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# **PRELIMINARY DRAFT**

## **The Ship Breaking and Ship Recycling Rules, 2011**

## Preface

The ship recycling industry of Bangladesh, which is known as one of the major facilities of the world, started its operation in 1972. Prior to that, two or three ships were scrapped during the Pakistan period. The industry began automatically when a 20,000 dwt vessel was driven ashore by the devastating tidal bore of 1960. That was the first ship to be scrapped on the Chittagong sea beach. At present, ship recycling activities are conducted by 125 yards in an area of about 10 km<sup>2</sup>, starting from a point North Salimpur to North Sonaichari of Sitakundu Upzaila, Chittagong. . The world's ship recycling activities have shifted to the Indian subcontinent, Bangladesh, India and Pakistan accounting for more than 90% of total ship disposals since 1998. According to HIS Fairplay Publication Bangladesh was in leading in the year of 2001, 2002 and from 2004 to 2008 . In the absence of any domestic source of iron ore, Bangladesh has to depend on steel from scrapped ships to feed the re-rolling mills and steel factories or face the high prices for “new” steel in the international markets. Ship sources provide about 80% of the country's steel needs. The industry also provides an important source of revenue to the Government and helps, in one way or another, the industries concerned with the production of cement, construction materials, sand, stone, sanitary equipment, re-rolling mills, safety equipment etc. Other items from ships such as engines, generators, boilers, electrical and plumbing items, furniture, refrigerators, air-conditioners, etc. are mostly reused. The garment manufacturing factories use the discarded engines and generators; boilers are used mainly in rice mills, garment washing plants, knitting plants and other industries. Wooden planks/bars and furniture, are also re-used. The residual furniture from the scrapped ships is utilized by households and has a positive social effect on the lower-middle class society, which accounts for the majority of the population in Bangladesh. The furniture is often used as wedding gifts, in place of expensive wood furniture that is unaffordable by all. Regardless of the difficult working conditions of the ship recycling industry, the workers undertake their work against wages, hours and overtime payments which are based on local standards. The ship recycling is an industry that Bangladesh cannot afford to lose. About three million people are directly or indirectly employed in the industry, and almost two million tons of iron is consumed every year. Ship Breaking and Recycling contributes such huge impact to socio-economic factor of the Country , **Hon'ble Prime Minister Sheikh Hasina declared the sector as an Industry on 13 Feb. 2011 and hence under business of allocation to Ministry of Industries (Gazetted on 21 April 2011).** The ship recycling facilities, Bangladesh is undertaking such difficult tasks as risk management, occupational safety and health of workers, and the planning and management of wastes resulting from ships which have been discarded to be controlled by environmentally sound management .It is required and to implement the Hon'ble High Court direction to frame **Rules on Safe and Environmentally Sound Ship Recycling in Bangladesh.**

# **Government of the People's Republic of Bangladesh**

## **Ministry of Industries**

### **1 Short title, meaning, extent and commencement:**

“**The Ship Breaking and Recycling Rules ,2011**” herein after referred to as ‘Rule’ has been formulated in pursuance of the Hon’ble High Court Division of Supreme Court, in writ petition No. 7260 of 2008 dated 07<sup>th</sup> March 2011 taking into consideration the directions contained in the Order and also under the power of Act 13 , 87 of The Factories Act ,1965 .

1.1 Unless the context otherwise requires, the other terms used in the rule shall have the meaning assigned to them under the Acts such as Petroleum Rules, 1937; Factories Act, 1965; Bangladesh Environment Conservation Act 1995 ,Labor Act 2006 ,Import Policy ,ILO Guidelines safety and Health in Ship Breaking ,The Hong Kong International Convention for safe and environmentally sound recycling of ships ,2009 ,Basel Convention 1989,IMO International Convention for the Safe and Environmentally Sound recycling of Ships 2008.

1.2 Import of ships destined for recycling under this rule shall be subject to one stop service under Ministry of Industries which will cover the Import and Export Policy of the Government of Bangladesh as well as various provisions laid down under various Acts/Rules under relevant Ministries as amended from time to time specially for Ship Recycling Industry .

1.3 The rule shall be applicable to all ship recycling activities in Bangladesh and administer by the appropriate agency under Ministry of Industries.

1.4 However, the Ministry of Shipping, Government of Bangladesh and the respective Port Authorities or the concerned Department of the Government reserve the right to give specific exemptions for undertaking recycling/breaking of ships grounded at any other sea front other than a recognized ship recycling plot or yard with the consent of Ministry of Industries . These rule does not apply to the ships, which are grounded and defined as wreck. For removal of the wreck, rules under the Merchant Shipping Ordinance , 1983 shall apply.

1.5 A ship delivered physically for recycling shall not be subject to any claims or maritime lien arising against any former owner or ship.

1.6 The rule shall come in to force from the date of publication in the official Gazette. However, nothing in this rule shall affect any jurisdiction, functions, powers or duties required to be exercised, performed or discharged by existing practice.

## 2. Definitions

- i. "Rule" means the Rule for Safe and environmentally sound Ship Recycling in Bangladesh.
- ii. "Inspector" would mean an inspector appointed under The Ship Building and Ship Recycling Board (SBSRB)
- iii. "Port Authority" means a Port officer or any other person appointed and authorized by the Ministry of Shipping .
- iv. "Owner of a ship Recycling plot/yard/facility" means any Person or Body permitted to operate ship recycling activities within the declared Ship Recycling Zone .
- v. "Ship Recycling Plot or Yard" A piece of land of suitable dimension in Ship Recycling Zone by Ministry of Industries where ship recycling activities are carried out with require facility as per Rule .
- vi. "Safety Officer" would mean any person employed by the Yard owner in-charge of Safety ,Health and Environment (SHE) prevention and mitigation measures from the panel of SBSRB.
- vii. "Ship" as used in this Code means vessels and floating structures of any type operated in the marine environment and shall include submersibles, floating crafts, floating platforms, self elevating platforms, Floating Storage Unit, Floating Production Storage Units and Offloading Units, a vessel stripped of equipment or being towed; destined for breaking purpose.
- viii. "Ship Recycler" means who carry out Ship breaking ,Ship Recycling and related activities in the authorized ship recycling yard in Ship Recycling Zone.
- ix. "Authorized Ship Recycling Yard" means a ship recycling yard or yards under the Ship Recycling Zone to cater safe and environmentally sound ship recycling activities and approved by Ministry of Industries .
- x. "Ship recycling activities" would mean and include all activities such as beaching, cutting, dismantling of the ship and disposal of all dismantled materials from the ship-recycling yard in safe and environmentally sound manner.
- xi. "Worker" means the Worker defined under sub-clause (1) of Section 2 of the Factories Act, 1965.& The Labour Law ,2006 .
- xii. "Cash Buyer" means the person or company who owns the ships for less than three months.
- xiii. "SRFP" means Ship Recycling Facility Plan. Ship Recycling Facility Plan includes the yard for ship recycling as per approved lay out and equipped with various facilities as prescribed by Ship Building and Ship Recycling Board (SBSRB).

xiv. "SRP" means Ship Recycling Plan. It is the Plan Document developed by the ship recycler with information provided by Ship Owner to recycle a ship in safe and environmentally sound manner.

xv. "DG Shipping" means Directorate General of Shipping, the authority constituted under the provisions of Merchant Shipping Ordinance, 1983.

xvi. "International Certificate on Inventory of Hazardous Materials" means a certificate, which encompasses the Hazardous materials on board the ship in the format as prescribed by the Ship Building and Ship Recycling Board in accordance with Import Policy or any other international convention ratified by Government of Bangladesh .

xviii. "Trade Body" means Ship Recycler's Association recognized by Ministry of commerce and duly approved by SBSRB.

XIX. "Ship Building and Ship Recycling Board (SBSRB)" means the Board under The Ministry of Industries to provide one stop service for Ship Building and Ship Breaking , Recycling Industries in association with other Governmental Department i.e Customs , Department of Environment ,Directorate of Shipping ,Department of Explosives ,Factory Inspection Directorate , Mercantile Marine Department , Port Control and Directorate of labour and manpower .

XX. "Ship Recycling" is the process of dismantling a vessel's structure or disposal whether conducted at a beach/green dock for dismantling ship. It includes a wide range of activities, from removing all gear and equipment to cutting down and recycling the ship's infrastructure.

XXI. "Hazardous Waste" (HW) is waste that poses substantial or potential threats to public health or the environment.

XXII. "Safe for man Entry" means that in the compartment or space so designated: the oxygen content of the atmosphere is at least 19.5 percent and not more than 23 percent by volume; toxic materials in the atmosphere are within permissible concentrations; and the residues cannot produce toxic materials under existing atmospheric conditions .

XXIII. "Safe for Hot Work" means that in the compartment or space so designated ,the oxygen content of the atmosphere is at least 19.5 percent and not more than 23 percent by volume, except for inerted spaces or where external hot work is to be performed; the concentration of flammable materials in the atmosphere is below 10 percent of the lower flammable limit ;the residues cannot produce a higher concentration under existing atmospheric conditions in the presence of fire and all adjacent spaces containing, or having contained, flammable or combustible materials have been cleaned sufficiently to prevent the spread of fire; or are satisfactorily inerted; or, in the case of fuel tanks or lube oil tanks, or engine room or boiler room bilges, have been treated to conduct the fire work .

XXIV. "The beaching method" is the method when the ship is sailed with maximum speed using its own power during the high tide and forced to be beached over the flat muddy land .

XXV. “NOC” means obtaining No Objection certificate from SBSRB to import the particular ship for scraping in Bangladesh .

XXVI. “Fee” prescribes for obtaining required permission under this rules which may revise time to time by the official notification .

XXVII. “Green Dock” means A Green Ship Recycling Facility utilizing dock,dockside, slip, or floating working platforms, so that no ship cutting or recycling activities can take place without full containment for loss of liquids or particulate matter (e.g. oils, paint chips, or dust), and so that incidental or accidental releases of residues or emissions can be recovered and managed appropriately.

## **CHAPTER-1**

### **SHIP DESTINES FOR BREAKING , RECYCLING**

#### **3. Ship Building and Ship Recycling Board (SBSRB)**

The “Ship Building and Ship Recycling Board” (SBSRB) is the ONE STOP SERVICE provider under The Ministry of Industries .The Board is headed by Chairman appointed by the Government under Board of council which will govern and administer the Board .Chairman of the Board of council will be the Minister of Ministry of Industries with members Secretary of Ministry of Industries , Secretary of Ministry of Commerce ,Secretary of Ministry of Environment and Forestry ,Secretary of Ministry of Shipping ,Secretary of labour & employment ,DG Shipping ,DG DOE ,DG Fire brigade and Authorized Representative from Bangladesh Naval Head quarter .The Board will operate on having expertise on the various department i.e Department of Environment , Directorate of Shipping ,Department of Explosives, Chief Inspector of Factories & Establishment , Collector of Customs , Bangladesh Navy , Directorate of Labour and Employment , Ministry of Commerce , Mercantile Marine Department and Directorate of Health service .

#### **Organizational Chart in Annexure-I**

The Integrated Service of Ship Building and Ship Recycling Board (SBSRB) for Ship breaking ,recycling activities as follows which is not constraint to as the circumstances of the case admits ;

- 3.1 Ship Building and Ship Recycling Board (SBSRB) will provide NOC (No Objection Certificate) to facilitate letter of credit to import scrap vessel by evaluating and examine of Ship’s detail ,MOU and Inventory of HW (Hazardous Waste ) as per Imports and Exports (Control) Act ,1950 (Act No XXXIX of 1950) section 3 ,sub-section (1) ,Sub-Chapter 40 .
- 3.2 In cooperation with The SBSRB The customs department makes visit to the ship at the Outer anchorage high seas to check its inventory. If the department assesses that the ship does not carry any cargo or item banned by Bangladesh laws, it gives its clearance for demolition. The surveyors make assessment of the ship, which is matched with the figure in the ship breaker’s invoice to identify any discrepancies upon which action can be taken.
- 3.3 In cooperation with The SBSRB ,The Department of Environment simultaneously thereafter examines the ship for Hazardous Waste excluding In built/toxic materials. Then they issue a environment clearance certificate.
- 3.4 Under The SBSRB, The Department of Explosives issues two certificates: ‘Gas Free for Man Entry’ and ‘Gas Free for Hot Work’, which means that the ship can be cut by torches. Prescribed Check list has to be followed for particular activity and duly submitted for each certificate.
- 3.5 Before provide demolition or cutting permission ,the Yard owner has to submit The SHIP RECYCLING PLAN (SRP) and copy of permit for SHIP RECYCLING FACILITY PLAN (SRFP). The SBSRB is the authority designated to ensure compliance with all ship breaking rules and regulations. It also oversees hazardous waste generation and

disposal. Default or non-compliance results in the cancellation of the permit . The ship Recycler can get a new permit only after a full re-inspection. The SRFP conducts its monitoring activity Half yearly. It conducts more inspections when accidents take Place . The inspector works under the SBSRB to ensure that all safety gear requirements are adhered to. If the procedure for worker safety is found flouted, the inspector is obliged to inform the SBSRB, who revokes the dismantling and beaching permit for the next Ship .

