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Government of India  
Ministry of Shipping  
(SBR Section)  
\*\*\*\*\*

New Delhi, dated the 15<sup>th</sup> of June, 2016


### PUBLIC NOTICE

Based on the suggestions received from different stakeholders and the comments received from different organizations in response to the Public Notice dated 11<sup>th</sup> September, 2015, it is proposed to make some changes in the Ship Breaking Code, 2013, as indicated in the attached draft Code.

2. The members of the Ship Breaking Scrap Committee, general public and all other stakeholders are hereby invited to give their comments/suggestions, if any, in this matter positively **by 30.06.2016**.

3. The comments/suggestions may be sent by post or email to the undersigned.

Enclosures: As above.

  
15/06/16  
(Abhinav Gupta)

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To,

- All members of the Ship Breaking Scrap Committee (list enclosed).
- SSA, NIC, for uploading the notice and draft Ship Breaking Code, 2013 on the website for comments of general public and other stakeholders.

(NOTE: Proposed additions are indicated in Red. Portions proposed to be deleted are ~~scored-out~~.)

## SHIPBREAKING CODE, 2013

### Chapter-1

#### Preliminary

##### Short title and Commencement:

1 (1) This may be called Shipbreaking Code 2013.

(2) The code shall come into force with effect from the date of its publication in the official Gazette and shall remain in operation until the concerned enactments are amended on line with the Code.

##### Definitions :-

2. In this Code, unless the context otherwise requires

- i. (a) "Administration" means the Government of the State whose flag the ship is entitled to fly, or under whose authority it is operating.  
(b) "AERB" means Atomic Energy Regulatory Board under ~~Department of~~ Atomic Energy Commission.
- ii. "Authorized Ship Recycling Yard" means a ship recycling plot or plots in cluster developed to cater to safe and environmentally sound ship recycling allotted officially by the SMB or Port Trust/Authority and 'Authorization' has been issued for the purpose by the concerned State Pollution Control Board.
- iii. "Cash Buyer" means the person or company who owns the ships for less than six months.
- iv. "Certificate of Inventory of Hazardous Materials" means a certificate, which encompasses the hazardous materials on board the ship in the format as prescribed by the Maritime Administration.
- v. "DG FASLI" means Directorate general Factory Advice Service & Labour Institute a technical arm of the Ministry of Labour & Employment.

- vi. "DG Shipping" means Directorate General of Shipping, the authority constituted under the provisions of Merchant Shipping Act (44 of 1958), 1958.
- vi(a) "Employer" means a natural or legal person that employs one or more workers engaged in Ship Recycling.
- vii. "Factory Inspector" would mean an inspector appointed under sub-Section (1) of Section 8 of the Factories Act, 1948.
- vii(a) "Hazardous Material" means any material or substance which is liable to create hazards to human health and/or the environment
- viii. "Owner of a ship Recycling plot/yard/facility" means any person or body permitted by the State Maritime Board (SMB) or Port Trust for use of the ship recycling plot/yard.
- ix. "Port Authority" means a Port officer or any other person appointed and authorized by the State Maritime Board (SMB) or any officer appointed under the Major Port Trusts Act, 1963 to act as Port Authority.
- ix (a) "Radiological Safety Officer (RSO)" means any person who is so designated by the SMB/State Government and approved by AERB, as per Atomic Energy (Radiation Protection) Rules, 2004.
- x. "Ready for Recycling Certificate" means the certificate issued by the Maritime Administration or organization authorized by the Maritime Administration, which authenticates that the vessel is complying with the present Code and applicable International regulations.
- xi. "Safety Officer" means Officer appointed to ensure safety in hazardous processes as per Section 40B of the Factories Act, 1948.
- xii. "Supervisor means safety Supervisor appointed to supervise safety provisions hazardous processes as per Section 41-C(b) of Factories Act, 1948.
- xiii. "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.

- xiii(a). "Shipowner" means the person or persons or company registered as the owner of the ship or, in the absence of registration, the person or persons or company owning the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the owner of the ship. However, in the case of a ship owned by a State and operated by a company which in that State is registered as the ship's operator, owner shall mean such company. This term also includes those who have ownership of the ship for a limited period pending its sale or handing over to a Ship Recycling Facility.
- xiv. "Ship Recycler" means ship recyclers and includes the persons or parties who carry out ship-recycling activities in the authorized ship recycling yard and who is responsible for taking care of all duties and responsibilities imposed by this Code.
- xv. "Ship recycling activities" would mean and include all activities such as beaching, cutting, dismantling of the ship, in order to recover components and materials for reprocessing, reduce and re-use, whilst taking care of hazardous and other materials, and includes associated operations such as storage and treatment of components and materials on site and disposal of all dismantled materials from the ship-recycling yard in safe and environmentally sound manner.
- xvi. "Ship Recycling Plot or Yard": A piece of land of suitable dimension as decided by SMB or Port Trust in which ship recycling activities are carried out.
- xvii. "SMB" means State Maritime Board as constituted by the State Government under official Gazettes as per the role and functions stipulated under the Indian Port Act-' 1908.
- xviii. "SPCB" means State Pollution Control Board and is the Board or Committee constituted under sub-section (1) of section 4 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974).

- xix. "SRP" means Ship Recycling Plan. It is the Plan Document developed by the ship recycler to recycle a ship in safe and environmentally sound manner.
- xx. "SRFMP" means Ship Recycling Facility Management Plan. Ship Recycling Facility Management Plan includes the plot for ship recycling as per approved lay out and equipped with various facilities as prescribed by the competent authority.
- xx(a) "Tanker" means an oil tanker as defined in MARPOL Annex I or an NLS tanker as defined in MARPOL Annex II
- xxi. "Worker" means the Worker defined under sub-clause (1) of Section 2 of the Factories Act. 1948.

## CHAPTER-II

### CATEGORIES OF SHIPS AND SHIPS OF SPECIAL CONCERN

#### 2.1 Classification of ships

War Ships, Nuclear Powered Vessels, Naval Ships, Passenger or Passenger cum Roll-on/Roll-off (RORO) vessel having weight 20,000 Light Displacement Tonnage(LDT) or more, Petroleum, Oil and Chemicals carrying tankers, Floating Platforms for Off-Shore Production (FPSO), and the vessels having mean draft more than 8 meters and requiring beaching at 1.5 kilometers or more from the shore base line and International Maritime Dangerous Goods (IMDG) carrying vessels shall be treated as ships of 'Special Concern'. The ships other than special concern would be treated as ships of general concern.

#### 2.2 Characteristics of ships of special concern

These ships as in the table given below are treated as of "Special Concern" due to the following different characteristics related to quantity of hazardous materials-Asbestos Containing Materials (ACMs). Polychlorinated Biphenyls (PCBs), radioactive materials contained in the structure of the ships and also difficulty in beaching as well as complex nature of steel structure, due to which it is difficult to cut and also involves safety hazards. Such ships shall be inspected and closely monitored by the authorities as outlined in the table below:

Category	Nature of concern	Essential infrastructure and precautions necessary
Warships	Large quantities of PCBs, ACMs and radioactive materials	Adequate infrastructure at the yard to handle the identified quantities of radio-active and other hazardous materials with adequate, approved infrastructure and disposal facilities nearby, adequately trained staff. Inspection and strict monitoring by Atomic Energy Regulatory Board (AERB). Customs Department, Navy, State Maritime Board

		(SMB)/Port Authority and State Pollution Control Board (SPCB) concerned. State Maritime Board/Port Authority shall coordinate intimation, inspection and monitoring.
Large passenger liners (greater than or equal to 20,000 LDT or having mean draft more than 8 meters)	Large quantities of PCBs, ACMs	Inspection and strict monitoring by AERB, <b>directly or through RSO</b> , for any radioactive materials. Adequate infrastructure at the yard to handle the identified quantities, adequate approved infrastructure and disposal facilities nearby adequately trained staff. Inspection and strict monitoring by the Customs Department, the SPCB and the SMB/Port Authority concerned.
Nuclear powered ships and naval vessels	Residual Radiation Level	Monitoring by AERB of residual radiation level and if found higher than the permissible limits, to recommend measures for decontamination. Reactors, cores and all radioactive wastes to be removed by ship owner before last voyage and before sending it for recycling, inspection and strict monitoring by AERB, Customs Department, Navy, State Maritime Board (SMB)Port Authority and the State Pollution Control Board (SPCB) concerned.
Deep draft ships having mean draft more than 8 meters requiring beaching at 1.5 kilometers	Distance from the beach during beaching and difficult to drag up to the	Extra precautions required in transferring hazardous materials or materials containing hazardous substances to spillage into the sea. Inspection and strict monitoring by Customs Department/ State

or more from the baseline.	plots.	Maritime Board (SMB)/Port Authority/SPCB concerned.
International Maritime Dangerous Goods	Hazardous residues in Cargo Tanks	Adequate infrastructure at the yard to handle the identified quantities, adequate approved infrastructure and disposal facilities nearby adequately trained staff, strict monitoring by the SPCB and the SMB/Port Authority concerned.
Floating Platforms for Offshore Production, Petroleum, Chemicals and oil carrying tankers	Beaching difficulties and hazardous wastes in platforms and the vessels	Extra precautions required in transferring hazardous materials or materials containing hazardous substances to avoid spillage into the sea. Inspection and strict monitoring by Customs Department, State Maritime Board /Port Authority/ SPCB concerned.



## Chapter-III

### ANCHORING PROCESS

#### 3.1 Processes for Anchoring:

3.1.1 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 aground 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.

3.1.2 "Ship Recycling" is the process of dismantling a vessel's structure. It includes a wide range of activities, from removing all gear and equipment to cutting down and dismantling the ship's infrastructure. A ship at anchor, or while otherwise afloat, requires to be fully manned, with at least generators running.

#### 3.2 Prior Information

3.2.1 All ships prior to entering Indian Maritime Zones are required to inform Maritime Rescue Coordination Centre (MRCC). The prior information to Port shall also include that the ship, as it enters Indian Search and Rescue Region (ISRR) should pass its information to MRCC/Indian Coast Guard stating that it is bound for Recycling Yards for ship recycling and **coordinates of the area and likely duration of stay at the anchorage**. This will provide necessary help to the vessel in case of any machinery breakdown and thereby avoiding any mishap to Ocean Data Acquisition Systems (ODAS) and ships at outer anchorages.

#### 3.3 Recommended Process for Anchoring:

3.3.1 The Ship Owner shall submit to the State Maritime Board /Port Authority, his intention to send the ship to the Ship

Recycling Yard as per format given in **Annexure-I** before arrival of his ship(s) for recycling.

