AGENDA ITEMS FOR 35th MEETING OF TECHNICAL REVIEW COMMITTEE (TRC) UNDER HAZARDOUS WASTE RULES, 2008

Dated: 20th February, 2015 at 10:00 AM

Venue: - INDUS 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 Item No. 01: Import of waste/used rubber tyres for production of Tyre Pyrolysis Oil (TPO)(12-40/2013-HSMD):

The matter pertains to import of waste/used rubber tyres for production of Tyre Pyrolysis Oil (TPO). As highlighted by DGFT, Ministry of Commerce and Ministry of Petroleum and Natural Gas, certain safeguards need to be developed prior to considering such application for import of waste tyres for pyrolysis purpose.

The committee may deliberate on the provision in the HW rules wrt import of the specific material.

AGENDA ITEM NO 02: Exemption of fiber sheet (Head Roof Linear)/ PU foam waste as a solid waste based upon the test report of waste material -M/s Krishna Group Antolin Pvt. Ltd.- (F. No.(23-18/2015-HSMD):

The matter pertains to Disposal of Poly urethane (PU) (B3010) foam waste at CHW-TSDF- Haryana

The fiber sheet as head roof linear is used in cars as in the roof interior of the car. Depending upon the size and shape of car a piece of it is used; the rest is leftover and is considered a waste.

The technical audit team has tested out the parameters of Schedule II of Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 in the fiber sheet through MoEF&CC's approved laboratory i.e. M/s Eko Engineers Pvt. Ltd & M/s Rajasthan Waste Management Project (NABL Approved lab). The applicant has enclosed a copy of test report along with the copy of MoEF's approval for the lab.

The committee may deliberate on the provision in the HW rules wrt disposal of the specific material.

AGENDA ITEM NO. 03: Request from M/s Rubamin Limited, Vadodara with regard to Clarification on Zn Skimming and Zn Ash (23-9/2010-HSMD).

The applicant has sought for clarification confirming that the terms zinc Ash/ Zinc Skimming represent the material generated by the operation of skimming in galvanizing plant and hence must not be distinguished

The trade participants in Zn waste and scrap have an understanding based on trade parlance and practice that the terms Zn Ash and Zn Skimming are synonymous and can be used interchangeably. 'Skimming' is the operation performed in the galvanizing plant which results in the product called 'Zinc Ash'. Technical people in some countries also refer to Zinc Ash as Zinc Skimming as it arises from skimming operation.

As per the applicants' communication, Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 also use term 'Zinc/Ash/ Skimming' to define the material arising from galvanizing operation.

The committee may deliberate on the provision in the HW rules wrt import of the specific material.

AGENDA ITEM NO.04: Clarification sought by Shri P P Vasudevan regarding use of indigenous patented Technology for Solid Fuel from Waste Phosphate Gypsum and Iron Oxide i.e. approval in principle by the MoEF&CC for starting new industries on the basis of technology. (23-202/2014-HSMD)

The applicant has acquired Govt of India Patent on the subject matter having calorific value ranging from 3170 to 3567 calories / gram. These have been tested for toxicity by Defense R&D organization and index is 813 whereas permissible limit is 1.5. There is wide possibility for use of the residue also for manufacturing of allied industrial materials. The raw materials are available in plenty in India and abroad.PSUs in India have spent cores of Rupees as technology fee and put up plants for manufacturing some products which have not been successful.

Applicant has requested for clearance for starting new industries for manufacturing Solid fuel from Waste Phospho-Gypsum and Iron Oxide which may be used in lieu of coal. This will have export potential too.

The application was considered in 32nd TRC meeting held on 24th September, 2014, the committee has recommended for inviting the applicant for technical presentation in the next meeting.

The application was considered in the 34th TRC meeting held on 10th December, 2014.The committee could not comprehend as to how solid fuel from iron oxide or phosphor-gypsum could burn vigorously. Accordingly, the matter was deferred by the Ministry.