3.6 Waste generated report in précised form to be submitted to SBSRB every after demolition of each Ship .

3.7 SBSRB shall issue permit of Ship Recycling Facility Plan "SRFP" for every applied ship breaking and Recycling yard after evaluate their facilities to break and recycle ships in safe and environmentally sound management .

3.8 SBSRB shall facilitate ,establish ,commission and operate Treatment ,Stowage , Disposal Facilities ( TSDF) and central incineration plant for common use of Hazardous materials/wastes . A private partnership facilities may be conducted under SBSRB.

3.9 SBSRB shall approve training curriculum , supervise , monitor and Evaluate the academic training activity and On Job training for workers provided by Trade body Training Institute .

3.10 SBSRB shall oversee yard activity relating to worker's safety , adequate measures and facilities to handle ,manage and dispose Hazardous materials / Wastes in the Ship breaking yards.

3.11 SBSRB shall maintain a panel of Safety Officers by examining their technical competency .Safety Officer will be assigned for overall supervision of Ship dismantling activities directed by SBSRB for a Ship or Ships. Safety officer will get their remuneration from SBSRB which will be realized from the concern Yards.

3.12 SBSRB shall maintain a panel of Beaching Masters with their valid class one Master's certificate of competency. Beaching fee will be decided by SBSRB according to the size and type of the Ship.

3.13 For used Oil/ sludge handling ,Hazardous waste(Specially asbestos) abatement and Cable handling ,SBSRB may appoint competent agency (ies) for the purposes at the operational Ship recycling yards to reduce occupational and Environmental risks. Vendors has to be registered by prescribed directions under SBSRB.

**4. IMPORT PROCESS :** To import ship for breaking ,recycling the yard owner has to get the NOC from SBSRB by submitting Yard environment clearance certificate , Ship's details of particulars ,MOU with buyer and the inventory of Hazardous materials on board . To open the letter of credit from any scheduled bank it will required the NOC from SBSRB.



## **5. Prior Information of arrival at Chittagong outer anchorage**

5.1 All ships prior to entering Bangladesh Maritime Zones are to inform Maritime Rescue Coordination Centre (MRCC) or Port Authority .

5.2 The prior information to Port should also include that the ship, as it enters Bangladesh Search and Rescue Region should pass its information to Bangladesh Coast Guard stating that it is bound for Recycling Yards for ship recycling. This will provide necessary help to the vessel in case of any machinery breakdown and thereby avoiding any mishap to Ocean Data Acquisition Systems (ODA's) and ships at outer anchorages.

## **6. Anchoring:**

6.1 Upon entry into the Port area, a ship is allowed to be anchored by dropping one or more anchors to the seabed. This prevents drifting of the ship, tethers it to one spot, and enables boarding from boats. A ship at anchor may lift its anchors, and sail away. Anchoring of ships is thus fully reversible. Beaching refers to running a ground of a ship on the beach meant for breaking by the beaching method. The ship is sailed into the beach either under its own power or is towed by tugs. A beached ship is rendered immobile, and cannot usually be refloated. Beaching is thus irreversible.

6.2 It may be mentioned that a ship at anchor, or while otherwise afloat, requires to be fully manned, with at least generators running. These involve significant costs. There is less possibility of hazardous materials embedded in the ship's equipment or structure being released to the environment, till the stage of ship recycling.

## **7. Boarding the ship by “Ship Building and Ship Recycling Board (SBSRB)” Official :**

7.1 By applying to Ship Building and Ship Recycling Board (SBSRB) ,boarding is to be done after anchorage .The Following SBSRB associated members will be on-board

- Customs
- Department of Explosive
- Department of Environment
- SBSRB – technical personal

Boarding, the following documents shall collect and taken into account -

(a) Ship's certificate-original with IMO No. and shall collect a. Inventory of hazardous materials including radio active material on board, Inventory of gases,CO<sub>2</sub> declaration, Confirmation of Ballast water exchange at high seas, Confirmation of the Bunker oil / lube oil or other oil substances that are remaining on board, Cargo declaration form , Safe Manning Certificate; Competency certificates of crew; The name of the State whose flag the ship is entitled to fly; Hull number on building delivery; The name and type of the ship alongwith the date of such registration; The port at which the ship is registered: The name and the address of the ship owner; The name of classification society (ies) with which the ship is classed; The ships main particulars such as (length overall (LOA), Breadth (Moulded), Depth (Moulded) Lightweight Cargo carrying capacity, Gross and Net tonnage, and engine type.

(b) In case of Cash Buyers owning and selling the ships, following additional documents are to be provided to the concerned authorities.

(1) Proof of ownership details like name, address, contact number, email address of the owner of the vessel and master of vessel.

(2) Cash Buyer shall have to provide following documents for obtaining beaching permission from SBSRB.

- i. Notarized certified copy of Bill of Sale in his favour
- ii. Copy of notarized certified Physical Delivery in his favour
- iii. Certified true copy of Certificate of Registry in his favour certifying that the ship has no registered mortgage and is free from maritime lien and encumbrances from the Register of Registrar of Ships only and not from any agent with e-mail ID of Registrar of Ships .
- iv. Certificate showing no hazardous wastes on board whatsoever.

c. In case of seller other than cash buyer, notarized copy of Port of Registration Certificate with e-mail Identity of Port of Registration should be produced

## **7.2 Information/documents to be submitted at outer anchorage .**

7.2.1 In the case of floating structures other than ships, only proof of ownership is to be provided to Customs.

7.2.2 Customs Officers board the vessel within 24 hours of ship's arrival (as per Customs regulation).

7.2.3 Customs officers verify all the documents, collect the PC (port clearance) of the last port from the Master of the ship, check all documents of the Master and check the Certificate of Registry

7.2.4 The Rummaging Officer from Customs check and verify fully that there are no contraband goods on board the ship. Customs also collect information about the personal effects of the crew, all stores and inventory of movable hazardous wastes.

7.2.5 After the above procedure, Inward General Manifesto is filed duly signed by the Master of the ship. Seller pays to the Customs applicable dues at the prevailing rate. Seller/agent submits arrival report (location of anchorage, time of arrival etc.) to Customs.

7.2.6 Buyer/importer files bill of entry for home consumption with following necessary documents for assessment of duty:

- i. Inventory
- ii. Memorandum of Agreement (MOA) having address and e-mail id of seller and buyer along with signatories of both.
- iii. Copy of Letter of Credit (LC) or other documentary proof of mode of payment
- iv. Set of bill of entry for home consumption

7.2.7 On the basis of the above documents, Customs assess the duty and recycler pays the duty. Any sweepings (left over of last cargo) will be cleared by Customs by collecting legitimate customs duty, if any. Customs would then give the beaching permission within the next two working days.

7.2.8 Buyer /importer to submit following documents to Customs for obtaining Out of Charge list of Pyrotechnics (distress signals) to be handed over Bangladesh Navy after beaching. On presentation of following documents final assessment of bill of entry would be made:

- (i) Commercial Invoice
- (ii) Bill of Sale

**7.2.9** Security Apparatus which may threat to the National security must be transfer to the Bangladesh Navy with proper inventory list signed by Importer after beaching .Any other apparatus which is not directly threat to national security but misuse of apparatus may create social disorder may resale to registered vendor, such register vendor must have approval for such type of apparatus from appropriate authority .

**8. Assessment of hazardous wastes / hazardous substances by Department of Environment**  
:In the structure of the ship, and on board as far as practicable by reference to the ship's, drawings, technical specifications, ship's stores, manifest, in consultation with the ship builder, equipment manufacturers and others as appropriate, identification and marking of all areas containing hazardous wastes/hazardous substances, would be provided at the time of Boarding at outer anchorage .

## **CHAPTER 2**

### **BEACHING PERMISSION**

**9.BEACHING OF SHIPS :** For obtaining beaching permission for beaching a ship, the recycler has to submit documents as per Annexure – II to the Port Authority along with documents/certificates from SBSRB specified. At anchorage, the ship would be boarded and physically inspected by Ship Building and Ship Recycling Board Officials and provide the certificates under the designated particular Departments .

9.1 Representatives of Customs Department, the Department of Explosive , the Department of Environment and Technical personal from SBSRB all cases of ships;

9.2 For ships other than Cargo Vessels ,for tankers , petroleum oil cargo tanks and petroleum slope tanks, representative from Department of Explosive under SBSRB shall inspect for ensuring Gas Free and Fit for Hot Work conditions for issuing ‘gas-free-for-hot-work certificate’ and for all cases of Ships certificate for “ safe for man entry” and “Safe for Hot Work”.

9.3 For all Vessels ,Department of Environment shall conduct the inspection for issuing ‘Environment Clearance certificate ’ in cooperation under SBSRB .

9.4 The Customs shall Rummage , check and verify fully that there are no contraband goods on board the ship and assess the duty to provide customs clearance .If any contraband goods found , that goods must be disposed off in accordance with customs law .

9.5 Bangladesh Navy will cease radio Pyrotechnics (distress signals) once the ship is beached and provide due certification .

9.6 Trade Body’s valid membership certificate to be produced before obtaining beaching permission from SBSRB .

9.7 After verification, beaching permission will be given by SBSRB and same will be forwarded to issuance beaching permission by the Port Authority within next two (2) working days . Again in the event of refusal to grant permission for beaching by SBSRB, the ship shall be entitled to a review and appeal on the lines of provisions governing anchorage.. The beaching permission would be given by the Port authority through SBSRB within the next two (2) working days.

9.8 No Tankers are permitted to import without submitting certificate of “Safe for Hot Work conditions” from seller or owner .

9.9 For War Ships, Naval Ships, Nuclear Powered Vessels and large passenger ships representatives of the Bangladesh Atomic Energy Commission to verify the submissions/ data provided at the time of desk review, during physical verification. If considered necessary, an adequate representative sample may be taken and used for the verification. Bangladesh Atomic Energy Commission shall examine such ships and accord their clearances or otherwise for beaching. To import said type of ships , adequate infrastructure at the yard to handle the

identified quantities of radio-active materials and other hazardous wastes with adequate approved infrastructure of disposal facilities nearby, adequately trained staff, strict monitoring by Bangladesh Atomic Energy Commission /Department of Environment /Ship Building and Ship Recycling Board (SBSRB) is required.

#### **10. Beaching permission by Port Authority :**

Beaching permission shall be granted by Port Authority only to:

- (a) the yard-holders to whom received the permit of SRFP by SBSRB .
- (b) those yard-holders whose Environment Clearance certificate has been approved.
- (c) The Certificates required by SBSRB and forwarded by them
- (d) The valid membership certificate from Trade Body .
- (e) Ship or ships shall be allowed to beach at a time provided the breadth of the ship or ships is less than 5 meters of the width of the Yard .

#### **10.1 On beaching of ship, ship recycler has to:**

- (i) Secure the vessel properly; and
- (ii) Remove left over in bunker with proper precautions including sufficient ventilation in engine room.
- (iii) Bunker will be disposed of to a Register dealer.
- (iv) Used oil and sludge will be disposed of to recyclers/ refinery only.
- (v) Details of arrival and departure of the crew, in particular the foreign crew members are to be reported to the immigration department , by the Shipping Agent prior to the actual arrival and departure.
- (v) The ship recyclers will be liable to penalty and fines as per Chapter X in this rules in the event they are found to have not complied with the above provisions , during examination of their records or during inspections of their yards by concerned agencies associated with this industry .

#### **11. Cutting Permission from the Ship Building and Ship Recycling Board (SBSRB):**

After beaching in the Particular Yard ,The Recycler shall submit the following documents to SBSRB for cutting permission .

- (I)Ship Recycling Plan (SRP) by the Yard Management .
- (II) Assessment ,Marking ,Handling and Disposal method of hazardous materials and discharge hazardous waste in prescribed format of SBSRB .
- (III) the Yard environment Clearance certificate approved by the Department of Environment .
- (IV)Handing over certificate from Bangladesh Navy once they received radio Pyrotechnics (distress signals) from the ship after beaching .
- (V) Treasury Challan towards SBSRB for cutting permission .
- (VI) Workers' registration .
- (VII) Proof of removal of remaining oil from all bunker tanks. (Vendor's Challan )

On compliance with the above, the SBSRB will issue the cutting permission within the next two working days of furnishing the requisite documents.

**12.** The Ship declares as scrap in Bangladesh after discharging from Bangladesh ports as last port of call ,should be adequate clean by assistance of Port authority to be eligible for recycling in Bangladesh .

