



Port of Workington

Code of Practice/Safe System of Work for Bunkering Vessels on the Port Estate

SSOW 11

Date Issued: 22.12.2015

(Reviewed: 27.04.2017)

Author: L. McAleavey

Contents

Page

Introduction.....	1
Vessel Responsibilities.....	1
Bunker Provider Responsibilities	1
General.....	1
The Master of the Vessel and Tanker Operator	2
The Vessel's Officer in Charge.....	3
The Shore Side Bunker Supervisor	4
Bunkering during Cargo Operations	4
The Master of the Vessel and Bunker Supervisor	5
Emergency Procedures	
Oil Spill Containment and Prevention	5
Port Emergency Response.....	6
Personal Protective Equipment	6
Author Page.....	6
Review of Safe System of Work and Risk Assessment	7
Risk Assessments:	8
Bunkering Forms	21

Code of Practice/Safe System of Work For Bunkering of Vessels

Introduction

This Code of Practice has been developed to ensure that oil transfer operations are conducted in a safe manner to reduce and minimise risks to personnel and the environment and applies to all parties involved with oil transfers to or from ships within the Port of Workington. The code should be applied on all vessels as a minimum standard for all oil transfers within the Port, including ship bunkers, drilling oils, waste oils and other oils or polluting liquids used on vessels. The Code is applicable anywhere within the jurisdiction of the Port for any transfers, be they to or from a ship, or road tanker.

Bunkering during cargo operations should be avoided wherever possible. Where this is not possible then a specific Risk Assessment shall be carried out by the vessel. This assessment should not be limited to but shall consider:

- a) the need to provide a safe working area,
- b) protection of hoses/pipes from damage,
- c) possible conflicts between the vehicles and plant moving in close proximity to the bunker operation,
- d) safe and accessible working areas on the vessel for the bunker operation,
- e) that the movement of the vessel, due to cargo operations, may affect the bunker process and cause overflows.

Vessel Responsibilities: - The ship's Master is responsible for the ship bunkering operation and must appoint an appropriately qualified person to oversee the bunker operation (Responsible Person) and there shall also be a Duty Deck Officer available or in attendance during the bunker operation. Vessels carrying out bunker operations (regardless of the flashpoint of the bunkers) should display the shapes and signals as detailed in Regulation 8 of the Dangerous Substances in Harbour Areas Regulations 1987.

Bunker Provider Responsibilities: - Road tanker operators will be responsible for complying and adhering to the appropriate practices and procedures laid down for their operations. The bunker provider must appoint a suitably qualified person (Bunker Supervisor, usually the tanker driver) to liaise with the Responsible Person on the ship. In the event that the Responsible Person cannot identify or establish the Bunker Supervisor, then bunker operations should not commence or if they are under way they should cease immediately.

General

- a) Tanker drivers must report to the Harbour Office and collect the bunkering code of practice/safe system of work, risk assessments and the ship/shore bunkering checklist sheet. Outside office hours the vessel can request procedures from the dock gate office.
- b) Port Management will instruct the driver where to position his vehicle for bunkering whilst taking into account other Port operations i.e. discharging/loading vessels, loading bulk cargo's on the quayside or locomotive movements. For these eventualities a banksman

should be considered to assist the tanker driver when positioning his/her vehicle.

Tankers should not be parked for bunkering in an area where there is a risk of impact from Port plant/machinery i.e. cranes or from any cargo being handled.

- c) All operations must be authorised by a member of Port Management.
- d) The working area is to be cordoned off with barriers and warning signs positioned. Any possible slip or trip hazards removed.
- e) All vehicles, machinery and equipment inspected, maintained and certified, any relevant documentation completed and signed.
- f) Keep all visitors, non involved workers and vehicles away from working area as per SSOW 15 and 16.
- g) Tanker drivers must wear appropriate Personal Protection Equipment.
- h) The working area should have suitable and sufficient lighting in place.
- i) Tanker drivers must be given information of any rail activity on the south berth by a member of Port Management. Locomotive drivers and shunters must be also informed of any tanker operations by a member of the Port Management.
- j) Tanker drivers to be given SSOW 15 & 16 for vehicles and pedestrians on the Port estate.
- k) The Port speed limit of 10 mph must be adhered to.
- l) All drivers must be trained and certified to operate their vehicles and also any manual handling activity.
- m) Welfare provision including wash basins and washing machine facility.
- n) No drinking, smoking or consumption of food during bunkering.
- o) Tanker/vessels firefighting equipment available if required.
- p) Strictly no ignition sources during bunkering of vessels i.e. welding, grinding, smoking.
- q) Traffic routes inspected and maintained by the Port maintenance staff.
- r) The working area should be inspected prior to any activity and any spillages or obstructions removed or reported to the harbor office.
- s) Life jackets must be worn for any activity where there is a risk of falling into the water (life jackets can be located in the harbour office or dock gate office).
- t) Weather assessments must be undertaken between the bunkering supervisor and master/first officer of the vessel. If adverse weather i.e. strong winds present a hazard then operations must be suspended.
- u) Damping down of quayside during dusty conditions.
- v) Tanker drivers/bunkering supervisor must remain on the quayside during bunkering and not board the vessel without authorisation and after viewing and understanding the safe system of work for on-board vessels.
- w) COSHH hazardous data sheet for fuel must be read and understood by tanker drivers/bunkering supervisor and all necessary controls adhere to.