The applicant has submitted the following information:

The waste phosphor gypsum or the iron oxide as such will not burn, and with an invented process both these materials burn vigorously with calorific value ranging 3170 to 3567 calories/gram in one test and this can definitely go up- say more than that of coal in subsequent tests of products made with industrial machinery. The ingredients used for the solid fuel alone will not burn vigorously unless it is provided with the help of waste phosphor gypsum and iron oxide, which act as a moderator. The technology was short-listed from thousands of inventions by Dept. of Science & Technology, Govt. of India enabling participation in India Innovation Initiative National (i3) held at IIT New Delhi in 2012 (solid fuel from waste phosphor gypsum) and Coimbatore in 2013 organized by PSG Institutions (solid fuel from Iron Oxide) where thousands of visitors including top scientists viewed the burning.

The Committee may deliberate with regard to submissions made by the applicant.

AGENDA ITEM NO. 5 – *Clarification sought with regard to import of Zinc Dross and Hard Zinc Spelter of Schedule III B (B-1100) under HW Rules, 2008 from Krishan Kumar Rathi (23-265/2014-HSMD):*

Clarification is sought on:

The items namely Zn Dross and hard Zn spelter in the parent notification dated 24.09.2008 were under Schedule- III, Part B, under Basel No. B 1100 under **Category. **Category items- import permitted in the Country without license or restriction.

In the subsequent Notification dated 30.03.2010 under S.O. 710 (E) the aforesaid items were brought in schedule III under Part D and the Category remained the same under ** Category. The said notification also introduced Form 16 for Registration of Traders for Schedule-III, Part D to be submitted to SPCB by trader.

a) There are number of items in Part-D in which Hard Zinc Spelters and Zinc Dross are also covered;
b) As such the conditions of import as applicable to other items i.e. Ferrous and Non-Ferrous Scrap should equally be applicable to Hard zinc Spelters and Zinc Dross. There can be no separate or special requirement or conditions should be applicable for Zn Dross or Hard Zinc spelters.
c) Ministry's letters calls for a requirement of SPCB Pass Book for the purpose of maintaining a record of procurement of the waste by the recyclers irrespective of the import is by recycler or by the Trader on behalf of recycler.the applicant has submitted that there should be no need for Pass-Book from SPCB for Import of Zn Dross. Hence the requirement of Pass-Book from SPCB should be withdrawn by the Ministry.

In respect of Zn Dross CTH 79020010 does not appear in the list of Restricted items for imports of DGFT (copy enclosed) at Sr No. 344 under CTH 79020090- others (Zinc waste and Scrap). There is a necessity for clarification and rectification and to ensure uniformity in the policy of DGFT and MoEF&CC

The committee may deliberate on the provision in the HW rules wrt import of the specific material.

The applicant through his communication dated 13th January 2015 is desirous to make presentation on the following issues for the purpose of clarity:

i. Aluminium Dross CTH-26204010;
ii. Aluminium Scrap Thril CTH -76020010;
iii. Hard zinc Spelters CTH-26201100;
iv. Zinc Dross CTH-79020010.

Agenda Item No.06: Export of LD Sludge by M/s Orind Steels Limited, Lathikata, Orissa (23-15/2015-HSMD):

Permission for export of LD sludge-which is pure Fe, Al2O3, SiO2

LD sludge is lying in Rourkela steel Plant, as a pure waste, occupying unnecessary space; it is only vapors of iron coming out of LD convertor of the steel plant, which has been collected by RSP. The applicant also mentions that if a company has been able to get foreign customers to purchase it, it should be facilitated.

The committee may deliberate on the provision in the HW Rules wrt export of the specific material.

AGENDA ITEM NO.07: Authorization for setting up of BMW facility within the TSDF which is having Environmental clearance- M/s Ramky Enviro Engineers Ltd., Delhi (23-16/2015-HSMD):

Attention is drawn towards the decisions taken during the Conference of Chairman and MS PCBs held during 21st and 22nd February, 2014 under the chairmanship of then Hon'ble Environment Minister Shri Veerappa Moily at Bangalore. Several decisions were taken with respect to waste management including hazardous and e-waste management. Promoting Common Integrated Waste Management Facility was one such decision.

