

**AGENDA ITEMS FOR 61<sup>st</sup> MEETING OF TECHNICAL REVIEW COMMITTEE  
(TRC) UNDER HAZARDOUS WASTE RULES, 2016**

**Dated: 20<sup>th</sup> and 21<sup>st</sup> March 2017, at 10:00 AM**

**Venue:- Narmada Conference Hall, Ground Floor, Jal Block, Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003**

**In the Chair: Shri R.K.Garg**

**AGENDA**

**AGENDA 1: ISSUES WITH REGARD TO HAZARDOUS AND OTHER WASTES (MANAGEMENT, HANDLING & TRANS-BOUNDARY MOVEMENT) RULES, 2016**

**CLARIFICATIONS**

**Agenda 1.1: AlCl<sub>3</sub> Solution Product or waste as per Hazardous and Other Waste Rules-Representation by Chinmay Shah, M/s Gulbrandsen Chemicals**

The applicant has submitted that they have obtained Environmental Clearance from MoEF & CC in 2010 and 2014 for expansion of products and in which Aluminium Chloride Solution (ACS) is listed as product with expanded capacity. ACS is produced in various processes. Our ACS has wide use in manufacturing of PAC (Poly aluminum Chloride), ACH (Aluminum Chloro Hydrate) and other industrial applications.

Gulbrandsen Chemicals has been pioneer into manufacturing of various water treatment chemicals including PAC & ACH since many years at USA. Since they are already into business of water treatment chemicals like ACH & PAC, as a part of forward integration and recommendation of GPCB, we established a separate Poly Aluminium Chloride (PAC) plant to convert ACS being produced at Mujpur, Gujarat site into value added product PAC & ACH.

They have received CTE (granted in May 2016) from GPCB for setting up new PAC / ACH manufacturing plant using in-house produced ACS as input raw material. They have applied for CCA to GPCB as per GPCB procedure. While processing their application for CCA, GPCB, informed us that Aluminium Chloride solution falls under "WASTE" category and therefore they have to get authorization under Rule 9 of Hazardous waste rule to manufacture PAC from ACS.

As per “Hazardous and Other Wastes (Management & Transboundary Movement) Rules 2016 Chapter I Rule 3 (38) the **WASTE** is defined as **“Materials that are not products or By-products, for which the generator has no further use for the purpose of production, transformation or consumption”**. ACS is further converted into value added product like PAC / ACH and so it does not fall under the category of “Waste” as per above definition of Hazardous Waste Rules. Thus they do not need to obtain authorization under latest Hazardous Waste Rules -9 for ACS, as instructed by GPCB.

As suggested by GPCB, they have obtained opinion that ACS falls under waste or not as per Hazardous Waste Rules from Gujarat Energy Research and Management Institute (GERMI), Sch I Auditor recognized by GPCB. As per GERMI opinion also ACS does not fall under waste category. In addition, they have got ACS analyzed from MoEF recognized laboratory and as per analysis results analyzed impurities of ACS are well within the prescribed norms under Schedule II Class A.

*The committee may deliberate with respect to categorization of AlCl<sub>3</sub> Hazardous and other wastes (Management, Handling and Trans-boundary Movement), Rules,2016*

**Agenda 1.2: Utilization of Vanadium Sludge generated by Aluminium Refineries:**

**“Vanadium Sludge from Alumina Refineries” listed as a Hazardous Waste in Category 11.7 of Schedule I (under production of Primary and Secondary Aluminum):**

The applicant had earlier indicated that reading of the rules gives an impression that **only Vanadium Sludge (VS) which is waste** is classified in Column 3 of Schedule 1 as “Hazardous Waste” and not the VS which is a ‘by-product’ resulting from alumina refineries and which contains number of useful and valuable materials. With the introduction of the HW Rules, 2016; VS is now classified as a “Hazardous Waste”, whereas till now it had been a by-product, not getting reflected in previous HW rules, 2008. These Rules have created ambiguity on following two counts:

- a. **firstly** whether or not it would apply to HIL us by mere reference of the category “Vanadium Sludge from alumina Refineries” and
- b. **secondly** whether or not HIL can continue to sell the existing stock of VS as a By-product until there is any clarity from MoEF&CC.

