

# **Steel Scrap Recycling Policy**

## PREAMBLE

*“Ministry of Steel’s endeavor is to develop a globally competitive steel industry by adopting state of the art environment friendly technologies. Ferrous Scrap being the primary raw material for EAF/ IF based steel production, the policy envisages a framework to facilitate and promote establishment of metal scrapping centers in India. This will ensure scientific processing & recycling of ferrous scrap generated from various sources and a variety of products. The policy framework shall provide standard guidelines for collection, dismantling and shredding activities in an organized, safe and environmentally sound manner”*

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## 1. Introduction

Steel is a material most conducive for circular economy as it can be used, reused and recycled infinitely. While iron ore remains the primary source of steel making, used or re-used steel in the form of Scrap is the secondary raw material for the steel industry. Indian steel industry is characterized by the presence of a large number of small steel producers who utilize scrap with other inputs in EAF/IF for steel making. As on March 2019, 47 Electric Arc Furnaces & 1128 Induction Furnaces are operating in the country and largely depend upon scrap as a raw material to produce steel.

National Steel Policy 2017 (NSP-2017) aims to develop a globally competitive steel industry by creating 300 Million TPA Steel production capacity by 2030 with a contribution of 35-40% from EAF/IF route. Although, scrap is the main raw material for secondary sector but primary sector also uses Scrap in the charge mix of BOF to the tune of 15% to improve efficiency, minimize cost of production and other process needs. The availability of raw materials at competitive rates is imperative for the growth of the steel industry and to achieve NSP-2017 target. Thus, the availability of right quality of scrap, in adequate quantity is one of the critical factors for the future growth for both EAF/IF sector & primary sector.

Further, Scrap based steel making technologies have been envisaged as one of the important options to reduce GHG emission intensity. This shall feature as an important initiative of the steel sector to minimize Green House Gas (GHG) emissions. This shall also contribute in adopting the principle of 6Rs i.e. Reduce,

Reuse, Recycle, Recover, Redesign and Remanufacture to avoid any adverse impact on the environment and strengthening the foundation of sustainable development.

In the NSP-2017 the importance of scrap was realised. This Scrap Policy only furthers the role envisaged in the NSP-2017 to ensure scrap segregation (quality wise), collection, processing and recycling. The policy is to provide a framework for carrying out the activities in a scientific manner to have assured and regular supply of processed scrap for the downstream industry. Steel scrap comes from various sources such as mill scrap, used structural items like beams, reinforced steel & plates, plant and machineries including pipes, tubes, old vehicles, domestic goods, automotive scraps, ship building industry, railways etc. The present policy deals with automobile, house hold, structural, railways, industrial etc. but exclude specific industries like ship breaking which are covered under separate act / policy.

There is a worldwide trend to increase steel production using scrap as the main raw material as recycling of scrap helps in conservation of vital natural resources besides other numerous benefits. The use of every ton of scrap shall save 1.1 ton of iron ore, 630 kg of coking coal and 55 kg of limestone. There shall be considerable saving in specific energy consumption also as the same will reduce from around 14 MJ/Kg in BF/BOF route to less than 11 MJ/ Kg in EAF/IF route, i.e. savings in energy by 16-17%. It also reduces the water consumption and GHG emission by 40% and 58% respectively. Thus, the demand of steel scrap has increased considerably in the past globally from 367 mt in 2000 to 589 mt in 2017 as can be seen from figure-1

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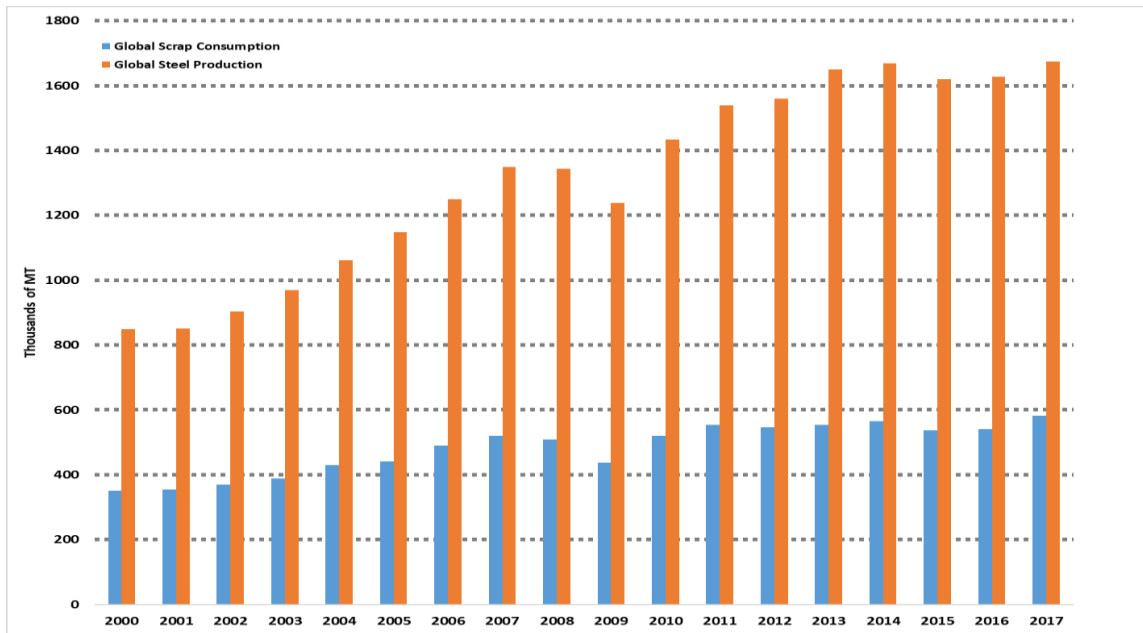


Fig-1: *Global Steel Production and Scrap Consumption*<sup>1</sup>

Most of the major steel producing countries like Japan, USA, and China are continuously increasing scrap-based steel production with proportionate reduction from primary route. In 2017, out of 1688 million Tones global steel production, around 475 million Tons was produced from secondary route (using scrap). The main countries adopting primarily EAF as secondary route are USA (68.4%), Italy (80%), Spain (66.5%), Iran (93.5%), Mexico (76.3%) and Middle East (93.5%).

