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| **RISK ASSESSMENT – REFER TO RISK MATRIX on PAGE 8** | **Date:** | 1.3.2025 |  |
| **Version****No:** | 4.2025 |  |
| **Signed:** | A close up of a signature  Description automatically generated |  |
| **Vessel Handling: Assessing the level of risk** | **Control Measures and Re-Assessment** |
| **Description of Activity and Associated Uncontrolled Hazards** | Consequence: (a)3 – Major2 – Serious1 – Slight | Likelihood: (b)3 – High2 – Med1 – Low | Risk Rating:= (a) x (b)High (6-9)Med (4)Low (1- 3) H, M, L | **Controls to be Implemented:** | Revised(a)3 – Major2 –Serious1 – Slight | Revised (b)3 – High2 – Med1 – low | Revised= (a) x (b)High (6 - 9)Med (4)Low (1- 3) H, M, L |
| Vessel to vessel collisionVessel to structure collision | 3 | 3 | **H** | * Skipper and crew to be professional, competent and appropriately licensed
* Vessel to be in good repair with all systems maintained and reliable
* Maintain continuous visual lookout applicable to the conditions, operating area and vessel traffic
* Compliance with COLREGS
* Passage planning and tidal / current awareness
* Maintain a listening watch on the relevant VTS channel for information on vessel movements
 | 3 | 1 | **M** |
| Vessel motion | 2 | 3 | **H** | * **As above plus:**
* Awareness of passenger personal movement abilities / restrictions
* Avoid excessive / rapid ship’s movements through good seamanship

and ship handling techniques* Alert passengers and crew to likelihood of sudden unexpected movement through wash of other vessels or similar
 | 2 | 1 | **L** |
| Grounding | 2 | 2 | **M** | * **As above**.

Note – The Blue Mermaid is flat bottomed and able to take the ground in most conditions within her operating area without damage orimpact to those aboard. | 2 | 1 | **L** |
| Racing Activities | 3 | 2 | **H** | * **As above plus:**
 | 3 | 1 | **M** |

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|  |  |  |  | * No young people are on board on a competitive event
* Full briefing of intended engagement and activity expected of adult crew when the group board.
* The race committee is responsible for deciding whether to run an event in the light of weather conditions, and each vessel is responsible for deciding whether to take part having consideration for weather and the strength and resilience of available crew
* The race organisers provide a following boat which is responsible for the management of the event and liaising with VTS, and would be available to assist in the event of an emergency.
* The vessel carries Cat C first aid kit and two of the three permanent crew are qualified first aiders
* Man-Overboard equipment comprises four life-rings, two with lines, one with dan buoy and scramble net.
* Emergency services are available from Gravesend, Southend and Sheerness RNLI
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| Being struck by sails during manoeuvres | 3 | 2 | **H** | * Safety briefing of places of danger and safety
* Clear instructions during manoeuvres
* Staff supervision
 | 3 | 1 | **L** |
| **Mooring Operations: Assessing the level of risk** | **Control Measures and Re-Assessment** |  |  |  |
| **Description of Activity and Associated Uncontrolled Hazards** | Consequence: (a)3 – Major2 – Serious1 – Slight | Likelihood: (b)3 – High2 – Med1 – Low | Risk Rating:= (a) x (b)High (6 -9)Med (4)Low (1 - 3) H, M, L | **Controls to be Implemented:** | Revised(a)3 – Major2 –Serious1 – Slight | Revised (b)3 – High2 – Med1 – low | Revised= (a) x (b)High (6 - 9)Med (4)Low (1- 3) H, M, L |
| Preparing to come alongside | 2 | 2 | **M** | * Mooring lines to be flaked on deck to avoid creating slip, trip hazards
* Manual handling of fenders to be allocated to suitable personnel
* Personnel not involved in mooring should stand clear on the other side of the vessel
* Directions to the crew should come from one source (Skipper or Mate) to prevent confusion or misunderstanding
 | 2 | 1 | **L** |
| Mooring lines | 2 | 2 | **M** | * Lines shall be in good condition and regularly inspected for defects
* When not in use lines shall be stored such that they are not subject to wear or damage
 | 3 | 1 | **M** |