The matter was deliberated upon in the 55<sup>th</sup> Meeting of the Technical Review Committee held during 27<sup>th</sup> and 28<sup>th</sup> June 2016. During presentation, the representatives of M/s Hindalco stated that Vanadium Sludge which is generated in the alumina refineries are so far being considered as a by-product and has been supplied to their group company and a few other recyclers for recovery of vanadium. They presented some literature in support of their contention that Vanadium sludge is a by product in alumina production. The Committee looked at the composition of the sludge and found that the vanadium content is of the order of 13 percent as vanadium pentoxide. It also contain arsenic-0.86 % as As<sub>2</sub>O<sub>3</sub>. From this it is obvious that it is

hazardous in nature and needs chemical processing to recover vanadium as ammonium metavanadate ( $\text{NH}_4\text{VO}_3$ ).

The Committee therefore is of the view that vanadium sludge has been rightly included in the Schedule I of the HW Rules, 2016. It was recommended that the applicant may go through the process of obtaining authorisation from SPCB and approval from CPCB under Rule 9 of HW Rules, 2016 for its utilization. Since the applicant has been treating Vanadium Sludge as a byproduct and sending it for recovery to other plants, which practice has now been stopped in view of the new rules leading to accumulation of the sludge in their plants' premises and closure of the plants utilizing the sludge, CPCB may be asked to expedite finalization of Standard Operating Procedure and send it to the concerned SPCB.

The Committee also recommended that in view of the environmental consequences of accumulation of the sludge such as pollution of the ground water and soil, the applicant may be permitted to continue the practice of sending the sludge to the plants utilizing it, for six months' period.

The same was conveyed to the applicant vide Ministry's communication dated 22<sup>nd</sup> August 2016 (valid till 21<sup>st</sup> February 2017).

The applicant has the following submissions:

- i. At Hindalco. Vanadium sludge is produced at Renukoot (uttar Pradesh), Muri (Jharkhand) and Belgaum (Karnataka) plants;
- ii. All the above units have submitted prescribe application to their respective state pollution control boards for inclusion of Vanadium sludge as a hazardous waste in the month of September/October 2016;
- iii. The applicant has received authorization only for Renukoot plant and the other aforesaid units are still awaiting authorization from their respective SPCBs. Their customers have also submitted application to concerned SPCB for obtaining authorization to recycle/reprocess vanadium sludge as per the HW Rules, 2016.
- iv. CPCB has approved and issued SOP for processing of Vanadium sludge in the month of December 2016;
- v. Their customers have approached SPCB for getting approval based on SOP approved by CPCB. Approval process at SPCB is in progress.

The applicant has further stated that since Hazardous waste authorization application of two of Hindalco Plants and all the customers are at different stages of approval process at SPCBs, ministry has been requested to allow them to continue the current practice for dispatching of Vanadium Sludge for another six months which will help to avoid accumulation of vanadium sludge in the plants.

*The Committee may deliberate with respect to giving further extension for sending Vanadium sludge for recovery to other plants taking into consideration*

environmental consequences of accumulation of the sludge with respect to *Hazardous and other wastes (Management, Handling and Trans-boundary Movement), Rules, 2016*

**Agenda 1.3: Import of zinc dross in India as per HW Rules, 2016-Representation from M/s Rubamin Limited.**

The applicant who is a large importer of zinc dross has submitted that the earlier HWM Rules, 2008 required customs to draw sample and analyze the sample drawn before clearance of material as per rule 16(6) wherein it was stated that “The customs authority shall collect three randomly drawn samples of the consignment (prior to clearing consignment as per the provisions laid down under the Customs Act, 1962) for analysis and retain the report for a period of two years, in order to ensure that in the event of any dispute, as to whether the consignment conforms or onto to the declaration made in the application and Movement Document”.

As per the new Rules “13(10) The Port and Customs authorities shall ensure that shipment is accompanied with the movement document as given in Form 6 (Transboundary Movement- Movement Document) and the test report of analysis of the waste, consignment, wherever applicable, from a laboratory accredited or recognized by the exporting country. In case of any doubt, the customs may verify the analysis”.

The requirement of first check procedure at the port & Customs has accordingly been withdrawn. However, the applicant has contended that imports of Zinc Dross are subject to first check at customs and are not being cleared due to which they are paying heavy demurrage every year.

