

Decision of the 63rd meeting of the Technical Review Committee (TRC) held on 21st July 2017

Agenda 1.1: O.A. no 471 of 2016-People for Onward Research Nutrition vs. MoEF& CC & Ors. Before the Hon'ble NGT, Delhi

The matter pertains to a NGT matter on O.A. no 471 of 2016-People for Onward Research Nutrition vs. MoEFCC & Ors. before the Hon'ble NGT, Delhi with regard to clarification on handling of pet coke and use of pet coke as an industrial fuel.

People for Education Research Scholarship & Outward is a society registered under Societies Registration Act, 1860 has filed this application mainly seeking certain restrictions on handling of pet coke and use of pet coke as an industrial fuel.

The applicant has submitted that petroleum coke (often called as pet coke) is a carbonaceous solid delivered from oil refinery coker units or other cracker processes. This pet coke can be fuel grade (low in sulphur and metals). Pet coke has over 90% carbon content and consequently has higher energy, and therefore, pet coke burning emits between 30 to 40% more CO₂ than coal, per unit of weight. According to the applicant, burning of the pet coke poses a significant health risk due to emissions of high concentration of various air pollutants. Applicant alleges that the petroleum industry classifies the pet coke as a refinery by-product which allows it to be excluded from the rigours of various environmental regulations, completely ignoring its dangerous health effects when used as industrial fuel.

The applicant has further submitted that pet coke being available in abundant quantity due to its significant generation in the Indian refineries, is comparatively cheaper than the coal and also, has an advantage of very high calorific value. It is easy to handle it for use as a fuel. Pet coke is therefore, increasingly being used illegally without specific permission of the Pollution Control Boards in various industries, particularly, the cement industry, textile, steel, and other industries. Besides the metal compounds present in the coke, the heavy emissions of SO₂, is adding to the pollution problems particularly, the adverse effects of SO₂ as well as release of dust containing the metal compounds.

Respondent-1, Ministry of Environment, Forest and Climate Change (MoEFCC) has filed an affidavit dated 24th December, 2016 and submitted that they have notified source specific standards for emissions and discharge of environmental pollutants from certain categories of industries, operations and processes, besides the National Ambient Air Quality Standards (NAAQS) from time to time. MoEFCC has also submitted that the emission standards for cement plants have been notified on 25th August, 2014 which inter-alia stipulate that the norms shall be applicable even if pet coke is mixed with coal and used for clinker making; provided it has been notified as "an approved fuel" by the concerned State Pollution Control Board/Pollution Control Committee.

Respondent No. 2, CPCB had filed an affidavit on 20th October, 2016 and submitted that specific standards for industries have been notified by MoEF for various air pollutants including PM, SO_x and NO_x. CPCB, however, recorded its concern on emissions of SO_x, as pet coke has high sulphur content, as compared to coal. Therefore, it had been submitted that efficient sulphur recovery is essential. CPCB had further submitted that petroleum coke can either be fuel grade or anode grade. The raw petroleum coke coming

directly out of coker is referred to as 'green coke' which is generally used as industrial fuel. The affidavit filed by CPCB does not dispute the alleged ill effects of SO₂ as a gaseous pollutant and its adverse health impacts.

The applicant has alleged that pet coke has significant metal concentrations, but neither CPCB nor MoEF have responded to this specific allegation by referring to any particular range of concentrations of such metals. But at the same time, reference has been made by CPCB about the presence of the heavy metal in pet coke, in various paragraphs of the affidavit. In view of the high sulphur content and presence of heavy metals in pet coke, it would be utmost essential to apply the precautionary principle in the present case.

In view of the above, MoEF has been directed by NGT to take a decision on classification of pet coke whether it is hazardous waste or not in view of the provisions of the Hazardous Waste Management Rules, 2016 and issue necessary notification/clarification in this regard within a period of 2 months.

Decision: *The Committee deliberated on the issue raised in the NGT order whether Pet Coke is a hazardous waste under the HW Rules, 2016 or not. The Committee comments in respect of Pet Coke are as follows:*

- i. Petroleum coke (pet coke) is generated in refineries where crude oil is processed and various petroleum products including pet coke are produced.*
- ii. In HW Rules, 2016, Schedule I which give the list of processes generating hazardous waste. Item no. 4 in that list covers petroleum refining or re-processing of used oil for recycling of waste oil. Under the Hazardous waste generated in these processes items 4.1, 4.2 and 4.3 relate to petroleum refining whereas 4.4. and 4.5 relate to re-processing of used oil or recycling of waste oil. There is no mention of petroleum coke as one of the hazardous waste.*
- iii. Petroleum coke is considered as one of the products of crude oil refining in India and other countries and it has been covered under BIS specifications since 1977 (IS:8502).*

Considering all the above, the Committee is of the view that Pet Coke is not a hazardous waste but a product of petroleum refining.

