Decision of the 65th and 66th Meeting of the Technical Review Committee (TRC) held on 10th July 2018 and 23rd July 2018.

Agenda for the 65th Meeting -10th July 2018

Agenda 1: Clarification with respect to Hazardous and other Wastes (Management & Trans-boundary Movement) Rules, 2016

1.1 Classification of Bio-sludge as non-hazardous- Representation of Dyers Association of Tirupur

As per the representation from Dyers Association of Tirupur (DAOT), the dyeing industry has invested huge fund in establishing Effluent Treatment Plant during the last one decade. Government of India as well as State Government has granted significant subsidies and interest free loans for the purpose of establishing the Common Effluent Treatment Plants and implementation of Zero liquid Discharge (ZLD) system. Every day more than 10 Crore litres of effluent is treated in CETPs and nearly 95% of water is recovered and reused in the manufacturing process after implementation of world's first ZLD system which is invented by Tirupur Dyers. The pollution to the environment is totally arrested besides resulting in substantial amount of water savings. Further salts like sodium Sulphate and Sodium Chloride are recovered and reused in the dyeing process.

In the case of disposal of hazardous wastes generated during effluent treatment, chemical sludge is sent to cement factories for co-processing. Bio sludge is accumulated and stored in CETPs for disposal after getting due authorization from Tamil Nadu Pollution Control Board. One of the CETPs at Tirupurviz Arulpuram CETP has submitted application to CPCB through TNPCB seeking approval for using the Bio sludge as fuel in place of fire wood after converting into Bio Briquettes.

In this connection, the Bio sludge has been analyzed in a private lab called AWE CARE, Erode and pilot study has been conducted for conversion of textile dyeing Bio sludge into compost and vermi-compost. The results have shown that the Bio sludge can be converted into compost/vermi-compost and used as a fertilizer.

Secondly, the CETP has found a way to convert Bio sludge into Bio Briquettes and use as a fuel in their Boiler, as studied by IIT-Madras, Chennai. A report on 'The Feasibility of Biological sludge disposed from Arulpuram CETP by converting to Bio Bricks and use as a fuel' prepared by IIT –Madras, Chennai has also been submitted to CPCB alongwith the application by the Arulpuram CETP. Therefore, Bio sludge, even though it is classified as hazardous waste as per Rules, is a non Hazardous waste and it can be used as a fuel or compost/vermi- compost. Bio-sludge is classified under non-hazardous waste in developed country, Italy and permitted to use as farm manure.

The effluent treatment plants are spending money to dispose of the sludge. If permission is granted to use Bio-sludge as stated above, the waste can be converted into wealth. This will help to reduce the treatment cost of effluent treatment plants. The applicant

has requested to classify the Bio-sludge as Non-hazardous waste and permit to use it as boiler fuel and agricultural manure.

Recommendations: **The Committee noted that bio-sludge per-se is not categorized as hazardous in Schedule I relating to the treatment of waste water. However, since the industry from where this sludge is generated is using some hazardous chemicals, dyes and pigments. It is therefore necessary to ensure that no hazardous constituents are present beyond limits prescribed in Schedule II of the HW Rules, 2016. The Committee therefore suggested that the applicant may get a representative sample of the sludge analysed in NABL accredited laboratory in respect of heavy metals and other relevant hazardous constituents present in chemicals and dyes used in the production process as per Schedule II and also come for presentation/technical discussion.**

1.2 De-listing of iron oxide generated at Kerala Minerals and Metals Ltd.- Representation of Kerala Minerals and Metals Limited

M/s Kerala Minerals and Metals Ltd. (KMML) has stated that their unit is located at Chavara, Kolloam and is a Kerala Govt. undertaking engaged in TiO_2 production from Ilmenite. The company is operating with the valid consent and in compliance with required statutory approvals. KMML generates about 75 tons of Iron Oxide in the Acid Regeneration Plant every day, which is part of the process. The Iron Oxide was stored in the old iron oxide ponds (constructed with three liner system as per the advice of NEERI, Nagpur) up to 2008 till the new Iron Oxide pond was constructed. This Iron Oxide was termed hazardous under the Hazardous Waste Management and Handling Rules prevailing at that time and hence could be stored only in secured land fill or disposed off to authorized end users.

Storage of this material in KMML premises has also attracted some petitions/litigations from the public and other NGOs. The nature of Iron Oxide was also a matter of argument in one of the petitions filed against KMML in the Hon'ble National Green Tribunal (NGT), Chennai in 2013 with respect to the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.

To ascertain the nature and characteristic of the iron oxide with respect to the Hazardous Waste Management & Handling Rules, 2008 KMML engaged National Environmental Engineering Research Institute (NEERI). NEERI had collected samples and studied the material scientifically in detail and submitted their detailed study report in April 2015, stating that none of the wastes generated at KMML, including the iron oxide, is hazardous. Based on the report and further hearings, the NGT has released their judgment in August 2017, concluding that the iron oxide of KMML is not hazardous. Meanwhile, the Hazardous Wastes Rules, 2016 has come into effect in suppression of

Hazardous Wastes Rules, 2008. KMML further engaged NEERI for studying the characteristic of the material according to the Hazardous Waste Rules 2016 and NEERI in March 2018 reported that the material is non-hazardous even as per the 2016 Rules.

About 3.5 Lakhs tons of Iron Oxide is presently stored in the secured ponds constructed with a seven liner system as per the guideline of CPCB. The studies have revealed that this iron oxide has about 90% of Fe_2O_3 and that the only aspect regarding this iron oxide which makes it not acceptable, as far as normal disposal or reuse is concerned, is the slight acidity of the material imparted to it due to the process condition by which it is generated. Hence, by application of suitable technologies for generation or treatment, there is great potential for utilization of this material. KMML has already identified the following technologies/projects through NEERI Nagpur in this regard, which shall be submitted for the approval from the Govt. of Kerala and KSPCB.