The Master of the Vessel and Tanker Operator shall ensure that:

- a) before any bunkering takes place notification is given to the harbour office, stating the name of the vessel, the berth, type of bunker oil, amount of bunker oil (i.e. number of road tankers expected) and the time that bunkering will begin.
- b) They will ensure that the bunker checklist is duly filled in and signed and that all questions have been answered correctly and be available for inspection at any time.
- c) The master of the receiving vessel should only commence bunkering once an officer in charge has been duly appointed.
- d) The officer in charge will be responsible for the safe transfer of all bunkers and a close liaison between he/she and the shore side tanker driver/bunkering supervisor maintained at all times.

- e) The officer in charge has established and then continues to maintain communication with the tanker driver/bunkering supervisor.
- f) That the vessel is securely moored with suitably tensioned moorings, ready for the oil transfer operation and ensure that moorings are tended throughout the transfer operation.
- g) That (except for vents designed to prevent excess pressure or vacuum within a cargo space) all openings from oil storage spaces are kept closed during oil transfers.
- h) Agree on the handling procedures, including the maximum loading or unloading rates taking into account the arrangement, capacity and maximum allowable pressure of the receiving tank/s, cargo lines, hoses and shore pipelines, the arrangement and capacity of the vapour venting system (if fitted), the possible pressure increase due to an emergency shut-down, the possible accumulation of electrostatic charge and the presence of responsible persons during start-up operations on board ship and ashore.
- i) Agree the action to be taken and the signals to be used in the event of an emergency during transfer operations.
- j) If an incident occurs during the handling which necessitates a repair to the piping system or connections; ensure such handling is stopped and not resumed until adequate safety measures have been taken with the approval of the Harbour Master's Office and, where appropriate, the Berth Operator.

The Vessels Officer in Charge must:

- a) ensure that the correct quantity of bunkers has been ordered and agree the quantity with the onshore bunker provider.
- b) ensure a bunker stem and loading rate/bunker plan have been discussed and finalized with all persons involved.
- c) nominate the tanks to be loaded and ensure that there is sufficient capacity in the tanks to accommodate the bunkers stemmed.
- d) decide on the fill level for each tank both in terms of ullage and % capacity.
- e) agree a load rate for startup, bulk filling and a reduced rate whenever there is a possibility of the tank being unable to cope with the fill rate and always a reduced rate if the tank has reached 90% of normal capacity.
- f) frequently check that the agreed back-pressures and loading or unloading rates are not exceeded.
- g) take appropriate preventative measures to ensure that all relevant equipment (e.g. pipelines, loading arms, flexible pipes, etc.) are not damaged and continually check for signs of leakage. In addition ensure:
 - The bunker hoses are in good condition.
 - The bunker hoses are well suspended.
 - The bunker hoses have sufficient slack.
 - Connections are correctly made and any necessary gaskets are in place.
 - That every bolt hole in the connecting flanges has a fitted tightened bolt.
 - All valves/blanks except those immediately required to be opened are closed oil-tight.
 - The save around the manifold is empty and oil-tight, drip trays in place, all scuppers where fitted are securely plugged and absorbent material is available in case of spillage.
- h) establish emergency stop procedures and signals with the Bunker Supervisor. It must be clearly understood with all persons involved the signal for STOP.

- i) In conjunction with the Bunker Supervisor complete and sign a ship/shore checklist and keep the list available for inspection.
- j) establish and maintain satisfactory communication with the Bunker Supervisor before commencing bunker operations.
- k) ensure that no tank is overfilled and warn the Bunker Supervisor whenever any tank has reached 90% capacity and/or when any topping off operation has commenced.
- l) after completion of the operation, ensure that the hoses and pipes have been drained of liquids, the pressure relieved, the piping vented and the ship's manifold blanked off.