**Agenda 1.2 and 1.3: Categorization of sulphuric acid as a by-product rather than as a hazardous waste- representation by M/s Nirma Limited
&
Utilisation of Spent sulphuric Acid in the manufacture of Single Super Phosphate -Representation by M/s Laxmi Agro Industrial Consultants & Exporters Ltd.**

The matter with regard to Categorization of sulphuric acid as a by-product rather than as a hazardous waste, a representation by M/s Nirma Limited has been deliberated upon in the 58th Meeting of the Technical Review Committee.

The applicant had earlier submitted that they are having their Synthetic Detergent & Single Super Phosphate (SSP) manufacturing facility at Moraiya, Ta. Sanand, Dist. Ahmedabad, Gujarat. Sulphuric Acid (80%) is generated from the unit as well as other units of Nirma Ltd. along with its sister industries, is as such used as a raw material in manufacturing of SSP. While manufacturing the synthetic detergent sulphuric acid ranging 80-86% is generated and is as such reused as a raw material for manufacturing of SSP. Production of synthetic detergent is mainly done in two steps viz Acid slurry preparation and Synthetic detergent powder preparation.

- i. Production of acid slurry is done by sulfonation of linear alkyl benzene (LAB) with 22% Oleum and sulphuric acid and circulation of cooling water. When sulphonation is completed after five to six hours, the charge is allowed to settle and lower layer which is composed of sulphuric acid is separated and further as such utilized in manufacturing of SSP.



- ii. Acid slurry is further neutralized with soda ash and sodium salt of LAB to obtain standard synthetic detergent powder.



Sulphuric acid generated from the process is considered as D2 category waste of Schedule II under the Hazardous Waste, Rules, 2008 and Rule 11 of the said Rules which is presently considered as Rule 9 as per the HW rules, 2016. Utilization of such waste can be possible after getting permission from CPCB.

However the definition of “Hazardous Waste” in the HW Rules, 2016 is provided as “Hazardous Waste means any waste which by reason of characteristics such as physical, chemical, biological, reactive, toxic, flammable, explosive or corrosive causes danger is likely to cause danger to health or environment, whether alone or in contact with other wastes or substances”. The definition provided is exclusively considering the waste material only. As per the definition of “waste” means materials that are not products or by-products, for which the generator has no further use for the purposes of production, transformation or consumption.

Which is further explained as:

- (i) waste includes the materials that may be generated during, the extraction of raw materials, the processing of raw materials into intermediates and final products, the consumption of final products, and through other human activities and excludes residuals recycled or reused at the place of generation; and
- (ii) by-product means a material that is not intended to be produced but gets produced in the production process of intended product and is used as such;

From the definitions provided in the Rule, the applicant has inferred that if any material has no further use to the generator for the purpose to the generator for the purpose of production, transformation or consumption, than only it can be considered as waste material.

Based on the aforesaid information, the Committee had recommended the following:

The Committee deliberated on the issue raised by M/s Nirma Ltd. The Committee is well aware of the fact that during the sulphonation process Sulphuric Acid of concentration 60-80% is generated and goes by the name of Spent Sulphuric Acid. Normal Sulphuric Acid is produced in concentration of 98% and is used for various application including the sulphonation of LAB. Spent Acid on the other hand is used only for specific application like production of Single Super Phosphate and depends upon the demand nearby its location of generation. In some cases where there is no demand it is neutralized by Lime to produce Gypsum which again is considered as a waste which may however be used in cement plant if the logistics favours. Thus, the fact of utilization alone cannot qualify the item to be called byproduct. The Committee suggested that the applicant may take permission under Rule 9 of the HW Rules, 2016.

Subsequent to Committee's recommendation, the applicant has submitted the following:

Spent acid (60%-80%) generated can be utilized in different processes. Some of the processes are:

- i. Manufacturing of single super phosphate;
- ii. Manufacturing of sulphate salts of inorganic chemicals such as $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$, $\text{CuSO}_4 \cdot 2\text{H}_2\text{O}$;
- iii. CPC Blue pigment purification and many more.

