Minutes of 1st Committee Meeting (2024-25), for By-Products and Hazardous waste categorization

Date : 20/06/2024

Venue : MPCB, 4th Floor, Conference Hall, Sion Circle, Sion (E), Mumbai.

Committee Members present for the meeting:

1.	Dr Avinash Dhakne, Member Secretary	Chairman
2.	Dr. V. M. Motghare, Joint Director (APC)	Member
3.	Dr. J. B. Sangewar, Joint Director (WPC)	Member
4.	Shri. Shankar Waghmare, RO (BMW)	Member
5.	Shri. M.P. Patil, Representative of NEERI	Member
6.	Shri. Sujit Dholam, RO (HQ)	Invitee
7.	Shri. N. N. Gurav, Assistant Secretary (Tech), MPCB	Member convener

At the outset, the request was received from the members (1) Dr. B. R. Naidu, Ex Zonal Officer, CPCB for leave of absence from attending the meeting was placed before the Committee meeting. The Committee considered the same.

Assistant Secretary (Tech.), MPCB, Member convener of the Committee, welcomed all the members of the Committee and requested Member Secretary, MPCB, Chairman of the committee to permit proceedings of the meeting to start.

Based on the applications made by the industries, the members thereafter deliberated on the agenda items placed before the committee and following decisions were taken.

Agenda Item No. 01

Project Name: **M/s. VINATI ORGANICS LIMITED.**
A 20 D 30/2 MIDC AREA LOTE PARSHURAM, TAL KHED DIST. RATNAGIRI. 415722

(i) **Application unique No.:** MPCB-BY_PRODUCT-0000000032.
(ii) **Environmental Clearance details:** SEIAA-EC-0000000208, dated 12/03/2018.
(iii) **Consent details:** Obtained consent to operate vide Format1.0/CAC/UAN No.0000107484/CO-2107001035, 19/07/2021, which is valid upto 31/03/2026.

<table>
<tr><th colspan="2">Proposed inclusion of By-product</th><th>Industry submission and deliberation</th><th>Committee decision</th></tr>
<tr>
<td colspan="2">
<table>
<tr><th>Sr. No.</th><th>Name</th><th>Qty</th><th>Purity</th></tr>
<tr><td>1</td><td>Methanol</td><td>26880 MT/A</td><td>99.8%</td></tr>
<tr><td>2</td><td>N tertiary Butyl Acrylamide (TBA)</td><td>2112 MT/A</td><td>99%</td></tr>
<tr><td>3</td><td>Tertiary Butyl Amine</td><td>1608 MT/A</td><td>99%</td></tr>
</table>
</td>
<td>VINATI Lote unit manufactures Isobutylene 48000 MTA by thermal cracking of MIBK (methyl isobutyl ketone).
• The reaction products generated are isobutylene and methanol.
• Methanol is listed by MPCB in the hazardous waste in CTO under sr no 20 Stoichiometrically, 1 mole of MIBK generates I mole of Isobutylene and 1 mole of methanol.
• Thus, while producing 48000MTA Isobutylene, theoretically 27000 MTA of methanol is produced.
VINATI Lote unit manufactures AAMPS OR ATBS 33000MTA by reacting acrylonitrile & isobutylene
• The reaction products generated are AAMPS, TBA and TB amine</td>
<td>Committee noted that the said proposal was discussed before 1st committee meeting of 2022-23 held on 12/08/2022 & it was decided to defer the case for next meeting, meanwhile industry shall submit the following documents
• Purity of the by-product with indicating its usability.
• End use of the by -product followed by the manufacturing process involves thereof.
• Last month invoices for by product indicating being sold to end consumer with commercial value.
• Last month's statement of sale of by product to end user.</td>
</tr>
</table>

	• TBA is listed as hazardous waste in CTO under sr no 14 • TB Amine is listed as hazardous waste in CTO under sr. no.15 • Along with AAMPS both TBA and TB Amine are formed simultaneously in the reaction. • Thus, while producing 33000 MTA AAMPS, 2112 MTA TBA & 1608 MTA TB AMINE are formed	• Details analysis report from IIT/NEERI /NCL showing concentration level of organic impurities. It was noted that the expert member of the committee was not present for the instant meeting. After due deliberations, it was therefore decided to defer the case for next meeting.

Agenda Item No. 02

Project Name: **M/s. Evonik Catalysts India Private Limited.,**
Plot No. F-1/1 & F-1/2, MIDC Phase- I, Dombivali,
Taluka Kalyan, District Thane

(iv) **Application unique No.:** MPCB-BY_PRODUCT-0000000049.

(v) **Environmental Clearance details:** NA.

(vi) **Consent details:** Obtained consent to operate vide Format1.0/CAC/UAN No. MPCBCONSENT-0000119211/CO/2207000109 dated 02/07/2022 valid upto 30/04/2025.