The availability of scrap is a major issue in India and in 2017 the deficit was to the tune of 7 million Tons. This was imported at the cost of more than Rs. 24,500 crores (approx.) in 2017-18. The current demand supply scenario of scrap in India as well as anticipated in future is shown in Figure- 2. The gap between demand and supply is can be reduced in the future and the country may be self-sufficient by 2030. This is mainly because with the increase in consumption of steel in the recent past and ELVs, the generation of scrap is likely to be increased considerably. This scrap has

<sup>1</sup> Source: Statista ( [www.statista.com](http://www.statista.com) )

to be channelized so that the same can be utilized for steel production in an environmental friendly manner.

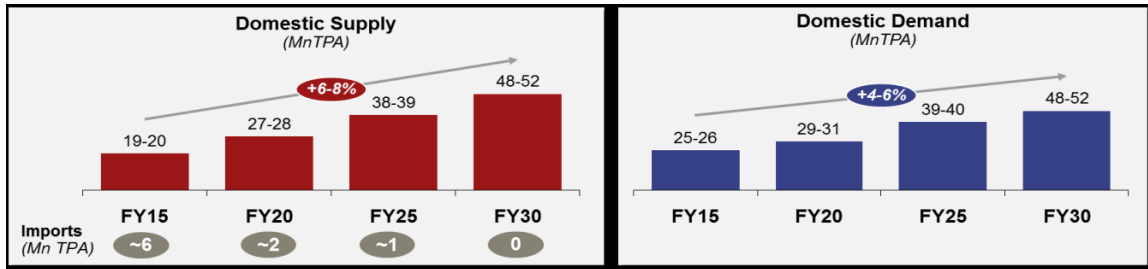


Figure-2 : Demand –Supply Scenario of Scrap in India<sup>2</sup>

The efficient use of scrap for steel production becomes very crucial for India as 35-40% share has been envisaged from scrap-based steel production in the journey of 300 million TPA by 2030. This shall increase requirement of steel scrap from present level of around 30 million tones to more than 70 million tons by 2030. Thus, this policy aims to help all stakeholders engaged in collection, dismantling, processing, transportation, etc so that sustainable development of scrap-based steel industry can be ensured. It is expected that the implementation of this policy shall make country self-reliant in terms of availability of scrap and thus will give boost to imports substitution’s initiatives and creating large employment opportunities.

The scrapping policy shall ensure that quality scrap is available for the steel industry. Scrap is an important input for the electric furnaces. If quality scrap is provided as the charge to the electric furnaces then the furnaces can produce high grade steel. High Grade Steel Scrap shall not have the impurities if processing is done with the scrap processing centres and by shredders etc. The high grade steel scrap shall be recycled to produce high grade steel again, to be used in the industries such as equipment manufacturing, automobiles and other down stream industries. Scrap with less or no impurities shall result in better long products that are commonly used in construction

<sup>2</sup> Source: JPC, MECON

industry and is common use steels. If better processed scrap is produced in the country it shall result in not only import substitution of scrap but also import substitution of high end steel that is currently imported in the country.

As discussed the current supply of scrap is 25 MT from the domestic unorganized scrap industry and 7 MT from import of scrap. There is potential to harness this 7 MT of scrap that is currently being imported from the domestic market itself. This shall require adequate collection centres, dismantling centres shall work in a hub-spoke model and feed to the scrap processing centres. To produce 7 MT more of scrap, the country shall require 70 scrap processing centres each with the capacity of 1 lakh tonnes; this is without disturbing the existing dismantling centres. The 70 scrap processing centres shall require about 300 collections and dismantling centres on the presumption that 4 collecting and dismantling centres cater to scrap processing centre.

And when the production of steel rises to 250 MT, as is envisaged in the National Steel Policy, then the requirement of scrap shall rise to 70-80 MT. This shall require about 700 scrap processing centres, that is 700 shredders. These shall in turn be fed by 2800-3000 collections and dismantling centres spread all over the country.

If one were to consider the employment generation potential of the scrap industry that would operate in the organized sector, it is considerable. Operating on the 4+1 hub and spoke model, where 4 collection and dismantling centres were to cater to the 1 scrap processing centre then 400 jobs would be created by one such composite unit. And for 70 units producing a total of 7 MT of scrap the potential for employment generation would be of 2800 persons. If the country was to produce 70 MT, as if expected as per NSP 2017, the employment generation could be in the range of 3 lakh jobs. In addition there would be skilling of persons, capacity building and training of Rag pickers, kabaddi-walas, aggregators. Employment would arise from the logistics support that the collection, dismantling and scrapping centres would require to move the material in and out of the centres and to the user industry.



The methodology of operation as shown in Figure -3 and envisaged for implementation of this Scrap Policy shall ensure compliance to 6Rs principles of Reduce, Reuse, Recycle, Recover, Redesign and Remanufacture.