3.3.2 After intimating Expected Time of Arrival (ETA) as per **Annexure-I**, the ship owner or recycler shall submit the following information/ documents ~~3 weeks~~ **7 days** before the expected arrival of the ship for recycling for a desk review by the State Maritime Board/Port Authority, State Pollution Control Board and the Customs Department and pay port charges for obtaining permission for the ship to enter the port:

Details of ship, which include:

- (a) Name of the Ship
- (b) International Maritime Organization (IMO) Identification No.
- (c) IMO registered owner identification number .
- (d) Flag of the ~~country~~ **ship**
- (e) Call Sign
- (f) Name of the Master of the Ship and his nationality
- (g) List of the crew
- (h) Gross Registered Tonnage (GRT)/Net Registered Tonnage (NRT)/Light Displacement Tonnage (LDT) of the ship with supporting documents
- (i) Port clearance from the last port of call
- (j) Copy of IMO registered owner identification number
- (k) Copy of IMO ~~Registration~~ **Number** of Ship
- (l) Proof of ownership details like name, address, contact number, e-mail address of the owner of the vessel and master of vessel.
- ~~(m) Certified true copy of 'Certificate of Registry' in favour certifying that the ship has no registered mortgage and is free from maritime lien and encumbrances from the 'Registrar of Ships' only and not from any agent, with e-mail identity of the Registrar of Ships. Such certified true copy of the certificate of registry should not be older than 7 days~~
- (m) Undertaking from owners/Cash Buyer that they will submit Non-Encumbrance certificate within 7 days from the date of anchorage of vessel at outer anchorage. Permission for beaching will be granted by State Maritime Board on production of the Non-Encumbrance Certificate.**

- (n) Copy of Memorandum of Agreement with Ship Recycler.
- (o) Assessment of hazardous wastes 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. In the case of ships of special concern, in addition to identification and marking of all areas containing hazardous wastes/hazardous substances, quantification of such wastes/substances would also be necessary".

3.3.3 Directorate General of Shipping in consultation with Coast Guards Department shall verify the genuineness of the documents submitted by the ship owner or recycler at the desk review stage on the request of SMB/Ports Authority of the State, **if they have any reason to suspect that the documents submitted by the Ship Owner are doubtful**, and if it is found that any document is fake or conceal any material fact, ship owner/recycler shall be informed of denial of permission to the ship entering Indian waters.

### **3.4 Anchoring**

3.4.1 After desk review by the Port Authority/State Maritime Board (SMB)/State Pollution Control Board (SPCB)/Customs, a decision will be taken regarding anchorage of the ship by the Port Authority/ the State Maritime Board concerned. In case, anchorage of the ship is refused by any one of these agencies the ship owner would be entitled for appeal to the designated appellate authorities.

3.4.2 In case all the concerned agencies are satisfied after desk review and recommend for anchoring, anchorage safety instructions would be issued by the State Maritime Board/Port Authority, physical verification of the ship by the Petroleum and Explosives Safety Organization (PESO) for issuance of gas free and fit for hot work for their petroleum tankers Cargo fold tanks and Atomic Energy Regulatory Board (AERB) for War Ships/Naval ship Nuclear Powered Vessels and by the SPCB for large passenger liners more than **20,000** LDT and Customs Department for all vessels and the Navy, **in case of warships/naval ships and nuclear powered vessels**, in addition to the other concerned agencies. In case a ship does not comply, according to the submitted documents, or as per

inspection by any of the agencies owner would be entitled for appeal to the designated appellate authorities.

3.5 Documents to be provided at the time of boarding the ship by concerned authorities

3.5.1 Boarding is to be done after anchorage permission has been given. At the time of boarding, the following documents will be submitted-

- (i) Master's certificate-original with IMO No. and showing
  - a. Inventory of hazardous materials
  - b. Inventory of gases,
  - c. Inventory of radioactive material on board,
  - d. CO2 declaration,
  - e. Confirmation of Ballast water exchange at high seas,
  - f. Confirmation of the Bunker oil / lube oil or other Oil substances that are remaining on board
- (ii) Cargo declaration form;
- (iii) Safe Manning Certificate;
- (iv) Competency certificates of crew;
- (v) The Inventory of Hazardous Material (IHM), Certificate as may be certified/prepared by International Classification Society once Hong Kong Convention for Safe and Environmentally Sound Ship Recycling Convention is ratified by India and till such time inventory signed by master of the ship by provided to SMB.
- (vi) Seller/agent pays applicable port dues to the port at the prevailing rate.
- (vii) The name of the State whose flag the ship is entitled to fly;
- (viii) Hull number on building delivery;
- (ix) The name and type of the ship along with the date of such registration;
- (x) The port at which the ship is registered;
- (xi) The name and the address of the ship owner;
- (xii) The name of the classification society (ies) with which the ship is classed: and

(xiii) The ships main particulars such as {length overall (LOA)}, Breadth (Moulded), Depth (Moulded) Lightweight Cargo carrying capacity, Gross and Net tonnage, and engine type.

3.5.2 In case of Cash Buyers selling the ships, following additional documents are to be provided to the Port Authorities/State Maritime Board authorities.

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

ii Cash Buyer shall have to provide the following documents for obtaining beaching permission from concerned authorities:

- a. ~~Notarized~~ **Self** certified copy of Bill of Sale in his favour;
- b. Copy of ~~notarized~~ **self** certified Physical Delivery in his favour;
- c. 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 Registrar of Ships only and not from any agent, with e-mail ID of Registrar of Ships; and
- d. Certificate showing no hazardous wastes on board.

3.5.3 In case of seller including the cash buyer, notarized copy of Port of Registration Certificate, with e-mail Identity of Port of Registration should be produced in order to avoid falsification of documents.

### **3.6 Information/documents to be submitted to Customs for assessment of custom's duty**

3.6.1 The details/documents as listed below are to be filed with Customs by the Seller or his agent at least 3 ~~weeks~~ **days** before the expected arrival of ship:

- a. Name of Ship

- b. International Maritime Organization (IMO) identification No.
- c. Flag of the ~~country~~ ship
- d. Call Sign
- e. Radio equipment list
- f. Transshipment list
- g. Name of the Master of the ship and his nationality
- h. List of crew, personal property list and ship currency list
- i. All crew passports/ Continuous Discharge Certificate book
- j. Gross Registered Tonnage /Net Registered Tonnage/Light Displacement Tonnage of the ship with supporting documents

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

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

3.6.4 Customs officers shall 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.

3.6.5 The Rummaging Officer from Customs shall check and verify fully that there are no contraband goods on board the ship. Customs shall also collect information about the personal effects of the crew, all stores and inventory as required under the relevant Acts and regulations of Customs.

3.6.6 After the above procedure, Inward General Manifesto shall be filed duly signed by the Master of the ship. Seller shall pay to the Customs applicable dues at the prevailing rate. Seller/agent shall submit arrival report (location of anchorage, time of arrival etc.) to Customs.

3.6.7 Buyer/importer shall file bill of entry for home consumption with following necessary documents for assessment of duty:-

- i. Survey Report of the bunker;
- 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; and
- v. Physical Delivery Certificate.
- vi. Documents showing assigned of IEC code in favour of the importer.
- vii. Port Authority/State Maritime Board's letter with regard to (i) Submission of relevant documents as per Hon'ble Supreme Court's order dated 06.09.2007 and (ii) completion of verification date and NOC addressed to the agent with copy of customs.
- viii. Undertaking-I to the effect that items which are excluded from the sale will be returned/sent back to the owner by way of transshipment and other items surrendered by the matter through their agent to customs.
- ix. Undertaking-II to the effect that they will not commence breaking activities in respect of vessel until such permission by the proper officer of the customs.
- x. Undertaking for Gas Cylinders to comply with the instances for the disposal of the Gas Cylinders.
- xi. Undertaking-III with regard to production of Original Bill of sale and commercial invoice and to pay the differential duty, if any, in case of any discrepancies in relation to purchase price.
- xii. Undertaking-IV to the effect that quantity of the oil collected from the machinery and pipes from engine will be disposed off as per the guidelines of State Pollution Control Board (SPCB).
- xiii. Inventory of provisions, spares and stores along with Bunker Report.
- xiv. Survey Reports, certifying the quantity of Bunker/Oil on board the vessels, confirming the LDT of the vessels, certifying the existence of Working Propeller/spare Propeller/ Spare Anchors/Spare Tail Shaft etc; Certifying the Port Worthiness of the vessel;

- xv. Declaration in terms of Rule 10 of the Customs Valuation Rules, 1998.
- xvi. Provision Assessment Bond, pending Original Bill of Sale and Commercial Invoice pertaining to the vessel along with the request of the importer to assesses the Bill of Entry provisionally; and
- xvii. Gas free certification from the Petroleum and Explosives Safety Organisation (PESO) in the case of Oil Tanker. Certificate from State Pollution Control Board (SPCB) certifying that there is no hazardous waste in loose condition on board the ship, certificate of Atomic Energy regulatory Board (AERB) regarding verification of radioactive material etc.

3.6.8 On the basis of the above documents, Customs officials shall assess the duty provisionally and the importer/recycler will pay the duty. On production of the proof of payment by importer/recycler of import duty challan, Customs shall immediately issue "No Objection" to the SMB/Port Authority, who is the Nodal Agency for granting the permission for beaching of the vessels. As regards any left out cargo, sweeping cargo or any goods which become liable for confiscation for the reason of not having been declared or found in excess, would be dealt with as per the procedure laid down for their seizure and disposal under the provisions of the Customs Act 1962. If the sweeping/left out cargo are of no use, have no commercial value and are not fit for consumption/use, such cargoes shall be surrendered by the Master of the vessel and subsequently shall be disposed off in a reasonable manner. Any sweepings (left over of last cargo) will be cleared by Customs by collecting legitimate customs duty, if any. Customs shall then give their clearance within twenty four hours for granting of the beaching permission by the SMB/Port Authority.

3.6.9 The nominated officer shall board vessel, and destroy the Wireless equipment/restricted radio equipment/navigational equipment of the vessel in presence of the Importer. Thereafter, the importer shall surrender the goods, if any, as per the MOA/IGM to the agent for further transshipment or to the Customs as the case may be. After completion of all these formalities and on payment of all dues/duty on the vessel, customs would give out of charge and clear the ship for recycling.



Thereafter, on presentation of the documents like Commercial Invoice, Bill of Sale etc final assessment of bill entry would be made:

## CHAPTER-IV

### BEACHING PROCESS OF SHIPS

#### 4.1 Process for beaching of ships

For obtaining permission for beaching of a ship, the recycler has to submit documents as per **Annexure-II** to the Port Authority/State Maritime Board along with other relevant documents specified.

4.1.2 At anchorage/**location specified by the Port authority**, the ship would be boarded and physically verified by-

- (i) Representatives of Customs Department for all vessels,
- (ii) For petroleum tankers for their cargo hold by the representatives of the Petroleum & Safety Organization (PESO) and for chemical tankers in their cargo hold by the competent persons/agency under Explosive Act.
- (iii) For War Ships, Naval Ships Nuclear Powered Vessels and large passenger liners, by the, representative of the AERB and Indian Navy. It deemed fit, above agencies shall give clearance to SMB/Port Authority for issuance of Beaching Permission.
- (iv) representatives of SPCB for Large Passenger Liners more than ~~2000~~ **20000** LDT.
- (v) for all ships other than War Ships, Naval Ships and Nuclear Powered Vessels, ~~personnel~~ **RSO** of SMB/Port Authority ~~trained and certified by AERB~~ shall examine the ships from radiological ~~survey~~ **safety** point of view. **SMB/State Government/ Port Authority which does not have an RSO, may, if required, direct the recycler to obtain clearance from AERB for ships belonging to category of general concern.**
- (vi) For obtaining permission for beaching of ship, the recycler should also obtain a copy of the gas free and fit for work certificate **for petroleum tankers** from ~~the competent person as per Section 2(ca) under the Factories Act, 1948 approved by Directorate of Industrial Safety and Health (DISH)~~ **PESO and for tankers, other than**

petroleum, from appropriate agency as suggested by SMB/Port Authority.