1. Production of saleable iron oxide through Process modification.
2. Utilization of iron oxide already generated through value addition.

The KMML has requested for de-listing of the iron oxide from the hazardous waste category.

Recommendations: The Committee noted that iron oxide generated is a process waste and as per Schedule I of HW rules, 2016 item no. 7.2 comes under the category of hazardous waste. But, the applicant has submitted an analysis report by NEERI stating that the material does not contain hazardous constituents beyond the limit prescribed in Schedule II. It was also noted that the issue of its non-hazardous nature has been already decided by an order of NGT in context of HW Rules, 2008 with the proviso that proper care should be taken during its handling and management due to its acidic nature. The Committee was also informed that the earlier NEERI report prepared in 2015 had given different values for the metals which were analysed. The Committee was also informed that the samples were also drawn and analysed by CPCB as well as SPCB in 2015. The Committee also took note of a statement made in the NEERI report that the only aspect 'which makes it not acceptable as far as normal disposal or re-use is concerned is its slight acidity of the material imparted to it due to the process condition by which it is generated. It further states that KMML has already identified the following technologies/projects through NEERI Nagpur in this regard, which shall be submitted for the approval from the Govt. of Kerala and KSPCB.

1. Production of saleable iron oxide through Process modification.
2. Utilization of iron oxide already generated through value addition'.

It is obvious that the material is not usable in the present condition and needs some treatment. The Committee is of the view that it is necessary to obtain details of the proposed treatment scheme. The Committee therefore suggested the following:

i. **To obtain reports of analysis carried out by CPCB and SPCB and earlier reports of NEERI.**
ii. **To invite the applicant for presentation/technical discussion in respect of the proposed treatment and likely end use of the iron oxide.**

1.3 Clarification sought with respect to Carbon lying in the Carbon Ponds is a by-product and not a waste- Representation from M/s National Fertilisers Limited

M/s National Fertilizers Limited, a Public Sector Undertaking under Ministry of Chemicals & Fertilizers is engaged in production and marketing of Urea and other chemicals from its plants located at Nangal (Punjab), Bathinda (Punjab), Panipat (Haryana) and Vijaipur (Madhya Pradesh).

The applicant made the presentation before the Committee and stated that out of the four plants, three plants i.e. Nangal, Bathinda and Panipat were using Fuel Oil (Fa), Low Sulphur Heavy Stock (LSHS) as feedstock for production of Urea till January 2013 in case of Bathinda and Panipat Plants and till April 2013 in Nangal Plant. Thereafter these three plants were revamped and are currently using Natural Gas (NG) as feedstock for production of Urea. Since commencement, NFL's Vijaipur Plant is using Natural Gas as feedstock.

During the course of use of FO/LSHS as feedstock at Nangal, Bathinda and Panipat plants, Carbon Slurry is generated during the process of partial oxidation. About 80% of the generated carbon was re-cycled back to the process in the form of carbon oil while the balance quantity was sent as Carbon Slurry to Carbon Slurry pond. This Carbon Slurry is a by-product and was stored in lined ponds within the factory limits and was sold as Industrial Product. The old stocks of Carbon Slurry is still lying in ponds at Nangal, Bathinda and Panipat plants. It is further informed that there is no generation of Carbon Slurry from Nangal, Bathinda and Panipat plants currently as the Company has started using clean feed (NG).

As per the HW Rules, 2016, the Carbon Slurry is categorized as hazardous waste under category-18.2 of Schedule-I. Prior to the said notification, the State Pollution Control Board earlier was not treating Carbon Slurry as Hazardous Waste instead the same was considered as one of the Industrial Products of NFL. Carbon Slurry so generated in these units was sold to various industries such as Ink manufacturers, Paint manufacturers, re-treated tyres etc. Carbon Slurry was analyzed by IOC and it was seen that it does not contain any material that can be considered to be hazardous in nature.

Following points may be considered so that Carbon slurry lying in ponds can be taken out of ambit of categorization as Hazardous waste:

- The Carbon Slurry lying in the ponds were generated much before (i.e. more than five years) to Notification "Hazardous & Other Wastes (Management & Transboundary Management) Rules, 2016".
- As per report submitted by M/s PDIL, the carbon content in the ponds are varying at different bore hole levels and it indicates presence of a mix of carbon, ash and soil.
- The huge quantity of Carbon Slurry lying in ponds requires substantial time to dispose off.
- The notification issued in April 2016 regarding Carbon Residue as Hazardous Waste has not provided any grace time for disposal of old stock of carbon, whereas the carbonaceous material lying in our carbon ponds is a mixture of carbon, ash, soil and dirt. Thus the disposal of this material cannot be done the way it is indicated in the Standard Operating Procedure issued by CPCB, since it is not in pure form but a mixture. The end user cannot utilize this material in the carbon black production process.

The applicant has requested for onetime relaxation for disposing the Carbon Slurry lying in the plants.

Recommendations: **During presentation the representative of NFL stated that carbon slurry has been generated in the production of ammonia where the feedstock was fuel oil or LSHS. The carbon slurry was then discharged into the pond containing ash from the coal fired boiler. Their submission that it should be considered as a by-product is not sustainable since no by-product can be mixed with a known waste. So far, as its hazardous nature is concerned they have submitted an analysis report with respect to heavy metals for which certain values appear to be higher than the limits in Schedule II of HW Rules, 2016. The limits in Schedule II with respect to heavy metals are based on TCLP test. From the analysis it is not clear how the analysis has been done. Moreover, it is not clear whether the sample taken for analysis is a representative sample. Further, it could not be explained as to how this material would be utilised or disposed off if taken out of the hazardous category. The Committee suggested the following:**

i. Take representative samples and get it analysed for its hazardous nature as per Schedule II of the HW Rules, 2016.

ii. They should come out with a proposal for its utilisation or disposal in an environmentally sound manner.

iii. They should submit quantities of the total material lying in the three ponds of the respective plants.