Further, units of the above listed products/processes and many other in which the spent sulphuric acid can be utilized, without any treatment, are located near to the units from which the spent acid is being generated. Result of which, the generated spent acid can be easily transported and utilized without providing any further treatment.

The matter was deliberated upon in the 62nd Meeting of the Expert Committee held during 25th May 2017. As the applicant did not attend the meeting therefore the matter was deferred by the Committee.

M/s Laxmi Agro Industrial Consultants & Exporters Ltd., another applicant has also submitted with regard to clarification on Utilisation of Spent sulphuric Acid in the manufacture of Single Super Phosphate.

The applicant is manufacturing LAB Sulphonic Acid, commonly known as LABSA / Acid Slurry & Spent Sulphuric Acid 75%. LABSA is a surfactant used as a primary constituent of Household Cleaning products ranging from Detergent Powder, Detergent Cake, Liquid Detergent etc. and Spent Sulphuric Acid 75% is used in manufacturing of Fertilizers namely Single Super Phosphate and etc since inception of this industry.

The applicant has submitted that they have been informed by their Fertilizer customers manufacturing Single Super Phosphate that by virtue of Notification issued by Ministry of Environment, Forest and Climate Change, New Delhi, dated 4th April, 2016 for manufacturing SSP, they cannot use Sulphuric Acid 75% due to restrictions by Gujarat Pollution Control Board referring Sulphuric Acid 75% / Spent Sulphuric Acid as a Hazardous Waste under Hazardous Waste Rule, 2016. The Spent Sulphuric Acid produced in manufacturing of LAB Sulphonic Acid /LABSA is a By Product not a Hazardous waste and is sold and used as such in manufacturing of Fertilizer.

The applicant has further submitted that Spent Sulphuric Acid has a ready market and is traditionally used as such (without any treatment) in manufacture of Fertilizers for last several decades and is classifiable under Tariff heading / HSN Code 2807 and chargeable to Duty/GST. Further it may also be mentioned that our process of manufacturing LABSA does not fall under the Schedule 1 of Rule 3 (1) (17) (i) of list of Processes generating hazardous wastes under Haz Waste Rules 2016. Spent Sulphuric Acid generated does not contain any impurities/contamination. Moreover, Constituents of Spent Sulphuric Acid 75% are within the leachable concentration /Threshold limits as per SCHEDULE II of Rule 3 (1) (17) (ii) under Haz Waste Rules 2016. Spent Sulphuric Acid generated in their unit should not be compared from other various Spent Acids produced in various chemical processes / dyes-intermediate etc as they may contain /possess various impurities/toxic characteristics.

The applicant has requested to issue guidelines to CPCB, State Pollution Boards that their Detergent Grade Spent Sulphuric Acid be allowed in manufacture of Single Super Phosphate.

Decision: *The Committee listened to the presentation made by M/s Nirma, M/s Laxmi Agro Industrial Consultants and Exporters who produce LAB Sulphonic Acid (LABSA) and generate dilute sulphuric acid 65-80 percent also called spent acid. Nirma has been using this acid for making single super phosphate (SSP) and also this acid to other SSP manufactures. Now Gujarat State Pollution Control Board has asked them to get approval from CPCB for its use under Rule 9 since it is a hazardous waste. They contended that this acid gets generated in the process and is directly used in another process and therefore as per definition it comes in the category of by product. In view of the nature of the process the Committee asked them the composition of the acid particularly in respect of relevant constituents like LAB, LABSA and TOC. Since these constituents have not been analysed and reported in the analysis report provided by them the Committee asked them to get this analysis done from NABL accredited laboratory and submit the report to the Ministry.*

While going through Schedule 1 of the HW Rules, 2016 the Committee noted that spent acid has been mentioned as one of the hazardous waste for processes under serial no. 26 "Production and industrial use of synthetic dyes, dyes intermediates and pigments and serial no. 29 "Production and formulation of pesticides including stock pile" but not under serial no. 28 "Production/formulation of drugs/ pharmaceuticals and health care product". Thus spent acid

has not been specifically mentioned as a hazardous waste. In any case the environmental impact of utilization of this material has to be considered before giving an opinion on whether its utilization should be regulated under Rule 9 or can be freely permitted.

Agenda 1.4: Imparting relief to actual users (AU) unit regarding “Import and recycling of plastic waste and scrap at par with SEZ & EOU units” Representation from All India Plastic Recyclers Association

All India Plastic Recyclers Association(AIPRA) has referred to Hazardous and other wastes (Management and Trans-boundary Movement) Rules, 2016, amendment to the said notification dated 6th July 2016 “allowing SEZ units alone to import plastic waste and scrap” and amendment vide notification no. 177 (E) dated 28.02.2017 “allowing EOU units to import plastic waste and scrap”.

