

INSTRUCTIONS FOR USING THE RISK ASSESSMENT FORM

- 1.** Envisage the task in hand and identify the hazards associated with carrying out the task. These hazards are to be listed and addressed individually in the risk assessment form.
- 2.** Once the hazard has been identified, based on the combination of the likelihood and severity/consequence of the hazard, the risk evaluation score is to be assigned using the risk evaluation matrix on the last page. For example, a hazard which has a likelihood of 'unlikely' and a severity/consequence of "harmful", the risk evaluation score would be (moderate risk).
- 3.** With the determination of the risk evaluation score, using the recommended response table on the last page, appropriate action is to be planned and implemented.
- 4.** Using the above example of a risk evaluation score of 4 (moderate risk), appropriate controls must be applied to the risk and these must be listed out accordingly in the form along with the person responsible for applying the control and the completion date.
- 5.** Once the controls have been applied, the risk must be reassessed as a whole taking into account the applied controls and once again using the risk evaluation matrix on the last page, a residual score must be obtained.
- 6.** If the residual risk on reassessment is 'Trivial' or 'Tolerable' (scores 1 and 2), then no additional controls are required and only effective monitoring of the task to ensure compliance with procedures is necessary.
- 7.** However, if the reassessment of the risk again is 'Moderate', 'Substantial' or 'Intolerable' and yields a score higher than 2, it implies that the applied controls are not sufficient to address the associated hazards and therefore do not bring the risk to a safe level. This would require additional controls to be applied and steps 4 and 5 to be followed once again.
- 8.** This process would continue until the residual risk is eventually brought down to an acceptable level (scores 1 or 2).
- 9.** Effective supervision of the task to be carried out is necessary to ensure that there are no unauthorized and unsafe diversions which could effectively change the entire risk assessment therefore making it inappropriate for the current task.

This form is for guidance purposes only and does not replace any company procedures or applicable statutory regulations.

VESSEL NAME:			ACTIVITY: Bunker operations (aspects that may lead to disputes)	PERSONNEL INVOLVED IN THE TASK:		
HAZARD CATEGORY	POTENTIAL HAZARDS IDENTIFIED	RISK EVALUATION SCORE (Refer page 6)	POSSIBLE CONTROL MEASURES REQUIRED (including existing & proposed)	ACTION		RESIDUAL RISK SCORE (Refer page 6)
				PERSON RESPONSIBLE	DATE COMPLETED	
Bunker disputes	Illegal bunkering	Unlikely (2) x Extremely Harmful (3) = 6 Substantial (example only)	<ul style="list-style-type: none"> - It is imperative that bunker vessel operators ensure that they are in possession of all relevant and applicable certification and permits and are not contravening any international or local laws. - Appropriate compliance measures such as vessel checks should be performed to ensure that no business is conducted with sanctioned vessels or entities. - These compliance measures should extend to vetting that bunkers are not supplied to any vessels that are involved in any illegal trade. In case of supplying bunkers to fishing vessels, this check can be performed using the combined IUU vessels list: https://iuu-vessels.org/Home/Search. 			Highly Unlikely (1) x Harmful (2) = 2 Tolerable (example only)

Bunker disputes	Discrepancies in the quality and quantities of bunkers supplied between the bunker vessel/ operator and the original external bunker supplier from whom the bunker operator receives their supply.	(To be assessed and completed)	<ul style="list-style-type: none"> - Detailed specifications of bunkers, including sulphur content¹, should be clearly agreed and documented during the contractual stage of procurement of bunker supplies. Absence of this can give rise to ambiguity regarding bunker quality to be supplied and potentially weaken any defenses the bunker operator may have in the case of a dispute. The Standard Bunker Contract under BIMCO Bunker Terms 2018 may be helpful while negotiating a supply contract. - Clear processes regarding sampling and testing of the stemmed bunkers to be agreed upon and adhered to. - Unless otherwise agreed in writing, bunkers should conform to the standards prescribed in the International Organisation for Standardisation's ISO 8217, Petroleum products, Fuels (Class F), specifications of marine fuels. The values of hydrogen sulphide and oxidation stability are crucial to the quality of the bunkers and it is imperative that both of these parameters are as per ISO 8217. Please also refer to the Club's article on contaminated bunkers. - In the event that any bunker grade is requested, which is not specified in the ISO 8217, documented agreements should be made prior to the delivery, including confirmation from the supplier that the bunkers are homogeneous and stable. 	(To be assessed and completed)		(To be assessed and completed)
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¹ Members are encouraged to make reference to helpful advice such as the [Joint Industry Guidance on the supply and use of 0.50% - sulphur marine fuel](#).