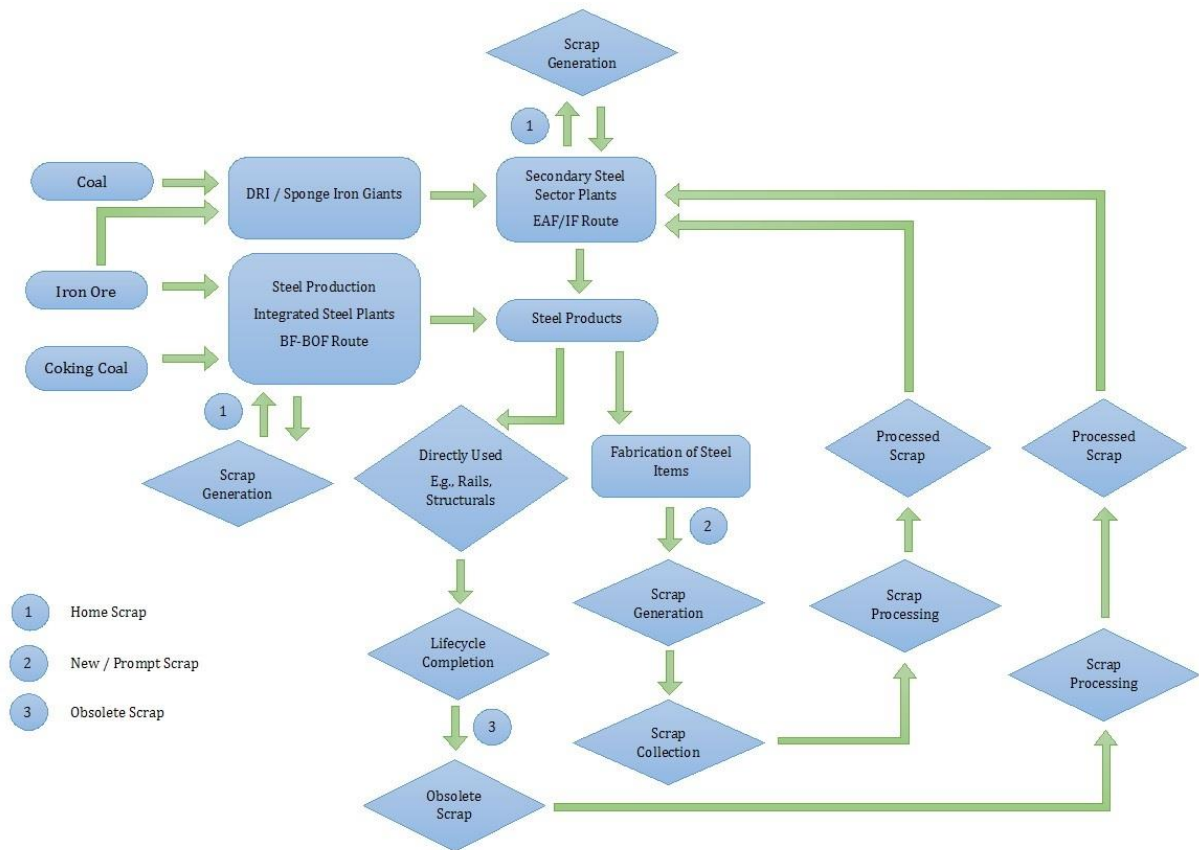


Figure-3: Steel Recycling Methodology

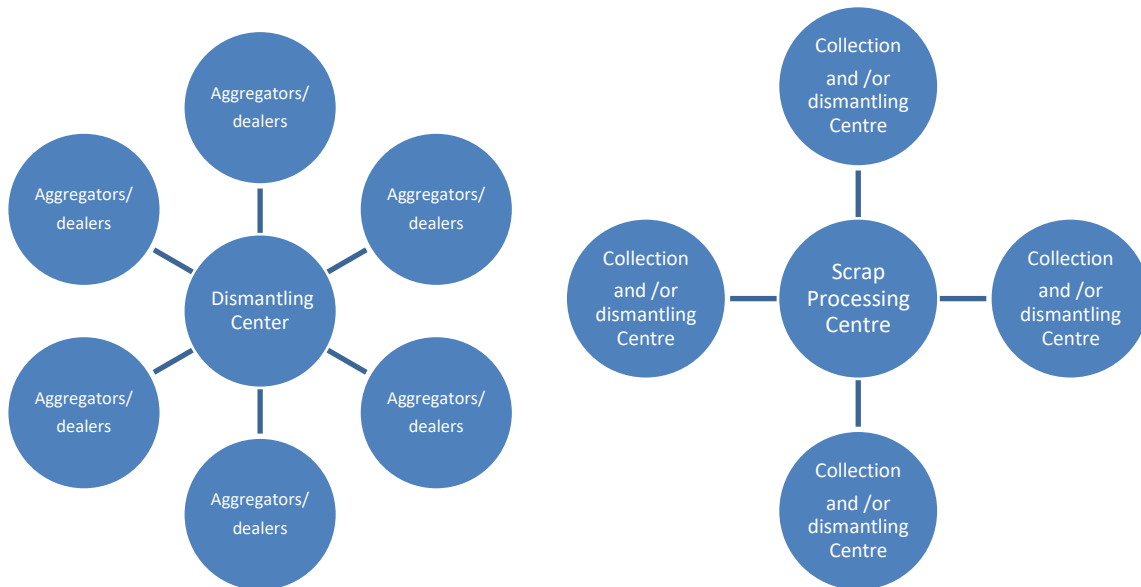
## 2. Objective

The policy aim to achieve the following objectives –

- i. To promote circular economy in the steel sector
- ii. To promote a formal and scientific collection, dismantling and processing activities for end of life products that are sources of recyclable (ferrous, non-ferrous and other non-metallic) scraps which will lead to resource conservation and energy savings and setting up of an environmentally sound management system for handling ferrous scrap.
- iii. Processing and recycling of products in an organized, safe and environment friendly manner.
- iv. To evolve a responsive ecosystem by involving all stakeholders.
- v. To produce high quality ferrous scrap for quality steel production thus minimizing the dependency on imports.
- vi. To decongest the Indian cities from ELVs and reuse of ferrous scrap.
- vii. To create a mechanism for treating waste streams and residues produced from dismantling and shredding facilities in compliance to **Hazardous & Other Wastes (Management & Transboundary Movement ) Rules , 2016 issued by MoEF & CC**
- viii. To promote 6Rs principles of Reduce, Reuse, Recycle, Recover, Redesign and Remanufacture through scientific handling, processing and disposal of all types of recyclable scraps including non-ferrous scraps, through authorized centers / facility.

## 3. Working Model

The increased production of vehicles and increased use of consumer durable white goods in the last two decades and their rapid obsolescence shall generate large quantities of end of life products. This shall result in generation of continuous flow of large ferrous scrap for recycling in steel production. To address the issue of collecting such end of life products for increasing scrap generation in India and also to structure the informal recycling sector based on environmental and scientific fronts, a hub and the spoke model is promulgated:



The collection and/or dismantling center should either setup by or be associated with a scrap processing center. They should handover the depolluted/dismantled ELVs, white goods and other scraps without any legal liabilities or encumbrances to the authorized scrap processing center.

Logistics may be one of the main challenge for safe and cost effective system for inbound unprocessed products/scrap and outbound processed scraps to the melting shops. Thus, scrapping centres (Collection cum dismantling centre and recycling centre) need to be supported by adequate logistic facility in consonance with the National Logistic Policy. The implementation of effective logistic framework shall prevent pilferage and facilitate containerized transport in an environment friendly manner.

The setting up of these centres near highways, industrial corridors, railway sidings and in the close proximity to Sagarmala project shall help in development of multi-modal logistics parks. As the industry evolves over time, setting up of ECO parks/recycling zones having the scrapping/ recycling centres along with the user secondary steel sector industry shall help in boosting the economic activities around these centres besides generating large employment opportunities.

#### 4. Guidelines

- A. Regarding the dismantling center it needs to be ensured that :
1. In view of the large size and volume of scraps to be handled, the dismantling facilities should be set up in a large area having adequate space for vehicular movement, storage for the products received and recyclable material so recovered.
