

**SHIP SPECIFIC DISMANTLING PLAN**

**OF SHIP**

**M.V. / M.T.....**

.....

**PLOT NO. ...., SRY**

**ALANG/SOSIYA**

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**(A) Description of Ship:**

1. Name of the ship: M.V./M.T. ....
2. Type of Ship :
3. IMO Identification No:
4. Flag:
5. Call Sign :
6. LDT of the ship: ..... MT
7. Built :
8. Details of last major repair carried out.: N.A.
9. Modification/ Conversion if any carried out.: N.A.
10. Own power or Dead vessel : Own Power Vessel
11. Fire/Accident details if applicable. : N.A.

Gujarat Maritime Board has allotted us plot no. .... on lease base. Gujarat Pollution Control Board has issued authorization no. .... to carry out ship recycling activity on this plot. Our Recycling Facility Management Plan is also approved by Gujarat Pollution Control Board. We have obtained LPG storage licence from PESO, Nagpur. All other required license and approval from other concerned authorities are obtained and are valid. We are carrying out ship recycling activity in the name of ..... Ours is one of the leading ship recycling units in ship recycling yard. We are engaged in this field since .... Years .We are having highly efficient team members with rich experience. As well as fully equipped plot with required infrastructure as per Recycling Facility Management Plan duly approved by GPCB. We have handled ..... LDT MT. and has recycled almost all types of ships. All dismantling activity of ship has been carried out in our plot.

The dismantling of this ship is planned in three phase.

**First Phase**

<b>Sr. No.</b>	<b>Place to dismantle</b>	<b>Activity</b>	<b>Type of Risks</b>	<b>Precautionary measures</b>	<b>Type of waste generate</b>
1	Cabins	Removal of Furniture/ ply/ fixtures etc. required to be removed prior to start hot work.	Fire, Work at height, Falling Objects	Fire fighting system ready at all time. Use of safety belt. Cordon of place	Glass Wool, ACM

2.	Fore Peak	Starting of dismantling operation	Fire, Confined space	Fire fighting system ready at all time, to check Oxygen level frequently	-----
3.	Cargo holds, Bottom	Further activity of dismantling	Fire, Confined space	Fire fighting system ready at all time to check Oxygen level frequently	-----

### Second Phase

Sr. No.	Place to dismantle	Activity	Type of Risks	Precautionary measures	Type of waste generate
1.	Engine Room	To dismantle engine and other accessories	Fire, Confined space Working at precarious angles in engine room	Fire fighting system ready at all time to check Oxygen level frequently	Asbestos, Glass Wool
2.	After Peak	To dismantle after peak	Fire, Confined space	Fire fighting system ready at all time to check Oxygen level frequently	-----
3.	Shaft Room	To dismantle Shaft room	Fire, Confined space	Fire fighting system ready at all time to check Oxygen level frequently	-----

### Third Phase

Sr. No.	Place to dismantle	Activity	Type of Risks	Precautionary measures	Type of waste generate
1.	Engine & bottom	To pull engine with its bottom & other heavy pieces of ship	High load on winch	Proper assumption of load on winch and selection of tidal time	-----
2.	Propeller	To pull Propeller	High load on winch	Proper assumption of load on winch and selection of tidal time	-----

Hazardous waste possibility area and confined space area will be marked.

#### Fair assessment of Hazardous & Non Hazardous materials:

Details to be given phase wise

Insulating Materials	
Engine Area	Asbestos/Glass Wool
D.G. Set Area	Asbestos/Glass Wool
Boiler	Asbestos/Glass Wool
Piping on Deck	None
Partition Wall	Glass Wool/Steel
Ceiling	Glass Wool/ACM
Hull side Wall	Glass Wool/Steel
Passage on Decks	Glass Wool/Steel
Fire Doors	Glass Wool/Steel

Bilge Water	
No. of Tanks	.... Nos.

Ballast	
Type of Ballast	Water
No. of Ballast Tank	..... Nos.

No. of Lead Acid batteries	whole/ new	crushed
Total No of Batteries	..... Nos.	---

<b>Radioactive Material</b>	
Smoke Detector	.....

<b>Gases</b>	
Acetylene	.... Nos.
Oxygen	.... Nos.
CO <sub>2</sub>	.... Nos.
Freon	.... Nos.