The decisions on trans-boundary movement of hazardous waste, incinerating and setting up of BMW facility with TSDFs etc. has lot of relevance in today's context because as on date due to NGT order on appeal 63 of 2012 dated 28th November 2013, has asked for the Environmental clearance (EC) of BMW facility. Most of the applicants' facilities are under consent renewal stage and the SPCBs are denying the approval for the want of EC. The notification for EC based on NGT of BMW is still under finalization at MoEF.

The decision of the Chairman and MS Conference may kindly be issued as circular to each SPCBs to authorize and implement authorization for setting up of BMW facility within the TSDF which is having EC

AGENDA ITEM NO 08: M/s Shiva Petro – Synth Specialties Ltd, Mumbai.- Clarification for inter-state movement of used/ Waste oil as per the rules 20(3) of Gazettes Notification of Hazardous Waste Rules, 2008 (23-213/2014-HSMD)

Representation received from M/s Shiva Petro – Synth Specialties Ltd, Mumbai with respect to directions of Goa Pollution Control Board to Commissioner of Customs, Goa to allow disposal of waste oil only to Goa State Registered Recyclers in accordance with their circular issued under the Rule 20(3) of HW Rules, 2008. They have referred to Ministry's letter dated 13.11.2009 in the related matter M/s Attero Recycling Pvt. Ltd Noida(U.P) which clarifies that Rule 20 (3) is applicable only to inter-state movement of hazardous waste for disposal purpose and the rule is not applicable to Recyclable Hazardous waste. Accordingly, the applicant who apparently are recyclers have requested Ministry to direct the Goa SPCB to allow the generators of waste oil in the state to transport it to other states for recycling purpose.

In the above referred circular Goa PCB has observed that waste/sludge oil/residue containing oil recycling units located outside the State of Goa are not filing records of returns regularly to Goa PCB. Similarly many generators do not intimate the Goa PCB in advance before handing over the hazardous waste to transporter as prescribed in the Rules for better tracking and maintenance of records of storage, transportation and treatment of waste oil/residues containing oil. Accordingly, they have given instructions to the generators in Goa to hand over the waste oil for recycling/reprocessing to recyclers who have plant in Goa with valid CTO and Authorization.

The matter was considered in the 33rd Meeting of the TRC held on 28th October 2014. The Committee recommended obtaining the comments /views of GSPCB on the representation of M/s Shiva Petro – Synth Specialities Ltd, Mumbai.

The committee may deliberate the issue with Goa Pollution Control Board.

AGENDA ITEM NO 09: Immobilizing of Jarosite waste generated by non-ferrous metal industries, HZL in India (23-17/2015-HSMD)

Immobilizing of Jarosite waste generated by non-ferrous metal industries, mainly HZL in India, is presently being done by (S/S) Solidification / Stabilization* method through treatment with admixture of lime and cement powder, the hazardous character having transformed into non-hazardous and converted into a chemically inert, physically stable mass called Jarofix that eliminates all short and long term environmental risks during and after its landfill. CRRI & NEERI, Nagpur analysis of Jarofix waste in accordance with HWRules,2008 classifies Jarofix as Non-Hazardous waste and allows its use in road construction.

Based on the S/S technical guidelines of United State Environmental Protection Agency (EPA) and United Kingdom Environment Agency (EA) Lime / Cement stabilization has been extensively tested with a wide range of hazardous wastes over a wide range of contaminants and their concentrations.

The classification of Jarofix has nowhere been made as a hazardous waste, however it is regulated by PCBs because of its generation in large quantities (millions of tons p.a.) and therefore monitored to be disposed in SLF, which otherwise could have been disposed in an unorganized and scattered manner over large private / Govt. owned lands alike marble dust. Accordingly while throughout the world whole of Zinc industry is seized with problem of large expense being incurred on lime/cement treatment of hazardous Jarosite waste towards converting it into

immobilized - non-hazardous inert Jarofix waste, availability of expensive lands for its secured landfill is another difficulty being faced by zinc industry.