  2. It should fulfill the criteria of an adequate gated area to handle, depollute and dismantle ELVs, white goods and other scraps along with facility for measuring radiation as followed for import of scrap. ELVs shall require material handling machines to minimize human intervention and create safe work places.
  3. To ensure safe operating practices are followed, centers are expected to follow updated guidelines of OHSAS in this regard and shall engage competent and trained manpower to process the End of Life goods and other scraps.
  4. The Collection Center should have dry areas (free from water logging), impermeable surfaces like concrete flooring, roads, adequate workshop facilities for in-house maintenance , fire protection systems etc. to maintain safe work places and keeping pollution under control.
  5. The facility shall be equipped with depollution system, preferably with zero discharge system, and dismantling by making use of best available technology for processing the end of life goods and other scraps. The centers shall comply with relevant health and safety legislation/regulation and environmental norms as laid down by MoEF&CC / SPCB for such operations and Hazardous & Other Wastes ( Management & Transboundary Movement ) Rules , 2016
  6. Further, the fuel, oil, antifreeze, and other fluids should be completely drained, and the fuel tank, radiator, and other fluid containing parts should be removed completely at the facility. The used oil shall be disposed through

authorized centers only in line with guidelines issued by the environmental authorities / boards for E-waste / Hazardous waste.

7. The center shall have adequate storage of batteries, filters, PCB / PCT-containing condensers, tyres etc as per environmental guidelines / Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016 issued by MoEF & CC in this regard.
8. The collection /dismantling center and/or scrap processing center must issue a Certificate of Destruction (COD) / Proof of scrappage to the owner. Records of the same must be maintained and it should be available for scrutiny by the authority concerned.

The collection /dismantling center and scrap processing center to upload the data with regards to the scrapped vehicles, white goods and other scraps on a common digital platform or as per guideline issued by the concerned ministry / department from time to time.

**B. Scrap Processing Center shall ensure that :**

1. The facility should have appropriate equipment and use best available technology as evolved from time to time for the activities defined viz shredding, shearing, baling ,slitting etc.;
2. The scrap processing centers should be equipped with radioactive detection equipment.
3. The facility shall have equipment that have the capability to carry out the functions defined as detailed and reviewed time to time by Ministry of Steel or its appointed agency.

4. The facility, should further, have provisions for storing segregated scraps, as emerged, from the above process, to cater domain specific downstream industries.
5. In addition, the facility must have best available technology /disposal plans in place for processing residue.
6. The facility should have adequate space for equipment, storage and handling of segregated waste streams. Further, it should have adequate competent and trained manpower to operationalize and manage such a facility in a safe and environmental friendly manner.
7. The scrap processing center to upload the data with regards to the scrapped vehicles, white goods and other scraps on a common digital platform.