- (vii) Certified true copy of 'Certificate of Registry' in his favour certifying that the ships has no registered mortgage and is free from maritime lien and encumbrances from the 'Registrar of Ships' only and not from any agent, with email identity of the Registrar of Ships. Such certified true copy of the certificate of registry should not be older than 7 days.

4.1.3 Prior approval of the Ministry of Defence for the ~~vessel~~ **warships, naval ships and nuclear powered ships** to be scrapped shall be obtained by the purchaser through State Maritime Board/Port Authority.

4.1.4 Beaching permission will be given by the SMB/Port Authority within the next two working days after receipt of clearances granted by all the concerned departments/ agencies. Again in the event of refusal to grant permission for beaching, the ship owner shall be entitled to a review and appeal on the lines of provisions governing anchorage.

## **4.2 Beaching permission by Port Authority/State Maritime Board**

4.2.1 Beaching permission shall be granted by Port Authority/State Maritime Board only to:

- (a) the plot-holders to whom plots are allotted by the port authorities or to those who are otherwise permitted by the Port Authority/SMB;

- (b) those plot-holders whose SRFMP has been approved.

4.2.2 Beaching permission shall be granted-to ships subject to observing specific requirements in respect of the following cases:-

- (a) In the case of petroleum oil cargo tanks and petroleum slop tanks; on production of gas-free for hot work certificate **along with gas free certificate** given by the Petroleum and Explosives Safety Organization(PESO);

- ~~(b) For all ships other than petroleum tankers and petroleum slops, Directorate of Industrial Safety and Health (DISH) shall conduct the inspection for issuing gas free for hot work certificate.~~
- (c) In case of ships of special concern and large passenger vehicles (Sl.1 to 3 of Table in para 2.2) on production of no objection certificate (NOC) from Atomic Energy Regulatory Board; and
- (d) In the case of war ships and naval vessels on production of NOC from the Naval Department, the AERB and the Customs Department.
- (e) The activities of ship recycling is identified as a hazardous process and the provisions of Chapter-IVA, Section 41A to H of the Factories Act shall be applicable. Directorate of Industrial Safety and Health shall inspect the ship recycling operation whenever felt necessary to check and ensure compliance with the provisions under the Factories Act, 1948.

4.2.3 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 plot or as per direction of the Port Authority/State {Maritime Board.

4.2.3-A Petroleum tankers which have not obtained "fit for hot work" certificate for all cargo tanks, slop tanks forward deep fuel oil tanks and forward coffer dams shall not be allowed to beach. The Vessel shall be advised to complete the gas freeing operation and obtain complete certificates at anchorage failing which necessary action shall be taken to send off the vessel under the port rules.

4.2.4 On beaching of ship, ship recycler shall take necessary action to ensure that

- (i) the vessel is secured properly; and
- (ii) left overs in bunker are removed with proper precautions, including sufficient ventilation in engine room.
- (iii) bunker and bunker contents are disposed of to a registered dealer.
- (iv) used oil and sludge are disposed of to registered recyclers/ refinery only.

4.2.5 The ship recyclers will be liable to penalty and fines, including cancellation of license for ship recycling in the event they are found to have not complied with the provisions in paras 4.2.4 to 4.2.6 during examination of their records or during inspections of their plots/yards by concerned agencies.

4.2.6 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 by the concerned agencies.

4.2.7 In the case of ships of special concern as listed in Chapter-II, identification and marking of all areas containing hazardous wastes/hazardous substances, quantification of such wastes/substances would be provided at the time of boarding by the concerned agencies. The details as specified in **Annexure-V** and **Annexure-VI** would also be furnished.

4.2.8 An assessment of hazardous waste/hazardous substances available on the ship and likely to be generated during the ship recycling process shall be made mandatory by the ~~SMB/Port Authority~~ and SPCB.

### **4.3 Permission from the State Pollution Control Board(SPCB)**

4.3.1 After beaching the ships, ship recycler, shall remove all the loose and hazardous wastes including those oil and petroleum hydrocarbon from pipe lines, tanks, stop tanks etc. and SPCB shall issue decontamination certificate to ship recycler **after inspection which will be done with proper lighting in the engine room**. Simultaneously, Gas free and hot work permit as per Section 68 H of the Factories Act 1948 shall be issued by competent authority/agency after ensuring removal oils/used oil/hydrocarbon from bunkers/pipe lines etc.

### **4.4 Security aspects**

4.4.1 With regard to security related aspects, the SMB/ Port Authority concerned shall issue requisite orders in consultation with the Navy and the Coast Guard and promulgate the same for strict compliance.

4.4.2 A record of ships reporting for breaking, along with the nature and details of the ships, shall be maintained by the SMB/ Port Authority and shall be provided to the Naval and Coast Guard as soon as their Expected Time of Arrival (ETA) is received.

4.4.3 Photographic record of all ships reporting for recycling shall be maintained by the SMB/ Port Authority and provided to the Navy and Coast Guard.

4.4.4 Details of arrival and departure of the crew, in particular the foreign crew members are to be reported to the concerned Naval Authority, prior to the actual arrival and departure.

4.4.5 A monthly security and intelligence meeting shall be conducted by each Port Authority/SMB by calling representatives from local police, Intelligence Bureau, Coast Guard and the Navy.

4.4.6 All ship breaking yards must ensure proper security, i.e. physical security which should include boundary wall, deployment of armed guards/force, strict access control and checking of any material being taken out from the ship breaking yard against any possibility of entry of any contraband/radioactive element into the hinterland and subjected to regular security audits by the security agencies of the Government of India.

#### **4.5 Flow Diagram for the process.**

Sequence of steps/process for Grant of Clearances by the SMB/SPCB/Customs Department and other concerned agencies for Ships Destined for Dismantling at Ship Breaking Yards, covering all the three stages, namely, anchorage, beaching and breaking will be as given in **Appendix-I**.

## **CHAPTER V**

### **SHIP RECYCLING PROCESS**

#### **5.1 Recommended Process for Ship Recycling**

The ship recycling plan should have two components i.e. Ship Specific Recycling Plan, and Recycling Facility's Management Plan. The size of the plots should be such that while cutting the ship, both the sides of the beached ship should have space for free movement of labour, with sufficient width of at least 5 metres freely available on each side or as per direction of the Port Authority/State Maritime Board concerned.

5.1.1 For ships other than petroleum tankers and petroleum slops, Directorate of Industrial Safety and Health (DISH) shall conduct the inspection for issuing gas-free-fit-for-hot-work certificate, else it may be obtained from Department of Explosives.

#### **5.2 Ship Recycling Facility Management Plan**

5.2.1 The State Maritime Board (SMB)/Port Authority allots the plots to the ship recyclers for the purpose of ship recycling. The plot should be of sufficient dimensions to allow for safe and environmentally sound ship recycling. The concerned SMB/Port Authority shall approve the Ship Recycling Facility Management Plan (SRFMP) if the plan satisfies the following requirements:-

- (i) Availability of requisite and valid documents
  - a. Authorization for handling Hazardous waste generated from ship recycling activities issued by the SPCB.
  - b. Registration as a Member of the Hazardous Waste Treatment, Storage and Disposal Facility (TSDF) from TSDF operator.
  - c. License for storage of LPG Cylinders required under the Gas Cylinders Rules, 2004 from Explosives Department.
  - d. License of the plot under Factory Rules.

- e. Map showing the yard layout and other components of the facilities.
  - f. Any other document(s) or No Objection Certificate/Permission letter required from the concerned authority (ies).
  - g. License and SRFMP approval under the provisions of the Factories Act, 1948 and rules made there-under.
- (ii) Provisions of shelter/rest room and lunch room and canteen as per Sections A6 and 47. of the Factories Act, 1948. In addition provision for adequate lighting as per Sec 17, adequate clean drinking water as per Section 18, latrines and urinals as per Sec. 19, washing facilities as per Sec.42 and first aid as per Sec.45 of the Factories Act, 1948. The list of trained first aiders and fire fighters shall be displayed at a conspicuous place.
  - (iii) Storage Godown for Temporary Storage for Hazardous/Non Hazardous Waste Materials.
  - (iv) Temporary asbestos handling and removing and storage facility or avail of appropriate mobile asbestos handling facility.
  - (v) Storage Godown for Liquefied Petroleum Gas (LPG) Cylinders s per Explosives Act
  - (vi) Sanitation and 'Rest Room' facilities for a minimum 50 workers, as per the Factories Act.
  - (vii) Facility for adequate and clean drinking water.
  - (viii) Workers Change Room.
  - (ix) First Aid Facility.
  - (x) Fire fighting facility and Emergency Response System including oil spill Combat system.
  - (xi) Certified Material Handling Equipment and Personal Protection Equipment (PPEs) of BIS Standard or equivalent.
  - (xii) List of the trained and certified labours of all disciplines (lightening, gas cutting, waste handling; working in confined



spaces, using various gadgets like oxygen and other gas detectors, crane and material handling systems etc).

(xiii) Hazardous area classification of the facility in accordance with Petroleum Rules-2002 for providing safe electrical fittings.

(xiv) Other necessary facilities, if any required.

5.2.2 The SMB/Port Authority concerned after ensuring the above aspects shall issue permission in respect of the Ship Recycling Facility Management Plan (SRFMP) after the plots are allotted to ship recyclers, within one month's time. 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 earfiiied but promptly by the ship recycler.

(i) All lifting machines, wire ropes and lifting tackle shall be tested and certified by a Competent Person approved by the DISH as per Section 29 of the Factories Act, 1948.

(ii)The SMB/Port Authority concerned shall issue permission after getting comments/views of DISH on the compliance with the requirements under the Factories Act, 1948 and Rules to i undertake the activities of Ship Recycling.

5.2.3 If any of the components of the Ship Recycling Facility Management Plan of the Plot are found to be not operative and not in place during the inspection by any of the concerned authorities, the SMB/Port Authority shall cancel the permission of the Ship Recycling Facility

Management Plan and the ship recycler would not be permitted to beach any ship till the required components under the, Ship Recycling Facility Management Plan are made operative as per the requirements.

5 2.4 Therefore, before ships are permitted in the plot for recycling, the SMB/ Port Authority shall ensure the above aspects rigorously, by way of ready for recycling certification document as per **Anuexure-III** and **Annexure-I** For obtaining cutting permission, the Ship Recyclers shall apply to the Port Authority as per **Annexure-IV** duly

filled in The port authority shall consider the application for cutting and accord permission or notify *my* deficiencies to be rectified, within two weeks time.

5.2.5 In addition to the above, the Ship Recycler shall have to submit an undertaking to the SMB/ Port Authority to the effect that they shall comply with the Safety, Health-'arid Environment (SHE) management aspects as per the SHE Policy as enumerated below before approval of the Ship Recycling Facility ManagementPlan.