### **(B) Ship Breaking Schedules with Sequence of work**

In normal Ship breaking, the ship is first anchored, than beached followed by breaking activity in the ship-breaking plot.

#### **Ship Breaking Process:**

<b>Sr. No</b>	<b>Zone for various activities</b>	<b>After Beaching, activity of the ship breaking in Chronological order.</b>	<b>Possibility of Hazardous &amp; Non Hazardous Wastes generation from corresponding activities.</b>
1	Primary Block Breaking Area in the tidal area	<ul style="list-style-type: none"> <li>• Removal of Oil, fuel (Sludge),</li> <li>• Dismounting of Re-usable equipments,</li> <li>• Cutting of large ship segments</li> <li>• Removal of asbestos Containing Material from Engine Room &amp; Boiler, - Emptying fire extinguisher systems etc.</li> </ul>	Oil & Oily Sludge, Asbestos Containing Materials, Paint chips & coatings.
2	Secondary Block Breaking area on landward side from the High water Line	<ul style="list-style-type: none"> <li>• Primary Sorting of Components</li> <li>• Further Cutting into suitable size for transportation</li> </ul>	Paints & Coating, Glass Wool

3	Assorted, finishing, sorting of the dispatch able material	<ul style="list-style-type: none"> <li>• Definitive Sorting of materials and equipments</li> <li>• Segregations of Composite Materials</li> <li>• Finishing of materials for resale</li> <li>• Overhauling of equipments</li> </ul>	Asbestos Containing Materials & Glass wool, and some non hazardous wastes like broken sanitary items, glass pieces, Porcelain pieces, Cement tiles etc.
4	Adequate Temporary Storage facility for all materials	<ul style="list-style-type: none"> <li>• Stockpiling of assorted, finished materials</li> </ul>	Minor quantity of paint chips & coatings
5	Site Office & Emergency Facilities	<ul style="list-style-type: none"> <li>• Administrative works</li> <li>• First Aid help</li> </ul>	Some Paper Waste
6	Temporary Storage facility rooms for Hazardous & non Hazardous Waste	<ul style="list-style-type: none"> <li>• Packing and storing for temporary storage till the final disposal takes places.</li> </ul>	Contaminated Clothes
7	Waste Disposal Facilities	<ul style="list-style-type: none"> <li>• Land filling site GEPIL at Alang</li> </ul>	

Ship dismantling activity will be undertaken in Safe & Environmentally Sound Manner.

### (C) Operational Work Procedure

#### Dismantling Activity Plan:

##### Removal of all loose items

Loose Item	Removal Plan
TV	This routine and very simple work shall be done manually by collection of loose items from the ship which will be transferred to the shore and loose items shall be transferred manually to the plot..
Electronic items	
Furniture	
Mattresses	
Carpets	
Lightings	
Kitchen utensils	
Life boats	
Life rafts	
Spares	
Stores	
Crockery	
Paints items	
Etc. all loose items which are not fixed	

##### Ballast Water

Items	Removal Plan
Ballast Water	This very much common and simple practice used across entire Alang. Includes the discharge of water from the vessel.

##### Ship Structure Dismantling

Items	Removal Plan
Everything expect chimneys, insulated pipelines, and vent rooms	This very much common and simple practice used across entire Alang includes – cutting torches (LPG & O2). As there is no PCB and ACM or any hazardous material. There decks will be easily dismantled. The dismantled pieces shall be transferred to the plot with the help of crane and winch to the plot.



**ACM Sheets Removal**

Item s	Removal Plan
ACM Sheets from partition.	Minor Quantity of ACM is in form of wall partition in rooms.(at first phase area, second phase area, third phase area etc.) This ACM are in good and undamaged condition well painted and well bended and very well maintained and in a condition / position from which they can be removed quite easily without damage They will not generate fiber and in such condition that it can be reused therefore it is to be detached in such way that they are not broken or damaged

**Asbestos Removal from engine room**

Item s	Removal Plan
Asbestos removal from engine room	This very much skilled and specified removal of asbestos from engine room. for the removal of asbestos wetting or spraying fixing agent shall be used in the area for the removal of parts containing asbestos so that fibers don't become air borne.