The Shore Side Bunker Supervisor shall ensure:

- a) The hoses in use are certified and legibly marked showing the type of hose, specified maximum working pressure and the month/year of manufacture
- b) Before and during bunker operations check hoses to ensure they are:
 - I. in good condition and adequate for the proposed transfer,
 - II. adequately supported and suspended, with no sharp angles, flats or kinks,
 - III. of adequate length and sufficient to allow for movement of the ship.
- c) Ensure there are no hose joins either
 - I. within 1 metre of the ship side
 - II. in the gap between ship and shore
 - III. within 1 metre of the quay edge,
- d) Any hose joins shall be made using the appropriate gaskets and every bolt hole in each flange connection shall be utilised with appropriately tightened bolts. (Where quick release couplings or proprietary couplings are used they shall be appropriate for the operation, so as to avoid any possibility of leakage and they shall be fastened as per the manufacturer's instructions,
- e) At no time during the bunker operation shall any part of the filling system be over pressurised and care must be exercised not to cause a pressure shock in the lines by closing or opening valves in an inappropriate manner.
- f) There are adequate procedures for the disconnection of the pipe in the event of an emergency.
- g) That suitable containers/drip trays are in place at connection points and absorbent material is available in case of spillage.

If the Master of the Vessel Involved in Bunkering suspects or reasonably may suspect that the officer in charge or shore side Bunker Supervisor is absent for any reason then he/she shall immediately stop bunkering.

Bunkering during Cargo Operations

- a) An on-site risk assessment must be carried out for all vessels wishing to bunker whilst loading/discharging where there is a potential for fuel ignition or machinery/cargo impact.
- b) The on-site risk assessment must take into account, dust levels, weather conditions, proximity of any other cargo operations, heavy plant and manual handling operations
- c) All personal working in the vicinity must be notified of bunkering operations.
- d) All personal involved in bunkering including master of the vessel and agent must fully understand the risk assessment.
- e) Cargo operations shall be stopped immediately if an oil spill occurs.

The Master of the Vessel and Bunker Supervisor shall on completion ensure that:

- a) The meter reading is correct and/or tank levels are correct.
- b) The hose is completely drained into the vessels tanks.
- c) The filling cap is replaced.
- d) The Delivery Note is signed for the agreed amount.
- e) Any minor spillages are cleaned up.
- f) Any oil in the save or drip trays is mopped up.
- g) Any oil soaked materials are disposed of in a safe and non-polluting manner.
- h) All the relevant entries are made in the Oil Record Book and signed by the master.

Emergency Procedures

Oil Spill Containment and Prevention

In order to prevent and/or contain any spill:

- a) Any changes to the bunkering plan or bunkering sequence should be agreed in writing by all parties to the operation.
- b) The Bunker Supervisor in charge of supplying the bunkers shall remain at the bunker station throughout the bunker operation and he or another person shall always be in attendance at or near to the emergency stop location.
- c) An emergency overflow tank should (if possible) be nominated and the valve for that tank should be identified and marked.
- d) The bunker connection on the vessel shall be contained within an oil tight bund.
- e) Any scuppers/drains that could be vulnerable in the event of a spill shall be sealed and/or plugged.
- f) Where there is any doubt as to the effectiveness of the bunker bund or the scupper seals to retain an oil spill on the vessel, then appropriate numbers and types of sorbent booms and mats shall be deployed around the vessel to intercept any possible spill before the oil reaches the scuppers.
- g) The ship's oil spill response equipment shall be readily available for deployment.
- h) The vessel shall have sufficient numbers of crew available in order to deploy spill equipment carried on board and crew shall have been exercised in spill containment and understand the requirements of the ship's own Ship Oil Pollution Emergency Plan (SOPEP). The Port shall also implement its Oil Spill Contingency Plan.
- i) On completion of bunkering, the hoses must be fully drained before disconnection takes place.
- j) When disconnection of hoses is taking place a drip pan of appropriate size shall be deployed below any disconnection point that is not banded.
- k) Disconnected hoses shall be blanked before lowering or removing the hose from the ship.
- l) Ship filling points shall be blanked immediately they are no longer required,
- m) Any spilt oil or oil contained in bunds or drip pans shall be mopped up and all oil contaminated material shall be disposed of through the appropriate segregated waste management system.

Port Emergency Response

- a) Stop operation immediately if a problem or accident occurs.
- b) Inform the Harbour Office by radio, telephone or verbally.
- c) Harbour Office to contact local emergency services if needed.
- d) If immediate medical assistance needed, contact one of the first-aiders on site by radio, telephone or verbally.
- e) In the event of fire initiate On Site Emergency Plan.
- f) In the event of a spill initiate Oil Spill Contingency Plan

Personal Protective Equipment

Safety helmet, gloves, overalls, safety boots, fluorescent jacket, respirators, safety goggles

AUTHOR

Name	Position	Signature
-------------	-----------------	------------------

CHECKED BY

Name	Position	Signature
-------------	-----------------	------------------

APPROVED

Name	Position	Signature
-------------	-----------------	------------------

ITEM NO.	11	TASK OR PREMISES	BUNKERING VESSELS ON THE PORT ESTATE	ASSESSED BY	L J McAleavey	DATE	27.04.2017
-----------------	----	-------------------------	--------------------------------------	--------------------	---------------	-------------	------------