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|  |  |  |  | * While the vessel is manoeuvring turns on cleats shall be limited such

that the line can be ‘slipped’ if required* All lines shall be secured such that they can be released from the vessel
* Personnel involved in mooring operations shall position themselves and others to be out of the line of fire should a line break
 |  |  |  |
| Vessel movements | 3 | 2 | **H** | * The captain shall manoeuvre the vessel in a seamanlike manner suitable to the conditions and the intended berth
 | 2 | 2 | **M** |
| Stacking and fleeting the anchor | 3 | 2 | **H** | * Training in correct posture and safety line to be used at all times.
* Safety line to be tended by a trained person.
* Staff supervision
 | 2 | 1 | **3** |
| Nip and Pinch | 3 | 2 | **H** | * When handling lines care must be taken to prevent body parts being drawn in to lines coming under tension
 | 3 | 1 | **M** |
| **Access and Egress: Assess the Level of Risk** | **Control Measures and Re-Assessment** |
| **Description of Activity and Associated Uncontrolled Hazards** | Consequence: (a)3 – Major2 – Serious1 – Slight | Likelihood: (b)3 – High2 – Med1 – Low | Risk Rating:= (a) x (b)High (6 -9)Med (4)Low (1 - 3) H, M, L | **Controls to be Implemented:** | Revised(a)3 - Major2 -Serious1 – Slight | Revised (b)3 – High2 – Med1 – low | Revised= (a) x (b)High (6 - 9)Med (4)Low (1- 3) H, M, L |
| Access / Egress to port area (vehicle & foot) | 3 | 2 | **H** | * Access / Egress to port area shall only be made through the authorised access points
* Personnel shall be aware of, and comply with, the health, safety and environmental requires in place within the port area.
* Vehicles will comply with port speed limits and road rules
* Where access/egress requires passing through areas of port operations, e.g. loading / unloading of other vessels, Blue Mermaid personnel shall comply with all port instructions and not proceed until all clear is given.
* Unless otherwise instructed heavy and mobile machinery / equipment within the port area shall have right of way
* Port operations shall take precedence over access / egress requirements
* PPE will be worn as required by the port authority
 | 3 | 1 | **M** |

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|  |  |  |  | * Personnel on foot shall stay within designated pathways where these are delineated.
* Personnel shall not transit under suspended loads / overhead operations
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| Working on the vessel in port | 3 | 2 | **H** | * Where required personnel shall carry port security cards with them and provide these on request
* Personnel shall be aware of, and comply with, the health, safety and environmental requirements in place within the port area
 | 3 | 1 | **M** |
| Visitors / Contractors | 3 | 3 | **H** | * The risk, hazards and controls identified shall be communicated to visitors and Blue Mermaid contractors
* Compliance with these requirements by visitors and contractors to the Blue Mermaid shall be monitored and enforced by the Blue Mermaid
 | 3 | 1 | **M** |
| Environmental spills | 3 | 2 | **H** | * Use most environmentally friendly chemicals and cleaning products practicable
* Block scuppers to prevent substances going overboard
* Bund substances, e.g. put a tin of paint in a bucket to contain any spills
 | 2 | 2 | **M** |
| Use of dinghy | 3 | 3 | **H** | * No more than seven people aboard
* Reduced payload in adverse conditions
* Staff supervision and competent person in charge
* Lifejackets to be worn by all persons
* Equipment regularly maintained
* Dinghy to be properly secured alongside before embarkation/disembarkation
 | 3 | 1 | **L** |
| **Manual Handling: Assess the Level of Risk** | **Control Measures and Re-Assessment** |
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| Twisting Stooping | 22 | 33 | **H H** | * Always move feet instead of twisting trunk
* Use common sense. Always bend your knees and keep back straight Do not bend from the waist
 | 22 | 22 | **M M** |

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| Reaching upwardsLarge vertical movements | 22 | 33 | **H H** | * Stretch out muscles in a controlled fashion before attempting to reach up to collect/deposit a load. Keep feet as close to the end point of the lift as possible to avoid leaning.
* When beginning a lift from floor level, bend knees and get close to the load.
 | 22 | 22 | **M M** |
| Long carrying distances | 2 | 3 | **H** | * Break the route up into small stages.
* Take regular breaks to prevent fatigue/muscle strain
* Check route of passage is clear of obstacles
 | 2 | 2 | **M** |
| Repetitive handling | 1 | 3 | **L** | * Maintain concentration and take rest periods
 | 2 | 1 | **L** |
| PPE required for handling cargo (boots / hats / gloves) | 2 | 3 | **H** | * When required wear hard hat gloves and steel toecap boots to protect vulnerable parts of the body
 | 2 | 2 | M |
| Working with cargo | 3 | 2 | **H** | * Demonstration of safe practise
* Operating under COSWAP
* Staff supervision
* Harnesses clipped onto Safety rails to traverse deck when hold covers are off
 | 3 | 1 | **M** |
| Manoeuvring of heavy loadsLoad bulky / unwieldy | 22 | 33 | **H H** | * Do not carry bulky or heavy items on your own

Assess how many people are required and ask for assistance | 2 | 2 | **M** |
| Variation of levels(gangways/companionwa ys) | 2 | 2 | **M** | * Plan your route
* Check for obstructions and remove them if necessary
* Ask for assistance in carrying even small loads if the route is difficult
* Help each other and work as a team
 | 2 | 2 | **M** |
| Use of winches | 2 | 2 | **M** | * Detailed briefing before use
 | 1 | 1 | **L** |