- (i) A policy 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.
- (ii) A system for ensuring implementation of the requirements set out in national, regulations, the achievement of goals set out in the policy of the company, and, a commitment for continuous improvement of the procedures used in ship recycling operations.
- (iii) Identification of roles and responsibilities of supervisors, contractors, and workers.
- (iv) A programme for appropriate training of workers and availability of adequate PPEs and material handling equipments.
- (v) An emergency preparedness and response plan for the plot.
- (vi) A system for monitoring the performance of the ship recycling operations.
- (vii) A system for reporting how the ship recycling operations would be performed, including system for reporting discharges, emissions and accidents, including accidents causing damage or accidents having potential to cause damage to workers' safety, human health and the environment, due to handling of hazardous wastes, and materials containing hazardous substances.

5.2.6 The ship recycler shall ensure that:-

- (i) A board displaying important precautions (do's and don'ts) to be followed during ship recycling activity is installed at prominent places on the plot and that such display is made in English and vernacular language(s) as understood by the workers employed on such plot
- (ii) 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 and maintained in accordance with the provisions of the Factories Act, 1948 and Rules made there-under and any other relevant Acts and Rules.
- (iii) An explosive gas detector, a multigas monitor including hydrogen sulphide (H<sub>2</sub>S) gas monitor and an oxygen percentage analyzer are available in the plot in working condition.
- (iv) Proper lighting arrangement is made on the yard.
- (v) Every SRF should have a detailed emergency plan. The emergency plan should be rehearsed once in 6 months. Further, an off-site emergency plant for the whole district should be prepared and rehearsed once in a year.

5.2.7 Permission for ship-recycling activities under this Code shall not be given to any ship- **recycler** by the SMB/Port Authorities unless the ship recycler has complied with all the requirements under the SRFMP.

### **5.3 Ship Specific Recycling Plan:**

5.3.1 Once the Ship Recycling Facility Management Plan is approved by the SMB/Port Authority for the plot, the ship recycler shall be required to submit application to the SMB/ Port Authority along with the Ship Specific Recycling Plan and details as per Aimexure-IV, along with details of Ready for Recycling Document duly filled in. Removal of oil from the vessel may be permitted prior to submission of Ship Specific Recycling Plan (SSRP).

5.3.2 Requirements of Ship Specific Recycling Plan (SSRP) 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.
- (iii) Operational work procedures.
- (iv) Availability of material handling equipment and Personal Protection Equipment (PPE).
- (v) Certification from the State Pollution Control Board (SPCB) that all kinds of oils and other loose hazardous wastes are completely removed and the decontamination certificate issued by SPCB shall be attached with the SSRP.
- (vi) "Gas-free and fit for hot work" certificate issued by the Petroleum and Explosives Safety Organization (PESO) for oil tankers and for slop tanks, or any competent agency authorized by the Directorate of Industrial Safety and Health (DISH) under the Factories Act; since the purpose of obtaining such a certificate is to avoid accidents due to fire, explosion and deficiency of oxygen and concentration of toxic gas in the confined spaces. This certificate shall be attached with plan document. In case a false certification is given, the concerned explosive inspector/official shall be liable for ~~prosecution~~ **departmental action** and action may be taken to cancel the license of the ship recycler in such cases.
- (vii) Hazardous waste handling and disposal plan:- Identification and marking of all non-breathable spaces by the Recycler in the ships 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. Identification and marking of all places containing/likely to contain hazardous substances/hazardous wastes in the ships documented in the plans with drawings.
- (viii) Confirmation **from the Master of the Ship** 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 phase.

(ix) Ballast Sediments shall be discharged along with the ballast water with proper churning shall be handed over to authorized agency of the SMB/Port Authority on chargeable basis for suitable disposal.

(x) Asbestos being a major area of concern, the scheme for removing asbestos, and asbestos containing materials (ACMs) on board, and on shore, shall be specifically provided. The plan shall include arrangements for removal handling treatment and disposal. Locations having asbestos/ACMs shall be marked before commencing dismantling operations and shall conform to Bureau of Indian Standards for Cleaning of Premises and Plants using Asbestos Fibres (IS 11767:1986). Those ships having asbestos quantification more than 100 metric tonnes should go for negative pressure chamber technique.

(xi) System and procedure shall 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 shall be provided in the SSRP.

#### **5.4 Reporting upon completion**

When the recycling of a ship is completed in accordance with the requirements of this Code, a Statement of Completion shall be issued by the Ship Recycler and reported to the SMB/Port Authority, as in Annexure VII.

## Chapter VI

### **General Instructions for Safety Health and Environmental Compliance for stakeholders involved in Ship Recycling..**

#### **6.1 Safety compliance**

6.1.1 To comply with the Safety Instructions while undertaking Ship Recycling Activities in the Plots/Yards. The following steps shall be taken:-

- (i) Adequate open space shall be provided on the plot for safe passage and easy movement of fire fighting units and equipments, maintenance of passage ways'so as to permit unobstructed access for firefighting units and equipment.
- (ii) Identification and marking of all non-breathable spaces in the ship shall be made by the Recycler
- (iii) Identification and marking of all places in the ship containing/likely to contain hazardous substances/hazardous wastes shall be done.
- (iv) Systems and procedures shall be followed to document and keep track of all hazardous wastes generated during recycling of a ship, 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.
- (v) It shall be ensured that sufficient area for office building, storage of non-ferrous metals and open space to store segregated finished scrap for delivery (just like re- rollables of 6 millimetre (mm), 8mm, 12 mm and melting, etc.) are provided.
- (vi) Sufficient area shall be provided for installation of at least 2 winches and operation of at least 2 cranes.
- (vii) Sufficient area shall be provided for processing of cut pieces from the ships.
- (viii) Gas free certificate shall be obtained for man entry into confined spaces likely to contain dangerous fumes & insufficient oxygen, as per the Sections 36, 41 & 112 of the Factories Act, 1948 issued by the Competent Person as

defined in Clause (ca) of section 2 of the Factories Act. This must be ensured before ship recycling operations start.

- (ix) Safety distance shall be maintained for storage of petroleum products, including LPG storage or any other combustible material as specified under the relevant Acts/Rules.
- (x) Facilities of water storage and pumping and fire fighting devices such as portable fire extinguishers, fire-fighting suits, liquid foam, oxygen mask, sand boxes /buckets, fire hose with complete attachment shall be provided as required in accordance with the provisions of the Factories Act and other relevant Acts/Rules.
- (xi) Constructed facility for removal and handling of asbestos on the yard and necessary provision for showering of asbestos handling workers or appropriate mobile handling facility by the Association of ship recyclers shall be provided. Alternatively the Common Asbestos Handling System facility as duly approved by DG, FASLI and SPCBs shall be availed.
- (xii) Temporary storage facility for storing hazardous waste shall be constructed as per the SPCB /CPCB guidelines, as may apply, and also disposal of hazardous waste as per Hazardous Waste Rules, 2008 and radioactive waste as per Atomic Energy (Safe Disposal of Radioactive Wastes) Rules, 1987, wherever applicable. ~~guidelines and also disposal of hazardous waste as per Hazardous Waste Rules, 2008.~~
- (xiii) There shall be no overlapping of activities to ensure safety of workers.
- (xiv) Ship Recyclers shall provide and ensure the use of personal protective equipment for operations requiring such use, including for:
  - a. head protection;
  - b. face and eye protection;
  - c. hand and foot protection;
  - d. respiratory protective equipment;
  - e. hearing protection;
  - f. protectors against radioactive contamination;

- g. protection from falls: and
- h. appropriate clothing.

(xv) Temporary storage facility for storing of radioactive material shall be available as per the requirements of AERB in every recycling yard wherever applicable.

6.1.2 Every ship-recycler shall appoint qualified Safety Officer as per Section 40-B of the factories Act. 1948. The cutting operations shall be carried out under the supervision of competent supervisor as per Section 41-C(b). The duties, qualifications and conditions of service of the Safety Officer shall be as such which may be prescribed by the State Government.

6.1.3 The Safety Officer/Safety Supervisor shall ensure availability of material handling equipments, and availability of Personal Protective Equipments (PPEs) to workmen.

6.1.4 The Safety Officer/Safety Supervisor shall ensure that:-

- (i) Safety guidelines are followed for safety distance. Cutting operations are undertaken at a distance beyond safety distance of LPG storage area, as prescribed in the Explosives Act.
- (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 are as per the provisions of relevant Act/ Rules.



(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/cutting. 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.

(viii) The progress of ship breaking is recorded daily in properly designed log book continuously and shall be preserved. The log book shall be produced to the Authorities as and when called for.

6.1.5 Work timings of the workers relating to the ship breaking shall be such that it should be adjusted not to be before sunrise and also not after sunset, so that the cutting /breaking activities and other ship breaking related activities including loading and unloading operations are undertaken in natural light. The maximum working hours for cutting operations shall be as under.

(i) During the months from March to October - 7 AM to 7 PM.

(ii) During the months from November to February - 7 AM to 6PM.

(iii) The maximum weekly hours and daily hours of duty will be as per Section 51 and 54 of Factories Act, 1948. Working hours of adults weekly holidays compensatory holiday intervals of rest, spread over extra wages for overtime shall be as per provisions of Chapter-VI of Factories Act, 1948.

(iv) Ship Recyclers must obtain Naked Light Certificate (Hot Work Permit) as per the Rule 68-H made under sections 41 & 112 of the Factories Act, 1948 issued by the Competent Person as defined in Clause (ca) of Section 2 of the Factories Act, before the ship recycling operations start for non-tanker ships and for petroleum tankers and slop tanker, the Petroleum & Explosives

Safety Organization (PESO) shall issue Gas free and Fit for Hot work certificate.

(v) No worker shall be allowed to work in the ship breaking yard beyond the stipulated timings and on holidays.

6.1.6 Ship Recycler must carry out safety audit as per IS: 14489 by an External Agency and the frequency of audit should be in line with Manufacture, Storage and import of Hazardous Chemicals (MSIHC) rules under Environment Protection (EP) Act, 1986.

6.1.7 Director of Industrial Safety and Health (DISH) or equivalent Department of the State Government under the Factories Act shall carry out regular inspections of the plot and monitor the whole safety management aspects under the Factories Act. If there is any lapse(s) in compliance, DISH will issue Show Cause Notice/warning/order etc. as per provisions of the Factories Act, 1948 and initiate legal action for non-compliance of the provisions. A copy of the notice/warning/order so served shall be marked to SMB/Port Authority,

6.1.8 The management of occupational safety and health shall be in accordance with the provisions of Factories Act and labour laws.

(a) Only trained workers shall be employed.

(b) All workers will be provided with Personal Protection Equipment (PPE) that conform to Bureau of Indian Standards (BIS) or equivalent. For all operations/works the personal protective equipments of BIS standard should be used.

6.1.9 Portable water hoses with a dedicated water pump on the beach with adequate take-off points for attaching additional hoses, shall 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<sup>^</sup> etc, before its removal from the vessel. The ship recycler shall have mutual aid

understanding with port authority/any other nearby industry for providing support in case of emergency. Work permit system shall be followed as per applicable Acts and rules to carry out work safely. No hot work shall be permitted unless the area is free from any explosive mixture and tie explosive meter reading is below explosive limit. The explosive meter reading shall be recorded in the work permit.-

6.1.10 The following areas shall be given special attention and the workers shall have expertise with necessary training and certificates for the works allotted to them as follows:-

(a) Separate work permit shall be issued for working at height, working in confined spaces & working in hazardous area/environment like flammable/toxic/corrosive environment etc. Use of safety belt/safety net and helmet shall be ensured while working at height.