**13.** After Obtaining Beaching permission ,if it is found that the particular ship is not recycled and operating as cargo vessel domestic or Ocean going to be treated as criminal offence by the yard owner / company to whom beaching permission was granted .

## CHAPTER III

### SHIP RECYCLING PROCESS

#### **14. Recommended Process for Ship Recycling :**

The ship recycling plan is an important document. It should have two components i.e. Ship Recycling Plan, and Ship Recycling Facility's Plan. The size of the yards should be such that while cutting the ship, both the sides of the beached ship should have space for free circulation of labour, with sufficient width of at least 5 metres freely available on each side.

#### **15. Ship Recycling Facility Plan (SRFP) :**

The Local Authority allot the yards to the ship recyclers for the purpose of ship breaking & recycling, The Ship Building and Ship Recycling Board (SBSRB) under Ministry of Industry shall approve the Ship Recycling Facility Plan (SRFP) in prescribed form with the following requirements :

##### **I. Availability of requisite and valid documents**

- a. Authorization for handling Hazardous waste generated from ship recycling activities issued by the DOE.
- b. Registration as a Trade Body's Member and member of the Hazardous Waste Treatment, Storage and Disposal Facility(TDSF) which will be facilitated or operated by SBSRB under Ministry of Industries.
- c.. License of the Yard under National Rules.
- d. Map showing the yard layout and other components of the facilities.
- e. Obtained License and SRFP plan approval From SBSRB .

##### **II. Availability/existence of the following minimum facilities in the yard as per Ship Recycling Facility Plan described above:**

- (a) Storage Godown for Temporary Storage for Hazardous/Non Hazardous Waste Materials.
- (b) Asbestos Handling & Removing and storage facility
- (c) Sanitation and Rest Room facilities for minimum 50 workers.
- (d) Facility of adequate and clean drinking water.
- (e) Workers Change Room.
- (f) First Aid Facility
- (g) Fire fighting facility and Emergency Response System including oil spill Combat system.
- (h)Material Handling Equipments and Personal Protection Equipment(PPE) of BSTI Standard or equivalent.
- (j) List of the trained Labours of all disciplines(lightening, gas cutting, waste handling, working in confine spaces, using various gadgets like oxygen and other gas detectors, crane and material handling systems etc).
- (j) Other necessary facilities, if any required.

III. The SBSRB concerned after ensuring the above aspects shall issue permission in respect of the Ship Recycling Facility Plan (SRFP) after the Yards are allotted to ship recyclers, within one month's times. This approval would be a one time activity during each cycle of five years subject to review at every six months time. Requisite corrective measures if required arising out of such six monthly reviews should be carried out promptly by the ship recycler.

IV. If any of the components of the Recycling Facility Plan of the Yard are not operative and not in place during the inspection by SBSRB Inspector, the SBSRB shall cancel the permission of the Ship Recycling Facility Plan (SRFP) and the ship recycler would not be permitted to beach any ship till the concerned components under the Ship Recycling Facility Plan are made operative as per the requirements.

V. Therefore, before ships are permitted in the Yard for recycling, the SBSRB under Ministry of Industry shall ensure the above aspects rigorously, by way of ready for recycling certifications document as per Annexure-V. For obtaining Cutting Permission, the Ship Recyclers shall apply to the Authority in Annexure- IV along with Annexure-V duly filled in.

VI. In addition to above, the Ship Recycler shall have to submit an undertaking to the SBSRB to the effect that they shall comply with the Safety, Health and Environment Management (SHE) aspects as per the Labor law 2006 and Environment Conservation Act 1995 as enumerated below before approval of the Ship Recycling Facility Plan.

(a) A rule with focus on adequate worker safety and the protection of human health and environment, including the establishment of goals leading to the minimization, and ultimately elimination of the adverse effects on human health and environment caused by ship recycling.

(b) A system for ensuring the implementation of the requirements set out in rules, the achievement of goals set out in the policy of the company, and a commitment to continuous improvement of the procedures used in ship recycling operations.

(c) Identification of roles and responsibilities of supervisors, contractors, and workers.

(d) A programme for appropriate training of workers and availability of adequate PPEs and material handling equipment has to be carried out by Trade Body's Training Institute .

(e) An emergency preparedness and response plan for the Yard to be conducted by Safety Officer appointed by SBSRB .

(f) A system for monitoring the performance of the ship recycling operations by Safety Officer

(g) A system for reporting to the SBSRB how the ship recycling operations would be performed, including system for reporting discharges, emissions, and accidents causing damage or potential to cause damage to workers' safety, human health and the environment, due to handling of hazardous wastes, and materials containing hazardous Substances.



VII. The ship recycler shall ensure that

- (a) A board displaying important precautions to be followed during ship recycling activity is installed at a prominent place on the plot and that such display is made in English or vernacular language as understood by the workers employed on such plot.
- (b) All the equipments on the plot such as crane, winch, chain rope and shackles, generator set and any other safety equipments as may be prescribed from time to time, shall be installed ,maintained and validate yearly .
- (c) An explosive gas detector and an oxygen percentage analyzer are available in the plot in working condition.
- (d) Proper lighting arrangement is made on the yard.
- (e) No person under the age of 18 years and shall be employed. No female worker shall be allowed to enter into the yards.

VIII. No permission for ship-recycling activities under this rule shall be given to any ship-recycler by the Ministry of Industries unless the ship recycler has complied with the requirements under the SRFP.

IX. After allotting the yard in Ship Recycling Zone ,Yard has to be prepared for SRFP by two (2) years otherwise lease will be cancelled automatically by this rules

Format (example) of applying permit for SRFP in Annexure-VI

#### **16. Ship Recycling Plan (SRP):**

Once the Ship Recycling Facility Plan (SRFP) is approved by the SBSRB under Ministry of Industries for the yard once in five years, the ship recycler would be required to submit application to the SBSRB along with the Ship Recycling Plan (SRP) and details as per Annexure- IV, along with details of Ready for Recycling Document duly filled in Annexure-V. Removal of Oil from the vessel may be permitted prior to submission of Ship Recycling Plan (SRP).

16.1 Requirements of Ship Recycling Plan(SRP) shall be as under:

- (i) Details about the ship, and in particular, a fair assessment of hazardous wastes and hazardous materials.
- (ii) Ship breaking schedule with sequence of work.( sector work schedule in Annexure vii)
- (iii) Operational work procedures.
- (iv) Availability of material handling equipment and Personal Protection Equipment(PPE).
- (v) Certification from the SBSRB that all kinds of oils and other loose hazardous wastes are completely removed and certificate issued by SBSRB be attached in the SRP.

(vi) "Gas-free and fit for hot work" certificate issued by the Department of Explosive under SBSRB for oil tankers , since the purpose is to avoid accidents due to fire, explosion and deficiency of oxygen and concentration of toxic gas in the confine spaces, This certificate is to be attached with plan document.

(vii) Hazardous waste handling and disposal plan. Identification and marking of all non-breathable spaces by the Recycler in the ships and same be documented in the plans with drawings. Identification and marking of all places containing/likely to contain hazardous substances/hazardous wastes in the ships and the same be documented in the plans with drawings.

(viii) Confirmation to the effect that ballast water has been exchanged in the high seas. The requirements should address all the three phases of recycling, i.e.

(a) Preparation phase.

(b) Dismantling phase.

(c) Waste stream management.

(xi) Ballast Sediments also to be discharged along with the ballast water with proper churning which should be ensured by Master of the ship. Otherwise, the same sediments are to be handed over to authorized agency of the Port Control on chargeable basis for suitable disposal.

(xii) Asbestos being a major area of concern but in transitional phase, the scheme for removing asbestos, and asbestos containing materials (ACMs) on board, and on shore, should be specifically provided. The plan should include arrangements for handling, treatment and disposal. Locations having asbestos/ACMs should be marked before commencing dismantling operations .This consists of wetting of asbestos fibers , use of vacuum cleaners and PPEs. Those ships and Yards stowage having asbestos quantification more than 100 metric tonnes should go for negative pressure chamber technique. SBSRB appointed agency may conduct this job .

(xiii) Systems and procedures to be followed to document and keep track of all hazardous wastes generated during recycling, as well as hazardous substances found onboard the ship, and their transport to the disposal facility or registered recycling facility should be provided in the SRP.

## **Chapter-IV**

### **Worker's Safety and Hazardous waste management**

#### **17. Safety Compliance**

17.1 Only trained workers shall be employed which are those has conducted theoretical ,On-Job-training from Trade Body Training Institute supervised by SBSRB . Unskilled worker supplied by Contractors has to go through training . All apprentices shall be provided with necessary certificates , to be issued by the institute , on verification by the SBSRB on completion of the training period. No person shall be allowed to be employed in ship breaking yards without that certificate.

17.2 All workers will be provided with Personal Protection Equipment as per BSTI. For all operations/works the personal protective equipments of BSTI standard should be used.

17.3 Steps suggested to comply with the Safety Instructions while undertaking Ship Recycling Activities in the Yards are as follows :

(a) Adequate open space on the yard for safe passage and easy movement of fire fighting units and equipments, maintenance of passage ways so as to permit unobstructed access for fire fighting units and equipment.

(b) Identification and marking of all non-breathable spaces by the Safety Officer .

(c) Identification and marking of all places containing/likely to contain hazardous substances/hazardous wastes.

(d) Systems and procedure to be followed to document and keep track of all hazardous waste generated during recycling, as well as hazardous substances found on board the ship, and their transport to the disposal facility or registered recycling facility in safe and sound manner.

(e) Sufficient area for office building, storage of non-ferrous metals and open space to store segregated finished scrap for delivery (just like rerollables of 6 millimetre (mm), 8mm, 12 mm and melting, etc.).

17.4 Sufficient area for minimum installation of 2 winches and operation of 2 cranes.

17.5 Sufficient area for processing of cut pieces from the ships as per annexure vii.

17.6 Obtain Gas free certificate for man entry into confined spaces likely to contain dangerous fumes & insufficient oxygen, as per the Rules issued by the Safety Officer. This must be ensured before ship recycling operations start.

17.7 Maintain safety distance for storage of petroleum products or any combustible material .

17.8 Provide facilities of water storage and pumping facility and fire fighting devices such as portable fire extinguishers, fire-fighting suits, liquid foam, oxygen mask, sand boxes /buckets, fire hose with complete attachment as required in accordance with the provisions of National Fire fighting requirements.

17.9 Constructed facility for removal and handling of asbestos on the yard and necessary provision for showering of asbestos handling workers . Alternatively to avail the Common Asbestos Handling System facility as duly approved by SBSRB.

17.10 Construct temporary storage facility for storing hazardous waste as per the DOE guidelines and also disposal of hazardous waste as per Hazardous Waste Rules.

17.11 There is no overlapping of activities to ensure safety of workers.

17.12 Ship Recyclers shall provide and ensure the use of personal protective equipment for operations requiring such use, including for :head protection; face and eye protection; hand and foot protection ; respiratory protective equipment; hearing protection; protectors against radioactive contamination ; protection from falls; and appropriate clothing.

17.13 Every ship-recycler shall appoint qualified "Safety Officer" from SBSRB Panel. Cutting operations shall be carried out under supervision of the Safety Officer.

17.14 The Safety Officer shall ensure availability of material handling equipments, and availability of PPEs to workmen .

17.15 The Safety Officer shall ensure that:

(i) Cutting operation is undertaken at a distance beyond a radius prescribed in the Explosive Act, from the LPG storage area.

(ii) Explosive and oxygen meters are readily available in working condition throughout the cutting operations.

(iii) Parameters with respect to permissible limits of hydrocarbon vapours and oxygen are strictly complied with before commencing actual cutting operations and also during such operations. Provided that if the level of oxygen content reduces or that of Hydrocarbon vapor increases beyond the permissible limit in particular space/area, cutting operations carried out in that space/area shall be immediately suspended. Thereafter steps shall be taken to ventilate such area with the help of mechanical blowers or any other effective means to restore the oxygen content so as to bring it within the permissible limits.

(iv) Number of LPG and other Gas Cylinders stocked on the deck of the ship or near cutting area in safe manner .

(v) Cylinders and other articles are lowered down to the ground in safe manner instead of throwing them from the ship.

(vi) All pipelines are dismantled by cold opening. Provided that in case of fuel dripping from the pipelines, it shall be dismantled only after collecting such dripping fuel in a container.

(vii) Area where cutting operation is carried out in last two hours of the working day shall be quenched by pouring sufficient amount of water or by any other effective means to avoid any incident of smoldering/fire.

17.16 Working of the shift of the workers on the ship yard to be operated under the labor law 2006.

17.17 Cigarettes, Biri, matches, gas liter, acid shall not be permitted inside the Yard. Cooking devices should be maintained safety measures by Safety Officer. No Naked light is allowed inside the Yard without supervision of Safety Officer.