The geochemistry of the wastes matrix such as carbonates, sulphates, phosphates, silicates, chlorides, oxides etc. present in solid wastes e.g. Jarofix, Marble Stone dusts etc. were identified at our end and their compatible & combining treatment and chemical effects studied to arrive at a situation that prevents the leaching of residual heavy metals transforming the non-hazardous mixed mass into pozzolanic characteristics evolving automatic crystallization of chemical gypsum usable in cement industry. The bulk crystallization of Gypsum has been made possible through treated wastes mechanical mixing, agri tilting & drying technique. Use performance of dried gypsum material has been evaluated & approved by cement cos. in conformity with BIS cement manufacturing standards.

Both landfill of millions of tons of Jarofix and Mable dust in and around public habitat having become great cause of concern for PCBs and administrative authorities in Rajasthan especially in Udaipur region, and our invention & endeavor to convert them into mass consumable product e.g. chemical gypsum for cement industry, TEC is kindly requested to endorse and notify the *Jarofix* as non-hazardous waste enabling commence its mass consumption, along with substantial marble dust and other compatible waste quantities generated in abundance in Rajasthan and other states of the country, providing true Clean India impetus for surroundings and the environment.
Effective Use of invented stabilized mixed wastes mass possessing pozzalanic properties can be made at around 10 to 15% reducing carbon footprint by decreased clinker use, as against the singular use of Jarofix not exceeding beyond 2 to 4% mix in grinding process of cement manufacturing.

Patents with regard to immobilizing treatment technology of different byproducts & wastes and their transformation into mass consumption cementitious materials, followed by concrete drum truck mixing & agri-drying process imparting pozzolanic properties without use of heat energy stands filed by the MD of the Co. Shri Harish Kandhari.
* Solidification refers to a process that binds contaminated media with a reagent, changing the media's physical properties via increasing its compressive strength, decreasing its permeability, and encapsulating the contaminants to form a solid material.

Stabilization refers to the process that involves a chemical reaction which reduces the leachability of a waste, chemically immobilizes the waste and reduces its solubility, making the waste become less harmful or less

mobile. In stabilization technology, the aim of adding lime & cement is to change the waste physical and chemical properties through pH control technology, redox potential technology, precipitation techniques, adsorption technology, and ion-exchange technology that encapsulate & change the existing forms of heavy metals in wastes, and thus, reduce the heavy metals bioavailability and mobility.

AGENDA ITEM NO 10: Submission made by Oil Industry Safety Directorate (OISD) with regard to Carbon black Oil (Carbon Black feed Stocks) (F. No.12-90/2014-HSMD):

The Technical Review Committee in its 34th Meeting has deliberated in detail on the issue and has the following comments on the reference made by the Commissioner of Customs in respect of import of carbon black oil (carbon black feedstock):

Decision:

i) Carbon Black Oil/feedstock is not included in the category of Hazardous waste in the Hazardous Waste Rules, 2008. It is produced in refineries and not in petrochemical processes.

ii) There are no standard specifications either national or international for carbon black oil/carbon black feedstock. The committee was informed that a proposal is under the consideration of BIS for formulating specifications for Carbon Black Feedstock.

iii) The committee looked at the characteristics/specifications of carbon black oil/carbon black feedstock from three of the Indian Refineries namely Indian Oil Corporation, Barauni and Haldia and Reliance (Jamnagar). There is significant variation in various parameters among the three products.

iv) The main consideration in suitability as carbon black feedstock is the high fraction of poly aromatics more than 50% resulting in high carbon content (>90%) and low hydrogen content.

v) From the environmental considerations a limit of Sulphur content of 3% is being specified for carbon black feedstock.

With reference to the decision taken in 34th TRC held on 10th December 2014 on Carbon black Oil/Feedstock, Oil Industry Safety Directorate (OISD) has stated that it is produced in Refineries and its sulphur content is crude specific. As the Refineries are processing wide range of Crude from low sulphur to high suphur depending upon the availability, it will be worth to finalize the specification of the Carbon Black feed Stock without sulphur content limit. Accordingly, Ministry has been requested to consider the same while finalizing the specification of the Carbon Black feed Stock.

The committee may deliberate the issue with regard to submissions made by OISD.

Discussion on 'Pre-shipment certification' in the NOC of used rubber/ waste- Markap Resources Pvt. Ltd. (23-259/2014-HSMD)

******

The applicants should confirm their participation for the meeting of the Technical Review Committee