(b) Working in Confined Space-no work shall be done in enclosed area without checking the presence of oxygen. <sup>1</sup>-

(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. The ship recycler shall also ensure that flammable vapors or gases in the spaces 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 he shall also 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 shall be provided with proper masks to avoid inhalation of toxic fumes.

(f) For crane operation, inspection and testing records of cranes and lifting tackles shall be maintained as *per* Statutory norms and appropriate PPEs shall be provided to crane operators. Constant and adequate supervision shall be provided while heavy loads are lifted. Only those lifting machines, wire ropes and lifting tackle shall be used which are tested and certified by a person as per Section 2 (ca) approved by DISH. Section 29 of the Factories Act, 1948 it shall be ensured that the material handling equipment are safe.

(g) For handling Asbestos Wastes and Asbestos Containing Materials(ACM), specialized contractors shall be engaged. The removal of asbestos dust and fibers and its handling shall be done in a wet condition. On shore removal of asbestos shall be done in enclosures maintained

under negative pressure, with filters for outgoing air and wastewater. The applicables shall be adhered to in respect of such enclosures.

(h) For "Ships of Special Concern", where asbestos/ACMs quantities are the Special Concern, asbestos/ACMs removal on board shall be given special importance and the practice of wet removal of asbestos onboard shall be followed with the use of appropriate PPEs.

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

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

(k) Asbestos fiber concentrations in the environment shall be monitored regularly by the SPCB.

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

(m) Only trained workers shall be employed in activities involving asbestos handling.

(n) In so far as handling of Radio active substances, guidelines/ instructions of the AERB shall be followed.

## **6.2 Permission for ship breaking**

6.2.1 The recycler shall apply to the Port Authority for breaking/cutting permission with relevant documents such as:

- (i) Workers' registration under Employees State Insurance Corporation (ESIC) or Workmen Compensation Act as the case may be.
- (ii) Gas free certificate **and hot work permit** for man entry into confined spaces likely to contain dangerous fumes & insufficient oxygen, as per the Rules under Sections 36, 41 and 112 of the Factories Act 1948 issued by the Competent Person as defined in Clause (ca) of Section 2 of the Factories Act.
- (iii) Proof of removal of residual oil from all bunker tanks
- (iv) Copy of Customs beaching clearance
- (v) Copy of decontamination certificate from the SPCB

6.2.2 Prior to submitting application for permission for cutting operation, the ship-recycler shall have to install for the purpose of fire fighting two efficient fire fighting pumps including power supply and should ensure continuous power supply to the fire fighting pumps at all times, on the ship with sufficient water in the holds or any receptacles.

Provided that one of the above fire fighting pumps shall 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.

Provided further that one portable fire extinguisher of suitable type shall always be kept in working condition near every cutting point.

6.2.3 If the Port Authority is satisfied that the ship-recycler has complied with all the provisions for management of occupational safety and health, it may grant permission for cutting operations of the ship within a maximum period of ~~2-weeks~~ **three working days**. In case any shortcomings are noticed, the same shall be communicated in writing

within the said period of 48 hours to enable the ship recycler to resubmit his request after doing necessary corrections.

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

6.3.1 Prior to delegation/entrustment of any job relating to ship recycling, workers shall be imparted proper training for the safe ship breaking operations in general and also for the specific jobs they are required to perform in the plot?.

6.3.2 Such training shall be with provision of certification on successful completion of the training programme. Training shall be in the language understood by the workers and shall prolong till such time which is necessary to get them acquainted with the knowledge and risk factors of ship recycling operations, with necessary examination and certification. Training shall include the hazards associated in the job and role of an individual during emergency situations. **The syllabus of training programme should also include familiarization of radioactive material and radiation hazard for SMB/Ports handling radioactive waste. The syllabus for such training programme shall be as per the recommendations of SPCB/AERB/Port Authorities.** Such training programs shall be conducted by the State Maritime Boards/Port Authorities, prior to entrustment of any job relating to ship recycling. In addition, the following shall be ensured:

(i) An attendance register of workers working on the plot shall be maintained in accordance with the provisions of Factories Act 1948 and rules made there under and the workers shall be issued photo identity cards carrying personal particulars of labourers In accordance with the relevant Rules.

(ii) Photo identity cards carrying personal particulars of labourers may be issued by the ship recyclers in an approved manner by the Port Authorities /SMBs and ship recyclers will maintain proper records of the entry and exit of the workers.

(iii) A Safety Supervisor, having requisite qualification and experience as per the relevant rules, shall be employed.

(iv) Only trained and registered workers having identity cards issued as per clause 6.3.2 (ii) as mentioned above shall be engaged in respective ship recycling activity.

(v) Minimum two workers shall be employed who are trained to use gas detectors during ship recycling activity.

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

(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 and maintained in accordance with the provisions of the Factories Act, 1948 and the Rules made there-under and any other relevant Act(s) and Rules.

(viii) Flammable and toxic gas detectors shall be calibrated regularly to ensure correct values when used and an oxygen percentage analyzer shall always be available in the plot in working condition.

ix) The workers shall be 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 shall be conforming to relevant Bureau of Indian Standards (BIS) or equivalent standards or as approved by the Chief Inspector of Factories (by Directorate of Industrial Safety & Health, of the State Government concerned) and shall be invariably used by the workers during such activities..

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

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

a) such operations shall be undertaken only when there are no other works in the nearby area; and

b) such operations shall be done in the presence and as per the instructions of Safety Officer/Supervisor only.

## **6.4 Environmental compliance**

6.4.1 Ship Recyclers shall strictly ensure the Environmental Compliance as per the requirements under the Water & Air Act, Hazardous Wastes (Management, Handling and Trans-boundary Movement) Rules 2008. Environmental Impact Assessment and Coastal Regulation Zone notifications. The following shall also be ensured:-

- (i) Plot/yard shall be kept neat and clean and good housekeeping must be carried out all the time.
- (ii) All plot holders must create temporary storage as authorized by SPCB under Hazardous Waste (Management, Handling and Trans-boundary movement) Rules-2008 and the amendments issued from time to time.
- (iii) Each Plot holder must provide for handling Asbestos Containing Materials (ACM) and Asbestos Wastes with specially designed Negative Pressure Chambers with trained labours or avail common mobile facility for such removal. The concentration of Asbestos fiber in the work zone while recycling of the ships shall be complied with the prescribed 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 plot holders must avail the Common Asbestos Handling System as approved by DG, FASLI and SPCBs.
- (iv) Each plot holder must become a member of Treatment Storage and Disposal Facility (TDSF) authorized by SPCB to dispose their wastes into it.
- (v) Each plot holder must maintain registers with calculation of for each kind of wastes generated. Accordingly the ship recyclers must maintain ship-wise register for all waste categories,



(vi) Ship Recyclers shall pay for waste management charges to TSDF operator/SMB, if SMB is operating the same, based on the actual quantities of wastes disposed.

(vii) Seller and Cash Buyer/ Ship Recyclers shall implement a local oil spill contingency plan to combat any oil spill eventuality from the anchoring point up to the ship recycling plots. Oil spill contingency plan should be approved by Indian Coast Guard.

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

(ix) For development of new plots or yards, ship recyclers through the, SMB or Port Trusts/Port Authorities shall have to obtain Environmental Clearance under EIA Notification-2006 and Coastal Regulation Zone (CRZ) Clearance under the CRZ Notification-1991.

(x) The SPCB shall monitor for Management and Handling of Hazardous wastes etc. The 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 secure 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 <b>used lead acid batteries and/or other lead bearing waste</b> lead-through registered recyclers; <del>treatment and disposal of Electrolyte.</del>
2	Air conditioners and Refrigeration machines	Residual refrigerants as Ozone Depleting Substances Evaporator dosing/	<del>Recovery through authorised units/ Recovery or treatment and disposal through authorised units/facilities.</del>

		descaling acids	As per schedule of E-waste Rules all the electric and electronic waste shall be recycled through E-waste registered recyclers only.
3	Tanks	Fuels, lubricants. Sludge Oil and grease	Reuse, Re-refining/recycling through registered recyclers (registered with SPCB)/refiners. Recycling by registered recyclers (registered with SPCB) and disposal of residue in an authorized facility.
		Foreign aquatic Organisms in ballast Tank sediments	Treatment and disposal of bilge water. Exchange of ballast water in high seas.
4	Partition walls	Asbestos Containing Materials (ACMs), Paints containing PCBs and /or Lead or Broken pieces containing ACMs	Reuse /Disposal in an authorized secured landfill after solidification/stabilisation. Disposal in an authorized secured landfill after solidification/stabilisation.
5	Cables	Cables containing PCBs in insulation  (i) Insulated copper cables  (ii) Other cables	<del>Reuse; disposal of waste cable insulation in an authorized secured landfill after</del> stabilisation/solidification. (i) Should be given to registered recycler of copper bearing waste and dispose of insulation material through TSDF  (ii) Sold for re-use. Dispose of insulation material through TSDF
6	Heat Exchangers	Asbestos insulation on Surfaces	Disposal of asbestos in an authorized secured landfill after solidification/stabilization.
7	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	<del>Incineration/disposal in a secured landfill. In case of water treatment chemicals</del> incineration/disposal in a secure landfill after treatment/stabilisation.

		chemicals. Acetylene/Propane/B utane/ Miscellaneous medicines	<del>Incineration of unusable medicines.</del> Recovery of solvents by recycling facilities permitted under Hazardous Waste (MH & TM) Rules, 2008' else disposal by incineration. Water treatment chemicals and residues of toxic chemicals to be disposed through TSD/ incineration/ secured land filling after treatment or stabilization as required.
9	Paint Scrap	PCBs, Tributyltin (TBT), Lead	Disposal in a Secured Land Fill (SLF) as per acceptance criteria of landfill site.
10	Sacrificial anodes	Heavy metals	<del>Disposal in a secured landfill after pretreatment for immobilization.</del> May be sent to recyclers for re-use or recovery of metals.
11	Fire Extinguishing and fire fighting equipment	Halons, CO <sub>2</sub> Cylinders	Recovery and banking for reuse. Recycling through authorised facilities; Recycle/Reuse,
12	Piping, valves and fittings	Asbestos as Insulation/ Gaskets	Disposal to SLF after solidification/ stabilization
13	Pumps and Compressors	Asbestos in Gaskets	Disposal to Secured Land Fill (SLF) after solidification/ stabilization
14	Engines and Generators	Asbestos insulation, residues of lubricants/ oils/coolants antifreeze compounds	Disposal to SLF after solidification/ stabilization or incineration; disposal to SLF after treatment; for coolants, pre- treatment and disposal to SLF.
15	Oil sumps	Sediments	<del>Disposal to SLF.</del> To be sent to TSD/ for disposal through common hazardous waste incineration
16	Hydraulic system	Residual fluids, Anti-freeze fluids	Re-refining through registered/ authorized units.
17	Light fittings and fixtures	PCBs	Waste material to SLF.
18	Instruments	Mercury, radioactive materials	Recovery by distillation; reuse of recovered mercury, and residue to SLF. Disposal as

		including ionizing radiation based smoke detectors and liquid level indicators.	<del>per AERB norms.</del> Recovery of mercury by distillation and re-use of recovered mercury by facilities permitted under Hazardous Waste (MH &TM) Rules, 2008.
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(xi) All ship breaking units shall be provided with air pollution control systems like suction devises or water sprinklers.