1.4 Amendment with respect to HW Rules, 2016- Representation from Material Recycling Association of India

The applicant stated that Material Recycling Association of India (MRAI) is the apex National Association, representing the interest of Indian recycling Industry with over 800 Metal Recycling members, including most regional Trade Associations representing over 10,000 companies in MSME and large industry. Their members are engaged in trading of industrial scrap, such as iron scrap, corrugated carton box and paper scrap, wood scrap, etc. they are carrying out trading activity within the country and are not carrying out any import or export of other waste.

As per HW Rules, 2016:

> "other wastes**"** means wastes specified in Part B and Part D of Schedule III for import or export and includes all such waste generated indigenously within the country;

The waste traded by the Members of the Association within the country is Iron scrap:B1010, Paper Scrap: B3020, Wood Scrap: B3050. As per the Rules, these wastes are covered under Part B and Part D of Schedule III, which are applicable for import and export of other wastes. However, the members are carrying out trading activity within country of above scraps which are non-hazardous and covered under other waste for import & export but does not require permission of MOEF&CC or Prior informed consent. Hence, these scrap being valuable raw material should be allowed to be traded by intermediaries for following reasons:-

Metal, paper, wood scrap etc. are not Hazardous waste and has been classified as other waste in said rule and are valuable raw materials for secondary industry. Scrap generating industry cannot sell directly to user industry as they generate these scraps on regular basis in large quantities whereas user industry may not be able to buy directly from generating industry as & when scrap is generated. Hence, role of intermediaries are very important as they buy these scrap from generating industry on regular basis and stock them, process them by sorting, processing, bundling etc. making it ready for user industry and sell it to them as & when required. As these scrap are valuable raw material, it will not be discarded or thrown in open environment which may create soil erosion or air pollution, rather these scrap are used by ultimate end user as their raw material to get maximum output.

For Example: Automakers like Maruti, Toyota, Hyundai, Volkswagen, Tata Motors, Mahindra & Mahindra etc. and various auto ancillary companies generate huge quantity of metal scrap which they sell to intermediaries. Operationally, it's difficult for these companies to sell directly to end users because of the high volume of scrap being generated by them. Therefore, to ensure the smooth functioning of their production, they sell this valuable raw material to many intermediaries who subsequently sell to the manufacturers only. These intermediaries keep stock in transit and sell them as and when required by the melting plants who are manufacturers only. End users are in numbers and are of various sizes. Neither these steel plants and foundries have sufficient funds to buy these raw materials on advance

payment nor they have stock keeping capacity in their plants. That's why they prefer to buy these raw materials from intermediaries and not directly from the scrap generators as it is not at all a workable method for auto makers or their ancillary companies to sell to end users only.

Movement of valuable raw material i.e. metal scrap ensure smooth working of auto and steel production. Intermediaries act as a balancing pillar for the scrap generators and steel producers. In case the configuration changes, it will create a total chaos in supply chain system for all manufacturers and their production would be badly or totally hampered.

Karnataka State Pollution Control Board has issued a memo no. PCB/WMC/2165/PLS/2017/6685 dated 13th March 2018 concerning compliance to the hazardous and other waste as per above Rule which says " handling over of the hazardous and other wastes to the authorized actual user shall be only after making the entry into the passbook of the actual user".

Applicant has requested to consider the metal scrap and other wastes as a valuable raw material and allow the intermediaries in value chain by amending the Rules.

Recommendations: **The representative of MRAI brought to the notice of the Committee the problem faced by the generators of metal scrap and other non-hazardous waste as well as the recyclers, since the scrap recycling business so far has been through intermediaries. As intermediaries are not actual users the generators are not allowed to give it to them as per the HW Rules, 2016. Before the 2016 notification, indigenously produced scrap and other waste like paper etc. did not attract the provisions of the then hazardous waste rules. The applicant pointed out that in case of Karnataka Pollution Control Board, action has been initiated for not following the existing notification. Thus, the recycling of indigenously produced waste is being hampered because of the requirement as given in the Rule 4(3) and 6(8) that the waste can be given only to authorised actual users and after making the entries into the passbook of the actual user. The Committee recommended amendment in the relevant provisions of HW Rules, 2016 so that indigenously produced waste in the category of 'other waste' can be utilised without any procedural hindrance. The actual amendment may be discussed in the forthcoming meeting.**

1.5 Import License for industrial rejects (PVC)-Representation by M/s RMG Polyvinyl India Limited

RMG Polyvinyl India Limited are manufacturers of PVC flooring, PVC Sheet Film, PVC Leather cloth etc. Their requirement for importing Industrial rejects of PVC is to reduce production cost of PVC floorings by using Recycled PVC materials in the middle & bottom layers of PVC floorings without affecting the quality and without adding any extra pollution

in the environment. RMG intends to import PVC industrial surplus/rejects/side-trimmings from Europe & USA. It will consist of clean rejected material derived from factories producing PVC floorings, PVC films, PVC leather, PVC compounds and rejects/ side–trimmings manufacturers of PVC stationery articles/PVC table cover & shower curtains/PVC wood deco furniture film, etc. Such material will be rich in PVC raw materials and will be directly used in RMG's production process. There will be no need to wash & clean the material thereby eliminating any chances of generating effluent.

Such industrial rejects are costing up to 500 US$ per MT as compared to PVC resin which is costing 1000 US$ per MT which will be beneficial to the PVC Flooring & PVC film industry which is facing strong competition from cheap imports in view of shortage of PVC resin in India and despite that, a heavy Anti-dumping Duty (ADD) from nearly all sources in the world.