## **5. Points for Authorization/De-authorization**

1. In addition to the above guidelines, the above centers, shall necessarily adhere to the following statutes, or any other relevant guidelines issued by the Government (MoEF&CC and CPCB or any other Statutory Body), from time to time:
  - a. Environment (Protection) Act, 1986, amended 1991.
  - b. Water (Prevention and Control of Pollution) Act, 1974, amended 1988.
  - c. The Air (Prevention and Control of Pollution) Act, 1981, amended 1987.
  - d. Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.
  - e. Guidelines for environmentally sound management of ELVs, Nov'16 laid down by Central Pollution Control Board (CPCB)- AIS 219
  - f. Waste regulations notified by the Ministry of Environment Forest (MoEF&CC), as applicable for the management and recycling of ELVs –

- g. Atomic energy ( radiation protection) rule 2004
- h. Solid Wastes Management Rules, 2016
- i. The Ozone Depleting Substances (Regulation and Control) Rules, 2000
- j. The Batteries (Management and Handling) Rules, 2001
- k. The E-waste (Management) Rules 2016.
- l. The Plastic Waste Management (Amendment) Rules, 2018
- m. Factory Act 1948 along with amendments 1987 and rules made therein
- n. Any other rules notified by Ministry of Steel or any other Ministry or
- o. the State Government from time to time in this regards.

Authorizing agency may de-authorize such a center, if it is found to be violating any of the above norms.

2. In case, the scrapping centres do not have adequate capability / provisions for recycling of hazardous waste (like e-waste, lead acid batteries, lithium ion components, or for recovery of rare earth metals, etc.), or recycling of material which is outside its scope, then such materials should be sold to authorized recyclers, who have adequate capability.
3. Scrap processing centres should preferably accredit their centres/ units with the latest version of quality standards viz ISO 9001 (Quality management system), 14001 (Environmental Management System) and 18001 (Occupational health and safety) besides compliance to other norms / rules as laid down in various statutory rules/regulations. This is required to establishing Environmentally

Sound Scrap Management Systems with focus on continuous improvement on technology, safety and environment.

## 6. Evolving a responsive ecosystem

Development of an organized scrapping / shredding industry through a self-regulatory ecosystem based on a **system of shared responsibility (SR)** to be evolved, for collection, dismantling and disposal of ELVs, White Goods and other scraps, involving all the key stakeholders such as aggregators, scrapping centers, manufacturers (OEMs), owners and Government. Such a shared responsibility system would enable the development of appropriate ecosystem in terms of setting up of Collection, Dismantling centers and Scrap processing centers, either by independent entrepreneurs or through Joint Ventures between Corporate entities and/or PSUs. For, the development of well-ordered channels for the flow of materials, it is critical that the roles and responsibilities of different stakeholders in such a shared responsibility system are defined below:

### 7.1 Roles of Aggregators:

1. Aggregators to associate themselves with the dismantling and/or scrap processing center to strengthen reverse supply chain for collection of scraps through long term suitable mechanisms to facilitate continuous and regular supply of scraps to authorized scrapping centers.
2. May assist in initial segregation and sorting of scraps. The aggregators may work closely with the scrap processing centers for segregation and compliance to BIS scrap specifications and codes.
3. To setup value yards for systematic and segregated collection and treatment of scraps.
4. Suitable weighing machines/ weighbridge to ensure systematic collection and weighment of scraps.



5. Further, aggregators may involve peddlers as partners, for collection of scraps, who belong to the unorganized and informal sector. They shall support and assist them in adopting safe and environmentally sound practice.

## **7.2 Responsibilities of Dismantling & Scrap Processing Centers (SCs)**

In addition to the points in section 4, the scrap processing centres, should adhere to the following roles in addition to the guidelines issued from time to time by MoEF&CC:

1. The setup of such centres shall be in consonance with the Factory rules and as per the Industrial norms as laid down by the competent authorities in this regard from time to time.
2. To ensure manpower development through continuous training and evaluation to make them competent in handling ELVs, white goods and other scraps and thus minimizing risks.
3. To be in consonance with the technical and statutory norms for handling scraps, and should follow quality norms as being followed for imported scraps in line with the guidelines issued MoEF&CC /other statutory bodies.
4. The collection, aggregator and/or dismantling centre will verify with the credentials of vehicles received for recycling with the Vahan Database (National Register e-services of registered vehicles). The guidelines issued by the Ministry of Road Transport and Highways for accessing such database shall be binding for all centres.

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5. The engine parts arising out of the end of life vehicles should be defaced, or drilled with 6" hole, by the scrapping centres, such that the same may not be reused in secondary market.
6. Further, the scrapping centre may develop facilities, to segregate the processed scrap, based on its composition or chemical analysis, which would facilitate the downstream industries with quality scraps.
7. Vintage vehicles (generally referring to vehicles prior to 1930s), meaning historic vehicles intended for museums, or an older vehicle with enough historical interest to be collectable and worth preserving or restoring rather than scrapping, kept in a proper and environmentally sound manner may be excluded from the purview of this guidelines, unless a proper governmental mandate prescribes the scrapping of the same.
8. The treatment of obsolete spare parts may be as per Guidelines for environmentally sound management of ELVs, Nov'16 laid down by Central Pollution Control Board (CPCB) AIS 219.
9. Further, the scrapping centres may be RIOS (Recycling Industry Operating Standards) certified (established by ISRI, The Institute of Scrap Recycling Industries) to provide a systematic framework to achieve measurable continual improvement in their Quality, Environmental, Health and Safety (QEH&S) performance.