Ministry has been requested to take up the matter with Central Board of Excise & Customs and the port and save the industry from heavy demurrage expenses and valuable resource time at customs.

The matter was deliberated upon in the 59<sup>th</sup> Meeting of the Expert Committee held during 30<sup>th</sup> and 31<sup>st</sup> January 2016.

The Committee noted that the earlier procedure of sampling and analysis by the Customs Authority has already been simplified in the HW Rules, 2016. According to the 2016 HW, Rules, the procedure is “The Port and Customs authorities shall ensure that shipment is accompanied with the movement document as given in Form 6 (Transboundary Movement- Movement Document ) and the test report of analysis of the waste, consignment, wherever applicable, from a laboratory accredited or recognized by the exporting country. In case of any doubt, the customs may verify the analysis”.

Since the circumstances under which the Customs Authorities are carrying out sampling and analysis of all the consignments is not known, the Committee recommended to invite a representative of Customs as well as the applicant for a discussion in the next meeting of Technical Review Committee.

*The Committee may deliberate in with regard to submission from the applicant and clarification from Customs with respect to Hazardous and other wastes (Management, Handling and Trans-boundary Movement), Rules,2016*

**1.4 Clarification with respect to classification of industrial plastic waste generated by paper recycling industries- representation by M/s Lionel Resources Pvt. Ltd.**

M/s Lionel Resources Pvt. Ltd. is an established plastic pyrolysis plant to produce industrial diesel from waste plastic generated by Paper Recycling industries.

The applicant has received the Conditional consent to establish for waste plastic pyrolysis plant from GPCB dated 12.01.2015. The applicant has also applied to CPCB for the utilization of Hazardous waste under Rule 9 as per the HW Rules, 2016 for the utilization of plastic waste for manufacturing of pyrolysis oil, petroleum gas and charcoal. The matter has been discussed in the third meeting of the Technical Expert Committee held in CPCB for evaluating proposals for utilization of hazardous and other wastes under Rule 9 under HW Rules, 2016 on 18.01.2016.

The Committee in the said meeting had observed that plastic waste generated during pulping of polycoated waste paper, paper board, carton etc (in waste paper based pulp & paper industry) has been categorized as hazardous waste category no. 21.1 under schedule I of HW Rules, 2008 by Gujarat PCB in authorization granted to the unit. The process pertaining to the said hazardous waste category generation, as laid down at serial no. 21 of the said schedule is “Production and/or industrial use of paints, pigments, lacquers, varnishes, plastic and inks.”

However, the said process of serial no. 21 in schedule I of HW rules, 2016 has been stipulated as “Production and/or industrial use of paints, pigments, lacquers, varnishes and inks”. Thus process waste/residues generated during production and/or industrial use of plastics is no more hazardous waste as per the Schedule I of the HW Rules, 2016.

The Committee therefore recommended that the unit may approach this Ministry to seek clarification that whether the plastic waste falls under the category of “hazardous waste” or “other waste” or not.

*The Committee may deliberate with respect to classification of industrial plastic waste generated by paper recycling industries under the Hazardous and other wastes (Management, Handling and Trans-boundary Movement), Rules, 2016*

**1.5 Request for permission for future import of used refurbished capital goods for direct use in R&D/Design Lab-representation by M/s Texas Instruments, Bangalore**

The applicant is seeking permission for the import of 60 test equipment & Accessories for critical R&D activities at India Design Center for new product development in their extended laboratory at their STPI registered office in Bangalore.

The applicant has submitted that as most of the projects are critical and time sensitive and hence are needed with advance approval for longer period of use. Most of these equipment are managed i.e. regularly configured and calibrated to ensure precision performance and delivery to tour design projects in our lab to develop innovative technologies hence the existing , extended shelf life of these equipment is approximately 15-20 years.

Ministry has been requested to provide the applicant the permission of the aforesaid capital equipment on inter-company basis without any restriction on date of manufacture and residual life of the equipment. All the items will be returned back to Texas instruments Head office or scrapped for re-export only through authorized e-waste recyclers, scrap vendors, after completion of the said project or end of the life of equipment whichever is earlier. The applicant has also submitted an undertaking to re-export the aforesaid items within 10 years.