17.18 Ship Recycler must carry out safety audit by an External Agency once in two years and submit to SBSRB

17.19 Portable water hoses with a dedicated water pump on the beach with adequate take-off points for attaching additional hoses, should be provided at all times when working on the beached vessel, for immediate water supply in the event of fire, and for wetting the asbestos, etc. before its removal from the vessel. The ship recycler should have mutual aid understanding with port authority/any other nearby industry for providing support in case of emergency. Work permit system should be followed as per applicable acts and rules to carry out work safely. No hot work should be permitted unless the area is free from any explosive mixture and the explosive meter reading is below explosive limit.

**17.20 The following areas should be given special attention and the workers should have expertise for the works allotted to them as follows:**

(a) For workers working at heights, following aspects must be ensured -

(i) Use of safety belt while working at height.

(ii) Use of Safety helmet for working at height.

(iii) No rope ladder (Jacob's ladder) to be used rather than pilot ladder with accurate measurement or such arrangement which is quite safe to ride on ship.

(b) Working in Confined Space-no work should be done in enclosed area without checking the presence of oxygen.

(c) Working in Flammable Environment- the ship recycler shall ensure that spaces and adjacent spaces that contain or have contained combustible or flammable liquids or gases are inspected by the Safety Officer /Supervisor or other specially trained person to determine the presence of combustible or flammable liquids and ensure that flammable vapors or gases in the space to be entered are below the explosive limit and sufficient ventilation is provided to ensure that the concentration of flammable vapor is maintained below the lower explosive limit (at < 10% of the lower explosive limit) and there is sufficient oxygen for man entry.

(d) Working with Toxic, Corrosive, Irritant or Fumigated Atmosphere or Residues- the ship recycler shall ensure that spaces or adjacent spaces that contain or have contained liquids, gases or solids that are toxic, corrosive or irritant are inspected visually by the Safety Officer/Supervisor or other specially trained person and ensure that air concentration of toxic, corrosive or irritants is maintained below its Threshold Limit Value (TLV) as per the Material Safety data sheet (MSDS) of that chemical, prior to entry by workers to the concerned spaces.

(e) For gas cutting, the recycler shall employ only the workers certified for gas cutting work. Gas cutters should be provided with proper masks to avoid inhalation of toxic fumes.

(f) For crane operation, inspection and testing records of cranes and lifting tackles to be maintained as per statutory norms and appropriate PPEs to be provided to crane operators. Constant and adequate supervision should be provided while heavy loads are lifted. Only those cranes and lifting tackles which are tested and certified should be employed. Regular/periodical testing(every year) of cranes and lifting appliances should be carried out to ensure that the material handling equipments are safe.

(g) For Handling Asbestos Wastes and ACMs, specialized contractors can be engaged for this work. The removal of asbestos dust and fibers and its handling should be done in a wet condition. On shore removal of asbestos should be done in enclosures maintained under negative pressure, with filters for outgoing air and wastewater. The applicable should be adhered to in respect of such enclosures.

(h) The asbestos and broken pieces of ACMs sheets/panels thus removed should be packed in leak proof packets and disposed of at secured landfills where the packets should be handled and processed as per the DOE. Recovered and usable ACMs sheets/panels may be sold for reuse as permitted by law.

(i) PPEs like masks or respirators should be provided to all the workers engaged in asbestos removal or handling.

(j) Asbestos fiber concentrations in the environment should be monitored regularly.

(k) For removal of asbestos specialized contractors should be accredited and their performance assessed periodically.

(l) A Board should be displayed in front of the office room to exhibit the activities and name of the foreman with labour number involved in that particular activities daily .

### **17.21 Fire Fighting appliances**

The ship recycler shall have to install for the purpose of fire fighting one efficient fire fighting pumps in working condition, at all times, on the ship with sufficient water in the holds or any receptacles. Provided that the above fire fighting pump be installed and maintained in working condition at all times near the engine room with foam and dry powder, until the complete dismantling of the engine room. One portable fire extinguisher of suitable type shall always be kept in working condition near every cutting point.

### **17.22 Specific Instructions regarding training for the Labour and usages of Personal Protective Equipments and other important aspects:**

- a. Prior to delegation/entrustment of any job relating to ship recycling, workers are imparted proper training for the safe ship breaking operations in general and also for the specific jobs they are attending in the yards. To be conducted from Trade Body training Institute .
- b. Such training shall be with the provision of certification on successful completion of the training programme. Training shall be in the language understood by them and shall prolong till such time which is necessary to get them acquainted with the knowledge and risk factors of ship recycling operations. Training should include the hazards associated in the job and role of individual during emergency situations. Such training programs be conducted by the Trade Body's Training Institute .

### **17.23 Workers and workmanship:**

(i) An attendance register of workers working on the yard is maintained in accordance with the provisions of Labor Act 2006 , rules made there under and that the workers are issued identity Cards in accordance with the relevant Rules.

(ii) Identity cards to the workers shall be issued by the ship recyclers in an approved manner and ship recyclers will maintain proper records of the entry and exit of the workers.

(iii) A Safety Officer, having requisite qualification experience and marine back ground (certificate of competency ) in the relevant rules, is employed from SBSRB Panel.

(iv) Only trained and registered workers having identity cards issued as per clause above shall be engaged in respective ship recycling activity.

(v) Minimum two workers are employed who are trained to use gas detectors during ship recycling activity is carried on.

(vi) Handling of asbestos shall be by contractors or workers having special knowledge and skill of handling of asbestos.

(vii) All the equipments on the plot such as crane, winch, chain rope and shackles, generator set and any other safety equipments as may be prescribed from time to time, shall be installed , maintained and validated yearly .

(viii) A flammable and toxic gas detector and an oxygen percentage analyzer shall be available in the yard in working condition.

(ix) The workers are provided with PPEs such as helmets, safety shoes, welding goggles, safety belt with safety life line, hand-gloves, self contained breathing apparatus etc as provided in the relevant Acts and Rules for such purpose and that such safety gadgets are conforming to relevant

BSTI or equivalent standards or as approved by the SBSRB are concerned and are invariably used by the workers during such activities.

(x) The workers engaged in ship recycling activities are provided with the necessary instructions by the Safety Officer with respect to the availability and use of fire fighting and safety equipments installed and maintained at the yard and on the ship and shall also ensure that such instructions/check list are provided to the workers prior to delegation or entrustment of actual work to them.

xi) Proper precautions are taken while dismantling CO<sub>2</sub> Control Room and releasing CO<sub>2</sub> from the Cylinders and that

a) Such operations should be undertaken only when there are no other works in the nearby areas.

b) Such operations are done in the presence and as per the instructions of Safety Officer only.

xii) No worker with any degree of ailment shall be allowed to enter into ship breaking yards.



## **CHAPTER V**

### **Environmental Compliance**

**18.** Ship Recyclers are required to strictly provide the Environmental Compliance in line with Water, Air, Hazardous Wastes (M&H) Rules under Environment Conservation Act 1995 (amended 2010) ,Environmental Impact Assessment and Coastal Regulation Zone notifications. The following also should be attended to:-

(i) Yard shall be kept neat and clean and good housekeeping must be carried out at the end of the day.

(ii) All yard owners must create temporary storage as authorized by DOE under Hazardous Waste Management Rules and the amendments issued from time to time.

(iii) Each Yard owner must create Asbestos Containing Materials (ACM) and Asbestos Wastes with specially designed Negative Pressure Chambers with trained labors. The concentration of Asbestos fiber in the work zone while recycling of the ships be complied with the norms i.e. less than 0.1 fibre per Cubic Centimeter for Blue and Brown Asbestos and less than 1 fibre per Cubic Centimeter as per OSHA standards. Alternatively, the Yard owner must avail the Common Asbestos Handling System as approved by DOE .

(iv) Each Yard owner must become a member of Treatment Storage and Disposal Facility (TSDF) authorized by SBSRB.

(v) Each Yard owner must maintain registers for each kind of wastes generated per ship wise calculation of the wastes. So, per ship wise, the ship recyclers must maintain a register for all waste categories in a prescribed manner

(vi) Ship Recyclers shall have to pay for waste management charges to TSDF operator, based on the actual quantities of wastes disposed as instructed by SBSRB.

(vii) Seller and Cash Buyer/ Ship Recyclers shall implement local oil spill contingency plans to combat any oil spill eventuality from anchoring point up to the ship recycling plots.

(viii) Ship Recyclers shall enhance support to regulatory authorities for Environmental Monitoring done from time to time including providing manpower, equipments, vessels and financial support, if any, required

(ix) The DOE and SBSRB will monitor for Management and Handling of Hazardous wastes etc. Main items of ships and the substances of concern with disposal options are as follows:

Sl. No.	Main items of ship that may contain substances of concern	Substances of concern	Appropriate Disposal Option(Reuse/Recycle/Incineration Treatment & Disposal to secured landfill) of substances of concern
1	Electric equipment e.g. transformer, batteries, accumulators	Dielectric fluids containing polychlorinated biphenyl (PCBs) Lead/electrolyte in Unusable Batteries	Incineration/Disposal in secured landfill after stabilization /solidification Recycling of lead through registered recyclers; treatment and disposal of Electrolyte /Reuse
2	Air conditioners and Refrigeration machines	Residual refrigerants as Ozone Depleting Substances Evaporator dosing/ descaling acids	Recovery through authorised units Recovery or treatment and disposal through authorised units/facilities. /Reuse
3	Tanks	Fuels, lubricants	Reuse, Re-refining/recycling
		Sludge Oil and grease Foreign aquatic Organisms in ballast Tank sediments	Through registered cyclers/re-finers. Recycling by registered recyclers and disposal of residue in authorized facilities Reuse; treatment and disposal of bilge water Exchange of ballast

			water in high seas.
4	Partition walls	Asbestos Containing Materials (ACMs), Paints containing PCBs Lead lead Broken pieces containing ACMs	Reuse Disposal in an authorized secured landfill after solidification/stabilisation. Disposal in an authorized secured landfill after solidification/stabilisation./Reuse
5	Cables	Cables containing PCBs in insulation	Reuse; disposal of waste cable insulation in an authorized secured landfill after stabilisation/solidification
6	Heat Exchangers	Asbestos insulation on Surfaces	Disposal of asbestos in an authorized secured landfill after solidification/Stabilization /Reuse
7	Storage facilities for Chemicals	Residues of toxic Chemicals/reagents	Incineration/disposal in a secured landfill after treatment
8	Stored solvents and other chemicals stocks	Residues of toxic Chemicals, solvents, thinners, kerosene, white Spirit, water treatment Chemicals. Acetylene/propane/Bu tane/ Miscellaneous Medicines	Incineration/disposal in a secured landfill in case of water treatment chemicals after treatment/stabilisation. Incineration of unusable medicines.
9	Paint Scrap	PCBs, Tributyltin, Lead TBT	Disposal in a secured landfill
10	Sacrificial anodes	Heavy metals	Disposal in a secured landfill after pretreatment/for immobilization
11	Fire Extinguishing and fire fighting equipment	Halons, CO <sub>2</sub> Cylinders	Recovery and banking for Recycling through authorised facilities Recycle/Reuse
12	Piping, valves and Fittings	Asbestos as Insulation/ Gaskets	Disposal to SLF after solidification/ stabilization/Reuse
13	Pumps and Compressors	Asbestos in Gaskets	Disposal to Sanitary Land Fill (SLF) after solidification/ Stabilization /Reuse
14	Engines and Generators	Asbestos insulation, Residues of lubricants/ oils/coolants Anti-freeze compounds	Disposal to SLF after solidification/ Stabilization Incineration; disposal to SLF after treatment for coolants. Treatment and disposal to SLF /Reuse
15	Oil sumps	Sediments	Disposal to SLF /Reuse

16	Hydraulic system	Residual fluids, Anti- freeze fluids	Re-refining through registered/ Authorized units /Reuse
17	Light fittings and Fixtures	PCBs	Waste material to SLF /Reuse
18	Instruments	Mercury, radioactive materials including ionizing radiation based smoke detectors	Recovery by distillation; reuse of recovered mercury, and residue to SLF. Disposal as per AERB norms

Hazardous materials as listed above, not meant for resale, will be handed over to registered waste management facility for further treatment and disposal. The component which contains these materials can not be sold for reuse .

(x). In addition to above, Under SBSRB ,DOE shall carry out regular monitoring of Ambient Air Quality, Soil Quality, Sediment Quality, and Marine Water Quality within 10 km radius of the ship recycling yards as well as in work-zone environment. Ministry of Industries shall carry out twice yearly monitoring of the same independently through any Council of Industrial & Scientific research (CISR) labs of the environmental labs established by SBSRB under the Ministry for the same parameters. In addition to this, the Ministry of Industries shall carry out the detailed analysis on improvement of the beaching methods with a mandate to evolve recycling methods targeting "zero waste " and "zero accidents" at every year time interval.