No	Activity	Hazards	Persons in danger	Preventive measures to be employed	Risk assessment With preventive measures in place			
					S	L	R=SxL	Result
	Operating tanker on the Port estate.	Movement of tanker which could result in trapping, crushing, striking persons.	Port staff Ship's crew Visitors Contractors Tenants	<ol style="list-style-type: none"> 1. Keep all visitors and non involved workers away from working area as in SSOW 15 & 16 2. Drivers/banksmen read & understood SSOW 11. 3. Appropriate PPE to be worn as SSOW 11 i.e. fluorescent jacket 4. Drivers and banksmen to be trained, certified and competent 5. Tanker to be inspected, maintained and certified 6. Adhere to 10 mph speed limit on Port estate 7. Barriers and signage around the working area 8. Tanker movements to be controlled by banksmen/traffic controller during certain operations 9. Suitable and sufficient lighting in place. 10. Traffic routes inspected and maintained 11. Authorisation from the Harbour Office before bunkering 	6	2	12	A

KEY TO SCORING

Severity: Trivial injury (ies) S = 1 Minor injury (is) S = 2 Single major injury S = 3 Multiple major injuries S = 4 Single death S = 5 Multiple deaths S = 6	Likelihood: Improbable L = 1 Possible L = 2 Occasional L = 3 Frequent L = 4 Regular L = 5 Common L = 6	Results - See Evaluation Matrix. Result: T = Trivial risk A = Acceptably controlled N = Not acceptably controlled U = Uncertain - further information needed
--	--	--

ITEM NO.	11	TASK OR PREMISES	BUNKERING VESSELS ON THE PORT ESTATE	ASSESSED BY	L J McAleavey	DATE	27.04.2017
-----------------	----	-------------------------	--------------------------------------	--------------------	---------------	-------------	------------

No	Activity	Hazards	Persons in danger	Preventive measures to be employed	Risk assessment With preventive measures in place			
					S	L	R=SxL	Result
		Movement of tanker which could result in collision with other vehicles or rail freight	Port staff Ship's crew Visitors Contractors Tenants Tanker driver	<ol style="list-style-type: none"> 1. Keep all visitors & non involved workers away from working area as in SSOW 15 & 16 2. Drivers/banksmen read & understood SSOW 11 3. Appropriate PPE to be worn as SSOW 11 i.e. fluorescent jacket 4. Drivers and banksman to be trained, certified and competent 5. Tanker to be inspected, maintained and certified 6. Adhere to 10 mph speed limit on Port estate 7. Barriers and signage around the working area 8. Tanker movements to be controlled by banksman/traffic controller/locomotive shunter during certain operations 9. Suitable and sufficient lighting in place. 10. Traffic routes inspected and maintained 11. Authorisation from the Harbour Office before bunkering 	6	2	12	A

KEY TO SCORING

Severity: Trivial injury (ies) S = 1 Minor injury (is) S = 2 Single major injury S = 3 Multiple major injuries S = 4 Single death S = 5 Multiple deaths S = 6	Likelihood: Improbable L = 1 Possible L = 2 Occasional L = 3 Frequent L = 4 Regular L = 5 Common L = 6	Results - See Evaluation Matrix. Result: T = Trivial risk A = Acceptably controlled N = Not acceptably controlled U = Uncertain - further information Needed
---	--	--

ITEM NO.	11	TASK OR PREMISES	BUNKERING VESSELS ON THE PORT ESTATE	ASSESSED BY	L J McAleavey	DATE	27.04.2017
-----------------	----	-------------------------	--------------------------------------	--------------------	---------------	-------------	------------

No	Activity	Hazards	Persons in danger	Preventive measures to be employed	Risk assessment With preventive measures in place			
					S	L	R=SxL	Result
		Movement of tanker near or adjacent quayside edge which could result in falling into water.	Tanker driver	1. Keep all visitors & non involved workers away from working area as in SSOW 15 & 16 2. Drivers/banksmen read & understood SSOW 11 3. Drivers and banksman to be trained, certified and competent 4. Tanker to be inspected, maintained and certified 5. Adhere to 10 mph speed limit on dock estate 6. Tanker movements to be controlled by banksman/traffic controller for certain operations 7. Suitable and sufficient lighting in place. 8. Authorisation from the Harbour Office before bunkering	5	2	10	A

KEY TO SCORING

Severity : Trivial injury(ies) S = 1 Minor injury(ies) S = 2 Single major injury S = 3 Multiple major injuries S = 4 Single death S = 5 Multiple deaths S = 6	Likelihood: Improbable L = 1 Possible L = 2 Occasional L = 3 Frequent L = 4 Regular L = 5 Common L = 6	Results - See Evaluation Matrix. Result: T = Trivial risk A = Acceptably controlled N = Not acceptably controlled U = Uncertain - further information needed
---	--	--