The applicant has submitted the following justification for allowing them the import of Industrial Rejects (PVC):

1. Use of plastics/ PVC is said to add to pollution but if Plastic/PVC production is not there, then natural resources will be depleted in a big way to fulfil the requirements of consumers. Some examples are:
    a. PVC Wood grain film-wood or wood veneer would be used.
    b. PVC floorings-Granite /Stone/ Wooden Parquet would be used.
    c. PVC Water proofing membranes-either natural rubber/cement or hazardous water-proofing chemicals would be used.
    d. PVC leather-either genuine leather or cotton fabrics would be used.
    e. PVC pipes-Metal or Cement pipes.
2. Consumption of PVC resin is 2.25 Million Tonnes per annum in India as compared to production of 1.25 Million tonnes only, i.e. production is 50% only.
3. Imports are inevitable and imports of PVC resin is freely allowed, albeit that a heavy Anti-Dumping Duty was imposed in 2014 leading to throttling of growth in PVC processing units in India.
4. Only two big manufacturers supplying PVC to India were not covered under ADD, namely Formosa Taiwan and LG Korea. They are offering higher prices to India in comparison to offers made by them to other countries including Pakistan, Bangladesh, Sri Lanka. For Indian Market other resin suppliers cannot compete with them so they charge a premium. This leaves the Indian PVC processing industry at a disadvantage to cheaper imports of finished products from Thailand, China, Korea, etc. and also from some European countries.
5. 75% consumption of PVC resin is for PVC pipes which go for agricultural or construction uses. Since the pipes are hollow in nature and cannot be imported, the price increase is easily passed on to the farmers/consumers. However, the remaining 25% industry has to compete with cheap imports.
6. PVC resin is used for PVC floorings & PVC water proofing membranes. Typically these applications are for a very long time and it is "end of life cycle" application. European countries and also countries like Thailand, Korea &China are consuming

high quantity of recycled PVC material in these applications. This helps in consumption of waste PVC and also reduces the costs dramatically.

7. In India, due to consumer behaviour, clean scrap is not available for use in PVC floorings or PVC membranes. So the Indian industry is at a disadvantage.
8. If Indian manufacturers are allowed to import Industrial rejects of PVC for reprocessing and reuse in PVC floorings and PVC membranes, they can benefit in the following ways:

   A. Save valuable Foreign exchange by not importing expensive virgin raw materials and instead import clean reprocess able PVC industrial rejects which are much cheaper in comparison.

   B. There are huge imports of PVC floorings & PVC membranes into India as the domestic industry cannot compete. Cheaper raw material costs for domestic industry retard import of finished goods and demand will be met with domestic production.

   C. Growth in domestic industry will encourage employment and contribute to additional tax collections by the Government.

Government already allows import of:

i) Waste Paper under DGFT Policy Circular no. 88(RE-08)/2004-09 dt.06.05.2009.

ii) Metal Scrap as per Commissioner of Customs, NS-III Nhavasheva Public notice no. 147/2016 DTD. 09.11.2016.

Similarly PVC waste/Industrial rejects should also be allowed for recycling and re-use.

Industrial Rejects (PVC) could be-

a) Waste in the form of side trimmings and rejections due to quality problem originated during production/QC.
b) Waste from pre-finishing stage from any process like-Extrusion/Injection moulding/Calendering/Spread coating etc.
c) Finished material rejected in any product manufacturing company due to non-compliance of product specifications and could not be dispatched to the customer.

The applicant has received several offers for the above industrial rejects from some suppliers in Europe and USA. These scraps are neat & clean in nature as they are collected from factories where they are produced and there is no chance of any contamination. If import of such scrap is allowed which replaces virgin raw materials and after using it, the Indian manufacturer also becomes competitive in comparison to imported materials which are flooding the market then this shall boost the growth of Indian industry and would

definitely encourage the "make in India" programme in this field. The Ministry has been requested to grant the import license for import of 500 MT of PVC Industrial rejects.

The matter has been deliberated upon in the 64th Meeting of the Technical Review Committee held on 6th April 2018. The Committee recommended calling the applicant for presentation/technical discussion to understand the case. In the present meeting applicant presented the case.

Recommendations: The representative of RMG Polyvinyl India limited made a presentation and justified import of industrial rejects of PVC(pre-consumer) which could bring down the cost of PVC products like floorings etc. and without any additional impact on the environment. The Committee deliberated on the issue and made the following observations:

i. **Solid plastic waste (B 3010 of Schedule III) is included in Schedule VI of prohibited items for import. However PVC which is a halogenated polymer for some reason is not included in Schedule VI under B 3010.**
ii. **During presentation the applicant's representative could not explain the method of identifying industrial rejects from post-consumer PVC waste. Thus the possibility of post-consumer PVC waste being mixed with industrial waste cannot be ruled out.**
iii. **Going by the logic that many plastic waste including non-halogenated polymer wastes which have relatively lower environmental impact are included in Schedule VI (banned category), there is no justification for allowing import of PVC waste.**

The Committee therefore did not recommend the import.

Agenda for the 66th Meeting -23rd July 2018

Agenda 1: Clarification with respect to Hazardous and other Wastes (Management & Trans-boundary Movement) Rules, 2016

1.1 Review of Spent Alumina Catalyst as a Hazardous Waste Classified in Schedule -1- Representation from Indian Oil Corporation Limited. (F.No. 23-191/2013-HSMD).

The matter pertains to review of categorizing spent alumina generated by Panipat Naphtha Cracker complex of Indian oil Corporation Limited as non-hazardous waste.

