunker Facility Operator

E3	Checks before disconnection of the truck	Status	Code	Remarks
1	Vessel PIC and personnel are informed of the exchange of trucks	<input type="checkbox"/> Yes		
2	Personnel involved in the connection and disconnection use proper PPE	<input type="checkbox"/> Yes	R	
3	The truck to disconnect is separated from the part of the system still in operation as relevant remote and manually controlled valves are closed and remote valve opening systems are disabled	<input type="checkbox"/> Yes		
4	Truck engine is off during the connection, purging and disconnection of the bunker hoses	<input type="checkbox"/> Yes		<input type="checkbox"/> <i>Not applicable</i>
5	Relevant bunker hoses, vapour return lines are: <ul style="list-style-type: none"> - purged - inerted - depressurized - liquid free - ready for disconnection 	<input type="checkbox"/> Yes		

E3	Checks before connection of the truck	Status	Code	Remarks
6	Bunker transfer equipment is confirmed: <ul style="list-style-type: none"> - in good condition - of the appropriate type - sufficiently supported - properly fitted with gaskets/seals - lined-up correctly - properly rigged - secured to the manifolds - sufficiently supported 	<input type="checkbox"/> Yes		
7	Means to avoid backfilling are in place	<input type="checkbox"/> Yes		
8	ESD inter-linked connections are established and tested conform the JPBO	<input type="checkbox"/> Yes	JPBO	

9	New truck is electrically grounded and the wheels are chocked or mechanically blocked	<input type="checkbox"/> Yes		
10	Trucks engines are switched off during bunkering if a running engine is not required for the operation.	<input type="checkbox"/> Yes		<input type="checkbox"/> <i>Not applicable</i>

BIN: _____

Part F1
Post-operation - PIC Bunker Facility Operator

Post-transfer - Before disconnection

F1	Check	Status	Code	Remarks
1	Relevant bunker hoses, vapour return lines, fixed pipelines and manifolds are: - purged - inerted - depressurized - liquid free - ready for disconnection	<input type="checkbox"/> Yes		
2	All remotely and manually operated valves are closed as required for safe disconnection	<input type="checkbox"/> Yes		
3	Receiving vessel is notified on "ready to disconnect"	<input type="checkbox"/> Yes		

Post-disconnection - Completion of operation

F1	Check	Status	Code	Remarks
4	Bunker and restricted areas on the shore are cleared and restored to standard condition	<input type="checkbox"/> Yes		
5	Relevant documents are signed and exchanged	<input type="checkbox"/> Yes		
6	Competent authorities are notified on the completion of the bunker operation	<input type="checkbox"/> Yes		
7	Near misses and incidents are reported to competent authorities	<input type="checkbox"/> Yes		<input type="checkbox"/> <i>Not applicable</i>

BIN: _____

Part F2
Post-operation - PIC receiving vessel

Post-transfer - Before disconnection

F2	Check	Status	Code	Remarks
1	Relevant bunker hoses, vapour return lines, fixed pipelines and manifolds are: - purged - inerted - depressurized - liquid free - ready for disconnection	<input type="checkbox"/> Yes		
2	All remotely and manually operated valves are closed as required for safe disconnection	<input type="checkbox"/> Yes		
3	BFO is notified on "ready to disconnect"	<input type="checkbox"/> Yes		

Post-disconnection - Completion of operation

F2	Check	Status	Code	Remarks
4	Bunker and restricted areas on the vessel are cleared and restored to standard condition	<input type="checkbox"/> Yes		
5	Relevant documents are signed and exchanged	<input type="checkbox"/> Yes		
6	Near misses and incidents are reported to competent authorities	<input type="checkbox"/> Yes		<input type="checkbox"/> <i>Not applicable</i>

BIN: _____

Declaration on part F

We the undersigned have checked the items in parts F as marked and signed below:

	Bunker Facility Operator	Receiving vessel
Part F - Post-operation	<input type="checkbox"/>	<input type="checkbox"/>

We have satisfied ourselves that the entries we have made are correct to the best of our knowledge and that the parties involved agree to have completed the bunker operation.

Bunker Facility Operator		Receiving vessel	
Name		Name	
Position		Position	
Signature		Signature	
Date and time		Date and time	