### 7.3 Government's Responsibility

Ministry of Steel will be the focal Ministry to deal with all the issues arising from scrap; scrap being as defined in Paragraph 10.8;

Ministry of Steel will facilitate the following:

- (i) That compliance burden is reduced to the minimum by avoiding multiple registrations, licencing and reporting requirements and promoting Ease of Doing Business (EoDB) in setting up Scrapping Centres.
- (ii) That MoEF&CC may streamline and clarify the regulatory requirements eliminating multiple clearances wherever feasible for steel scrap industry. MoEF&CC shall prepare a Standard Operating Procedures (SOP) and codify the procedures and clearances of all the 15 or more Acts/Rules under which clearances are required for setting up of collection & dismantling and scrap processing centres and shall establish a Single Window Clearance System by ensuring expeditious clearances with respect to Environmental and Pollution Regulations. This shall help in smoother and faster setting up of scrapping centres.
- (iii) That through coordination with MoEF&CC, ensure effective enforcement of regulations through CPCB, SPCB and State Governments to prevent illegal scrap aggregation and processing in unorganized sector which is an environmental and public health hazard.
- (iv) That MoEF&CC /CPCB/SPCB may adopt uniform norms for categorization of shredding/recycling centres and care shall be taken to give guidelines such that these centres shall not be categorized above 'Orange' as per the environmental norms.

Based on discussions it emerges that MoEF&CC would finalize uniform categorization norms applicable in all States separately for 'Collection & Dismantling Centres' and 'Recycling Centres' in three months' time.

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- (v) MoRTH may formulate an Automobile Fitness Certification Policy to prevent plying of unfit and polluting vehicles. This would facilitate establishment of Fitness Centres in the private sector by providing supporting policy framework. Unfit vehicles could, as per the voluntary decision of the owners, be considered as the feed material for the steel scrapping centers.
- (vi) That MoRTH and DHI work towards “Extended Producer Responsibility” by requiring the vehicle manufacturers to incentivize scrapping of unfit vehicles in exchange for price discounts for purchase of new vehicles. This too shall provide for the required feed to the scrapping centres.
- (vii) That MoRTH will identify unfit vehicles, through an appropriate testing system, which do not meet the roadworthiness standards, for scrapping. MoRTH will take necessary steps to ensure effective enforcement of Pollution and Fitness Regulations by State and Central Agencies. Further, MoRTH to ensure that the authorized vehicle scrapping centres shall have access to the Vahan Portal to de-register vehicles that are to be scrapped either voluntarily or statutorily.

Based on discussions with MoRTH, it emerges that they would notify their Policy on promoting phasing out of old polluting vehicles within three months.

- (viii) That Ministry of Finance has already announced new Corporate Tax Rate incentives on 20<sup>th</sup> September 2019, that shall be applicable for setting up of scrapping centres –scrapping centers shall be able to avail the new provision that have been inserted in the Income-tax Act with effect from FY 2019-20, which allows any new domestic company incorporated on or after 1<sup>st</sup> October 2019 making fresh investment in manufacturing, an option to pay income-tax at the rate of 15%. This benefit is available to companies which do not avail any exemption/incentive and commences their production on or before 31st March, 2023. The effective tax rate for these companies shall be 17.01% inclusive of surcharge & cess. Also, such companies shall not be required to pay Minimum Alternate Tax. This provision is applicable to scrapping industry as it attracts fresh investment in manufacturing and thereby provides boost to ‘Make-in-India’ initiative of the Government.

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- (ix) Further, DoR may examine the proposal regarding the exemptions u/s 35 AD of Income Tax Act to scrap processing units.

An Inter-Ministerial Coordination Committee has been set up with Secretary, Ministry of Steel as Convener and Secretaries of Ministry of Road Transport & Highways (MoRTH), Department of Heavy Industry (DHI), Ministry of Environment, Forest & Climate Change (MoEF&CC), Department Revenue and Ministry of Labour & Employment as members.

The mandate of the Committee is as under:

- (i) Policy changes required for creating an organized steel scrapping eco system; &
- (ii) Monitoring the operationalization and enforcement of relevant laws/regulations in this regard.

Further, Ministry will work towards:

1. Promoting R&D activities, improve capacity building for capital equipment indigenously and adoption of the state of the art technologies, support the industry in organizing special training needs through new vocational courses under PMKVY or by industry-academia forum for equipping people in recycling of ELVs, white goods and other scraps in an environmentally sound and safe manner with Ministry of Skill Development.
2. Work with Ministry of Consumer Affairs and Bureau of Indian Standards – to address issues related to quality of scrap and ensure that international standards, wherever acceptable are followed and domestic standards of quality of scrap are formulated. BIS scrap code to be developed and made more comprehensive to cover all standards and more grades. BIS scrap code, wherever in place, should be followed in domestic scrap trade.
3. Take up with Ministry of Finance issues of the steel scrapping industry, related with financing, indirect tax issues and other direct tax incentives for promoting investments in projects on waste management, collection and processing of recyclable materials.

Consider special status for eco parks that are to be set up for recycling and scrapping purposes and consider introducing targeted recycling-based tax incentives, both direct and indirect tax.