The applicant has submitted that as per DGFT’s notification no. :392 dated 01.01.1997, DGFT has permitted to import virgin plastic waste/scrap material in SEZ, EOU and actual user units in domestic tariff area. Virgin plastic waste and scrap mainly polyethylene, polypropylene etc being imported by SEZ and EOU units also as per the definition and description of the above public notice. This material is non-toxic and non-hazardous as verified by CIPET laboratories by Custom Authorities, it is not post-consumer waste. This material is 100 % recycled in their industry itself. No effluent waste is produced during process, therefore there is no disposal of any waste etc. out of factories. The applicant has submitted that their industry is in orange category and is regularly monitored by Pollution Control Board of the state and they too have been granted the unit valid consent to operate.

The applicant is manufacturing agglomerates and granules which is used for manufacturing low cost items such as Water storage tanks, Tarpulins, Chappel-sole used by middle and lower income people and irrigation pipes used by farmers and dustbins, road barriers etc. thus products manufactured from our material can be recycled again, there is no generation of waste material. The applicants do not manufacture any type of polythene bags etc. In view of the cost factor, the Indian manufacturers recycle their scrap themselves, therefore there is no scrap available indigenously and the plastic waste/scrap has to be imported from USA and European countries to run factories smoothly.

As per amendment (to the HW Rules, 2016) dated 6th July 2016 and 28th February 2017 the import of solid plastic waste against Basel no. 3010 in Schedule VI excluding post consumer wastes, is permitted to units in Special Economic Zones and Export Oriented units. Accordingly, the applicant has requested that their DTA units should be also justified for import with the same condition.

Recommendation: Representative of All India Plastic Recyclers Association made a presentation before the Committee and made the following points:

- (i) They have been in the activity of recycling of virgin plastic scrap mainly polyethylene and polypropylene and had been importing these items prior to the HW Rules, 2016. Now their plants are closed down due to lack of availability of scrap and as a result about more than 4000 people have lost***

their employment. The availability of virgin plastic scrap from within the country is very little since the manufacturers themselves recycled such scrap.

(ii) There are hardly any environmental issues involved in the process of converting the scrap into granules which are then used in the manufacture of various plastic products.

(iii) The units in Special Economic Zone (SEZ) and Export Oriented Units (EOU) have already been permitted the import of virgin plastic waste.

The Committee noted that solid plastic waste B3010 had been included in Schedule VI of HW Rules, 2016 which deals with hazardous and other waste prohibited for import. Subsequently by amendment dated 6th July, 2016 and 28th February, 2017 units in SEZ and EOU have been permitted import.

The Committee also recalled that the import of virgin plastic waste had earlier being referred to the committee and in view of insignificant environmental issues involved in the recycling of virgin waste the committee had recommended import as a resource conservation measure and for employment generation irrespective of the location of the units The Committee reiterates its earlier Decision which are as given below:

The Committee had observed that import of plastic scrap including used PET Bottles is banned as per Schedule VI of the HW Rules, 2016. Earlier, the used PET bottles and virgin plastic scrap were allowed to be imported for recycling and converting into polyester fibres and plastic granules respectively. The Committee was recommending import equivalent to one third of the annual production capacity of the unit. The Committee considering the following factors is of the view that import of virgin plastic waste and used PET bottle scrap may be considered appropriately. This recommendation is similar to the Decision made by the TRC with reference to formulations of Rules, 2016:

- a) Plastics including PET bottles is petrochemical based for which crude oil / natural gas is the basic raw material, which is imported. Therefore, import of these wastes will reduce the consumption of crude oil which would otherwise would be required in the petrochemical industry;*
- b) The environmental impact of converting these wastes into useful products is relatively very small as compared to producing same product by the petrochemical route as well as the energy consumption is much less.*
- c) So far as environmental considerations are concerned, there is no difference in carrying out the recycling in SEZ area or outside;*

**Agenda 1.5: Applicability of Rule 9 to the activity of re-use of residue-
Representation of I G Petrochemicals Limited**

I G Petrochemicals Limited is manufacturing Phthalic Anhydride. They have received a letter from CPCB, directing to apply to CPCB under Rule 9 of the HW Rules 2016 for utilization of distillation residue generated in the unit as fuel in the plant.