#### **19. Creation/Enhancement of Facilities for Removal, Storage and Disposal of Hazardous Materials and Hazardous Wastes:**

A. The ballast water is required to be exchanged at high seas to avoid entry of Ceresin organisms into the local environment. The sediments are generally disposed of at yard/inter tidal zone. In order to avoid this, it is to be ensured by the Master of the ship that the sediments are also disposed along with ballast water by churning the mass. Alternatively, the sediments must have a reception facility at the yard to be set up by the authorized agencies on cost-recovery basis.

B, Oil sediments removal practices should be modernised to avoid workers getting exposed to unhygienic environment. The yards should use mobile tank cleaning systems to clean the tank's inside surfaces by adopting modern methods in which detergents and high pressure jets may be used. Specialized Agency can be engaged to conduct the particular job.

C. For removal and disposal of asbestos, the procedure outlined should be followed. SBSRB approved agency may conduct this activities

D. A land based common facility for treating bilge water should be set up or facilitate by the SBSRB under Ministry of Industries or agencies authorized by it and made available to the recyclers on cost recovery basis. Alternatively, a mobile facility may also be provided by the

Ministry of Industries or authorized agencies. The sediments should be sent to the secured landfill for disposal.

E. There shall be no burning of any material on the yard.

F. The ship recycling permission is granted subject to inter alia that:-

(i) The waste generated during ship breaking shall be segregated into hazardous and non-hazardous categories and intimate their quantities to the authority concerned.

(ii) Entire quantity of waste oil sludge and other mineral oil and paint, chips generated during the ship breaking process shall be removed carefully and send immediately to the areas outside the beach for safe treatment and disposal;

(iii) A list of materials generated during ship breaking duly classified as hazardous waste and non-hazardous waste shall be submitted to DOE in the prescribed form periodically.

## **20. Environmental Measures and House Keeping**

The ship-recycler shall obtain necessary authorization and consent from the DOE for ship-recycling hazardous waste management activities and will observing following stipulations in that regard:-

(a) The ship recycler shall observe wherever applicable all the norms/stipulations covered under the Environment conservation Act, 1995 (Amendment 2010).

(b) The ship recycler shall not allow waste materials such as oil cakes, dead cargo of inorganic stuff like hydrated/solidified cement, thermocol pieces, wooden pieces, rubber pieces, scrap iron and other metallic pieces, glass wool, rubber pipes and gaskets, Poly Vinyl Chloride(PVC) pipelines and pieces of PVC sheets, corks, asbestos pieces etc. to be thrown directly into the sea or on the sea shore but shall ensure that such waste materials are collected and stored in secured storage facility within the yard. In any case no open burning of hazardous waste either within the ship-recycling yard or outside shall be allowed.

(c ) The ship recycler shall strictly adhere to and follow the instructions issued by the DOE for collection and disposal of toxic materials, such as asbestos lead (Pb), chromium (Cr) etc. and organic materials such as polychlorinated biphenyls (PCBs).

(d) The ship recycler shall separately collect the sand and fine powder, if any, obtained after clearing of cargo holds of oil tankers and shall dispose off the same in accordance with the directions of the DOE.

(e)The ship recycler shall sprinkle seawater, daily, over the working area in order to minimize dust generation due to material handling.

(f)The ship recycler should inform the Coast Guard if any oil which are found subsequently and escapes into sea. If the spill is not contained locally, necessary pollution report is to be made in accordance to National Oil Spill Disaster Contingency Plan (NOSDCP).

## **21. Solid Waste Management :**

a. A modern Solid Waste Management system shall be established in the yard to collect, transport, store and dispose of solid waste generated from the yard in accordance with the conditions of authorization issued by the DOE, from time to time.

b. Special care must be taken in the handling of asbestos wastes, and total quantities of such waste should be made known to the SBSRB. The SBSRB should authorize or engage specialized agent for appropriate final disposal of asbestos waste.

c. Ship-recyclers should be given authorization for handling and disposal of the waste in an environmentally sound manner .All authorizations should be renewed only if they have facilities for handling and disposal of wastes in an environmentally sound manner.

## **22. House Keeping :**

The ship-recycler shall keep the work place clean and well maintained. The machinery and material/scrap etc. shall be arranged properly within the plot to provide access for rescue operation during accident or fire or explosion.

Statement of completion of ship recycling shall be submitted to the SBSRB after the completion of ship recycling and shall be in the format as prescribed by SBSRB.

## **CHAPTER VI**

### **Actions by the Ship Building and Ship Recycling Board (SBSRB)**

**23.** The SBSRB as designated Authority by Ministry of Industries and the SBSRB will be responsible for overall supervision of the ship recycling yard. The Authority may appoint as panel members required number of qualified Specialized Professionals for vigorous supervisions of the ship recycling activities and for attending to rescue operation in case of necessity.

**23.1** The Authority's Specialized officials ,and/or Inspector and/or the panel of Safety Officers – as may be constituted by the Authority for safety evaluation within the ship recycling yard - will periodically visit the ship recycling Yards and shall bring to the notice of the yard management, the incidents of unsafe practices that may be observed by him/them during such visits for corrective action.

**23.2** The Authority shall have the powers to suspend the cutting operations temporarily, in case of any unfair practices or unsafe operations are observed in any of the ship recycling yards until the corrective measures are taken.

**23.3** The authority ensures owner of the yard shall provide adequate housing/dormitory facilities/proper resting facilities for workmen at suitable location for supply of drinking water, sanitation, electricity and Facilitate canteen outside the yard for food .

**23.4** The Authority shall take up in a time bound manner the following steps:-

i. To rationalize the leasing arrangements for the yard, including the appropriate time period for the lease, work out appropriate yard size and layout of the recycling facilities so that the ship-breaking operations could be undertaken in a well regulated and better organized manner with particular attention being paid to requirement of safety, health and ship recycling operations management.

ii. Setting up of a Model ship recycling Facility. This model facility may function as a demonstration/training facility, while being leased out to prospective yard holders for undertaking ship-breaking operations.

#### **23.5 Training**

Training facilities, should be uplifted and improved by the Trade Body in a time bound manner to ensure that all the workers are trained and also to conduct specialized training to handle gas detector and for handling of Asbestos and other hazardous materials. After such training specialization certificate should be issued to the workers concerned .The Curriculums of training has to be based on Guidelines of DOE for ship breaking workers and approved by SBSRB.



**24.** Drinking Water and water supply overall sanitation and health care facilities to workers, including housing facilities shall be the responsibilities of the SBSRB and these authorities must cater these facilities within 12 months from the date of entry into force of this Rules.

**25.** In case of asbestosis, cancer due to ship breaking occupation and such disabilities including lost of limbs or any part of body in accidents concerned ship recyclers or Trade Body shall compensate such labors. The labours if detected for asbestosis and other diseases and disabilities due to ship recycling activities, Ship Recyclers shall have to re-employ them in less prone area as post disease plans and protect their livelihood.

**26.** Ship Recyclers shall provide the canteen facilities as per the provision of the labor law 2006 to the ship recycling labors as per desired nutrition required by these labors, for such jobs during noon time. The labors with weak and anemic conditions shall not be engaged by the ship recyclers. In such cases, if noticed by Authorities, the Authorities may and ship recyclers shall immediately remove such labors who are not fit for labor intensive jobs.

**27.** The Authority with the help of Civil surgeon ,Health Department of the Government should create data base of health profile and health card of the each labors to create base line health status of the labors engaged in the ship breaking industry. Health profile has to submit to SBSRB.

**28. Fees :** For Obtaining permits and certifications following fees to be paid

**For Ship Recycling Facility Plan (SRFP):** validation for 5 (five) years ,inspection 6 (six) monthly ,the activity comprises with but not limited to base survey , compliance survey ,inspection ,periodic survey , special survey and enquires in matter of accident, correction measures survey ,check list compliance visit , documentations orientation and certifications etc **: 5,00,000/Tk. (Five lac )**

**For Ship survey and Inspection :** Arrangement to visit Ship ,examine , test ,evaluation and assessment of beaching permission : **2,00,000/Tk. (Two Lacs )**

**For Beaching and Cutting permission :** (Facilitating beaching permission , providing beaching master & Safety Officer ,used oil/sludge handling agency, hazardous waste (specially asbestos) abatement agency , Cable handling agency , registering vendors ,fees for use TSDF and Central Incinerator , Safety compliance during cutting , documentations & check list orientation and certifications etc. : **1% of the L/C Value**



## **CHAPTER - VII**

### **Management of Occupational Safety and Health**

#### **29. Health Compliance**

Ship Recyclers shall regularly arrange the health camps for ship breaking labors at their own cost. Trade Body shall facilitate for establishing permanent health care facilities for Ship Recycling Yard's employees and worker with adequate number of trauma unit ,orthopedic, burns ,intensive care unit ,other chronic diseases and disabilities reported . The health care centre should have ambulance. It shall be governed and controlled by SBSRB and duly supervised by Civil Surgeon .

#### **30. Implementation of Occupational Safety and Health Management System**

The process of improving working conditions at a ship recycling facility must be approached systematically in order to bring them up to reasonable standards. With a view to achieving acceptable occupational safety, health and environmentally sustainable conditions, investment in permanent structures for their continuous review, planning, implementation, evaluation and action is necessary. Occupational Safety and Health (OSH) management systems should be implemented by each ship recycler. The systems should be specific to the facilities and appropriate to their size and the nature of activities.

Typically, an OSH management system should contain the following main elements:

- (a) OSH policy;
- (b) necessary conditions for the executing organization, i.e. establishment of responsibility and accountability, awareness and training, documentation, communication and information;
- (c) hazard and risk assessment, planning and implementation of OSH activities;
- (d) evaluation of OSH performance and to take corrective action for improvement.

##### **30.1 Occupational safety and health policy**

The OSH policy for the ship recycling facility should include, as a minimum, the following key principles and objectives to which the facility is committed:

- (a) management commitment to, the occupational safety, health and environmental programmes;
- (b) recognizing OSH as an integral part of the overall management structure and OSH performance as an integral part of the facility's business performance.
- (c) protecting the safety and health of all workers of the facility by preventing work related injuries and diseases, ill health and incidents;
- (d) complying with relevant OSH national laws and regulations, voluntary programmes, collective agreements on OSH and other requirements to which the facility subscribes;

- (e) ensuring that workers and their representatives are consulted and encouraged to participate actively in all elements of the OSH management system; and
- (f) continual improvement of the performance of the OSH Management system.

### **30.2 Planning and implementation**

Based on the results of the initial review, subsequent reviews or other available data , arrangements should be made for adequate and appropriate OSH planning, which should include:

- (a) a clear definition, priority setting and quantification, where appropriate, of the OSH objectives for the reduction of existing risks as low a level as possible;
- (b) the preparation of a plan for achieving each objective, with defined responsibility and clear performance criteria indicating what is to be done by whom and when;
- (c) the selection, planning and implementation of corresponding preventive and protective measures;
- (d) the selection of measurement criteria for confirming that the objectives are achieved;
- (e) the provision of adequate resources, including human and financial resources and technical support, as appropriate.

### **31.3 Emergency preparedness**

Emergency prevention, preparedness and response arrangements should be established and maintained. These arrangements should identify the potential for accidents and emergency situations, and address the prevention of OSH risks associated with them. Arrangements should be made according to the location and environment of the ship recycling facility and also take into account the size and nature of activities associated with each ship recycling operation. These should

- (a) ensure that the necessary information, internal communication and coordination are provided to protect all people in the event of an emergency at the facility;
- (b) provide information to, and communication with the relevant competent authorities, and the neighborhood and emergency response services;
- (c) address first-aid and medical assistance, fire-fighting and evacuation of all people at the facility; and
- (d) provide relevant information and training to all members of the ship recycling facility , at all levels and according to their competence, including regular exercises in emergency prevention, preparedness and response procedures.

### **30.4 Reporting, recording and notification of work-related injuries and diseases, ill health and incidents**

In the establishment, review and application of systems for the reporting, recording and notification of work-related injuries and diseases, ill health and incidents

Reporting, recording, notification and investigation of work-related injuries and diseases, ill health and incidents are essential for active monitoring and should be undertaken to:

- (a) provide reliable information about occupational accidents and diseases at facility level;
- (b) identify major safety and health problems arising from Ship recycling activities;
- (c) define priorities of action;
- (d) evolve effective methods for dealing with occupational accidents and diseases;
- (e) monitor the effectiveness of measures taken to secure satisfactory levels of safety and health.

### **30.5 Notification of work-related injuries**

All occupational accidents should be notified to the Ship Recycling Cell .

Notification should be made immediately and contain:

- (a) an accident report for sending to the factory inspectorate and the Labor Authority;
- (b) a compensation to be paid as per labor law 2006 .