The matter was considered during the 34th Meeting of TRC held on 10th December 2014. The Committee recommended that Central Pollution Control Board (CPCB)

may be requested to draw samples (one sample of material lying accumulated and another sample of freshly removed spent catalyst) and analyze for Cyanide, PAH and heavy metals. Thereafter the matter will be reconsidered. After the receipt of analysis report of Spent alumina samples collected from Naphtha Cracker Unit, Panipat Refinery of Indian Oil Corporation from Central Pollution Control Board (CPCB), the matter was re-considered in the 38th meeting of the TRC held on 23rd July 2015, wherein the decision on the matter was deferred by the Ministry due to a pending court matter in the NGT as O.A. no. 284 of 2015 in the matter of Jugal Kishore vs Union of India. The petition referred the Spent Alumina being generated by Panipat Refinery as hazardous in nature and had accordingly, had requested the Hon'ble court to direct the respond to comply with the provision of Hazardous Waste Rules, 2008.

The Committee reviewed the matter in line with above available information in the 39th Meeting of the Technical Review Committee held on 16th September 2015. The Committee re-examined the issue especially in the light of revised Schedule II of the draft Hazardous and Other Waste (Management and Trans-boundary) Rules, 2015. The Committee observed that there is variation in the limits of the concentration of some of the constituents (leachable or otherwise) between the existing schedule II and the one under the draft Rules. Further, it was also noted that the sampling procedure adopted by CPCB with respect to analysis of the samples from the unit was not adequate enough to give statistically sound results, thus leaving the scope of uncertainty with respect to the interpretations of the results. Thus concluding anything on the basis of those results will be a deviation from precautionary approach that is a paramount while taking such decisions. In view of this and as a matter of abundant precaution the following was proposed:

i. Fresh samples from the accumulated spent alumina waste should be drawn from different locations and depth of the heap and each sample should be analysed separately to obtain the range of constituents. The samples should be drawn as per the standard sampling procedure.

ii. In addition to the parameters analysed by CPCB earlier, the parameters such as phenol and benzene also should be analysed.

iii. To compare these results from the heap, the currently generated spent alumina waste should also be subjected to sampling and analysis and for the same parameters.

The matter will be reconsidered after receipt of the results from CPCB.

The applicant has now submitted the test reports by a laboratory Shriram Institute of Industrial Research and claims that all parameters were found below threshold limits. Further they have mentioned that a team of CPCB has visited Panipat Refinery on 08.12.2016 and samples were collected for further testing and analysis. Now, they have requested to review the report and de-categorize "Spent Alumina Catalyst" as non-hazardous waste.

Recommendations: In an earlier meeting, Committee had recommended that samples have to be drawn and analysed by CPCB before the matter is considered further. Since, the report from CPCB has not been received the matter was deferred.

1.2 Request to regulate import of glass wastes in dispersible form-Representation of M/s Somany Enterprises (F.No. 23-117/2016-HSMD)

As per Hazardous and other wastes (Management & Trans-boundary Movement) Rules, 2016, import of B2020-Glass wastes in non-dispersible form: Cullet and other waste and scrap of glass except for glass from cathode-ray tubes and other activated glasses is regulated under Schedule III, part B and therefore its import/export requires permission of the Ministry.

The applicant in its communication mentioned that import of broken glass is being done by various importers from Nepal and none of them have taken permission from Ministry of Environment, Forest & Climate Change. The applicant has also made representation to the Customs but they were of the opinion that Cullet/broken glass does not require any permission from MoEF&CC and this is why Cullet/Broken Glass is allowed to be freely imported. Customs Department, Lucknow in their communication dated 8.01.2018 has stated the HW Rules, 2016 as mentioned in para 2, stating that import of "Glass waste in non-dispersible form" is regulated by MoEF&CC. At Land Customs Station Sonauli import of "Glass Wastes in dispersible form" is being allowed after getting it tested from laboratory.

Ministry's intervention has been sought to curb on all such unauthorised imports by the applicant.

Recommendations: During presentation, the applicant from Somany Enterprises brought to the notice of the Committee that one of the Land Customs Station Sonauli, has allowed waste glass without permission of MoEF&CC from Nepal in March, 2018, based on an analysis report from the Centre for Development of Glass Industry. The report from the centre has stated that "based on chemical analysis of broken glass and that it is dispersible during recycling process, it is does not fall under B 2020 of schedule 3B, therefore it is not regulated". The committee clarified that the interpretation of the word "Dispersible" has not been properly understood. Elsewhere in the Schedule III, Part B, item B 1031(dispersible form has been clearly defined to mean powder form.) Intent of inserting the word "Non-Dispersible" is that material in dispersible form (powder) is not permissible in any case even for waste for

which MoEF&CC permission is not required, it's Non-Hazardous nature in terms of characteristics given in Schedule 3 C has to be determined as per rule 12 (8). The Committee suggested that, it may be clarify that broken glass in any form is regulated in terms of Schedule III, Part B, item B2020, provided it is not from cathode ray tubes and other activated glasses.

1.3 Promotion of Indigenization and export of electronics-Representation of Ministry of Electronics and Information Technology

The following proposal was submitted by MeitY for the concurrence of MoEF&CC:

"The indigenously manufactured electronic goods, when re-imported into India for repair and re-conditioning within seven years from the date of exportation should be exempted from Basic Customs Duty (BCD), subject to the condition that the goods are re-exported back after repair and reconditioning within one year of the date of re-importation."

As per Schedule III, Part D, Basel No. B1110 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, used electrical and electronic assemblies imported for repair are to be re-exported back after repair within one year of import. However, import is permitted in the country only to the actual users from Original Equipment Manufacturers (OEM) and subject to verification of documents specified in Schedule VIII of these rules by Customs Authority. Now, in case of indigenously manufactured electronic goods, the OEM will be based in India and therefore, we may amend the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 such that indigenously manufactured electronic goods may be allowed to be imported by Indian OEMs for repair and re-condition.

The proposal of MeitY has been concurred by MOEFCC vide letter dated 18th June 2018.