As submitted by the applicant, they manufacture Phthalic Anhydride (169110 TPA) by a very simple single step process wherein o-xylene is oxidized using air to give Phthalic anhydride which is recovered and then distilled to get pure product. Phthalic anhydride and Maleic anhydride produced during above reaction are purified through distillation process separately. The distillation residue generated is free flowing in nature and has high calorific value (> 5000 kcal/kg $^{\circ}$ C). However, this residue solidifies at a temperature of 130-140 $^{\circ}$ C into a hard mass, hence disposal outside the premises is not feasible. Considering the above, LURGI has provided an integral system as part of their process for firing the residue in our thermic fluid heater along with Furnace oil as subsidiary fuel. (CPCB letter mentions firing in boiler which is incorrect). The use of residue helps reduce furnace oil requirement drastically. This reduces SO₂ load on atmosphere by about 500 kg/day (to be generated from FO equivalent of residue) and also helps us use the heat value in the residue.

With reference to Directions issued by CPCB to apply for utilization of residue under Rule 9 of Hazardous Waste (Management and Handling Rules), 2016, the applicant has submitted as follows:

Since use of distillation residue is integral part of manufacturing units, which were established along with erection of the plants, the applicant is not required to apply separately for utilization under Rule 9 which is clearly mentioned as follows :

Utilization of hazardous and other wastes.- (1) The utilization of hazardous and other wastes as a resource or after pre-processing either for co-processing or for any other use, including within the premises of the generator (if it is not part of process), shall be carried out only after obtaining authorization from the State Pollution Control Board in respect of waste on the basis of standard operating procedures or guidelines provided by the Central Pollution Control Board.

- Moreover, the applicant has informed that the use of residue in heaters is adopted World over in all Phthalic anhydride plants as an integral part of process of manufacture.
- This has been going on since plant inception (1992-93), after being duly permitted by both Maharashtra Pollution Control Board (MPCB) and MOEFCC.
- A complete system is closed loop with no manual handling. Residue has good calorific value and helps offset SO₂ emissions by more than 500 kg/day.
- The activity is permissible as per Hazardous waste Rules, 2016 under Rule 9.
- The emissions are meeting the MPCB/Environment Protection Act standards.

Decision: *The Committee noted that the distillation residues of Phthalic anhydride and maleic anhydride production are directly used as fuel in heaters and form an integral part of the process right from the inception of the plant, this forms part of their process design. Thus by*

definition of the waste as per HW Rules, 2016 these do not qualify as a waste.

Agenda 1.6: Classification of Aluminium Chloride Solution as By-product, liberated during the manufacturing of CPC Green-7 Pigment- Representation by M/s AcidChem Corporation, Ahmedabad-reg.

Acid Chem Corporation, Ahmedabad, Gujarat has represented on behalf of the below mentioned CPC Green-7 Pigment Manufacturers:

- 1) Meghmani Organics Pvt. Ltd.
- 2) Ami Organics
- 3) Krimsil Pvt Ltd

CPC Green-7 (Colour Index No. 74260; CAS No. 1328-53-06) is used in rubber, plastic, paper and paint industries as a Pigment. The manufacturing of process of CPC Green-7 involves Chlorination of CPC Blue (Water Insoluble) by Chlorine Gas in a eutectic Mixture of Aluminium Chloride, Cupric Chloride and Salt. The final reaction mixture is dumped into water to separate CPC Green-7 Crude (Water Insoluble). Then it is filtered to get CPC Green-7 Crude and Organic Matter free Filtrate. Aluminium turnings are dissolved into the Filtrate to remove pure copper and Aluminium Chloride Solution. This Aluminum Chloride Solution (ACS) is further converted into value added product like Poly-Aluminium Chloride (PAC), Aluminum Hydroxide Gel, Zeolite, Aluminum Silicate, AluminiumChlor-hydrate etc.

GPCB has insisted to take permission under HW Rules 9 for ACS as per one of the “Consent Letters of Krimsil Pvt Ltd”.

A similar case had been presented in 61st meeting of the Technical Review Committee (TRC) held during 20th and 21st March 2017. “ACS, product or waste as per Hazardous and Other Waste Rules – Represented by Chinmay Shah, M/s Gulbrandsen Chemicals.” GPCB had insisted for the same to M/s Gulbrandsen Chemicals to opt for HW Rules 9 permission and MOEF had cleared it as by-product for them.

Following was the recommendation of the committee:

“The Committee noted that in the environment clearance obtained from the Ministry by the applicant, $AlCl_3$ solution is given as one of the products. The consent obtained from GPCB also shows $AlCl_3$ solution as one of the products. It is therefore not a waste and the question of applicability of Rule 9 does not arise in this case.