### **30.6 Notification of occupational diseases**

Notification of occupational diseases should include the following information:

- (a) Name of the facility and employer;
- (b) person affected by the occupational disease (name; employment status; occupation at the time when the disease was diagnosed; length of service with present employer);
- (c) occupational disease (name and nature; harmful agents; processes of exposure; description of work; length of exposure; date of diagnosis).

### **30.7 Means of access and egress**

Adequate and safe means of access and egress should be provided for all workplaces during all ship recycling operations. These means should be maintained in a safe condition.

### **30.8 Means of access to vessels should be:**

- (a) where practical, the ship's accommodation ladder, a gangway or a similar appliance; or
- (b) in other cases, ladders, stairs; or, if necessary, Pilot stepladders or similar appliances.

### **30.9 Means of access should:**

- (a) be kept free from obstructions; if they pass through workplaces they should be protected against falling objects;
- (b) as far as practicable, be so installed that no loads pass over them. In any event, loads should not be passed over the means of access while workers are on it.

30.10 Hatches, openings or any other means of access to holds, ships' decks or between decks should be provided with safety barriers. If it is not practicable to provide fixed hold ladders, portable- metal ladders (or appropriate wooden ones) should be provided. Rope ladders should be used only as supplementary means of access to holds. All ladders should be secured before being used.

### **31. Means of escape, in case of fire, or other dangers**

Means of escape should be kept clear at all times. Escape routes should be frequently inspected and modified on the ship continuously according to the breaking progress. Where appropriate; suitable visual signs should be provided to indicate clearly the direction of escape in case of fire.

#### **31.1 Means of escape should be:**

- (a) provided on the ship and from the ship during all breaking operations;
- (b) clearly marked, during night work with emergency lighting ;
- (c) shown on plans which should be posted at the access to and inside of the ship and landside facilities as appropriate.

### **32. Roadways, quays, yards and other places**

Roadways, quays, yards, etc., where persons or vehicles move or are stationed should be so constructed and maintained as to be safe for the traffic that they have to carry.

32.1 Yards and other places that are surrounded by fencing should have separate gates for pedestrians and vehicles.

32.2 Dangerous crossings where transport of heavy objects is carried out should be protected by automatic signals or gates whenever possible, or be guarded by watchmen.

### **33. Housekeeping**

A suitable housekeeping programme should be established and continuously implemented on each ship recycling facility and ship which should include provisions for:

- (a) the proper storage of materials and equipment;
- (b) the removal, at appropriate intervals, of scrap, waste and debris.

33.1 Loose materials which are not required for immediate use should not be placed or allowed to accumulate on the site so as to dangerously obstruct means of access to and egress from workplaces and passageways.

33.2 Workplaces and passage ways that are slippery owing to oil or other causes should be cleaned up or strewn with sand, sawdust, ash or the like materials.

33.3 Tools, bolts, nuts and other objects should not be left lying about where they could create a tripping hazard.

33.4 Scrap, waste, rubbish and dirt should not be allowed to accumulate at workplaces or in passageways.

33.5 Rubbish, dirt and refuse should not be thrown overboard but removed in an environmentally sustainable manner.

#### **34. Scaffolds and ladders**

Where work cannot safely be done on or from the around or from part of a ship or other permanent structure, a safe and suitable scaffold, or other equally safe and suitable provision should be provided and maintained.

34.1 The Safety Officer (panel listed of SBSRB) should establish and enforce laws, regulations or standards covering detailed technical provisions for the design, construction, erection, use, maintenance, dismantling and inspection of different kinds of scaffolds and ladders used.

34.2 Scaffolds should be provided with safe, means of access, such as gangways, stairways or ladders. Ladders should be secured against inadvertent movement.

#### **34.3 Every scaffold and part thereof should be:**

- (a) Designed so as to prevent hazards for workers and collapse or accidental displacement when properly used;
- (b) Designed so that guard rails and other protective devices, platforms, putlogs, rakers, transoms, ladders, stairs or ramps, as appropriate, can be easily put together;
- (c) Of suitable and sound material and of adequate size and strength for the purpose for which it is to be used and maintained in a proper condition.

#### **35. Precautions against the fall of persons and materials**

All openings through which workers are likely to fall should be kept effectively covered or fenced and clearly indicated in the most appropriate manner.

35.1 Adequate precautions should be taken such as the provision of fencing, lookout men or barriers to protect any person who might be injured by the fall of materials, or tools or equipment being raised or lowered.

35.2 As far as practicable and in accordance with national laws and regulations, guard rails and toe boards should be provided to protect workers from falling from elevated workplaces. Wherever the guard rails toe boards cannot be provided:

- (a) adequate safety nets or safety sheets should be erected and maintained: or
- (b) adequate safety harnesses should be provided and used.

35.3 Where necessary to prevent danger, guys, stays or supports should be used or other effective precautions should be taken to prevent the collapse of structures or parts of structures that are being dismantled or demolished.

35.4 Waste materials or objects should not be thrown down from heights. If material and objects cannot be safely lowered from heights, adequate precautions such as the provision of fencing or barriers should be taken. Loose article should not be left lying in places where they could fall on persons underneath. Workers employed at elevated workplaces should be provided with containers for screws, bolts, nuts and the like.

### **36. Fire prevention and fire-fighting**

All appropriate measures should be taken by the employer to:

- (a) avoid the risk of fire;
- (b) control quickly and efficiently any outbreak of fire;
- (c) bring about a quick and safe evacuation of persons.

**36.1** Sufficient and secure storage areas should be provided for flammable liquids and solids and gases such as liquefied petroleum gas (LPG) tanks and acetylene cylinders, paints and other such materials.

**36.2** Smoking should be prohibited and "No Smoking" notices., prominently displayed in all places containing readily combustible or flammable materials.

**36.3** In confined spaces and other places in which flammable gases; vapors or dusts can cause danger:

- (a) only suitably protected electrical installations and equipment, including portable lamps, should be used;
- (b) there should be no naked flames or similar means of ignition;
- (c) oily rags, waste and clothes or other substances liable to spontaneous ignition should be removed promptly without any delay to a safe place;
- (d) adequate ventilation should be provided;
- (e) persons wearing clothes likely to cause static electricity or shoes likely to cause sparks should be excluded.

**37.** Combustible materials, greasy/oily waste and scrap wood or plastics should be kept in closed metal containers in a safe place.

**38.** Regular inspections should be made to places where there are fire risks. These include the vicinity of heating appliances, electrical installations and conductors, stores of flammable and combustible materials, hot welding and cutting operations.

**39.** Welding, flame cutting and other hot work should only be done on the orders of a competent person after appropriate precautions, as required, are taken to reduce the risk of fire and explosion.

**40.** In accordance with national laws and regulations, places where the danger of fire exist, should be provided with:

- (a) suitable and sufficient fire-extinguishing equipment, which should be readily available, and easily visible and accessible;
- (b) an adequate water supply at ample pressure.

**41.** Fire-extinguishing equipment should be selected and provided in accordance with the provisions of international and national laws and regulations, the results of the initial hazard identification and risk and assessment and based on the processes, identified in the safe ship recycling plan. Equipment deployed should be suitable for and consistent with the following demands and applications:

- (a) the restricted access, egress and confined spaces inside the ship;
- (b) the quantity and characteristics of hazardous, flammable and explosive substances handled in ship recycling operations;
- (c) site transport and storage facilities;
- (d) first-stage fire-fighting purposes (hand-held or trolley mounted portable fire-fighting extinguishers). The extinguishing medium should be selected according to identified hazards and risks and control measures.

**41.1** Fire-extinguishing equipment should be properly maintained in full working order and inspected at suitable intervals by a competent person. Access to fire extinguishing equipment such as hydrants, portable extinguishers and connections for hoses should be kept clear at all times.

**41.2** Suitable training, instruction and information should be given to all supervisors and a sufficient number of workers about the hazards of fires, the appropriate precautions to be taken and the use of fire-extinguishing equipment, so that adequate trained personnel is readily available during all working periods. The training, instruction and information provided should include, in particular:

- (a) the circumstances in which workers should not attempt to deal with a fire themselves but should evacuate the area and call in firefighters;
- (b) when and where to raise the alarm;
- (c) action to be taken in the event of fire, including the use of means of escape;
- (d) the correct use of fire-fighting and fire-protection equipment, for workers expected to use it;
- (e) the toxic nature of the fumes given off and first-aid measures;
- (f) the proper use of appropriate personal protective equipment;
- (g) evacuation plans and procedures.



**41.3** Sufficient, suitable and effective means (sight and sound signals) to give warning in case of fire should be installed. There should be an effective evacuation plan so that all persons are evacuated speedily without panic.

**41.4** Notices should be posted at conspicuous places indicating; if applicable, the:

- (a) nearest fire alarm;
- (b) telephone number and address of the nearest emergency services;
- (c) nearest first-aid post.

## **42. Dangerous atmospheres and confined spaces**

Where workers are required to enter any area in which a toxic or harmful substance may be present, or may have been present, or in which there may be an oxygen deficiency or a flammable atmosphere, adequate measures should be taken to guard against danger.

**42.1** The measures regarding dangerous atmospheres to be taken should be prescribed by the competent authority in conformity with the IMO recommendations for entry into enclosed spaces aboard ships and should include prior permission from a competent person, or any other system by which entry into any area in which a dangerous atmosphere may be present can be affected only after completing specified procedures.

**42.2** Inside a confined space or area, no naked light or flame or hot work should be permitted unless it has been made completely free of the flammable atmosphere, tested and found safe by Safety Officer. Only non-sparking tools and flameproof hand lamps protected with guard and safety torches should be used inside such confined space or area for initial inspection, cleaning or other work required to be done for making the area safe.

**42.3** While a worker is in a confined space:

- (a) adequate facilities and equipment including breathing apparatus, first-aid kit, resuscitation apparatus and oxygen should be readily available- for rescue purposes;
- (b) a fully trained attendant or attendants should be stationed at or near the opening;
- (c) suitable means of communication should be maintained between the worker and the attendant or attendants.

## **43. Signs, notices and colour codes**

Signs and symbols are very effective methods for warning against hazards and for presenting information in a non-linguistic form. Safety signs and notices should conform in shape and colour to the requirements of the competent authority.

**43.1** The contents of portable fire extinguishers should be indicated by a colour code in compliance with the requirements of the competent authority. Each fire extinguisher should have a label affixed to it providing instructions for its use.

**43.2** Various standards exist for the colour coding of electrical wiring. Care should always be taken to ensure that personnel are aware of the meaning of the core colours on board each ship. If a replacement is required, it should be in accordance with the coding system.



**43.3** Gas cylinders should be clearly marked with the name and symbol of the gas and the body should be coloured according to its contents. A colour coding should be provided.

**44. Prevention of unauthorized entry**

Visitors should not be allowed access to ship breaking facilities or ships, as appropriate, unless accompanied by or authorized by a competent person and provided with the appropriate protective equipment.

**44.1** Appropriate arrangements concerning access by workers representatives should be established in accordance with the provisions of national laws and regulations or of collective agreements.

## CHAPTER- VIII

### PENALTY PROVISIONS AND MISCELLANEOUS

#### **45. Actions to be taken in the event of an accident on any yard and/or on the ship or for non-compliance of any of these regulations.**

The ship-recycler shall report in writing to the SBSRB as well as the Police Authority about any accident/fire/explosion occurred on the Yard and/or ship, immediately on its occurrence.

**45.1** In the event of any accident/fire/explosion on any yard and/or on any ship leading to a death or serious bodily injury to any person or for the noncompliance of any of these rules, resulting in any accident on any yard and/or on the ship, the following actions shall be taken:

In the event of major fire/explosion/accident causing damages with or without death or serious bodily injury to any person all activities related to ship recycling on the yard be suspended by the SBSRB with immediate effect for a investigation to be conducted by 7 (seven) days . During this period, The SBSRB will conduct detailed investigation through a team comprising of professionals having experience and qualification of Industrial Safety and Health Management, Master Mariner/Marine Engineering, Safety officer's panel ,Environment and Pollution Control . During such period the investigation team appointed by the SBSRB shall thoroughly inspect the yard and get into the cause of incident and direct respective yard owner to rectify the same and restore safe working environment prior to resumption of operation within 30 days. If not restored the situation within 30 days, the time limit for closure of the yard shall be extended till the inspecting team satisfy itself for compliance. For all the cases of fire/accident/explosion leading to a death or serious bodily injury to any person, an inquiry shall be commissioned by a team comprising authorized person(s) of SBSRB and shall file the inquest report on which the SBSRB shall initiate penal action as mention below in clause 46.