As per Schedule III D of HW Rules, 2016 "Used electrical and electronic assemblies imported for testing, research and development, project work purposes and to be re-exported back within a period of three years from the date of import" are exempted from the need of Ministry's permission, subject to the condition prescribed within the Rules.

For timeline greater than 3 years the applicant need to submit the following for obtaining Ministry's permission:

- a. Form 5 of Hazardous and Other Waste Rules, 2016.
- b. Justification for import
- c. If being imported on returnable basis than undertaking for re-export specifying the time period
- d. Chartered Engineer Certificate from the exporting country indicating the functionality, manufacturing date, residual life and serial number.
- e. Details of previous import, if there has been any and confirmation regarding their re- export, if applicable
- f. Acknowledgement for receipt of copy of application from concerned State Pollution Control Board (SPCB) / Pollution Control Committee (PCC)
- g. Certification from exporting company for accepting the re-export of defective or second hand EEEs, and the spares/part/ component/ consumables after the specified time.
- h. Document depicting the status of employment generation indicating the no. of people benefitted
- i. Extended Producer Responsibility-Authorisation as producer under E-Waste (Management) Rules, 2016, if the EEAs to be imported are listed in Schedule I of the E-Waste (Management) Rules, 2016

j. Copy of the previous latest permission issued by this Ministry

Ministry has been requested to provide the applicant the permission of the aforesaid capital equipment on inter-company basis without any restriction on date of manufacture and residual life of the equipment i.e. the Chartered Engineer Certificate.

*The Committee may deliberate with respect to Hazardous and other wastes (Management, Handling and Trans-boundary Movement), Rules, 2016*

## **AGENDA 2: CLARIFICATIONS WITH REGARD TO E-WASTE (MANAGEMENT) RULES, 2016**

### **CLARIFICATIONS**

#### **2.1: Clarification of the scope of the E-waste Rules, 2016- M/s GE India Industrial Private Limited**

M/s GE India Industrial Private Ltd has sought clarification on following issues from this Ministry taking into account their business model:

##### **(i) Applicability of the Rules on GE's products**

GE businesses sell large industrial machinery and medical instrumentation designed for industrial or commercial organizations with specific technical needs -e.g. for grid scale power production, industrial energy controls or medical devices - and not for individual users. These are not in the consumer or retail sector. The equipment has detailed technical specifications and is manufactured to high industry standards. As such, GE's machineries do not fall in the scope of Schedule I of the Rules.

However, the industrial machinery and medical devices come with in—built or attached sub-components, which are required for data computation, storage and display such as mainframes, computers and monitors or for control stations, workspaces such as lamps. These sub-components, including mercury containing lamps and desktop computers, may fall in the scope of Schedule-I had they been stand-alone pieces. However, the sub-components, which are sourced from third parties, are integrated in the specialized GE applications and are essential to making them functional and not sold as stand-alone items. For example, a wind turbine, cannot be operated and monitored without the required sub-components. Furthermore, GE installs less than 1tonne per annum of such sub-components in the equipment in the India market.

Since these sub-components are integrated to the GE machinery that does not fall in scope of the Rules, and are essential for the functioning of the industrial and medical machinery, the applicant has contended that GE equipment containing the sub-

components do not fall in the scope of the E—waste Rules 2016. Therefore, GE should not be considered a Producer under the E-waste Rules 2016, and consequently does not need an EPR authorization. They have requested ministry’s confirmation on their understanding of the same.

**(ii) Applicability of the Rules for a Producer, which discontinued operations:**

GE also operated a lighting business producing lighting equipment. This business division announced on August 28, 2016 that it would globally discontinue the production and sale of its products with effect from March 31, 2017 including in India. As a matter of fact, the production and sale of the lamps containing mercury have been stopped since September 30, 2016. GE lighting used to operate under a multi business legal entity in India which also houses other GE businesses, such as power, renewable energy and water. All operations concerning the production and sole of lighting equipment in India have been stopped.

Considering the E-waste Rules 2016, which define orphaned products as “non- branded or assembled electrical and electronic equipment as specified in Schedule I or those produced by a company, which has closed its operations”, they are of the understanding that the said lighting equipment produced in the past can be considered as orphaned products, and that the GE entity having ceased operations does not require to apply for EPR authorization. As the relevant operations relating to the entire lighting business have been closed, it would not be feasible for the company to support the tracking and disposal of the lighting equipment sold in the past. The orphaned equipment may be dealt with by appropriate collection centres.