Bunker disputes	Discrepancies in quality and quantities between bunkers supplied by the bunker tanker and that received by bunkered vessel.	(To be assessed and completed)	<ul style="list-style-type: none"> - Using the scope of a bunker checklist, risk assessment and toolbox talk, the receiving vessel's responsible crew member and the bunker tanker's cargo officer should have a pre-bunkering meeting to discuss the bunker quality, quantity, emergency procedures, communications, system details/limitations etc. - Where possible ensure that new bunkers are loaded in empty tanks or where this is not possible, ensure minimising the number of commingled tanks. - Where commingling is inevitable due to inadequate bunker space, ensure a commingled sample is tested for compatibility on board or preferably in a lab. - Commingled bunkers are not to be used until test results are obtained and bunkers found suitable for use. - On vessels with a common bunkering line, when switching between grades of bunkers, ensure that the line is suitable to load the new grade of bunker. - Where possible a different set of Service/Setting tanks for different grades are to be used to avoid risks associated with commingling. - The services of an independent bunker surveyor should be sought where practicable and in agreement with both parties. - In the event that there is a quantity or quality discrepancy the relevant shipboard personnel shall raise a note of protest. - Any local requirements are to be followed, as applicable. <p>(Cont'd)</p>	(To be assessed and completed)		(To be assessed and completed)
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Bunker disputes		(To be assessed and completed)	<ul style="list-style-type: none"> - Joint inspection / gauging / sampling of cargo/bunker tanks respectively of both vessels to be carried out before and after the bunkering operations. Appropriate records are to be maintained including empty/dry tank certificates of all empty tanks and void spaces, statement of facts, ullages and sampling reports. - Ensure safeguard against bunkering malpractices such as cappuccino bunkers² while measuring quantities. - With the support of shore management, under no circumstances should the crew agree to any adjustments in the ullage report to facilitate commercial pressure unless in the case of genuine errors noted therein. - Accurate bunker temperature and density is crucial to the computation of the correct cargo figure. Due care should be taken to ensure that the temperature measurement equipment is properly calibrated and in good working order. - Approved cargo tank layout and piping plans must be available on board for ease of reference. - Approved cargo tank calibration tables with proper reference heights of measurements are to be available and used on board. - Cargo line quantities should also be factored in while calculating the bunker figures. - It is important that both vessels use the same American Society for Testing and Materials (ASTM) tables as agreed in advance. - In case of transfer through flow meters such as volumetric or mass flow meters (MFM), this equipment must be approved by the appropriate authorities and tested/verified as required. <p>(Cont'd)</p>	(To be assessed and completed)		(To be assessed and completed)
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2 Caused by compressed air being blown into the fuel oil during the transfer process. The blown air increases the apparent volume of fuel oil.

Bunker disputes		(To be assessed and completed)	- Sulphur content and a record of the binding sample ³ should be duly noted on bunker delivery note along with all other pertinent cargo information.	(To be assessed and completed)		(To be assessed and completed)
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³ Usually the binding sample is that from the vessel which is supplying the bunkers.

RISK EVALUATION MATRIX TO OBTAIN SCORE

		Severity/Consequence		
		Slightly Harmful (1)	Harmful (2)	Extremely harmful (3)
Likelihood	Highly Unlikely (1)	Trivial Risk (Score 1)	Tolerable risk (Score 2)	Moderate Risk (Score 3)
	Unlikely (2)	Tolerable Risk (Score 2)	Moderate Risk (Score 4)	Substantial Risk (Score 6)
	Likely (3)	Moderate Risk (Score 3)	Substantial Risk (Score 6)	Intolerable risk (Score 9)

THE TABLE BELOW INDICATES THE RECOMMENDED RESPONSE IN EACH CASE.

Trivial	No action is required.
Tolerable	No additional controls are required. Monitoring is required to ensure control is maintained.
Moderate	Efforts are required to reduce risk. Controls are to be implemented within a specified time.
Substantial	New work not to start until risk reduced. If work is in progress, urgent action to be taken. Considerable resources may be required.
Intolerable	Work shall not be started or continued until the risk has been reduced. If reduction is not possible, the activity shall be prohibited.

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