**45.2** Provided further that in such eventuality the ship-recycler shall immediately pay a minimum ex-gratia compensation per person or more as per provision of clause 45.3 decided by the SBSRB from time to time to the next kin of the deceased, and A amount per case or more as per said provision from time to time to the injured victim, over and above the compensation that may be received by the next kin of the deceased or the injured victim from insurance claim and under the clause 45.3

**45.3** In case the negligence on the basis of the inquiry report submitted by the team constituted as above is proved on the part of Yard Owner shall be imposed Suspension of yard for one year ,a penalty from Taka one lac to ten lac by realizing the magnitude of the negligence of the Yard decided by SBSRB and Compensation for dead accident to the next of kin is Taka 5 (Five) lac and for seriously deceased or injured ,compensation is Taka 2 (two)lac. with complete treatment and 12 months salary .

**45.4** The aforesaid penal action shall be taken concurrently with other appropriate penal actions that may be taken under other relevant Statutes, Acts and Regulations etc.

## **46. Action against willful defaulters**

**46.1** Yard operating ship recycling activities without SRFP shall attract penalty maximum Taka 5 (five) lacs and ceased the yard lease agreement .

**46.2** Fraud or untruth information in SRFP shall lead to suspension of yard for three months with Taka 1 (lac) penalty .

**46.3** Inspection found uncertified worker engaged in ship recycling activities shall be penalized per head 50 (Fifty) thousands Taka .

**46.4** Inspection found workers are not equipped with proper personal protective equipment shall be penalized per head 25 (twenty five) thousands Taka.

**46.5** Inspection found non-compliance with this rules shall lead to cease activities of yard till corrective actions .

**46.6** Regarding Environment measures non compliance shall be dealt with Environment Conservation act 1995 / Environment Court 2010 ,

**46.7** Due to wrong/mishandling of Oil and HW ,any spillage of oil/sludge /HW to the environment (soil ,water and air ) with the clause 46.6 added with penalty for wrong/mishandling will be Taka 10 (ten) thousands to 10 (ten) lacs .

**46.8** Working beyond prescribed time and during holiday shall attract penalty as per labor act 2006.

**46.9** Violation or non observance of the instruction within specified period given by the authority as specified non observance of the instructions given shall attract penalty by suspension of yard activities for a period and penalty from one lac to five lac Taka depends upon merit of the violation or non observance .

**46.10** False declaration of a ship containing unmanageable Hazardous waste and Hazardous materials will lead to attract penalty Taka 1 (one) crore with permanent suspension of the yard.

**46.11** Any fault addressed by customs or VAT will be treated as per their legislative rules .

## **47. Appeal provision**

An appeal shall lie against the order made under this chapter with the Ministry of Industries . Such appeal shall be preferred within 07 working days from the order.

## **48. Miscellaneous**

The ship-recycling yard under SBSRB shall provide basic infrastructure which may not exceed a maximum of 2 (two) years period from the date of entry in to force of this rules. The basic infrastructure will have minimum the following facilities.

- i. Hydrant system for fire fighting purpose.

- ii. Potable drinking water supply.
- iii. Drainage/Sewerage system.
- iv. Street lighting facilities.
- v. Domestic waste management system.
- vi. Internal Roads and connectivity to main Highways
- vii Administrative Buildings .
- viii. Common Sanitary Blocks for labors and other primary amenities like community centers, labor welfare centers.

The above services shall be regulated by SBSRB.

**49.** Further, Ministry of Industries /Or Such Other authorities/ Owner of such yard will develop and protect the area by removing encroachments, by taking up beautification and a forestation activities

**50.** The Representative Labour Department under SBSRB shall ensure that laborers are paid as per labor rules 2006 and no exploitation of the ship recycling laborers are made by the ship Recyclers.

In the event of any question arising out of the interpretation of any of the clauses of the regulations, the decision of the Ministry of Industry shall be final.

#### **51. Amendment Provisions for the Rules**

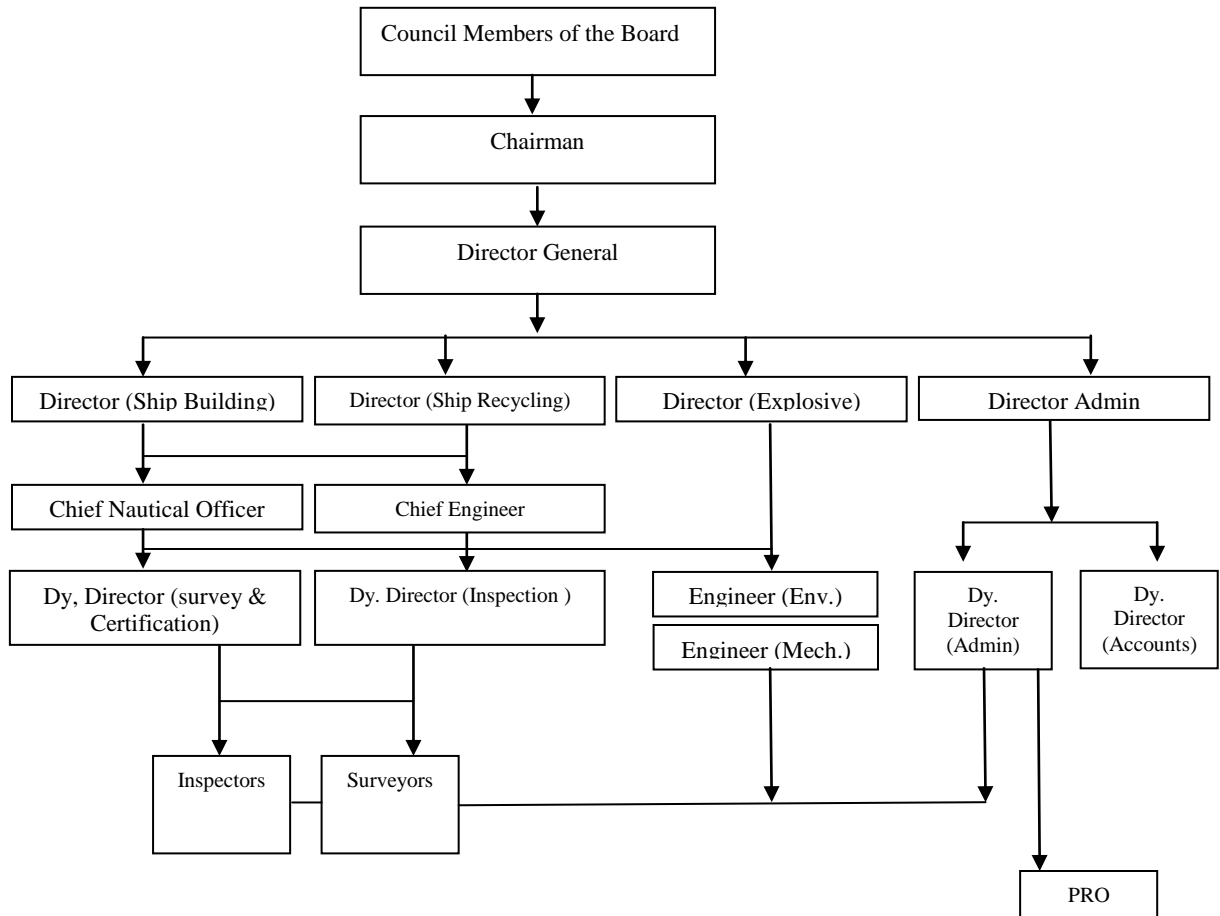
This rules may be amended in the following circumstances

- i. On ratification of the International Maritime Organization (IMO) Convention on ship recycling by the Government and any subsequent changes to the IMO Convention on ship recycling;
- ii. On amendments of other rules and regulations by the Government of Bangladesh having a bearing on the Code; and
- iii. On consideration of the Government in the Ministry of Industries, on requests from the other Government Authorities and other Stakeholders for carrying out requisite amendments, in the event of any practical difficulties in the implementation of the provisions of this Rules.

## Annexure -I

### Ship Building and Ship Recycling Board (SBSRB)

#### ORGANIZATIONAL CHART



## Annexure-II

## **Initial Reporting by the Ship Owner regarding their ship(s) to be sent to the Recycling Yards**

1.0 A ship-owner shall notify the **Administration (SBSRB)** in due time and in writing of the intention to recycle a ship in order to enable the Administration to prepare for the survey and certification required by National Regulations.

1.1 A Ship Recycling Facility when preparing to receive a ship for recycling shall notify in due time and in writing to the SBSRB of the intent. The notification shall include the following ship details:

- i. name of the State whose flag the ship is entitled to fly;
- ii. date on which the ship was registered with that State;
- iii. ship's identification number (IMO number);
- iv. hull number on new-building delivery;
- v. name and type of the ship;
- vi. port at which the ship is registered and last port clearance;
- vii. name and address of the Ship-owner as well as the IMO registered owner id. number;
- viii. name and address of the company as well as the IMO company id. number;
- ix. inventory of Hazardous Materials as per Import Policy .
- x. cargo free certificate issued by the last port authorities;
- xi. name of all classification society(ies) with which the ship is classed;
- xii. ship's main particulars (Length overall (LOA), Breadth (Moulded), Depth (Moulded), Lightweight, Gross and Net tonnage, and engine type and rating); and

Signature of owner

Seal of his

Company

Telephone No

Fax No

e-mail ID

Date

## **Annexure- III**

To,  
**The Port Authority**  
**Through : The Ship Building and Ship Recycling Board (SBSRB)**  
**Sub: Application for beaching permission.**

Dear Sir,

I/We am/are having licensed to beach and break ships on name of the yard \_\_\_\_\_ apply for granting permission to beach ship on my/our yard. Required information are given below.

1. Name of the applicant:
2. Yard name.:
3. Size of the Yard:
4. Last vessel beached on:
5. LDT of the last vessel:
6. Present status of the last vessel beached. (If it is under recycling, percentage yet to be dismantled shall be indicated.)
7. Details of vessel to be beached.
  - (a) Name: (b) Flag: (c) Origin: (d) Type: (e) LDT: (f) ETA:
  - (g) Last port visited and Last Port Clearance certificate.
  - (h) Cargo handled during last '3' voyages:
  - (i) Live or dead vessel:
8. Certified that,
  - i. All the information given are true to my best knowledge.
  - ii .Gas free certificates viz. (a) for man entry (b) gas free certificate for work are obtained from the explosive department and enclosed if the vessel is Oil Tanker which is attached as Annexure:
  - iii. Certificate from master of ship is attached as Annexure:
  - iv. Certificate of Safe entry for man and hot work is obtained and attached as Annexure:
  - v. Present status of the total width of the ship/ships along with ship to be beached is less than 5 metres of the width of the plot.
9. Documents attached:
  - (a) Original MOA between buyer and seller (b) Challan for payment made to port ( c ) Customs NOC with challan (d) DOE clearance (f)) Copy of Registered Certificate from TDSF operator (h) Ship's Certificate (Gas free, CO<sub>2</sub>, No hazardous material) (i) Inventory report – original (m) For oil tankers, gas free certificates issued by representative of Department of explosives, under SBSRB .

1. Date of receipt of application ,
2. Received by:
3. Beaching permission granted on:

#### **Annexure- IV**

To,  
**The Ship Building and Ship Recycling Board (SBSRB)**  
**Sub: Application for recycling permission.**  
**Dear Sir,**

I/We am/are having licensed to beach and break ships on name of the Yard \_\_\_\_ apply for granting permission to break ship on my/our Yard. Required information are given below.

1. Name of the applicant: 2. Yard location : 3. Size of the Yard: 4. Present status of the vessel under cutting: 5. Details of vessel to be broken. (a) Name: (b) Type: (c) LDT:

6. Certified that,

(i) All the information given are true to my best knowledge.

(ii) Certificates viz. (a) for man entry in to confined spaces likely to contain dangerous fumes & insufficient oxygen, under SBSRB (b) Safe for Hot Work Certificate issued by the Department of Explosive under SBSRB (c) Receipt giving evidence of Custom Clearance of the ship under SBSRB (d) Certified copy of authorization and consent from the DOE for ship recycling activity under SBSRB are enclosed as Annexure: . A copy of Ship Specific Dismantling Plan is attached.

#### **UNDERTAKING**

I, the undersigned here by certify that

(a) All kinds of petroleum products such as oil, fuel in tank etc. and gas, including CO<sub>2</sub>, gas of the ship have been emptied and evacuated and shall be thoroughly cleaned prior to undertake cutting operation.

(b) No unauthorized decanting of gas cylinder/s and/or tiling of cylinder/s with gases such as Freon, Ammonia, Carbon Dioxide etc., is carried out on the plot or within the ship recycling yard as per Rules.