4. Encourage development of competitive markets for recycled materials. The recycled / reusable materials to be sold in the market post collection and recycling, may be done through a dedicated e-commerce platform, to bring transparency and provide fair opportunity.
5. Ensure that such hazardous waste is routed through government authorized e-commerce/auction portal to authorised recyclers, who have adequate capability of recycling.
6. To take up with the State Governments the following issues:
  - Steel Scrap recycling segment may be granted **Industry Status**
  - Incentives may be provided irrespective of investment amount
  - Relief on conversion charges, stamp and registration charges
  - Rationalization of Industrial power tariff - duty support
  - Necessary Logistics Support (connectivity) for the Processing Centres
  - Land in Industrial Development Parks/ centres developed by State Government on any other suitable land for setting up scrapping/shredding centres.
7. The role of Ministry of Steel shall be to continuously guide and advise all stakeholders regarding compliance to various guidelines, rules and regulations, new technologies.

## **7.4 Manufacturer's Responsibility**

### **a) Role of Automobile OEMs (Original Equipment Manufacturers):**

1. Automobile manufacturers, being an important stakeholder, should design vehicles keeping in mind the recyclability of the vehicle at the end of life. This would mean that the use of hazardous materials and Substances of Concern (SOC) shall be avoided to the extent possible so that risks associated during disposal & recycling are taken care.

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2. The Extended Producer Responsibility (EPR) guidelines/draft Regulations of MoEF&CC be strictly adhered to. In extended producer responsibility OEMs should incentivize scrapping of unfit vehicles in exchange for price discounts for purchase of new vehicles, ie OEMs may provide incentives to those purchasing a new vehicle in lieu of exchange of ELVs.
3. Manufacturers should undertake responsibility to make adequate provisions relating to the classification, packaging, labeling and color scheme for dangerous substances. They should ensure proper component and material coding standards to facilitate the identification of those components and materials which are suitable for reuse and recovery, and the same should also be communicated to the scrapping centers.
4. The use of lead, mercury, cadmium and hexavalent chromium should be avoided by manufacturers. This will ensure that hazardous materials and components do not become part of shredder residues which may be a source of air and water pollution.
5. Further, the vehicle manufacturers should also shoulder responsibilities to use an increased quantity of recycled material in vehicles and other products, (provided they do not give rise to safety or environmental hazards), thereby creating a market for recycled products, and the percentage use of such recycled materials in vehicles should be periodically audited to ensure compliance.
6. Additionally, the vehicle manufacturers as a practice should provide dismantling information for each type of new vehicle within six months of the launch and should assist / guide the recycling centers to expand the technological knowhow for segregation and recycling.
7. The OEMs and/or its dealers can facilitate the collection of old vehicles/ELVs/ recyclable spare parts of old automobiles either through its take back schemes or

through set up of scrapping center of its own or through tie ups with such facilities, thereby acting as an aggregator for the collection of vehicles.

8. To apprise the consumers of environmentally sound management of wastes and inform them about special incentives provided by manufacturers on new products/vehicles upon exchange or scrapping of end of life products/vehicles.

**b) Role of White Goods OEMs:**

1. Designing the products to contain safer materials (so they do not need to be managed separately) or designing products that are easier to recycle and reuse in efficient and environmentally sound manner and set a minimum level for generic identification by labeling / marking of plastic products, if used.
2. Promoting the usage of recycled materials in new products and avoid toxic and hazardous substances while packaging, through appropriate change management and adequate measures.
3. Additionally, the white goods OEM as a practice should provide dismantling information for each type of new product within six months of its launch and should assist / guide the recycling centers to expand the technological knowhow for segregation and recycling.
4. The OEMs and/or its dealers can facilitate the collection of white goods either through its take back schemes or through set up of scrapping center of its own or through tie ups with such facilities, thereby acting as an aggregator for the collection of white goods.
5. To apprise the consumers of environmentally sound management of wastes and inform them about special incentives provided by manufacturers on new products upon exchange or scrapping of end of life products.



6. **Incentives:** OEMs may decide to provide incentives to those purchasing a new vehicle in lieu of exchange of White Goods.

## **7.5 Owner's Responsibility**

### **a) Role of ELV owners**

1. The owner must hand over for scrapping vehicles that do not meet the fitness criterion for the vehicles.
2. The Owner must ensure that s/he has relevant documents/papers suggesting s/he is the owner of the vehicle being considered as ELV.
3. The owner has the right to authorize some other person, on his behalf, to handover the ELVs for scrapping.
4. The owner, should take the responsibility of handing over the end-of-life vehicles only to authorized collection cum dismantling centers authorized by the authorizing agencies or its appointed agencies.
5. The owner may ensure that the ELV does not contain any waste other than an ELV.

### **b) White Goods**

1. The Owner shall give a self-certified undertaking that he/she is the legitimate owner of the white good and provides his consent for its recycling.
2. The owner has the right to authorize some other person, on his behalf, to handover the white good for scrapping.
3. The owner must handover the white goods to the authorized collection cum dismantling centers or to the manufacturers / dealers / distributors having "take back" facilities.

### **c) Other Scraps**

1. The generators of other scrap items, including ferrous, non-ferrous and non-metallic scraps may approach the scrapping centers for their effective and environmentally sound processing.
2. The scrap items should be in the legal possession of its owner, and upon verification of documental evidence by the scrapping centers, the same may be processed by the scrapping centers.
3. Documents similar to COD/proof of scrappage may be issued to the owner after due processing of the scrap.

### **8. Power to amend the Policy**

Notwithstanding anything contained in the foregoing paras, the Ministry of Steel, may amend various aspects of this Policy from time to time depending upon the experience gained during implementation, market dynamics, end user interest etc.

### **9. Conclusion**

The Policy envisages to set up Environmentally Sound Management system for ferrous scrap which can encourage processing & recycling of ferrous scraps through organized and scientific metal scrapping centers across India to minimize dependency on import of scrap and make India self-sufficient in scrap availability. This will also promote resource efficiency in steel sector.

