

TAI CHONG CHEANG STEAMSHIP CO (SINGAPORE) PTE LTD

JOB HAZARD & RISK ANALYSIS FORM

Complete this process to identify the HAZARD and assess Consequence with each hazard. State Control measures to eliminate/mitigate Risks
(example: Identified Hazard: "Electricity" ; Consequence: "Electrocution, Disability, Death,"....etc)

Vessel Name: _____
Voyage #: _____
Work Activity being assessed : _____

Date: _____ Wind/ Weather: _____
Port/ Location: _____ Tide: _____
Work area : _____ Visibility: _____

Code : No. - Number, LKH - Likelihood, SVR - Severity, RF - Risk Factor, A.C - Additional controls

Code for Risk Factor : VH - Very High Risk, HR - High risk, MR - Moderate risk, LR - Low risk, VL - Very Low Risk

For unusual jobs, work on critical equipment or if residual risks remain MR or HR, send JHA to Office							If any hazard manifests itself even with effective control measures in place or if hazards develop unexpectedly, work should be stopped and office informed.									
Date of JHA:				Last Assessment:												
SECTION 1		Refer to Risk Matrix sheet				Risk rating			Control Measures				Residual Risk			
No.	Job / Event	Hazard	Consequence	LKH	SVR	RF	(If no control measures are required, enter NONE and keep LKH & SVR unchanged)				LKH	SVR	RF	A.C		
1																
2																
3																
4																
5																
6																
7																
8																
9																

Section 2 - Additional controls		Acceptable/Intolerable		In case of any MR, HR or VH residual risk, Contact Office	
No.	To be completed by Office			To Be completed prior commencement of work	
1				Alternate method of work considered and found not applicable <input type="checkbox"/> Yes <input type="checkbox"/> No	
2				Discussed hazards and controls with team <input type="checkbox"/> Yes <input type="checkbox"/> No	
3				Date and time when all controls are in place	
4				Shut down period for this JHA (For work on critical equipment only) From To	
5				Evaluation of JHA after completion of work	
6				Any new or unassessed hazards recognised (If so, it must be mentioned under comments and noted for assessments in the next JHA for this job) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
7				Comments :	
8					
9					

Where required, have relevant port authorities been notified (Liaise with Office/Agents, if necessary)	N/A (Outside port limits)
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LCD Notified	N/A	Remarks
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GENERATED ON BOARD OR ASHORE: Ship		
Master		
	Name/ Date	Signature
Chief Engineer		
	Name/ Date	Signature

Joint JHA is essential by C/O and 2/E when overlapping responsibilities and hazards are involved, approved by Chief Engineer and Authorized by Master.

Reviewed By: SM/FM		
	Name/ Date	Signature
Reviewed By:		
By D/GM		
	Name/ Date	Signature

Chief Officer		
	Name/ Date	Signature
2nd Engineer		
	Name/ Date	Signature

Identify Team Leader (Name & Rank):	
Personnel Assigned (Name & Rank):	
Approved By:	
By GM	
	Name/ Date Signature

RESPECT SAFETY OF LIFE, ENVIRONMENT & PROPERTY
CAREFULLY READ AND COMPLY WITH THE COMPREHENSIVE DIRECTIVES AND GUIDELINES CONTAINED IN "SMS VOLUME IV: JOB HAZARD ANALYSIS PROCEDURES"
"THE LIFE YOU SAVE IS MAY BE YOUR OWN!"

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Complete this process to Identify the HAZARD and assess Associated RISK with each STEP. Take measures to eliminate/ mitigate Risks
(example: Identified Hazard: "Electricity"; Associated Risks: "Electrocution, Disability, Death,"....etc)

RISK MATRIX					
LIKELIHOOD	SEVERITY				
	VERY LOW 1	LOW 2	MODERATE 3	HIGH 4	VERY HIGH 5
RARE 1	VERY LOW RISK	VERY LOW RISK	LOW RISK	LOW RISK	MODERATE RISK
UNLIKELY 2	VERY LOW RISK	LOW RISK	MODERATE RISK	MODERATE RISK	HIGH RISK
POSSIBLE 3	LOW RISK	MODERATE RISK	MODERATE RISK	HIGH RISK	VERY HIGH RISK
LIKELY 4	LOW RISK	MODERATE RISK	HIGH RISK	VERY HIGH RISK	VERY HIGH RISK
ALMOST CERTAIN 5	MODERATE RISK	HIGH RISK	VERY HIGH RISK	VERY HIGH RISK	VERY HIGH RISK

Risk Rating = Severity X Likelihood

Control measures are mainly aimed at reducing the likelihood as severity can be diminished only in very rare cases.