(xii) Each plot holder shall maintain basic oil spill response resources including sorbent boom, sorbent pads, and absorbent sheets in a quantity sufficient to attend to any spill from the ships being recycled in the plot.

6.4.2 Hazardous materials as listed above, not meant for resale, will be handed over to authorized waste management facility for further treatment and disposal. All ship breaking units shall obtain authorization under E Waste (M&H) Rules, 2011.

6.4.3 ~~In addition to above, SPCB 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.~~ In addition to above, SPCBs shall set-up ambient air quality monitoring station within 10Km radius of shipbreaking units for taking measurements as per notification of CPCB on National Ambient Air Quality Standards . Further, SPCB shall also carry out periodic monitoring of soil, sediment quality, work-zone air quality and marine water quality in shipbreaking areas. SMB/Port Authority shall carry out twice yearly monitoring of the same independently through any Council of Scientific & Industrial Research (CSIR) labs or the environmental labs recognized under the Environment (Protection) Act, 1986 for the same parameters. In addition to this, the SMB/Port Authority shall carry out the detailed anilysis on improvement of the beachirtg methods with a mandate to evolve recycling methods targeting "zero waste" and "zero accidentents" at every five year time interval.

**6.5 Creation/enhancement of facilities for removal, storage and disposal of hazardous materials and hazardous wastes:**

6.5.1 The ballast water is required to be exchanged at high seas to avdid entry of Ceresin organisms into the local environment. The sediments are

generally disposed of at yard/into' tidal zone. In order to avoid this, it shall 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 Port Authority/SMB or authorized agencies on cost-recovery basis. **Master of the Ship should be required to issue a certificate that this has been done.**

6.5.2 Oil sediments removal practices shall be modernised to avoid workers getting exposed to unhygienic and unsafe environment. The yards shall 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.

6.5.1 For removal and disposal of asbestos, the procedure outlined above in Section 6. 1.10 (g), (h) (i), (j), (k), (l) and (m) shall be followed.

6.5.4 A land based common facility for treating bilge water shall be set up by the port authority or agencies authorized by it and made available to the recyclers on cost-recovery basis. Alternatively, a mobile facility shall also be provided by the port authority or authorized agencies. The sediments shall be sent to the secured landfill for disposal.

6.5.5 There shall be no burning of any material on the plot/yard/inertial zone.

6.5.6 The ship recycling permission shall be granted subject to the condition:

- (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 shall be sent 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 SSPCB in the prescribed form periodically.

6.5.7 ~~All gas cylinders recovered from ships shall be emptied safely and scrapped by TDSF under Hazardous Waste Management Rules 2008. No gas cylinders shall be sold as such.~~ All gas cylinders recovered from ships shall be disposed through registered recyclers/MOEF approved agencies.

## **6.6 Environmental measures and house keeping**

6.6.1 The ship-recycler shall obtain necessary authorization and consent from the State Pollution Control Board (SPCB) for ship-recycling activities and shall observe the following stipulations in that regard:-

(a) The ship recycler shall observe wherever applicable all the norms/stipulations covered under the Water Act, 1974, Air Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Wastes (Management, Handling and Trans-boundary Movement)) Rules, 2008 and Coastal Regulation Zone (CRZ) Rules-1991 framed under the Environment (Protection) Act, 1986.

(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 plot and shall be subsequently sent to the secured landfill site. Records shall be maintained regarding the quantities of such wastes generated in the yard for every ship recycled. 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 State Pollution Control Board (SPCB) 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 secured landfill in accordance with the directions of the SPCB.

(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 shall inform the Coast Guard, if any oil spill occurs and escapes into the sea. If the spill is not contained and removed locally, necessary pollution report shall be made to the concerned authority in accordance with the National Oil Spill Disaster Contingency Plan (NOSDCP). The spiller shall liable for the clean up.~~ **The ship recycler shall take necessary measures for preventing the escape of oil or noxious liquid substances into the sea. If any oil or noxious liquid substances spill occurs and escapes into the sea, the ship recycler shall inform the Coast Guard and other concerned authorities and take necessary action for the removal of the oil or noxious liquid substances slicks on the surface of the sea. If the spill is not contained and removed locally, necessary pollution report shall be made to the concerned authority in accordance with the National Oil Spill Disaster Contingency Plan (NOSDCP). The ship recycler will be liable for the cleanup.**

(g) The ship recycler shall ensure surrender of and maintaining details of removal and surrender of smoke detectors to SMB/Port Authority for safe disposal as per AERB norms.

## **6.7 Solid waste management**

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

6.7.2 Special care must be taken in the handling of asbestos wastes, and total quantities of such waste shall be made known to the authorities concerned. The concerned SPCB shall authorize and ensure final disposal of asbestos waste.

6.7.3 Ship-recyclers should be given authorization by the concerned SPCB under the Hazardous Wastes (Management Handling and Trans-boundary Movement) Rules, 2008, only if they have provisions for handling and disposal of the waste in an environmentally sound manner. All authorizations shall be renewed subsequently only if they have complied with the conditions of authorization and also have adequate facilities for handling and disposal of wastes in an environmentally sound manner.

6.7.4 Radioactive waste including ionization chamber based smoke detectors, if any, shall be securely stored in an exclusive place till such time they are disposed of as per norms of AERB.

## **6.8 House Keeping**

6.8.1 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 in case of any accident or fire or explosion.

6.8.2 Statement of completion of ship recycling shall be submitted to the SMB/Port Authorities after the completion of ship recycling.

## **6.9 Health Compliance:-**

(i) Ship Recyclers shall regularly arrange the health camps for ship breaking labor at their own cost. Ship Recyclers shall also arrange for diagnosis, treatment and referral at their own cost for ship breaking labourers.

(ii) SMB shall ~~facilitate~~ **ensure** establishing adequate number of permanent health care facilities and doctors at Ship Recycling Yards for treatment of orthopedic, burns and other chronic diseases and disabilities reported in the ship recycling industries

(iii) National Institute of Occupational Health (NIOH) or Indian Council of Medical Research (ICMR) institutions may be involved for such facilitation.

## **6.10 Action by the State Maritime Board (SMB)/ Port Authority**

6.10.1 The SMB/ Port Authority and the Ship recycler shall be responsible for overall supervision of the ship recycling activities at the



yard. The SMB/Port Authority may appoint required number of qualified safety officers/supervisors for vigorous supervisions of the ship recycling activities and for attending to rescue operation in case of necessity. This is in addition to the Officers/Inspectors appointed by the State Government under the Factories Act.

6.10.2 The SMB /Port Authority's Safety officer/ Supervisor and/or Factory Inspector and/or the members of Safety Rating Team - as may be constituted by the Port Authority/SMB for safety evaluation within the ship recycling yard - will periodically visit the ship recycling plots and shall bring to the notice of the Safety Officer/Safety Supervisor of respective plots, the incidents of unsafe practices that may be observed by him/them during such visits for necessary corrective action.

6.10.3 The SMB/Port Authority shall have the powers to suspend the cutting operations temporarily, in case any unfair practices or unsafe operations are observed in any of the ship recycling plots until the corrective measures are taken to the satisfaction of the SMB/Port Authority.

6.10.4 The SMB/ Port Authority shall provide to the Ship recycling yard/plot:

- i. water
- ii. sanitation facilities

6.10.5 The SMB/Port Authority shall provide adequate housing/dormitory facilities for workmen at suitable locations on cost recovery basis by way of rent from occupants with facilities for supply of drinking water, sanitation, electricity and shopping centre etc.

6.10.6 The SMB/Port Authority shall take up in a time bound manner the following steps:-

- i. To rationalize the leasing arrangements for the plots, including the appropriate time period for the lease, work out appropriate plot 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 the requirements of safety, health and environmentally sound ship recycling operations management.

- ii. Setting up of a Model ship recycling Facility **in coordination with Ship Recyclers.** This model facility may function as a

demonstration/training facility, while being leased out to prospective plot holders for undertaking ship-breaking operations.

## **6.11 Training**

6.11.1 Appropriate arrangement for handling ship recycling works shall be made by the SMB/Port Authority in a time bound manner to ensure that all the workers are trained. Arrangement shall be made to provide specialized training to handle gas detector and for handling of Asbestos and other hazardous materials. After such training, specialization certificates may be issued to the workers concerned.

6.11.2 Till the time separate training and certification arrangements are in place, the SMB/Port Authority may set up necessary temporary facilities for training and certification or authorize a competent agency to do so.

## **6.12 Other Miscellaneous Provisions**

6.12.1 Drinking Water and water supply, overall sanitation and health care facilities to workers, including housing facilities shall be the responsibilities of the SMB/Port Authority and these authorities must cater these facilities within 12 months from the date on which this code comes into force.

6.12.2 In case any worker suffers from asbestosis cancer due to ship breaking occupation and such disabilities including loss of limbs or any part of body in accidents, the concerned ship recyclers or Ship Recyclers Association shall compensate the worker. The workers if detected for asbestosis and other diseases and disabilities due to ship recycling activities, Ship Recyclers shall have to re-employ the workers in less prone area as post disease plans and protect their livelihood.

6.12.3 Ship Recyclers shall provide the food/canteen facilities as per the provisions of the Factories Act to the ship recycling labors as per desired nutrition required by these labours 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 SMB/Port Authorities, the SMB/Port Authorities may and ship recyclers shall immediately remove such labours who are not fit for labour intensive jobs.

6.12.4 The SMB/Port Authority with the help of Health Department of the State Government shall create data base of health profile and health card of each labours to create base line health status of the labors engaged in the ship breaking industry.

## **CHAPTER VII**

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

#### **7.1 Implementation of Occupational Safety and Health Management System**

7.1.1 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 shall be implemented by each ship recycler. The systems shall be specific to the facilities and appropriate to their size and the nature of activities.

7.1.2. Typically, an OSH management system shall 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.

#### **7.2 Occupational safety and health policy**

7.2.1 The OSH policy for the ship recycling facility shall include at least 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.

### **7.3 Planning and implementation**

7.3.1 Based on the results of the initial review, subsequent reviews or other available data, arrangements shall be made for adequate and appropriate OSH planning, which shall 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) 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) selection, planning and implementation of corresponding preventive and protective measures;
- (d) selection of measurement criteria for confirming that the objectives are achieved: and
- (e) provision of adequate resources, including human and financial resources and technical support, as appropriate.

### **7.4 Emergency preparedness**

7.4.1 Emergency prevention, preparedness and response arrangements shall be established and maintained. These

arrangements shall identify the potential for accidents and emergency situations, and address the prevention of OSH risks associated with them. Arrangements shall 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 shall:-

- (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 neighbourhood 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.

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

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

7.5.2 Reporting, recording, notification and investigation of work-related injuries and diseases, ill health and incidents are essential for active monitoring and shall 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; and
- (e) monitor the effectiveness of measures taken to secure satisfactory levels of safety and health.