The entry at serial no. 10 after the notes in Schedule II refers to waste containing halogen containing compounds which produce acidic vapors on contact with humid air or water refers to anhydrous $AlCl_3$ and not $AlCl_3$ solution. By that reasoning also does not come in the category of hazardous waste.

The Committee noted that $AlCl_3$ solution also gets generated in certain other processes which might contain certain hazardous impurities depending on the nature of the process and such $AlCl_3$ solution will then have to be evaluated whether it is hazardous waste or not as per Schedule II”.

Decision: *After presentation by the applicant the Committee noted that during the process of making CPC green, the remaining solution contains copper chloride, aluminum chloride and sodium chloride. This solution is then treated with aluminium turnings to recover copper leaving the solution containing aluminium chloride and sodium chloride. This solution is supplied to manufacturers of Al hydroxide, poly aluminium chloride etc. The solution is likely to contain Cu and some organic material, for which the applicant could not provide the analysis reports. The Committee recommended the analysis of the solution in respect of acidity (pH), Cu, organic constituents and TOC from a NABL accredited lab for further consideration of the matter in this Ministry.*

Agenda 1.7: Disposal of Drill Cutting Solid and liquid generated during drilling & Testing Operations from (Exploratory Drilling), Project falling in Anand& Ahmedabad District-Representation from Gail (India) Limited.

The matter pertains to Disposal of Drill Cutting Solid and liquid generated during drilling & Testing Operations from (Exploratory Drilling) generated by GAIL India Limited .

As submitted by GAIL and as per the reports of M/s Unistar Environment & Research Lab(P) ltd. (approved by MoEF), the test results of the representative sample portion from 7 locations has been tested and concluded that the collected representative sample does not contain any hazardous constituents as per Class A, Class B and Class C of Schedule-II of HW Rules, 2016 .The source of generation of drill cutting solid waste does not involve the activites mentioned in Schedule-I and Drill cutting solid waste is not covered under any part of Schedule-III.

Therefore this Drill Cutting waste is having non-hazardous characteristic in nature as per Schedule-I, II,III of HW Rules, 2016. However, Gujarat Pollution Control Board has advised GAIL to consult MoEFCC along with the test report for further clarification regarding the category of the waste.

Decision: *The Committee recommended that if the drill cuttings is produced from water based mud and are not contaminated with oil they are not hazardous waste as per HW Rules, 2016.*

Agenda 1.8: Extended Producer responsibility under E-waste (Management) Rules, 2016-Representation from Bharat Electronics Limited-reg..

Bharat Electronics Limited (BEL) is a multi-product and multi-technology company offering products and services in the areas of radars, missiles system, military communications, naval systems, electronic warfare and avionics, electronic components, electronic voting machines, etc. The products manufactured by BEL are delivered to the armed forces and government agencies. The products manufactured are being used in locations across the nation including international borders and on high seas.

BEL are unable to comply with the EPR provisions of the E-waste rules 2016 as the fate of electronic systems which BEL manufactures for defence purposes is a sensitive subject concerned with high security and requires a level of secrecy to be maintained, the respective government departments have their own mechanism for the storage, movement distribution and end of life disposal. These products are not disposed in the normal way like other commercially used electronic equipment. Moreover, as these products become the assets of the respective government departments, there is no mandate for these customers to return such products to BEL at the end of life. As per rules, these agencies fall under the category of bulk consumers and they have the responsibility of disposing the products at the end of the life. However, BEL states that it provides a choice to the customer to return the end of life products to BEL as per a general guideline for disposal of e-waste after end of life framed by BEL which is issued along with every system supplied, to ensure environmentally sound management of e-waste. They have also enclosed a copy of the guidelines with the letter and has requested to consider this procedure as EPR under E-waste (Management) Rules 2016.

Decision: ***Considering the fact that disposal of electronic products used for defence purposes is a sensitive issue and concerns national security, the Committee recommended that BEL may be exempted from the EPR provisions of the E-waste Rules 2016. However, for products produced by BEL that are being used by non-defence customers such as All India Radio (AIR), Doordarshan (DD), Indian Railways, Indian Space Research Organization (ISRO), State Governments, and Public Sector Undertakings (PSUs) may not be exempted from EPR authorization. Therefore, in this case the Committee recommended that BEL may be asked to set their collection targets based upon the sale of products that are not being used for defence purposes.***

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