*The matter was deliberated upon in the 59<sup>th</sup> Meeting of the Technical Review Committee held during 30<sup>th</sup> and 31<sup>st</sup> January 2017. Following were the recommendations of the Committee:*

- i. As far as medical or industrial equipment are concerned where display units, computers, electronic controllers etc. are components of the entire equipment, such equipment are not listed in Schedule I as such. Therefore, in the view of the Committee such equipment suppliers are not covered under the EPR. However items from Schedule I which form part of the equipment have obviously been procured from producers who have EPR authorization.
- ii. The Committee noted that the “Fluorescent and other mercury containing lamps” earlier been produced by GE fall in Schedule I of the E-waste Rules, 2016. They have already stopped their production and sale. Thus after 31<sup>st</sup> March 2017 when the Rules come into force they will no longer be producers of these items. As such they do not need EPR authorization.

The Competent Authority decided that the Ministry may defer the final decision until the Committee recommends how the responsibility for disposal of integrated equipment having such electronic component will be fixed.



*The Committee may deliberate on the issue with respect to how the responsibility for disposal of integrated equipment having such electronic component will be fixed under the E-Waste (Management) Rules, 2016.*

## **2.2 Review of existing software designed for the UK EPR compliance PRO's by WEEPRO.**

WeeePRO has made a presentation before CPCB on 2<sup>nd</sup> December 2016 , the seamless software program they have developed in support of operating their own, open to all, PRO in India. The unique online capability was developed using existing software designed for the UK EPR compliance PRO's owned by the applicants' shareholders. This 100 % digitization of EPR enables quality assured compliance for all producers joining a PRO in India:

1. .WEEE Settlement Centre- a central repository, mirroring the ISO 14001 & 27001 system used by their UK PROs; producing quality assured evidence in support of Form 3 returns via its digitized E-waste Manifest incorporating the E-waste codes from the E-waste (Management) Rules 2016 and its registry of licenced re-furbishers, dismantlers and recyclers.
2. EPR Plan submission: Online tools with a simplified step by step, six stage process enabling any producer, large or small, to form a compliant EPR Plan for submission to CPCB with options to join WeeePRO; Join another PRO; go it alone and/or join a consortium of producers to meet their financial obligations under the E-waste (Management) Rules, 2016.

Following the presentation WEEPRO was requested by CPCB officials to put in writing the critical to success, offer and recommendations.

WEEE settlement Centre has offered to provide free of charge transfer to CPCB, the digitized E waste Manifest, developed by WEEpro. It has further been submitted that the CPCB monitoring process for EPR plans today has no mechanism to distinguish between a producer who has a contingency plan to meet their financial obligations and a producer who has planned to fail sighting the lack of feed stock in the formal market place. Recommendations have been made with respect to failure to meet targets and EEE placed records.

Ministry has been asked to advice on how to follow up the offer and critical to success recommendations with the appropriate persons in the government of India.

*The matter was deliberated upon in the 59<sup>th</sup> Meeting of the Technical Review Committee held during 30<sup>th</sup> and 31<sup>st</sup> January 2017. Following were the recommendations of the Committee:*

The Committee deliberated on the issue and felt that the applicant, representatives of BIS, Department of Chemicals and Petrochemicals and of PVC pipe Manufacturing companies may be invited in the next meeting of the Technical Review Committee.

*The Committee may deliberate on the issue with respect to the PRO under the E-Waste (Management) Rules, 2016.*

### **2.3.i Retrospective Implementation of E-waste (Management) Rules 2016-Representation of CEAMA**

Consumer Electronics and Appliances Manufacturers Association (CEAMA) is an all India body of manufacturers of Televisions, Entertainment Electronic Products & Home Appliances It is a non-profit organisation, looking after the common interests of its members for sustainable growth in the sector. It has been in existence for last 37 years. CEAMA acts as a catalyst in the promotion of Industry, trade, technology, entrepreneurship, sustainability and green environment.