ITEM NO.	11	TASK OR PREMISES	BUNKERING VESSELS ON THE PORT ESTATE	ASSESSED BY	L J McAleavey	DATE	27.04.2017
-----------------	----	-------------------------	--------------------------------------	--------------------	---------------	-------------	------------

No	Activity	Hazards	Persons in danger	Preventive measures to be employed	Risk assessment With preventive measures in place			
					S	L	R=SxL	Result
		Port operations i.e. cranes discharging vessel which could result in trapping, crushing or striking tanker driver/vehicle.	Tanker driver Ship's crew	<ol style="list-style-type: none"> 1. Keep all visitors & non involved workers away from working area as in SSOW 15 & 16 2. Drivers/banksmen read & understood SSOW 11 3. Appropriate PPE to be worn as SSOW 11 i.e. fluorescent jacket 4. Drivers and banksman to be trained, certified and competent 5. Tanker to be inspected, maintained and certified 6. Barriers and signage around the working area 8. Tanker movements to be controlled by banksman/traffic controller/locomotive shunter during certain operations 9. Suitable and sufficient lighting in place. 10. Authorisation from the Harbour Office before bunkering and communication with vessels master. 11. Tankers should not be parked for bunkering in an area where there is a risk of impact from Port plant/machinery i.e. Cranes or from any cargo being handled. 	6	2	12	A

KEY TO SCORING

Severity: Trivial injury (ies) S = 1 Minor injury (is) S = 2 Single major injury S = 3 Multiple major injuries S = 4 Single death S = 5 Multiple deaths S = 6	Likelihood: Improbable L = 1 Possible L = 2 Occasional L = 3 Frequent L = 4 Regular L = 5 Common L = 6	Results - See Evaluation Matrix. Result: T = Trivial risk A = Acceptably controlled N = Not acceptably controlled U = Uncertain - further information needed
---	---	--

ITEM NO.	11	TASK OR PREMISES	BUNKERING VESSELS ON THE PORT ESTATE	ASSESSED BY	L J McAleavey	DATE	27.04.2017
-----------------	----	-------------------------	--------------------------------------	--------------------	---------------	-------------	------------

No	Activity	Hazards	Persons in danger	Preventive measures to be employed	Risk assessment With preventive measures in place			
					S	L	R=SxL	Result
		Ignition sources i.e. smoking that could result in a fire/explosion	Port staff Ship's crew Visitors Contractors Tenants Tanker driver	1. Keep all visitors and non involved workers away from working area As SSOW 15 & 16 2. Tanker driver/ships officer/master read & understood SSOW 11 3. Removal of all ignition sources on quayside and vessel i.e. welding, burning, naked flames - strictly no smoking 4. Tanker/bunkering equipment to be inspected, maintained and certified 5. Contact measures in place with fire service 6. Tanker/vessels firefighting equipment made available if required 7. Port Onsite Emergency Plan 8. Bunkering check list completed 9. Communication between Bunker Supervisor and Vessel Deck Officer	6	2	12	A

KEY TO SCORING

Severity : Trivial injury(ies) S = 1 Minor injury(ies) S = 2 Single major injury S = 3 Multiple major injuries S = 4 Single death S = 5 Multiple deaths S = 6	Likelihood: Improbable L = 1 Possible L = 2 Occasional L = 3 Frequent L = 4 Regular L = 5 Common L = 6	Results - See Evaluation Matrix. Result: T = Trivial risk A = Acceptably controlled N = Not acceptably controlled U = Uncertain - further information needed
---	--	--

ITEM NO.	11	TASK OR PREMISES	BUNKERING VESSELS ON THE PORT ESTATE	ASSESSED BY	L J McAleavey	DATE	27.04.2017
-----------------	----	-------------------------	--------------------------------------	--------------------	---------------	-------------	------------

No	Activity	Hazards	Persons in danger	Preventive measures to be employed	Risk assessment With preventive measures in place			
					S	L	R=SxL	Result
		Walking near or adjacent to quayside edge resulting in falls into water	Tanker driver Banksman	1. Keep all visitors and non- involved workers away from working area As SSOW 15 & 16 2. Suitable and sufficient lighting 3. Regular inspection and removal of obstructions and spillages 4. Weather assessments by tanker driver 5. Personal Protective Equipment must be worn including life jacket 6. Supervision for visitors 7. Maintenance of pedestrian routes 8. Drivers/banksman read & understood SSOW 11	5	2	10	A
		Spillages/ obstructions resulting in slips and trips on quayside	Tanker driver Banksman	1. Keep all visitors and non-Port staff away from working area As SSOW 15 & 16 2. Induction training in SSOW 11 3. Suitable and sufficient lighting 4. Regular inspection and removal of obstructions and spillages 5. Personal Protective Equipment must be worn 6. Supervision for visitors 7. Drivers/banksman read & understood SSOW 11	3	2	6	A

