

Queens Channel Bunkering Anchorages

Risk Assessment - Summary

Hazard	Hazard Detail	Potential spill Impact	Mitigation measures
Adverse weather conditions	Mooring failure	Oil spill into water.	Weather forecasting, suspension of operations early based on forecast. Harbour Master direction.
Poor visibility	Collision and grounding	Oil spill to water, with risk of major spill. High risk of shoreline pollution.	During reduced visibility follow directions from London VTS and Harbour Master.
Communication failures	Human error/negligence leading to increased risk of spill	Oil spill into water (major) or on deck (minor)	Establish reliable communications channels.
Collision between bunkering vessels	Fenders and/or mooring failure	Oil spill into water and on deck.	Fender maintenance, proper anchoring arrangements, navigation control
Collision with 3dr party vessel	Fenders and/or mooring failure	Oil spill into water and on deck.	Fender maintenance, proper anchoring arrangements, navigation control
Mechanical failure	Collision	Oil spill to water, with risk of major spill. High risk of shoreline pollution.	Emergency generators, backup engines, vessel maintenance.
Pilot error	Collision/grounding	Oil spill to water, with risk of major spill. High risk of shoreline pollution.	Assessment/examination of personal qualifications, experience and competence
Spill onto deck (e.g. during hose connection/disconnection)	During hose connection, disconnection or hose failure. Valve failure.	Fire/explosion on deck. Oil in water.	Equipment inspection and maintenance. compliance with routine and emergency procedures
Tank overflow	Human factors.	Oil on deck and in water. Typically small volume spills.	Compliance with procedures. Alarm test.
Failure of cargo pipes	Oil discharged onto deck	Large spills unlikely	Inspection and maintenance, compliance with operational procedures.
Failure of unmooring operations	Ship collision	Oil spill to water, with risk of major spill. High risk of shoreline pollution.	Compliance with operational procedures, including appropriate manning during unmooring.