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

7.6.1 All accidents at the work place shall be reported to the Directorate of Industrial Safety & Health (DISH) as per Section 88 and 88-A of *Factories Act 1948* and a copy of the same will be sent to SMB/Port Authority

7.6.2 Notification shall be made immediately which shall inter-alia contain:

- (a) an accident report for sending to the factory inspectorate and the SMB/Port Authority; and
- (b) a compensation report for sending to the insurance institution

## **7.7 Notification of occupational diseases**

7.7.1 Notification of occupational diseases shall be in accordance with the provisions of Section 89 of the *Factories Act, 1948* and the report of the Medical Officer shall include the following information:-

- (a) The name and full postal address of the patient;
- (b) the disease from which he believes the patient to be suffering; and
- (c) the name and address of the premises in which the patient is or was last, employed.

## **7.8 Means of access and egress**

7.8.1 Adequate and safe means of access and egress shall be provided for all workplaces during all ship recycling operations, these means shall be maintained in a safe condition.

7.8.2. Means of access to vessels shall be:

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

7.8.3. Means of access shall:-

(a) be kept free from obstructions; if they pass through workplaces they shall be protected against falling objects:

(b) as far as practicable be so installed that no loads pass over them. In any event, loads shall not be passed over the means of access while workers are on it.

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

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

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

7.9.2 Means of escape shall be:-

(a) provided on the ship and from the ship during all breaking operations:

(b) shown on plans which shall be posted at the access to and inside of the ship and landside facilities as appropriate.

### **7.10 Roadways, quays, yards and other places**

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

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



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

### **7.11. Housekeeping**

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

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

7.11.2 Loose materials which are not required for immediate use shall 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.

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

7.11.4 Tools, bolts, nuts and other objects shall not be left lying around where they could create a tripping hazard.

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

7.11.6 Rubbish, dirt and refuse shall not be thrown overboard or in and around the yard but removed in an environmentally sustainable manner.

### **7.12 Scaffolds and ladders**

7.12.1 Where work cannot safely be done on or around the yard 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.

7.12.2. The competent authority shall 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.

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

7.12.4 Every scaffold and part thereof shall 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.

### **7.13 Precautions against the fall of persons and materials**

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

7.13.2. Adequate precautions shall 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.

7.13.3. As far as practicable and in accordance with national laws and regulations, guard rails and toe boards shall 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 shall be erected and maintained: or

(b) adequate safety harnesses shall be provided and used.

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

7.13.5 Waste materials or objects shall 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 shall be taken. Loose article shall not be left lying in places where they could fall on persons underneath. Workers employed at elevated workplaces shall be provided with containers for screws, bolts, nuts and the like.

#### 7.14 Fire prevention and fire-fighting

7.14.1 All appropriate measures shall 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.

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

7.14.3. Smoking shall be prohibited and "No Smoking" notices prominently displayed in all places containing readily combustible or flammable materials.

7.14.4. 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, shall be used;
- (b) there shall be no naked flames or similar means of ignition;
- (c) there shall be notices prohibiting smoking;

(d) oily rags, waste and clothes or other substances liable to spontaneous ignition shall be removed promptly without any delay to a safe place;

(e) adequate ventilation shall be provided; and

(f) persons wearing clothes likely to cause static electricity or shoes likely to cause sparks shall be excluded.

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

7.14.6. Regular inspections shall 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.

7.14.7. Welding, flame cutting and other hot work shall 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.

7.14.8. In accordance with the provisions of the relevant Acts and Regulations, places where the danger of fire exist, shall be provided with:

(a) suitable and sufficient fire-extinguishing equipment, readily available, and easily visible and accessible;

(b) an adequate water supply at ample pressure.

7.14.9. Fire-extinguishing equipment shall 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 shall 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; and
- (d) first-stage fire-fighting purposes (hand-held or trolley-mounted portable fire-fighting extinguishers). The extinguishing medium shall be selected according to identified hazards and risks and control measures.

7.14.10. Fire-extinguishing equipment shall 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 shall be kept clear at all times.

7.14.11 Suitable training, instruction and information shall 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 shall include, in particular:

- (a) the circumstances in which workers shall not attempt to deal with a fire themselves but shall 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-protective 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; and
- (g) evacuation plans and procedures.

7.14.12. Sufficient and suitable areas should be provided for flammable liquids and solids adhering to the provisions stipulated in the relevant acts and rules for storage of such materials and suitable and effective means (sight and sound signals) to give warning in case of fire

shall be installed. There shall be an effective evacuation plan so that all persons are evacuated speedily without panic.

7.14.13. Notices shall be posted at conspicuous places indicating; if applicable,

the:

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

## **7.15 Dangerous atmospheres and confined spaces**

7.15.1 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 shall be taken to guard against danger. /

7.15.2. The measures regarding dangerous atmospheres to be taken shall be prescribed by the competent authority in conformity with the IMO recommendations for entry into enclosed spaces aboard ships and shall 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.

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

7.15.4. While a worker is in a confined space:-

- (a) adequate facilities and equipment including breathing apparatus, first-aid kit, resuscitation apparatus and oxygen shall be readily available- for rescue purposes:

(b) a fully trained attendant or attendants shall be stationed at or near the opening; and

(c) suitable means of communication shall be maintained between the worker and the attendant or attendants.

## **7.16 Signs, notices and colour codes**

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

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

7.16.3. Various standards exist for the colour coding of electrical wiring. Care shall 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 shall be in accordance with the coding system.

7.16.4 All gas cylinders should be clearly marked with the name and symbol of the gas and the body should be colour coded **as** per the relevant BIS. A copy of the colour coding shall be displayed at conspicuous place in the cylinder storage yard. A separate place shall **be** earmarked for storage of empty cylinders.

7.16.5 All radioactive waste material shall be labeled and stored as per Atomic Energy (Radiation Protection) Rules, 2004 and with due instructions of RSO of SMB/Port Authority.

## **7.17 Prevention of unauthorized entry**

7.17.1 Visitors shall 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.

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



## CHAPTER-VIII

### MISCELLANEOUS AND PENALTY PROVISIONS

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

8.1.1 The ship-recycler shall report in writing to the Factory Inspector. Port Authority about any accident/fire/explosion which occurred on the plot and a ship, immediately as it occurs. In the event of death of the worker, the ship recycler shall also inform the Police Authority, nearest relative and District Magistrate or Sub-divisional magistrate.

8.1.2 In the event of any accident/fire/explosion/**radiological incident** on any plot and/or on any ship leading to a death or serious bodily injury to any person or for the non-compliance of any of these Code Regulations, resulting in any accident on any plot and/or on the ship, the following actions shall be taken:

(a) In the event of major fire/explosion/accident/**radiological incident** causing damages with or without death or serious bodily injury to any person, all activities related to ship recycling on the plot be suspended forthwith by the port authority with immediate effect for a minimum period of 5 (five) days with a maximum period of 30 days. During this period. State Maritime Board/Port Authority shall carry out detailed investigation through a team comprising of professionals having experience and qualification of Industrial Safety and Health Management; Naval Architecture/Marine Engineering, Environment and Pollution Control/**AERB (in radiological incidents)**. During such period the investigation team appointed by the SMB/Port Authority shall thoroughly inspect the plot/yard and get into the cause of incident and direct respective plot holder 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 plots shall be extended till the inspecting team satisfy itself for compliance.

(b) Legal action on the case of any accident injury/non-compliance with the provisions of the Factories Act, 1948 shall rest with the DISH. Inspector of Factory shall enquire into every fatal accident and serious injuries to any person on any plot for on the ship, as per Section 88 of the Factories Act, 1948.

(c) 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 authorised person(s) of DISH as mentioned in (a) above and shall file the inquest report on which the DISH shall initiate penal action, if any.

(d) The State Government/SMB/Port Authority if it considers it expedient may appoint a competent person to enquire into the causes as per Section 90 of the Factories Act, 1948.

(e) The penalties and procedure for initiating legal action should be as per the provisions of Chapter X -Penalties and Procedures - Section 92 - 106 A of the Factories Act 1948

## **8.2 Appeal provision**

The ship recycler on whom an order in writing by the Factory Inspector has been served under the provisions of the Factories Act, 1948 or the SMB/Port Authority may within 30 days of service of the order appeal against the prescribed authority and such authority may, subject to rules made in this behalf by the State Government may modify or reverse the order. The Appeal shall be against the Secretary (Labour) of the State Government.

## **8.3 Miscellaneous**

8.3.1 The ship-recycling yard/Ship breaking yard under SMB/Port Authority or Port Trust or private operator shall provide basic infrastructure within a maximum of 2 (two) years period from the date of entry into force of this code of regulations. The basic infrastructure shall have a minimum of 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 and Training Institutes
- viii Common Sanitary Blocks for labors and other primary amenities like community centers, labor welfare center.

8.3.2 The above services may be regulated either by the State Maritime Board (SMB)/Port Authority or such authorities appointed by the State Government or by a body constituted by SMB/Port Authority which shall have the authority to regulate all services, levy duty/cess, and collect operational and maintenance expenses. Such authority shall be responsible for functioning, operation, and maintenance of above facilities.

8.3.3. Further, SMB/Port Authority/Or Such Other authorities/ Owner of such yard will develop and protect the area by removing encroachments, by taking up beautification and afforestation activities.

8.3.4 Housing facilities for the labourers shall be provided by suitable mechanisms such as by creation of a Trust, The Trust may include members of ship recycling association, the SMB/Port Authority representatives, District Collectorate Officials, Labor Officer and Laborers' representatives.

8.3.5 The Labour Department shall ensure that laborers are paid as per minimum wages rules and no exploitation of the ship recycling laborers be made by the ship breakers.

8.3.6 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 Shipping shall be final.

8.3.7 Unless the context otherwise requires, the other terms used in the Code shall have the meaning assigned to them under the Acts such as>

Petroleum Act, 1934; Petroleum Rules, 2002; Factories Act, 1948 and the respective State Factories rules: Water Pollution (Prevention and Control) act, 1974; Gas Cylinder Rules, 2004; Air (Prevention and Control of Pollution) Act, 1981; the Merchant Shipping Act, 1958, Static and Mobile Pressure Vessels (Unfired) Rules, 1981; Explosive Act, 1884 and Explosive Rules, 2008; Hazardous Wastes (Management, Handling and Trans-boundary Movement) Rules, 2008; the Environment (*Flection*) Act, 1986; the various Regulations and Rules framed under these Acts and Rules including Gujarat Maritime Board Ship Recycling Regulations-2003 and also other applicable Acts and Rules of the State Governments for ship recycling as notified from time to time.

8.3.8 Import of ships destined for recycling under this Code shall be subject to the Import and Export Policy of the Government of India as well as relevant provisions laid down under various Acts/Rules as amended from time to time. At present such import is permitted under Open General License vide tariff item 89.08. Department of Revenue of the Ministry of Finance in consultation with World Customs Organization vide circular No.37/96 dated 3 July 1996 has clarified that, apart from the ship, what all is contained in the ship such as spares etc. are also covered under tariff item 89.08.