KEY TO SCORING

Severity : Trivial injury(ies)	S = 1	Likelihood: Improbable	L = 1	Results - See Evaluation Matrix. Result: T = Trivial risk A = Acceptably controlled N = Not acceptably controlled U = Uncertain - further information needed
Minor injury(ies)	S = 2	Possible	L = 2	
Single major injury	S = 3	Occasional	L = 3	
Multiple major injuries	S = 4	Frequent	L = 4	
Single death	S = 5	Regular	L = 5	
Multiple deaths	S = 6	Common	L = 6	

ITEM NO.	11	TASK OR PREMISES	BUNKERING VESSELS ON THE PORT ESTATE	ASSESSED BY	L J McAleavey	DATE	27.04.2017
-----------------	----	-------------------------	--------------------------------------	--------------------	---------------	-------------	------------

No	Activity	Hazards	Persons in danger	Preventive measures to be employed	Risk assessment With preventive measures in place			
					S	L	R=SxL	Result
		Manual handling which could result in sprains & strains.	Tanker driver Ship's crew	1. Drivers trained & certified in manual handling techniques 2. Regular rest breaks to be taken and job rotation where possible 3. Use of mechanical aids where possible 4. Use of two/three man teams where possible 5. Break loads into smaller weights where possible 6. Appropriate P.P.E. to be worn, including gloves, information, instruction and training on use 7. Drivers read and understood SSOW 11 8. Remove any spillages or obstructions 9. Suitable and sufficient lighting	3	2	6	A

KEY TO SCORING

Severity : Trivial injury(ies)	S = 1	Likelihood: Improbable	L = 1	Results - See Evaluation Matrix. Result: T = Trivial risk A = Acceptably controlled N = Not acceptably controlled U = Uncertain - further information needed
Minor injury(ies)	S = 2	Possible	L = 2	
Single major injury	S = 3	Occasional	L = 3	
Multiple major injuries	S = 4	Frequent	L = 4	
Single death	S = 5	Regular	L = 5	
Multiple deaths	S = 6	Common	L = 6	

ITEM NO.	11	TASK OR PREMISES	BUNKERING VESSELS ON THE PORT ESTATE	ASSESSED BY	L J McAleavey	DATE	27.04.2017
-----------------	----	-------------------------	--------------------------------------	--------------------	---------------	-------------	------------

No	Activity	Hazards	Persons in danger	Preventive measures to be employed	Risk assessment			
					With preventive measures in place			
					S	L	R=SxL	Result
		Dust Particulate resulting in inhalation/ingestion	Tanker driver Ship's crew	<ol style="list-style-type: none"> Keep all visitors & non involved workers away from working area as SSOW 15 & 16. Appropriate PPE to be worn including dust masks No smoking, eating or drinking in the working area Provision of welfare facilities including washing machine Damping down during dusty conditions Workplace exposure limits for inhalable/respirable dust adhered to. Monitor airborne contaminants if potential for exposure levels to be exceeded. Drivers read and understood SSOW No. 11 	5	1	5	T

KEY TO SCORING

Severity : Trivial injury(ies) S = 1 Minor injury(ies) S = 2 Single major injury S = 3 Multiple major injuries S = 4 Single death S = 5 Multiple deaths S = 6	Likelihood: Improbable L = 1 Possible L = 2 Occasional L = 3 Frequent L = 4 Regular L = 5 Common L = 6	Results - See Evaluation Matrix. Result: T = Trivial risk A = Acceptably controlled N = Not acceptably controlled U = Uncertain - further information needed
--	--	--

ITEM NO.	11	TASK OR PREMISES	BUNKERING VESSELS ON THE PORT ESTATE	ASSESSED BY	L J McAleavey	DATE	27.04.2017
-----------------	----	-------------------------	--------------------------------------	--------------------	---------------	-------------	------------

No	Activity	Hazards	Persons in danger	Preventive measures to be employed	Risk assessment With preventive measures in place			
					S	L	R=SxL	Result
		Dust Particulate which could be hazardous to health through an eye injury.	Tanker driver Ship's crew	1. Appropriate PPE to include safety glasses/goggles. 2. Suitable facilities for performing personal hygiene e.g. clean hot and cold water, towels, soap, degreasing soaps, after work creams. 3. Drivers read and understood SSOW No. 11 4. Minimise exposure times i.e. job rotation 5. First aid & eye wash stations. 6. Damping down during dusty conditions	3	1	3	T