Almost Certain 5	Occurs several times per year on each ship / location
Likely 4	Occurs several times per year in the company
Possible 3	Has not occurred in the company in last year
Unlikely 2	Has not occurred in the company in last 3 years
Rare 1	Has not occurred in the company in last 8 years
Very Low Risk	Risk Level is Acceptable
Low Risk	Risk Level is Acceptable
Moderate Risk	Risk level needs additional controls to be ALARP
High Risk	Risk level needs additional controls to be ALARP
Very High Risk	Risk level intolerable

SEVERITY	SAFETY	HEALTH	ENVIRONMENT	OPERATIONAL IMPACT	MEDIA
VERY HIGH 5	Multiple Fatalities	Multiple health related fatalities	Long term impact, severe impact on sensitive area, widespread effect, lasting impairment of ecosystem	Very Serious damage or loss to vessel / equipment / cargo resulting in Out of service more than 30 days Direct cost more than 2,000,000 USD	International Coverage
HIGH 4	Single Fatality / Severe permanent partial disability	Single health related fatality	Medium to long term effect / large area affected some impairment of ecosystem	Major damage or loss to vessel / equipment / cargo resulting in Out of service between 15 and 30 days Direct cost between 500,000 and 2,000,000 USD	National Coverage
MODERATE 3	Lost Time Injury / Moderate permanent partial disability	Health Repatriation Case	Short to medium term impact, local area affected, no effect on ecosystem	Mod. Damage or loss to vessel / equipment / cargo resulting in Out of service between 1 and 15 days Direct cost between 200,000 and 500,000 USD	Regional Coverage
LOW 2	Restricted work case	Health Medical Treatment Case	Temporary effect / Minor effect to small area	Minor damage or loss to vessel / equipment / cargo resulting in Out of service < 1 day Direct cost between 10,000 and 200,000 USD	Local Coverage
VERY LOW 1	First aid case / Medical treatment case	Onboard Case / Potential Occupational Health Incident	Low impact with no lasting effect, minimal area exposed	Insignificant damage or loss to vessel / equipment / cargo resulting in Direct cost less than 10,000 USD	No Coverage

HARARD RISK FACTOR MATRIX			Approval To PROCEED		
GRADE	CATEGORY	ACTION			
Slight - Very Low Risk	1	No action required when residual risk level is between 1 - 2	All JHAs carried out under this category are not required to be sent to the office. No action is required unless change in circumstances.		
Minor - Low Risk	2	No additional controls are required. Monitoring is required to ensure controls are maintained when residual risk is between 3 - 4	All JHA carried out under this category are to be sent to the office as part of notification for review by F/M or S/M. Approval is not required. Office may revert with the comments if necessary.		
BELOW RISK LEVELS ARE REQUIRED TO BE SENT TO OFFICE FOR REVIEW AND APPROVAL PROCESS.			FM/SM	DGM	GM
Moderate - Moderate Risk	3	When residual risk level is between 5 – 9, efforts should be made to reduce risk. Risk reduction measures should be implemented within a defined time frame. When the moderate risk is associated with extremely harmful consequences, further assessment may be necessary to establish, more precisely the likelihood of harm as a basis for determining the need for improved control measures.	Review + Notify DGM-SMD/MSD	Approve or Reject	-
High - High Risk	4	When residual risk level is between 10 – 14, work should not be started until the risk has been reduced. Consider available resources, which may have to be allocated to reduce the risk. When the risk involves work in progress urgent action should be taken.	Notify DGM-SMD/MSD	Review + Notify GM	Approve or Reject
Extreme - Very High Risk	5	When residual risk level is between 15 – 25, work should not be started or continued until the risk has been reduced. If it is not possible to reduce the risk even with unlimited resources, work has to remain prohibited. JHA must be submitted by SM/FM to the GM for his approval.	Notify GM	Notify GM	Approve or Reject

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