Recommendations: In Schedule III, Part D, item B1110-Electrical and electronic assemblies destined for direct reuse in the Notes below the table under "*" it is stated that import permitted in the country only to be actual user from Original Equipment Manufacturers (OEM) and subject to verification of documents specified in Schedule VIII of these rules by the Custom Authority. Based on the Committee's experience it has been found that large numbers of used items for reuse are coming from actual users and principals of companies having their subsidiary in India and not necessarily from OEM. Committee therefore, recommends that the word "OEM" may be deleted from the**

Note where "*" are defined. This will also take care of the issue raised by MeitY.**

1.4 C*larification/amendments in the Hazardous and Other Wastes (Management and Transboundary) Rules, 2016 – Representation from M/s ACC Cement Ltd.*

The applicant stated that as per Rule 18(4), 18(5), 18 (6) and 18 (7) of the HOWM Rules 2016, interstate movement of hazardous & other wastes for co-processing or recycling can be implemented by the waste receiver or by the waste sender having the necessary transport authorisation from the concerned SPCB. The waste sender requires to provide prior intimation to the SPCBs of both the states and also to the SPCBs of the states in transit.

Applicant requested that following clarifications may be provided further on this matter to facilitate ease in undertaking this interstate movement for the sustainable management of Hazardous and other wastes through co-processing or recycling.

1. In case transportation is undertaken by the waste receiver, then waste receiver must have transport authorisation included its hazardous waste authorisation granted by the SPCB of the state in which waste is being received for co-processing or recycling. Waste sender must send intimation to the SPCBs of (a) state from which the waste is being collected, (b) to which it is being send and (c) also to SPCBs of the States that are in transit.

2. In case transportation is undertaken by the waste sender, then waste sender must have transport authorisation included its hazardous waste authorisation granted by the SPCB of the state from which waste is being sent for co-processing or recycling. Waste sender must send intimation to the SPCBs of (a) state from which the waste is being collected, (b) to which it is being send and (c) also to SPCBs of the States that are in transit.

Recommendation: The committee observed that, the procedure for interstate movement of Hazardous waste is well defined in the HWM Rule, 2016, under Rule 18. As per the Rule, authorization is required from the State board of the generator/sender and from the State Board of the recycler/receiver. To the SPCBs of the State/s through which the material is transiting are only required to be intimated. This position may be clarified to all SPCBs/PCCs.

1.5 *Proposal from CPCB for clarification/amendments in the Hazardous and Other Wastes (Management and Transboundary) Rules, 2016.*

Amendments in the said Rules for effective implementation:

(1) Waiving off requirement of copy of Consent to Operate under Water (Prevention and Control of Pollution) Act, 1974 Air (Prevention and Control of Pollution) Act, 1981 in certain cases for obtaining authorization under the HOWM Rules, 2016

Rule (6) of the HOWM, Rules, lays down provisions for obtaining authorization from the SPCB for generation, storage, transportation, recycling, utilization, co-processing, offering for sale, transfer or disposal of the hazardous and other wastes by making an application in Form 1. Such application for authorization shall be accompanied with a copy each of the following documents, namely:

a. Consent to establish granted by the State Pollution Control Board under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 (21 of 1981);

b. Consent to operate granted by the State Pollution Control Board under the Water (Prevention and Control of Pollution) Act, 1974 and/or the Air (Prevention and Control of Pollution) Act, 1981 (21 of 1981);

The Consent to Operate is applicable only for Red, Orange and Green categories of industries and units falling under White category mainly engaged in assembling activities are exempted to obtain Consent to Operate from SPCB/PCC in accordance with directions dated March 07, 2016, issued by Central Pollution Control Board to all SPCBs/PCCs under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control, of Pollution) Act, 1981. However, units other than Red, Orange and Green Categories and White category units may generate hazardous wastes such as used oil, waste oil, empty barrels/container/liners contaminated with hazardous chemicals/wastes, contaminated cotton rags or other cleaning materials etc. and thus require to obtain authorization under the said Rules. In view of the above, units other than Red, Orange and Green categories may be exempted for requirement of the consent to establish/consent to operate while making application for grant of authorization to SPCB/PCC by bringing amendments in Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016

(2) Clarity in requirement of authorization (from one of the SPCB/PCC and not from all the concerned SPCBs/PCCs) for Inter-state transportation of recyclable/utilizable hazardous wastes.

Rule (6) of the HOWM, Rules, lays down provisions for obtaining authorization from the SPCB for transportation also besides handling, collection, treatment, disposal, recycling, etc. of hazardous wastes. As per Rule 18(3) of the HoWM Rules, 2016 "No Objection Certificate" is required from both the SPCBs in case of transportation of hazardous waste for final disposal to the facilities existing in other States.

As a result, some SPCBs/PCCs are also insisting for authorization from their SPCB for transportation of hazardous waste collected from the units existing in their States by recycler/utilizer having their recycling/utilizing unit in other State despite having authorization for transportation from their own SPCB.

Therefore, the following may be added in the Rule 18 of the HOWM Rules, 2016:

"In case the recycler/utilizer/co-processor possess authorization for transportation of hazardous or other wastes from the SPCB/PCC where their recycling/utilizing/co-processing unit is located, authorization from other SPCBs is not required for transportation of hazardous waste from the other State to their facility for utilization/recycling "

(3) Exemption of authorization requirement for small generators of hazardous and other wastes.

There are certain hazardous wastes which are generated in small quantity by large number of set ups such as used oil generated from residential apartments/shops using DG sets, contaminated cotton rags or other cleaning materials from lathe machine operators/vehicle workshop/ mechanics, etc. As per the existing provisions of the HOWM Rules, 2016, such small generators too require to obtain authorization from the SPCB/PCC. Enforcing such provisions and monitoring of the same may be difficult for SPCBs/PCCs. However, such small generators are required to hand over their wastes to authorized disposal facility operators/recyclers/utilizers/pre-processors. Therefore, applicability of requirement of authorization by SPCBs/PCCs in terms or quantity of hazardous and other wastes generation may be considered as suggested in para (4) below.