KEY TO SCORING

Severity : Trivial injury(ies) S = 1 Minor injury(ies) S = 2 Single major injury S = 3 Multiple major injuries S = 4 Single death S = 5 Multiple deaths S = 6	Likelihood: Improbable L = 1 Possible L = 2 Occasional L = 3 Frequent L = 4 Regular L = 5 Common L = 6	Results - See Evaluation Matrix. Result: T = Trivial risk A = Acceptably controlled N = Not acceptably controlled U = Uncertain - further information needed
---	---	--

ITEM NO.	11	TASK OR PREMISES	BUNKERING VESSELS ON THE PORT ESTATE	ASSESSED BY	L J McAleavey	DATE	27.04.2017
-----------------	----	-------------------------	--------------------------------------	--------------------	---------------	-------------	------------

No	Activity	Hazards	Persons in danger	Preventive measures to be employed	Risk assessment With preventive measures in place			
					S	L	R=SxL	Result
		Use of hazardous substances which could be hazardous to health through an eye injury.	Tanker driver Ship's crew	1. Appropriate PPE to include safety glasses/goggles. 2. Information and training on health effects from exposure to substances 3. Suitable facilities for performing personal hygiene e.g. clean hot and cold water, towels, soap, degreasing soaps, after work creams. 4. Information, instruction and training in use of substances 5. COSHH hazardous data sheet read, understood and adhered to. 6. Drivers read and understood SSOW No. 11 7. Minimise exposure times i.e. job rotation 8. First aid & eye wash stations.	3	1	3	T

KEY TO SCORING

Severity : Trivial injury(ies) S = 1 Minor injury(ies) S = 2 Single major injury S = 3 Multiple major injuries S = 4 Single death S = 5 Multiple deaths S = 6	Likelihood: Improbable L = 1 Possible L = 2 Occasional L = 3 Frequent L = 4 Regular L = 5 Common L = 6	Results - See Evaluation Matrix. Result: T = Trivial risk A = Acceptably controlled N = Not acceptably controlled U = Uncertain - further information needed
--	--	--

ITEM NO.	11	TASK OR PREMISES	BUNKERING VESSELS ON THE PORT ESTATE	ASSESSED BY	L J McAleavey	DATE	27.04.2017
-----------------	----	-------------------------	--------------------------------------	--------------------	---------------	-------------	------------

No	Activity	Hazards	Persons in danger	Preventive measures to be employed	Risk assessment With preventive measures in place			
					S	L	R=SxL	Result
		Use of hazardous substances which could be hazardous to health through skin absorption.	Tanker driver Ship's crew	<ol style="list-style-type: none"> Appropriate PPE to include overalls, safety boots and gloves which are non permeable and which suitably cover exposed parts of skin. Information and training on health effects from exposure to substances Suitable facilities for performing personal hygiene e.g. clean hot and cold water, towels, soap, degreasing soaps, after work creams. Protecting any cuts or abrasions to the skin e.g. elastoplasts Information, instruction and training in use of substances COSHH hazardous data sheet read, understood and adhered to. Drivers read and understood SSOW No. 11 Avoid handling through engineering controls Minimise exposure times i.e. job rotation 	3	1	3	T

KEY TO SCORING

Severity : Trivial injury(ies) S = 1 Minor injury(ies) S = 2 Single major injury S = 3 Multiple major injuries S = 4 Single death S = 5 Multiple deaths S = 6	Likelihood: Improbable L = 1 Possible L = 2 Occasional L = 3 Frequent L = 4 Regular L = 5 Common L = 6	Results - See Evaluation Matrix. Result: T = Trivial risk A = Acceptably controlled N = Not acceptably controlled U = Uncertain - further information needed
---	---	--

ITEM NO.	11	TASK OR PREMISES	BUNKERING VESSELS ON THE PORT ESTATE	ASSESSED BY	L J McAleavey	DATE	27.04.2017
-----------------	----	-------------------------	--------------------------------------	--------------------	---------------	-------------	------------

No	Activity	Hazards	Persons in danger	Preventive measures to be employed	Risk assessment With preventive measures in place			
					S	L	R=SxL	Result
		Use of hazardous substances which could be hazardous to health through ingestion.	Tanker driver Ship's crew	<ol style="list-style-type: none"> 1. Appropriate PPE to worn including face masks. 2. Information, instruction and training on health effects from exposure to substances 3. Suitable facilities for performing personal hygiene e.g. clean hot and cold water, towels, soap, degreasing soaps, after work creams. 4. No smoking, drinking or consumption of food during activity 5. Information, instruction and training in use of substances 6. COSHH hazardous data sheet read, understood and adhered to. 7. Drivers read and understood SSOW No. 11 8. Avoid exposure through engineering controls 9. Minimise exposure times i.e. job rotation 10. Monitor airborne contaminates if potential for exposure levels to be exceeded. 	5	1	5	T