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|  |  |  |  | * Ensure pawls are engaged
* Staff to supervise operation
* More than one person to operate when under load
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| Rope burns | 3 | 2 | **H** | * Demonstration of safe methods of belaying and releasing a rope under load
* Staff supervision
 | 2 | 1 | **L** |
| Pulling and winding | 3 | 2 | **H** | * Demonstration of safe practise, posture and power to weight ratio
* Staff supervision
 | 3 | 1 | **L** |
| **General Risks: Assess the Level of Risk** | **Control Measures and Re-Assessment** |
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| Water ingress | 3 | 3 | **H** | * Vessel and equipment regularly maintained
* Through hulls to be fitted with isolation valves / handles and regularly tested. Wood bungs available for all outlets/inlets
* Hose pipes to be double clamped

Pumps to be regularly tested | 3 | 1 | **L** |
| Exposure to elements | 2 | 2 | **M** | * Weather reports monitored and passages cancelled / delayed or altered accordingly
* Appropriate protective clothing available. Also sun protection

Below deck area available for personnel to get out of adverse weather* Hot/cold drinks available for warmth/hydration
 | 2 | 1 | **L** |
| Gear failure | 3 | 3 | **H** | * Vessel and equipment regularly maintained
* Appropriate spares available
* Competent persons available to affect repairs as required

Regular equipment tests and inspections | 3 | 1 | **L** |
| Use of bowsprit | 2 | 2 | **M** | * Access to the bowsprit is controlled
* Harness and lanyard should be used when accessing the bowsprit
 | 2 | 2 | **L** |
| Working aloft | 3 | 3 | **H** | * All persons going aloft to wear a climbing harness
 | 2 | 1 | **L** |

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|  |  |  |  | * Harness to be attached to fall arrest system
* Safety line to be tended by a trained person
* Staff supervision

Regular equipment tests and inspections |  |  |  |
| Trip Hazards | 2 | 2 | **M** | * Regular checks to ensure clear deck (where possible) and passageways, along with safety briefing of trip hazards. Avoidance of places of danger

No running rule | 2 | 1 | **L** |
| Man Overboard | 3 | 2 | **H** | * Lifejackets available for everyone on board
* Under 18’s to wear lifejackets on deck
* Adults must wear lifejackets if directed by the skipper or mate
* Vessel has safety rails
* Safety brief includes no running rule
* Climbing into and alighting from dinghy to be done under supervision
* Harnesses used at skippers discretion
* Regular man overboard practises carried out

No passengers on deck on their own | 3 | 1 | **L** |
| Companionway | 2 | 2 | **M** | * Safety briefing and demonstration of correct practise of ascending/descending facing the stairs
 | 2 | 1 | **L** |
| Drowning whilstswimming as an activity | 3 | 2 | **M** | * Young people only to swim with permission from staff
* Staff must be satisfied with the conditions and safe location to allow swimming
* Safety boat must be in the water
* Buoyancy aids to be worn where people are out of their depth or if water is below 14 degrees C

Time in water to be set and monitored by staff | 3 | 1 | **M** |
| Fire | 3 | 1 | **M** | * Weekly fire drill
* Demonstration of fire fighting equipment including fire extinguishers and fire pump
* No smoking rule below decks
* Designated safe smoking area on deck
* No deep fat frying

Cookers to be attended at all times | 3 | 1 | **M** |
| Galley Risk | 3 | 2 | **M** | * Cooking under supervision of staff
* Safe storage of food
 | 2 | 1 | **L** |

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|  |  |  |  | * Training in the safe use of kitchen knives

Use of protective equipment |  |  |  |
| Maintenance tasks | 3 | 2 | **M** | * Briefing about ventilated spaces, eye injuries and chemicals on skin
* Demonstration of safe practise
* Issue of appropriate PPE

Staff supervision | 3 | 1 | **L** |

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| **Matrix for Risk Evaluation** | (a) Hazard Consequence Low (1) | (a) Hazard consequence Medium (2) | (a) Hazard Consequence High (3) |
| Likelihood High (3) | 3 - Medium | 6 - High | 9 – Very High |
| Likelihood Medium (2) | 2 - Low | 4 - Medium | 6 - High |
| Likelihood Low (1) | 1 - Low | 2 - Low | 3 - Medium |
| **NOTE: IF AFTER THE CONTROL MEASURES HAVE BEEN APPLIED THE RISK REMAINS ‘HIGH’ THEN THE OPERATION MUST BE RE-ASSESSED AND ACTIVITY MUST NOT COMMENCE UNTIL THE RISK HAS BEEN LOWERED.** |