(4) Inclusion of provision for intermediate storage of recyclable/utilizable/disposable hazardous and other wastes.

There are small generators for various recyclable/utilizable hazardous wastes such as used oil, paint and ink sludge, spent fixer (Hypo) solution from photography/X-ray films, etc. Authorized recyclers/utilizers may find difficulty in collecting small quantity of such hazardous wastes from the door steps of such small generators located in remote towns/places on regular basis.

Provisions for collecting such wastes by intermediate waste storage (lWS) operators for handing over the same to authorized utilizers/recyclers/disposal facility operators may be included in the HOWM Rules, 2016. However, such IWS operators shall not participate in auction of recycling/utilization/disposal of hazardous and other waste and collection, transportation and storage of hazardous and other wastes by them may be restricted only from small generators whose waste generation does not exceed as below:

a. 100 Litre/Month in case of used/waste oil only 11.
b. 50 kg/Annum for combined generation of commonly hazardous waste viz. oil filters, oily sludge from lathe machine and contaminated cotton rags.
c. 5 Nos. /Month of empty barrels/containers/liners contaminated with hazardous chemicals/wastes.

The small generators, meeting the above requirement may not need to apply or obtain authorization from the concerned SPCBs/PCCs. However, provisions of authorization, record maintenance, annual return submission, etc. as stipulated under the HOWM Rules, may be applicable to such intermediate waste storage operators. The above provision is applicable

only for the small generators of used/waste oil, oil filters, oily sludge from lathe machine, contaminated cotton rags and empty barrels/containers/liners contaminated with hazardous chemicals/wastes. In case, the generator generates hazardous waste other than the waste specified above. Such generators are required to obtain authorization from the concerned SPCBs/PCCs in accordance with the provisions of HOWM Rules, 2016.

(5) Inclusion of additional information in forms prescribed under the HOWM Rules, 2016

The Rule 16(3) lays down the responsibility of the operator of common facility and captive facility for safe and environmentally sound operation of the facility and its closure and post closure phase, as per the guidelines or standard operating procedures issued by Central Pollution Control Board from time to time.

The same shall be as per the guidelines or standard operating procedures issued by Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.

(6) Inclusion of additional information in forms prescribed under the HOWM Rules, 2016

(A) Form-3: For maintaining daily records of hazardous waste;

(i) The quantity of products recovered by utilizing/recycling hazardous waste and address of the party to whom such products have been sold may also be incorporated.

(ii) The quantity of the hazardous waste send for pre-processing/co-processing (by the operator of TSDF) and address of the party to whom the same have been sold may also be incorporated in the last column (as below) of the table prescribed in Form 3

Date	**Type of waste with category as per Schedules I, II and III of these rules**	**Total quantity (Metric Tonnes)**	**Method of Storage**	**Destined to or received from**

(B) Form-4: For filing annual returns. The details for interstate transportation of hazardous waste may also be incorporated.

C) Form-5: The packaging type, UN class and H number as mentioned in HWM Rules, 2008 may also be incorporated.

Recommendations:

1. Representative from CPCB explained that generators of Hazardous waste under White Category of Industries do not required consent under Air and

Water Act, as a pollution potential is not significant, therefore, authorization by such units should not be required. The Committee agreed to their suggestion and recommended for amendment in Rules 6A and 6B as follows:

(a) consent to establish granted by the State Pollution Control Board under the Water (Prevention and Control of Pollution) Act, 1974 (25 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981 (21 of 1981), ***wherever applicable;***
(b) consent to operate granted by the State Pollution Control Board under the Water (Prevention and Control of Pollution) Act, 1974 (25 of 1974) and/or the Air (Prevention and Control of Pollution) Act, 1981 (21 of 1981), ***wherever applicable;***

2. The committee observed that, the procedure for interstate movement of Hazardous waste is well defined in the HWM Rule, 2016, under Rule 18. As per the Rule, authorization is required from the state board of the generator/sender and from the State Board of the recycler/receiver. To the SPCBs of the State/s through which the material is transiting are only required to be intimated. This position may be clarified to all SPCBs/PCCs.

3,4,5&6 Since the matters are interrelated with above issues as well; matter has to be discussed in totality with CPCB, the matter has been deferred to the next meeting, some representatives from SPCBs dealing with hazardous waste management should also be invited. The Committee is also of the view that ***the "other waste" the way it has been defined in the rules encompasses all types of waste even if they are non-hazardous and they are regulated for the purpose of generation, handling, collection, storage, transportation, disposal etc. and it is affecting the indigenous waste generated for utilisation and recycling. The definition of the other waste need to be re-looked in line of the Basel convention for trans-boundary movement and disposal. In the next meeting, all the requisite amendments may be discussed and final amendments to be made shall be recommended.***

1.6 Medical Device issues with respect to Hazardous and Other Wastes (Management and Trans-boundary Movement) rules, 2015 & Amendment Rules, 2016 and Ageing restrictions for re-importation under 52/03 customs notification for repair and return- Representation from M/s GE BE Private Limited

GEBE Private limited is a JV between General Electric Company, USA and the PSU Bharat Electronics Limited. The company was incorporated in 1996 as a 100% Export Oriented Unit in Bengaluru under the jurisdiction of Cochin Special Economic Zone. They are engaged in the manufacture of sub-systems for medical diagnostic imaging equipment's which are exported to customers worldwide- Singapore, China, Japan, USA, France, Mexico & Israel. The products include X-ray tubes, High Voltage Tanks & High Voltage X-ray Generators.