**Removal Plan for Paints, Cable & Tiles**

Items	Removal Plan
<b>Paints</b>	<p><b><u>Paints Removal Plan</u></b></p> <p>Paints shall be removed from the special areas where there shall be cutting of the metal sheet conducted. If required, the paints removal shall be conducted with the help of grinders equipped with dust exhaust system. Wherever applicable, and required employees shall be provided with appropriate and approved masks PPEs, so as to avoid grinding</p>



### General Ship Breaking

Items	Removal Plan
Iron and ship structure cutting	Gas cutting torch will be used for the cutting of huge process. These pieces shall be brought to the shore/plot with the help of winch or cranes. Further cutting as per the requirement shall be conducted on the plot.

### Cleaning while Dismantling

Items	Removal Plan
All the waste generated except Asbestos/ACM and hazardous waste	Cleaning is being conducted with the help of brooms, hands collection, and gathering into bucket

**(D) Time, Labour & PPE required for below mention activities**

<b>Time</b>	<b>Activities</b>	<b>Approx Time Duration</b>	<b>PPE</b>	<b>Approx Labour Strength</b>
1	Removals of Loose Items	..... Days	Hand Gloves, Helmets, safety Belt, Dust Mask, Safety Shoes	..... Labours
2	Removals of Oil	..... Days	Helmet, Smoke Mask, Boilershuit, Goggles, Safety Shoes	..... Labours
3	Ship Structure Dismantling	..... Days	Hand gloves, Helmet, Safety Belt, Dust Mask, Boiler suit, Goggles, Safety Shoes	..... Labours
4	Asbestos Removals	..... Days	Helmet, Transparent goggles, Disposal Suit, Hand Gloves, Safety Shoes, Half Facemask,	..... Labours
5	Paint chips	..... Days	Helmet, Transparent goggles, Boiler suit, Safety Shoes, Dust Mask	..... Labours
6	Cable Removals	..... Days	Helmet, Transparent goggles, Hand gloves, Boiler suit, Dust Mask, Safety Shoes	..... Labours
7	Floor tiles Removals	..... Days	Helmet, Hand Gloves, Transparent goggles, Boiler suit Dust Mask, Safety Shoes	..... Labours
8	Machineries	..... Days	Helmet, Hand Gloves, Transparent goggles, Boiler suit, Safety Shoes	..... Labours
9	Cleaning while Dismantling	..... Days	Helmet, Hand Gloves, Transparent goggles, boiler suit, Safety Shoes, Dust mask	..... Labours

Stock of PPE'S of approved make and as per circular issued by GMB will be made available depending upon labour force engaged. This will be implemented and concerned authority will be informed accordingly. We will engaged trained labours only.

**(E) Availability of material handling equipment and PPE:**

We have done ship dismantling activity mostly by machinery, for this we have .... nos. of cranes, ..... nos. of winch, ..... Nos. of chain block , ..... running feet of wire rope and pulling chain.

Above machineries will be used as per requirement while dismantling activity. However, if needed heavy lift crane, forklift etc. are available on rent basis in near by area of ship recycling yard.

**Personal Protective Equipment (PPE's): Following PPEs are at present available with us.**

Sr.No.	Item Name	
01	Name	Helmet
	Purpose	Protection of Head during work
	Qty	.... Nos. available in different sizes
02	Name	Hand gloves
	Purpose	Protection of hands during work
	Qty	.... Nos. (Various Sizes & Type)
03	Name	Safety Shoes
	Purpose	Protection of feet.
	Qty	.... Nos. (various size)
04	Name	Safety Goggles
	Purpose	Eye Protection
	Qty	.... Nos. with ISI mark
05	Name	Body Protection suit (Boiler Suit)
	Purpose	Body Protection
	Qty	.... Nos. (various size & type)
06	Name	Safety Mask
	Purpose	To prevent inhalation of unwanted material
	Qty	.... Nos.
07	Name	Safety Belts
	Purpose	For safety during the cutting at heights
	Qty	.... Nos.

08	Name	Emergency Breathing Device (EBD)
	Purpose	Providing Breathing during emergency
	Qty	.... Nos. EBD capacity ranging from 10 mins to 1 hr.
09	Name	First Aid Box
	Purpose	Providing First aid
	Qty	.... Nos. having capacity of 50 persons each, Emergency stretcher- .... Nos. available for the transfer of victim.

All PPE are BIS standard.