Signature:

(Name of the official)

(For office use only)

1 Date of receipt of application:

2 Received by:

1. Beaching permission granted on:

#### **Annexure- V**



**Ready for Recycling Document to be forwarded by concerned ship recycler along with the Ship Recycling Plan.**

This is to certify that,

1. Ship Name ..... with IMO Identification No .....is beached in the Yard location ..... having its dimension ..x .. which is allotted on lease or owned ....dated ..... for the period of year(s). In this connection, the status of previous ship beached in this plot (in which current ship is beached on date .... ) is broken .....%

2. Following components of Recycling Facility Management Plan are in place and operative in our yard address .....

**3. Documents required by the facility**

- i) Authorization for handling Hazardous waste generated from ship recycling activities issued by SBSRB for the period of year(s) vide their Letter No ...dated.....
- ii) Membership of TSDF from TSDF operator/BSBA/SBSRB issued vide letter No. ...dated..... for period of ..... years(s)
- iii) Approved Recycling Facility Plan issued by SBSRB under Ministry of Industries vide their letter No.....dated ..... for period of .... year(s).
- iv) Any other document(s) or NOC/Permission if any vide letter No..... dated.....

**4. Following Minimum Facilities are available in our Yard as per recycling facility plan approved by the SBSRB**

- (i) Godown for Temporary Storage for Hazardous/Non. Hazardous Waste Material
- (ii) Asbestos Handling & Removing facility as per TEC Report (Common facility may be used)
- (iii) Sanitation/Drinking Water Facility/Washing Facility
- (iv) Worker Change Room
- (v) First Aid Facility
- (vi) Fire fighting facility & Emergency Response System including oil spill combat system
- (vii) Material Handling Equipments and Personal Protection Equipment
- (viii) List of the trained Labour
- (ix) Other facilities if any

Signature of Ship  
Recycler Ship  
Recycling Plot No  
Date:

**Annexure V-1** ( FORMAT FOR INFORMATION ON RADIOACTIVE MATERIAL CONTAINED IN THE SHIP, TO BE PROVIDED BY THE SHIP RECYCLER BEFORE ANCHORING ) 1) Name of the Ship : 2) IMO Identification No : 3) Flag : 4) Call Sign : 5) Name of the Master of the ship and his nationality : 6) Details of radioactive material contained in the ship while the ship was in service:

Sr. No.	Name of radionuclide	No. of sources*	Total activity (Curies)	Location of the sources in the ship	Purpose of the sources

7. Details of radioactive material present in the ship at the time of anchoring:

Sr. No.	Name of radionuclide	No. of sources*	Total activity (Curies)	Location of the sources in the ship	Purpose of the sources

\*In case of sources contained in devices, please give details of the type of device, its make and model number **Undertaking:**

**I hereby certify that:-**

**All the statements made above are correct to the best of my knowledge and**

**belief.** Name and signature of the Master of the Ship/ Representative of the Recycler Designation:

Place: Date: Seal of the company

**Annexure V-2** (FORMAT FOR INFORMATION ON DESK REVIEW DURING ON BOARD VERIFICATION OF A SHIP FOR PRESENCE OF ANY RADIOACTIVE MATERIAL) 1) Name of the Ship: 2) IMO Identification No: 3) Flag : 4) Call Sign : 5) Name of the Master of the Ship and his nationality: 6) Details of the permission issued for anchoring of the ship: 7) Results of verification of the information provided in Form-I: 8) Details of any radioactive material recovered from the ship after anchoring: Name(s) and signature(s) of the: Inspecting Team of the Ministry of Shipping/Port Authority Designation(s): Name of the organization : Place: Date:

Name and contact information of the Facility			
Name of the Facility		*** Co., Ltd.	
Registered Address		xxx *** ** Japan	
Address of the Facility		xxx *** ** Tokyo	
Representative and communication address		President Mr. Yxxxx *****	
Number of Employee		20	
TEL	+81-xxx-xxxx	FAX	+81-xxx-xxxx
E-mail address	xxxx@xxx.xxxx.ne.jp	URL	http://www.xxxxxxx.ne.jp/xxxx/e-home.html
Working language			

[illegible]

Maximum Capacity of the ship to be recycled	DWT GT
	Length Breadth Width Depth
Type of ship to be acceptable	

Waste Management Capacity	
Asbestos	removal storage process
PCB	removal storage

Boat	Gross Tonnage: 5 tons, Power: 240 PS
Shear	Capacity: 600 tons
O <sub>2</sub> supply	Liquid O <sub>2</sub> supply system: 10 m <sup>3</sup>
Gas supply	LPG Bottles
Compressed air	
Fire extinguisher	Portable fire extinguisher
Waste oil treatment	Oil Water Separate Tank

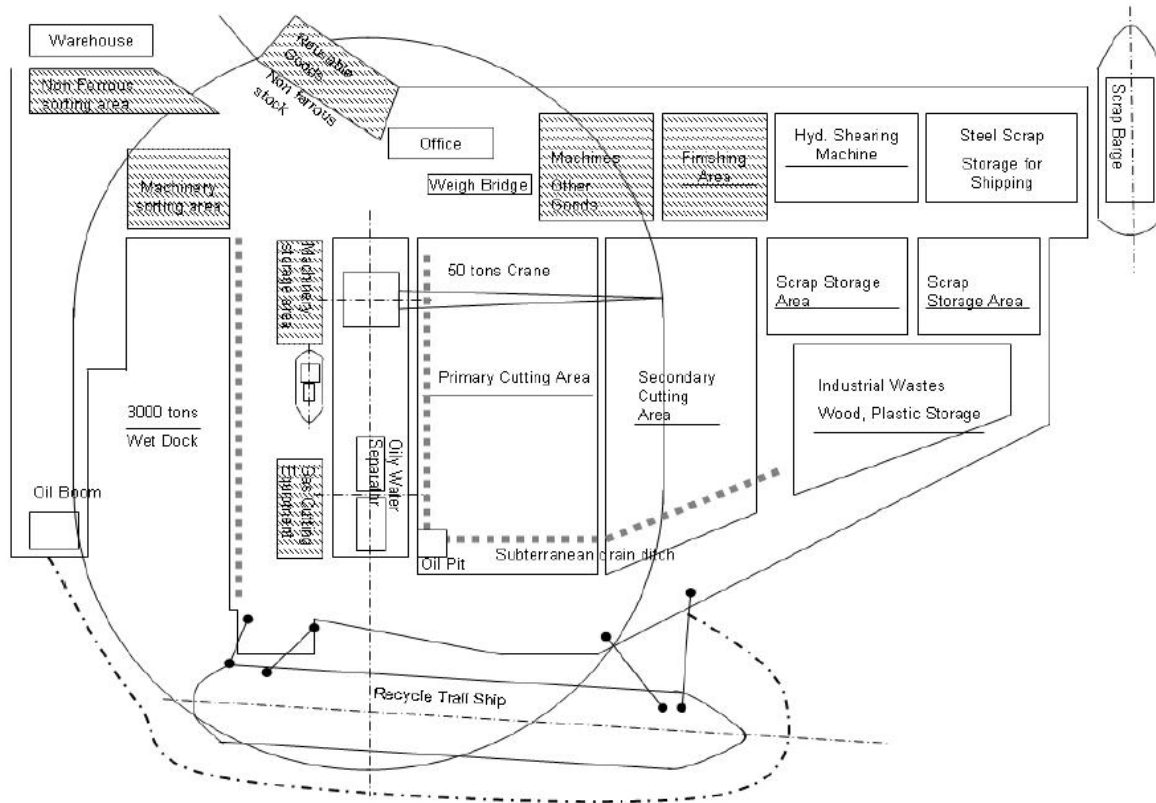


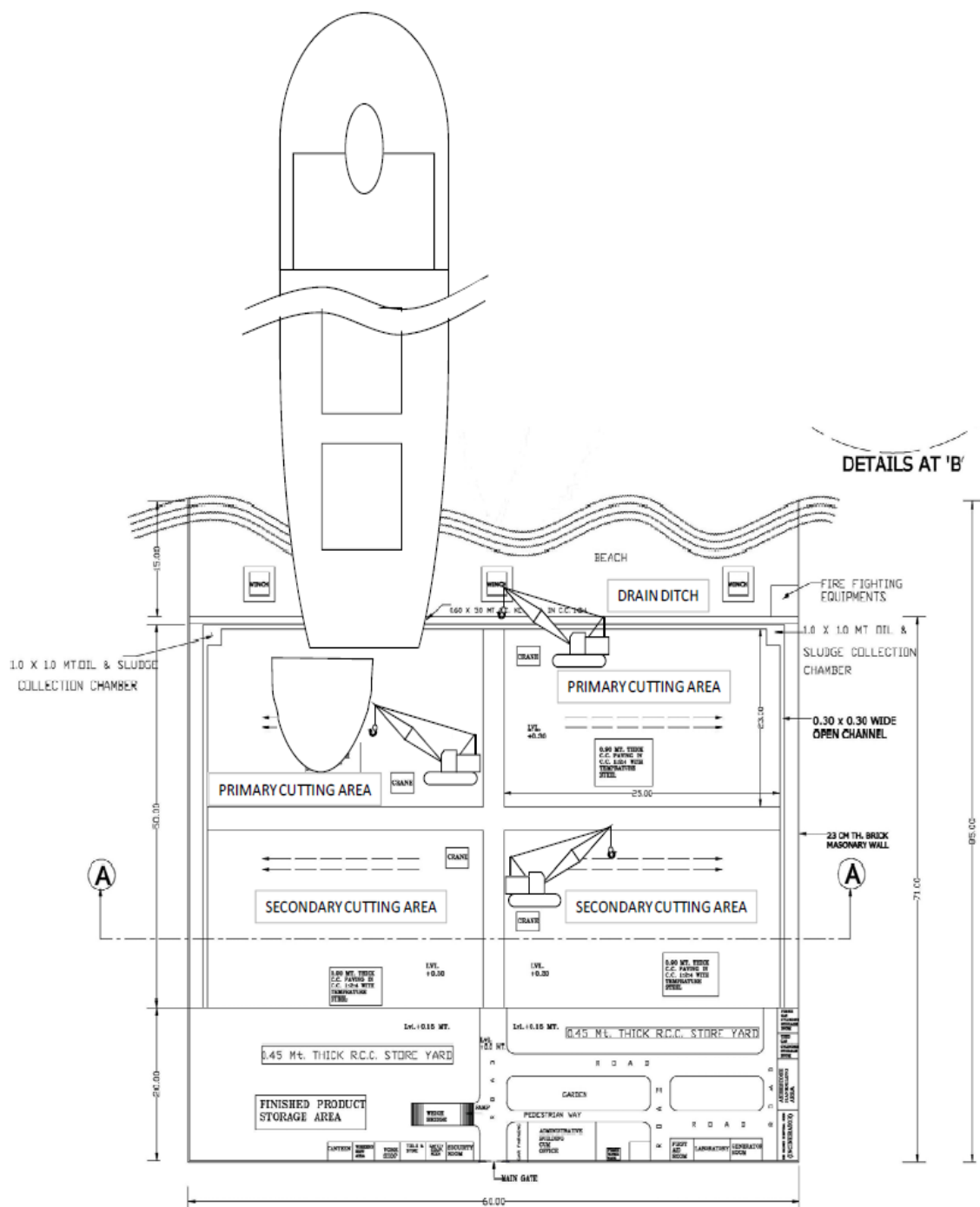
1

Certificate, Licence of Workers			
Certificate/Licence		Name	
1)	Manager of Asbestos handling	Mr. Yxxxx ***** 1 person	
2)	Manager of PCB handling	Mr. Yxxxx ***** 1 person	
3)	Designated chemicals handling	None	
4)	Asbestos handling class	Mr. *****	
		Mr. *****	
		Mr. ***** 3 persons	
5)	Gas cutting	Mr. *****	
		Mr. *****	
		Mr. ***** 3 persons	
6)	Welding	Mr. ***** 1 person	
7)	Zinc handling	Mr. ***** 1 person	
8)	Lifting	Mr. *****	
		Mr. *****	
		Mr. ***** 3 persons	
9)	Heavy lift machines	Mr. *****	
		Mr. ***** 2 persons	
10)	Seafarer	Mr. ***** 1 person	
11)	Diver	None	
12)	Removal of Hazardous Materials (Material A)	Mr. ***** 2 persons	
	(Material B)	Mr. ***** 2 persons	
Information on Sub-contractor			
Name of the sub-contractor		*** Co., Ltd.	
Registered Address		xxx *** *** Japan	
Representative and communication address		President Mr. Yxxxx *****	
Field of Services			
Licence on the Services			
Number of Employees			
TEL	+81-xxx-xxxx	FAX	+81-xxx-xxxx
E-mail address	xxxx@xxx.xxxx.ne.jp	URL	http://www.xxxxxxx.ne.jp/xxxx/e-home.html

## Location Map Yard Plan (an example)

[\* Yard Plan should be attached as an independent appendix of SRFP.]





## Annexure VII



## The zoning of the shipbreaking area