KEY TO SCORING

Severity : Trivial injury(ies) S = 1 Minor injury(ies) S = 2 Single major injury S = 3 Multiple major injuries S = 4 Single death S = 5 Multiple deaths S = 6	Likelihood: Improbable L = 1 Possible L = 2 Occasional L = 3 Frequent L = 4 Regular L = 5 Common L = 6	Results - See Evaluation Matrix. Result: T = Trivial risk A = Acceptably controlled N = Not acceptably controlled U = Uncertain - further information needed
---	---	--

ITEM NO.	11	TASK OR PREMISES	BUNKERING VESSELS ON THE PORT ESTATE	ASSESSED BY	L J McAleavey	DATE	27.04.2017
-----------------	----	-------------------------	--------------------------------------	--------------------	---------------	-------------	------------

No	Activity	Hazards	Persons in danger	Preventive measures to be employed	Risk assessment With preventive measures in place			
					S	L	R=SxL	Result
		Use of hazardous substances which could be hazardous to health through inhalation.	Tanker driver Ship's crew	<ol style="list-style-type: none"> 1. Exposure to substances which would require breathing apparatus must not be used without additional risk assessments undertaken. 2. Information and training on health effects from exposure to substances 3. Suitable facilities for performing personal hygiene e.g. clean hot and cold water, towels, soap, degreasing soaps, after work creams. 4. No smoking, drinking or consumption of food during activity 5. Information, instruction and training in use of substances 6. COSHH hazardous data sheet read, understood and adhered to. 7. Drivers read and understood SSOW No. 11 8. Avoid handling through engineering controls. 9. Minimise exposure times i.e. job rotation. 10. Monitor airborne contaminants if potential for exposure levels to be exceeded. 11. Safe storage of hazardous substance. 	5	1	5	T

KEY TO SCORING		
Severity : Trivial injury(ies)	S = 1	Likelihood: Improbable L = 1
Minor injury(ies)	S = 2	Possible L = 2
Single major injury	S = 3	Occasional L = 3
Multiple major injuries	S = 4	Frequent L = 4
Single death	S = 5	Regular L = 5
Multiple deaths	S = 6	Common L = 6
		Results - See Evaluation Matrix.
		Result: T = Trivial risk
		A = Acceptably controlled
		N = Not acceptably controlled
		U = Uncertain - further information needed

BUNKERING OPERATIONS AT THE PORT OF WORKINGTON

SHIP/SHORE SAFETY CHECK LIST

Ship's Name
 Berth
 Date of operation Start time finish time

The Port of Workington Bunker Checklist shall be completed and duly signed prior to the commencement of bunkering operations. The checklist shall be available for inspection during the operation.

<u>Safety procedure</u>	SHIP	SHORE
1. A copy of the Port of Workington bunkering procedures has been read through and understood.	[]	[]
2. Has the amount to be loaded been agreed between the ship and shore? Harbour office must be notified when bunkering is completed.	[]	[]
3. Handling procedures (Section h & i of The Master of the Vessel and Tanker Operator) agreed between Vessels Duty Officer /responsible person and tanker operator/bunkering supervisor.	[]	[]
4. The vessel is correctly moored to ensure no movement alongside and mooring lines are in good order.	[]	[]
5. Safe access between vessel and shore is provided.	[]	[]

- | | | |
|--|-----|-----|
| 6. Vessels Duty Officer/responsible person and tanker operator/bunkering supervisor shall be present at all times during bunkering operations. | [] | [] |
| 7. A loading rate/bunker plan has been agreed with all persons involved. | [] | [] |
| Start rate m3/hr..... | | |
| Bulk rate m3/hr..... | | |
| Topping off rate m3/hr..... | | |
| 8. All manifold connections not required shall be blanked and bolted all round. | [] | [] |
| 9. Bunker connections are correctly made with gaskets in place and every flange bolt fitted with a tightened bolt. | [] | [] |
| 10. Manifold save is empty and oil tight and drip trays are in place. | [] | [] |
| 11. All scuppers are plugged and absorbent material available in case of oil-spill. | [] | [] |
| 12. The bunker hoses are in good condition, well suspended and have sufficient slack. | [] | [] |
| 13. Appropriate fire extinguishers are in position and fire fighting equipment ready for use. | [] | [] |
| 14. Vessels emergency fire control plan located externally. | [] | [] |

- 15. An agreed method of communication between vessel and shore including a signal for stop. [] []
- 16. Appropriate signals being displayed. [] []
- 17. Are smoking and naked light requirements being observed? [] []
- 18. Vessel's trim / list considered? [] []
- 19. Has the method of line clearing been agreed and fully discussed with shore and ship. [] []
- 20. Is the temperature of the bunkers loaded known and has this been used in calculations? [] []

Comments.....

We the undersigned, have answered where appropriate all the questions on the checklist truthfully and to the best of our knowledge.

SHIP

SHORE

Vessel

Company

Name

Name

Rank

Position

Signature

Signature