The company has state of the art manufacturing facility with latest equipment's and high-quality processes. The manufacturing is carried out under global quality standards and the products meet FDA, UL, CE& MHW regulations. There is no end customer sale involved in this process and all these transactions are with overseas affiliates.

During the process of final configuration and assembly activities, there are rejections experienced due to Quality issues despite best efforts to maintain high standards. These devices, subsystems and parts are returned to respective India manufacturing sites from respective affiliates for investigation, repairs and to drive Quality improvement actions.

Under Schedule III D of Hazardous Waste Management Rules 2016, the defective imports of Indian Origin Exported goods are treated as "Other Waste" with a Basel Convention number B1110. Warranting stringent paperwork from overseas exporter for returning the defective Indian origin products is adversely impacting Indian Government's grand vision of Make in India initiative and skill development program. Most of the countries allow such imports freely with stringent local disposal guidelines. Hence, we seek trade facilitation to import the above category as normal imports under one-time self-declaration (being status holder EOU).

Further, the ageing restriction imposed by the Customs notification 52/03 dated 31-3-2003 (as amended) is a deterrent to their EOU/EHTP operations. They are unable to re-import their exported products for repair which are more than three years old. This is primarily due to the restriction imposed by 52/03 Customs notification.

Medical equipment is capital intensive and last several years up to 15 years depending on the type of equipment. It is incumbent on the manufacturer of the medical device to support the upkeep of the equipment through supply of parts & troubleshooting failures. The parts that get into the medical equipment are amenable for repair. There are repair centers world over which do these services, robbing the Indian companies, the rightful manufacturers, of the opportunity, leading to reduced business and loss of competitiveness.

As manufacturers, they also have the responsibility to constantly improve the quality of parts and the reliability of the overall system. Integral to this exercise is the engineering testing & evaluation of the failed parts to understand the failure modes and drive corrective & preventive actions. Not having the option to import failed parts for analysis leads to lost opportunity for learning from field experience, and finally, loss of competitiveness.

As manufacturers, they also have the responsibility to constantly improve the quality of parts and the reliability of the overall system. Integral to this exercise is the engineering testing & evaluation of the failed parts to understand the failure modes and drive corrective & preventive actions. Not having the option to import failed parts for analysis leads to lost opportunity for learning from field experience, and finally, loss of competitiveness.

This restriction is impeding their manufacturing expansion program _ overseas affiliates are reluctant to transfer new products to India as they perceive it as lack of

ownership from Indian manufacturers for product quality and repair obligations. It is eroding credibility of Indian manufacturing industry in the eyes of global customers.

Ministry has been requested for relaxation of related provisions of the HW Rules, 2016 allowing them to import Indian origin exported products for repair & return without any ageing restrictions.

Recommendations: The Committee recommended that as suggested in agenda 1.3 (page 262N/ante) Schedule III, Part D, item B1110-Electrical and electronic assemblies destined for direct reuse in the Notes below the table under "*" it is stated that import permitted in the country only to be actual user from Original Equipment Manufacturers (OEM) and subject to verification of documents specified in Schedule VIII of these rules by the Custom Authority. Based on the Committee's experience it has been found that large numbers of used items for reuse are coming from actual users and principals of companies having their subsidiary in India and not necessarily from OEM. Committee therefore, recommends that the word "OEM" may be deleted from the Note where "***" are defined.**

Further, the Committee observed that in HWM Rules, 2016, there is no age restriction on import of Indian Origin Exported electronic products for import and re-export after repair. It appears that such age restriction is imposed by the Customs Authority. Therefore, the applicant should approach the Concerned Authority.

Agenda 2: Clarification/Amendment with respect to E-waste (Management) Rules, 2016

2.1 EPR Requirement is for Dead End Product or for product discarded by the user at the end of life- Representation from Indian Cartridge Remanufacturers and Recyclers (ICRRA)

The Association of Indian Cartridge Remanufacturers & Recyclers have the membership of more than 2,00,000 re-fillers, which spread throughout India, their main job is to refill the Toner Cartridge of Printer. Refilling of 50,00,000 cartridges are done per month. Every time when the cartridge is refilled for Toner, Opc Drum, Pcr, Mag Roller & Blades are changed to make the cartridge fresh. All the Drum ,Pcr Mag Roller & Blades are changed to make the cartridge fresh. All the above parts are mechanical in nature. In toner Cartridges, there are many cartridges including both with chip and without chip. These chips are required for counting the pages.

ICRRA has mentioned that as per the circular, Implementation Guidelines for E-waste (Management) Rule, 2016, the life of the cartridge is given 10 years only at the dead end of the cartridge. Under EPR guidelines, ICRRA have to collect the same by the time the re-filler would have done minimum 30-40 times refilling. By that time, all the parts would have been changed 30 times. The guidelines for E-waste management Rule, 2016 do not speak anything about the parts and components. Since, all these parts have no circuit, no cathode tube and are mechanical in nature, how it has become e-waste. Toner Cartridge is E-waste, which becomes dead end after 10 years.

Schedule 1 of E-Waste (Management) Rules, 2016 covers categories of electrical and electronic equipment including their components, consumables parts for which import has not been allowed without EPR Authorisation. But as per Chapter-II, Responsibilities of E-waste (Management) Rules, 2016, the import of electronic and electrical equipment shall be allowed only to producers having Extended Producer Responsibility authorisation, because it does not speak of parts and consumables. Clarification is sought on the fact that whether EPR is applicable for equipment only or not.

India does not manufacture these parts and all parts are imported from China and Korea, with this implication there will be a shortage of material or no material for the re-filler segment, because for obtaining the authorisation a period of four months is required. The clarification sought is that when the authorisations of parts are not required why they are included in the Schedule-1. It should be deleted from the list of requirement for cartridges i.e. all the parts and consumables of toner cartridge.

Recommendations: The Committee suggested that the representative from the Association should be invited and representative from CPCB should also be present for discussion.