8.3.9 The Code shall be applicable to all ship recycling activities in India. Under item 1.3.4 the concerned Port Authority/State Maritime Board or the concerned State government, while granting permission for ship recycling, yard/plots under their control, the approval and authorization for carrying out ships recycling activities shall seek approval, licensing and registration of the factory as per Section 6 of the Factories Act, 1948 from die Directorate of Industrial Safety and Health/State Factories Directorate.

8.3.10 However, the Ministry of Shipping, Government of India and the respective Port Authorities/State Maritime Boards or the concerned Department of the State 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. These regulations do not apply to the ships, which are grounded and defined as

wrecks. For removal of a wreck, the relevant rules under the Merchant Shipping Act, 1958 shall apply.

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

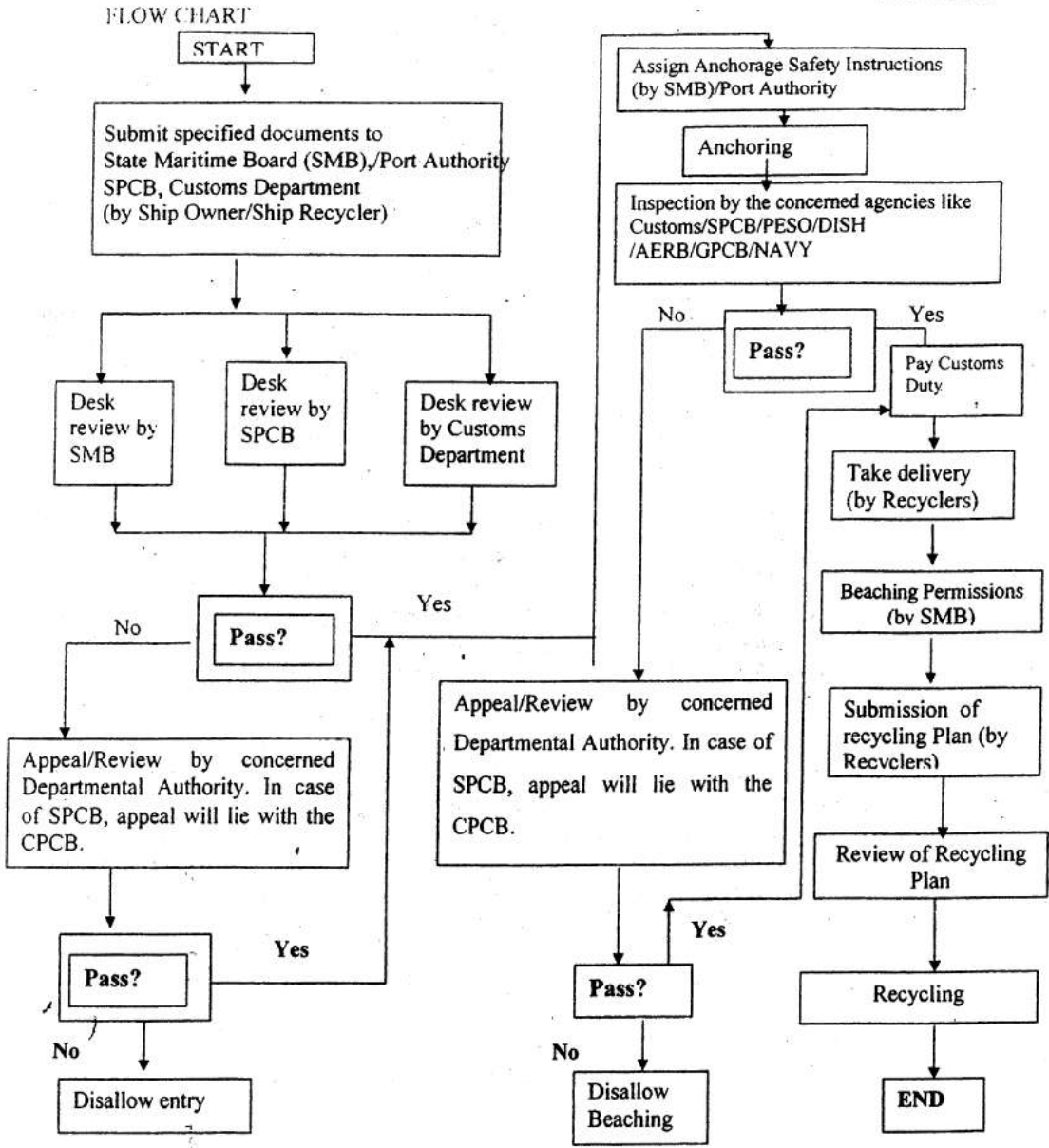
8.3.12 The applicability of the Code will be mandatory for all the implementing authorities involved.

#### **8.4 Amendment Provisions for the Code**

8.4.1 This code regulations may be amended by the Ministry of Shipping, Government of India, in the following circumstances:-

- i. On ratification of the International Maritime Organization (IMO) Convention on ship recycling by the Government of India and any subsequent changes to the IMO Convention on ship recycling;
- ii. On amendments of other rules and regulations by the Government of India having a bearing on the Code; and
- iii. On consideration of the Ministry of ~~Steel~~ **Shipping**, Government of India, on requests from the other Central Ministries/Departments, the State Maritime Boards /Port Authorities and other Stakeholders for carrying out requisite amendments, in the event of any practical difficulties in the implementation of the provisions of this Code.

FLOW CHART



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

1.0 A ship-owner shall notify the concerned Administration as specified in the IMO Ship Recycling Convention(yet to be ratified) 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 as required by the IMO Ship Recycling Convention.

1.1 A Ship Recycling Facility when preparing to receive a ship for recycling shall notify in due time and in writing to the Competent Authority (ies) 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. Expected time of arrival;
- vii. Port at which the ship is registered and last port clearance;
- viii. Name and address of the Ship-owner as well as the IMO registered owner identification number;
- ix. Name and address of the company as well as the IMO company identification number;
- x. Inventory of Hazardous Materials as per Appendix-HI of Hong Kong Convention of Ship Recycling on board the ships<sup>1</sup> structures ( This will be made mandatory once the Convention is ratified, other wise common IHM Inventory may be sufficient for knowledge of hazardous materials by the ship recycling yards);
- xi. Cargo free certificate issued by the last port authorities;

- xii. Name of all classification society(ies) with which the ship is classed;
- xiii. Ship's main particulars -{Length overall (LOA)}, Breadth (Moulded)/ Depth (Moulded), Lightweight, Gross and Net tonnage, and engine type and rating); and
- xiv. Inventory of Hazardous Materials; and International Ready for Recycling Certificate.

Signature of owner:

Seal of his Company:

Telephone No:

Fax No.:

E-mail ID:

Date:



**Annexure-II**

(para 4.1)

To,

The Port Authority/State Maritime Board

**Sub: Application for beaching permission.**

Dear Sir,

I/We am/are having licensed to beach and break ships on plot no. \_\_\_\_\_ apply for granting permission to beach ship on my/our plot. Required information is given below.

1. Name of the applicant:
2. Plot No.:
3. Size of the plot:
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<sup>f</sup> voyages:
  - (i) Live or dead vessel:

8. Certified that,
- i. All the information given are true to my best knowledge.
  - ii. All the debris other than clean scrap are removed from sea/sea shore and disposed in approved manner.
    - iii. Gas free certificates viz. (a) for entry into wet or dry dock (b) for man entry (c) gas free certificate for work are obtained from the explosive department and enclosed if the vessel is Oil Tanker which is attached as Annexure:
    - iv. Certificate from master of ship is attached as Annexure:
    - v. Certificate of entry as per Section 36 of the Factories Act is obtained from competent person and attached as Annexure:
    - vi. 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) SPCB authorization
- (e) Copy of Registered Certificate from TDSF operator
- (f) Master Certificate (Gas free, CQj, No hazardous material)
- (g) Survey report - original
- (h) Original physical delivery certificate
- (i) For oil petroleum, gas free certificates issued by an officer of Petroleum and Explosives, Safety Organization, Government of India. In case of Chemical Carrier - Certificate from competent persons under the provisions of the Factories Act, 1948.
- (j) For oil tankers, gas free certificates issued by an officer of Petroleum and Explosives, Safety Organization, Government of India. In case of LPG/LNG tanker of chemical carrier, certificates from competent persons under the provisions of die Factories Act, 1948.
- (k) Undertaking on Rs. 100 stamp paper with name, full address and contact

-----  
**(For office use only)**

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

To,

The Port Authority/State Maritime Board

**Sub: Application for recycling permission.**

Dear Sir,

I/We am/are having licensed to beach and break ships on plot no. \_\_\_\_\_ apply for granting permission to break ship on my/our plot. Required information is given below.

1.Name of the applicant:

2.Plot No.:

3.Size of the plot:

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, as per the Rules 68-H made under sections 36,41 &112 of the Factories Act, 1948 issued by the Competent Person, (b) Naked Light Certificate (Hot Work Permit) as per the Rules 68-H made under sections 41 & 112 of the Factories Act, 1948 as issued by the competent person (c) Receipt giving evidence of Custom Clearance of the ship (d) Certified copy of authorization and consent from the State Pollution Control Board for ship recycling activity; are enclosed as Annexure: ' '. A copy of Ship Specific Dismantling Plan is attached.

**UNDERTAKING**

I, the undersigned, hereby certify that:-

- (a) All kinds of petroleum products such as oil, fuel in tank etc. and gas, including G00, gas of the ship have been emptied and evacuated and shall be thoroughly cleaned prior to undertaking 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 Gas Cylinder Rules-1981.

Signature:

(Name of the official)

(For office use only)

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

## Annexure-V

(para 4.2.7)

(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 of the country:
- 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

### 8. Detail of radioactive devices

S.No.	Device	Make	Model	Sl.No. of device	Name of Manufacturer	Name of radionuclide	Activity (curies)	Purpose and location of the device

\*In case of sources contained in devices, details of the type of device, its make and model number is to be given

### 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-VI**

(para 4.2.7)

(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 of the country:
- 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 Annexure ~~VI~~ **V**:
- 8) Details of any radioactive material recovered from the ship after ~~anchoring~~ **beaching**:

Name(s) and signature(s) of  
the:

Inspecting Team of the State  
Maritime Board/Port

Authority:

Designation(s):

Name of the organization:

Place: , . - ;

Date:

**FORM OF THE STATEMENT OF COMPLETION OF SHIP  
RECYCLING**

**STATEMENT OF COMPLETION OF SHIP RECYCLING**

This document is a statement of completion of Ship Recycling for

.....  
*(Name of the ship when it was received for recycling/at the point of  
deregistration)*

***Particulars of the Ship as received for recycling***

Distinctive number or letters :

Port of Registry :

Gross tonnage :

IMO number :

Name and address of shipowner :

IMO registered owner :

identification number

IMO company identification number :

Date of Construction :

Details of hazardous waste generated and disposed: Attach list.

Details of accidents, if any, including

details of compensation paid :

**THIS CONFIRMS THAT:**

The ship has been recycled in accordance with the approved as per the  
Ship Breaking Code, 2013.

\_\_\_\_\_  
*(Name and location of the authorized Ship Recycling Facility)*

and the recycling of the ship was completed on:

(dd/mm/yyyy) .....

*(Date of completion)*

.....  
*(Date of issue) (Signature of the Ship Breaker or his representative, with  
complete address)*

\_\_\_\_\_