CEAMA conducted a series of consultation meetings with its member and other stakeholders regarding the implementation of the new law where the following issues have been brought by the industry:

1. It is impossible to collect 30% of e-waste in the current regime. It was also brought out that it will not be even feasible to collect even 5% of the e-Waste in case of CE, HA and mobile phones under the Extended Producers Responsibility.
2. The End of Life in a developing country like India is not determined by the manufacturer/brand owner as the consumer is not aware enough about the discard of the e-waste. The consumer is the ultimate possessor of the product and it is at consumer's discretion when he intends to discard it. Also the products change many hands before they are sold to the Actual User and also amongst Actual Users, who ultimately decide to scrap the product. It is therefore would not be evident to put no responsibility on the Actual User for E-waste management.
3. This industry encompasses a large hold of SME's and small importers for whom this is a short lived business as they will not able to survive for a longtime under these rules. In fact, the same applies for the large brands too in a longer regime. Therefore, to adopt and follow a EPR is almost impossible for an SME/ small importer. Since it is impossible, the implementation will necessarily become extremely draconian which could be indemnity bond/ securities being demanded at the time of import, rent seeking and corruption because of the threat of appraisers / enforcement action.

4. CEAMA welcomes the RoHS directives, but looking at the current situation of poor infrastructure of test labs the mandate of RoHS cannot be implemented with an ease. The same needs to be revisited and examined critically.

**Solutions:**

CEAMA has submitted that for proper channelization of E-waste in the country following things must be considered:-

- a) The Central and the State Governments should conduct massive education programs to spread a mass awareness among the consumer and other stakeholders.
- b) If the rules need to operate successfully then the Municipal Corporations should be strengthened to collect e-waste from Individual homes or set up collection points in every ward, where Consumers can conveniently drop their electronic waste.
- c) The regulations should be framed to promote 'Ease of doing Business' in the country. The SME's must not suffer while manufacturing or importing the goods. It's a common myth that the traders are extended arms of the producers, we would like inform that the producers possess no control over the dealers and therefore the responsibility of managing e-waste target should be aligned with the central government.
- d) If the producers have to be made responsible for the collection of targets, then the current draft law should be amended or a new law have to be passed where the possessor of consumer electronic products will be mandated to return the products to the manufacturers and not to throw them/ replace them/ exchange them, etc.

CEAMA has further submitted that from the issues and suggestions made above, it may be gathered that the current rules have too many facets affecting the operations of manufacturers, brand owners, small importers, trade channels and actual users. Ministry has been requested that these rules should be put to suspension with an immediate effect. Also if the government feels that the targets are necessary then it should be made prospective with appropriate consumer and trade laws in place.

CEAMA has also submitted a legal opinion on the E-waste rules 2016, which has been enclosed with their representation.

**2.3.ii Representation of ICA and CEAMA forwarded by Ministry of Electronics & Information Technology**

Issues raised:

- i. E-waste (Management) Rules 2016 w.e.f. 1.10.2016 under the Environment (Protection) Act, 1986 (29 of 1986)- Impractical,

- shrouded in non-transparency, will spell the death knell for the SME sector and are practically impossible to implement;
- ii. An Industry Association (i.e. ELCOMA) has already gone to Court.;
  - iii. Retrospective targets are being imposed.

The Committee had deliberated wrt to E-waste Rules, 2016 in the 59<sup>th</sup> Meeting of the Expert Committee held during 30<sup>th</sup> and 31<sup>st</sup> January 2017. Following was the recommendation of the Committee:

The Committee concluded that even Hon'ble High Court has recognized the significance and necessity of the implementation of EPR as has been prescribed under the E-Waste Rules.

However, considering the legalities of the issues raised regarding the retrospective nature of the targets under E-waste rules, 2016 and the case laws given as annexures, the Committee was of the view that members would like to read the case laws and other documents supplied by the applicant. The Committee recommended that the issues raised should be discussed in the next TRC meeting after the members have gone through the case laws and the other documents.

The Committee also recommended that a copy of all these case laws and the other documents including the representation may be sent to the law Ministry or to the Legal Adviser of this Ministry and in the next TRC meeting a representative of the law Ministry or Legal Adviser of this Ministry may also be invited.

The Committee also desired that the feedback in respect of applications received by CPCB on EPR authorization may also be provided by CPCB.

*The Committee may deliberate with respect to Hazardous and other wastes (Management, Handling and Trans-boundary Movement), Rules, 2016*