Ministry of Steel or its appointed agency or other designated statutory bodies shall ensure that the policy is implemented in accordance with the state of the art environmental friendly technologies and in compliance with applicable Acts, rules, and regulations.

## 10. Definitions

### 10.1 Aggregators / Collection Centres:

Aggregators /Collection Centers are entities/ individuals/ local scrap dealers/distributers facilitating the collection of end of life vehicles, white goods and other scraps.

### 10.2 Authority

A) **Advisory Authority:** Ministry of Steel or its appointed agency or other designated statutory bodies to be the competent authority to monitor and issue necessary advisory instructions as may be deemed fit to ensure establishment and operation of Dismantling center and Scrap processing Center.

B) **Authorising Authority:** "Authorisation" means permission for, collection, reception, treatment, transport, storage, reuse, recycling recovery and pre-processing in accordance with different laws as enumerated at para 6 of this policy. It shall be given by the Authority as defined under the respective Act .

### 10.3 Certificate of destruction (COD)

On a product being made inoperable at the collection cum dismantling center in an environmentally sound manner, the COD / Proof of scrappage certificate shall be issued by the authorized collection cum dismantling center/ scrap processing centre to the owner, certifying that the product received for dismantling/recycling has been scrapped as per the laid down norms and the guidelines.

### 10.4 Collection Activity

Collection activity is defined as the process of collecting the ELV, white goods and other scraps by the aggregators/ collection centers for the purpose of handover to the scrapping centers.

### 10.5 Collection cum Dismantling Centers/ Dismantling Centre

Centers, who perform collection, depollution and dismantling activities of products for scrapping ( including ELVs, white goods, plant and machineries , structural material etc) and are duly authorized as per authority given in para-1.2

### 10.6 Dismantling Activity

Dismantling activity is defined as the process of inspection of product for likely radiation, stripping down / disassembling the collected product for scrapping (including ELVs, white goods, plant and machineries, structural material etc) for removing hazardous and non-hazardous substances, recovering the reusable, recyclable and waste parts and segregating the same for further processing.

## 10.7 End of Life Vehicles (ELVs)

ELVs includes the following categories: -

- a. Natural ELVs refer to those vehicles that have come to the end-of-life due to wear and tear.
- b. Premature ELVs refer to those vehicles that have come to end-of-life due to unnatural reasons such as an accident, fire, and flood or vandalism damage.
- c. Statutorily declared ELVs.
- d. Voluntarily declared ELVs

## 10.8 Other Scraps

Scrap includes the following categories:

- a. **Home scrap** represents scrap generated at various stages in during the manufacturing of steel/ steel products in the steel plants
- b. **New scrap** (also called **prompt** or industrial scrap) represents scrap generated in the downstream processing during manufacturing, fabrication and making of steel products, such as forming of auto components, white goods, machining, tool and equipment manufacture.
- c. **Old scrap**, also known as **obsolete scrap**, is the steel that has been discarded when steel products (appliances, machinery, buildings, bridges, ships, cans, railway coaches and wagons etc.) have served their useful life. ELVs also falls under this category.

## 10.9 Owner

- a) The 'Legitimate owner' or 'owner' of white goods means the person, who provides a self-certification of the ownership
- b) The 'Legitimate owner' or 'owner' is the person who has the legal possession of the End of Life vehicle.
- c) The 'Legitimate owner' or 'owner' of the miscellaneous products arising out from other sources means the person who has either obtained the material through auctioning or the person having legal rights of ownership
- d) The owner has the right to authorize some other person, on his behalf, to handover the product including end of life vehicles or white goods for scrapping

### **10.10 Processing Centers (PCs) / Facility**

Authorized centers or Processing Centers shall have the same meaning as of "Facility" described in the Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 i.e who perform scrap processing activities of products (including ELVs, white goods, plant and machineries, structural material etc).

### **10.11 Scrap Processing Activity**

Scrap processing activities includes the activities of shredding, shearing, baling, slitting etc. They may also include the activities such as segregation, sorting and bundling and can be independent or common with processing centers

### **10.12 White Goods**

Include household appliances and large electrical goods such as refrigerators, washing machines, Ovens, Air Conditioners, stoves, cookers, etc.

ANNEXURE 1

**The owner submitting their ELV to the Collection Center should have more or less the vehicle aggregates as follows:**

**In the case of M1 category vehicles (passenger cars):**

- 1) Body Shell / Chassis
- 2) Engine
- 3) Transmission
- 4) Front and Rear Axles with wheels & tires
- 5) Battery
- 6) Catalytic Convertor (if fitted)

**In the case of L1 (2-wheeler) and L2 (3 wheeler) category vehicles:**

- 1) Engine
- 2) Transmission
- 3) Front and Rear Axles with wheels & tires

## ACKNOWLEDGEMENT

Sl. No.	Document	Issuing agency
1	Environment ( Protection) Act 1986 (29 of 1986)	Ministry of Environment Forest and Climate Change
2	Hazardous and Other Wastes ( Management and Transboundary Movement) Rules 2016	Ministry of Environment Forest and Climate Change
3	Guidelines for environmentally sound management of End-of-Life Vehicles (ELVs)	Ministry of Environment Forest and Climate Change
4	Concept note: Voluntary Vehicle Fleet Modernization Program(VVMP)	Ministry of Road Transport & Highways
5	Draft Automotive Industry Standard-129/F4	Automotive Research Association of India
6	Directive 2000/53/EC of the European Parliament and of the council	European Parliament
7.	National Steel Policy-2017	Ministry of Steel