**(F) Plan for removal of oil (Every type of oils/fuel) and cleaning of tanks.**

**Removal Plan**

This very much common and simple practice, used across entire Alang, includes - the pumping out of oil from the ship into the tanks placed on the beach. These tanks shall further be emptied into the vacant tankers on the plot

**Waste Generation**

Post transfer of oil, the oil tanks shall be cleaned by send collected and transferred to the temporary storage facility rooms and dispatched to GEPIL site at Alang, through it's own prescribed and approved vehicles.

**Precaution to be maintained**

No oil spill to be generated However, if generated the oil spill collection will be collected by specific oil collection equipment provided by GMB on special request.

**Personal Protective Equipment to be used**

Necessary PPE will be provided as per BSI standards.

### **(G) Gas free and feet for Hot work Certificate**

We will obtained Gas free and feet for Hot work certificate from competent Authorities.

### **H) Identification and marking of all confined spaces**

We will identified and marked all non-breathable spaces in the vessel.

### **(I) Identification and marking of all Hazardous waste places**

We will identify and marked all places in the vessel which are containing/likely to contain hazardous substances/hazardous waste.

### **(J) Ballast Water Exchanged confirmation from Master of Ship**

For Confirmation to this, at the time of desk – review concerned authorities has verified and there after beaching NOC issued by same agencies.

### **Recycling and Disposal**

During whole process of the ship dismantling, main objective is to yield re-rollable steel, good quality of furniture, block boards, and other re-usable/recyclable materials. The wastes during demolition activity so generated will be first temporarily stored at adequate temporary storage facility rooms where the ship recycling will take place and then transported from the dismantling site to GEPIL site at Alang. The materials other than hazardous waste for resale, re-manufacturing or recycling shall be dispatched to the down line enterprises for commercial purpose.

### **Re – Sale :**

The individual trade facilities tend to specialize according to item type. The following is a listing of item – groups typically offered for direct re-sale (re-processing / re-manufacturing):

- pumps, valves, motors, machines
- navigational equipment
- life saving equipment ( raft, lifebuoys ,life-vests, survival suits, etc )
- personal protective equipment ( helmets, work-boots, gloves, goggles, overalls, etc
- Steel components (anchors, chains, ventilation components, pipe work etc )
- Sanitary equipment ( toilets, sinks, bath tubs, and so on )
- Furniture
- Electrical cabling (intact and unused lead acid batteries will be sold to authorized recyclers.
- Oil Grease & Lubricants ( to manufacturing industries )



### **Re – Manufacturing / re- processing :**

A comprehensive proportion of the waste stream is re processed or re manufactured rather than recycled prior to sale. The following illustrate this:

- Steel re – manufacturing: Not all extracted steel work is characterized as scrap. “Undamaged “plating is re manufacturing by cutting, grinding and hot work. Anchor, chains, engine structures, and so on may also be re manufactured by undergoing similar treatments.
- Oil re-manufactured :Used (dirty) oil (lubricating Oils ) are re-processed and offered for sale
- Mineral re-processing: insulation material (ACM sheet) sold to manufacturing industries.
- Copper reclaim,: damaged cabling or non-saleable cabling is stripped for insulation by mechanical stripping otherwise it is to be sold to Authorized register recycler( sometimes also carried out at the scrapping site )

### **Final Product**

1. More than 95 % of weight of the Ship consists of the re-rollable iron plats & iron materials, hence final products will be re-rolling steels.
2. Rest less than 5 % materials of the weight of Ship consists of furniture, re-usable equipments, intact cables and pipe lines, cabins, sanitary items, kitchen articles including utensils, mattress, pillow and cloth cover, glasses, wooden doors, panels and block board, work shops equipments including hammers, crew diverts, lath machines are subject to REUSE directly.

### **Disposal**

Minor quantity of Hazardous & Non Hazardous wastes as quantified shall be disposed at GEPIL site of Alang. Used oil & waste will go to authorized oil recyclers/repressor as approved by Ministry of Environment & Forest, New Delhi and Gujarat Pollution Control Board.

Dismantling of the ship M.V./M.T....., we have approximate ..... labour force for particular this ship to demolished and trained labourforce which are trained from Gujarat Maritime Board Training Center as per categorized with their works. We have also trained Makadamas, Drivers and all needed Staffs for dismantling activities dully trained..