<table>
<tr><th colspan="2">Proposed inclusion of By-product</th><th>Industry submission and deliberation</th><th>Committee decision</th></tr>
<tr><td colspan="2"><table>
<tr><th>Sr. No.</th><th>Name</th><th>Qty</th><th>Purity</th></tr>
<tr><td>1</td><td>Nickel Aluminum alloy</td><td>96 MT/A</td><td>-</td></tr>
<tr><td>2</td><td>Noble Metal Chemicals</td><td>6 MT/A</td><td>-</td></tr>
<tr><td>3</td><td>Noble Metal (sponge & flats)</td><td>1.2 MT/A</td><td>-</td></tr>
<tr><td>4</td><td>Sodium Aluminates Solution</td><td>8402 MT/A</td><td>12 to 25%</td></tr>
</table></td><td>Industry stated that the proposal was earlier discussed before 2nd committee meeting of 2023-24 held on 30/01/2024 & as per the minutes of the said meeting industry has presented/submitted;
• Purity of the by-product including metal analysis with indicating its usability.
• End use of the by -product followed by the manufacturing process involves thereof.
• Last month invoices for by product indicating being sold to end consumer with commercial value.
• Last month's statement of sale of by product to end user.

Sodium Aluminates Solution:
Industry has claimed that by-product Sodium Aluminum Solution is generated in</td><td>Nickel Aluminum alloy, Noble Metal Chemicals, Noble Metal (sponge & flats):
Committee noted that the said proposal was discussed before 2nd committee meeting of 2023-24 held on 30/01/2024 & it was noted the industry has installed dedicated plant for manufacturing of intermediate products namely Nickel Aluminum alloy, Noble Metal Chemicals, Noble Metal (sponge & flats) which is directly used as an intermediate for manufacturing of Activated alloy (Raney) catalyst, Palladium catalyst & Precious Metal Catalyst respectively.
Also, industry submitted copy of consent accorded by the Board to</td></tr>
</table>

	purification of Nickel Aluminum alloy with caustic for mfg. of Raney nickel catalyst. They have reported that analysis reports of purity carried out by NABL accredited laboratory is submitted.	similar type of industry wherein the claimed products are listed as product. **Sodium Aluminates Solution:** The committee noted that the claimed by-product Sodium Aluminum Solution is generated in purification of Nickel Aluminum alloy with caustic for mfg. of Raney nickel catalyst. As per discussion during presentation Industry has submitted analysis reports of purity carried out by NABL accredited laboratory. After due deliberations, it was decided to consider **Nickel Aluminum alloy, Noble Metal Chemicals, Noble Metal (sponge & flats) Nickel Aluminum alloy, Noble Metal Chemicals, Noble Metal (sponge & flats)** as products as the industry has installed dedicated plant for manufacturing of the same & it is directly used as an intermediate for manufacturing of Activated alloy (Raney) catalyst, Palladium catalyst & Precious Metal Catalyst respectively. It was noted that the expert member of the committee that had raised

		queries during the meeting held on 30/01/2024 was not present for the instant meeting. Therefore after due deliberations, it was decided to defer the case wrt **Sodium Aluminates Solution** for next meeting.

Agenda Item No. 03

Project Name: **M/s. Privi Speciality Chemicals Limited.,**
A-07, MIDC Mahad, Dist. Raigad.

(i) Application unique No.: MPCB-BY_PRODUCT-0000000058 .
(ii) Environmental Clearance details: Industry has obtained Environmental Clearance vide No. SEAC-2013/CR-242/TC-2 dated 08/10/2015.
(iii) Consent details: Consent to Operate under Red/LSI category, vide No. Format1.0/CC/UAN No.0000151650/CO/2304000648 dated 11/04/2023 valid up to 31/08/2025.

<table>
<tr><th colspan="2">Proposed inclusion of By-product</th><th>Industry submission and deliberation</th><th>Committee decision</th></tr>
<tr>
<td colspan="2">
<table>
<tr><th>Sr. No.</th><th>Name</th><th>Qty</th><th>Purity</th></tr>
<tr><td>1</td><td>Aqueous Fluoroboric Acid

OR</td><td>82.7 MT/A</td><td>22.32%</td></tr>
<tr><td>2</td><td>Potassium/ Sodium/ Calcium Tetrafluoroborate</td><td>313 MT/A</td><td>--</td></tr>
</table>
</td>
<td>Industry submission:
Industry is engaged in mfg of Aromatic chemicals. Industry has claimed 01 no. of Hazardous Wastes listed in existing consent as By-Products & 1 no. of additional By-Product to be mfg. by processing Aqueous Fluoroboric Acid in-house to form Potassium/ Sodium/ Calcium Tetrafluoroborate for consideration of the same as By-Products:

Industry stated that their proposal was earlier discussed in 1st Meeting of 2023-24 for By-Product & Hazardous Waste Categorization held on 18/10/2023 & the said case was deferred to reexamine the case to verify on whether the claimed By Product Aqueous Fluoroboric Acid is listed under Schedule-I/II/III/IV of Hazardous Wastes Rules 2016.</td>
<td>Committee noted that the case was discussed before 1st Committee Meeting of 2023-24 for By-Product & Hazardous Waste Categorization held on 18/10/2023 & the committee had decided to defer the case for next meeting to reexamine the case to verify on whether the claimed By Product Aqueous Fluoroboric Acid is listed under Schedule-I/II/III/IV of Hazardous Wastes Rules 2016.

It was noted that the expert member of the committee was not present for the instant meeting.

After due deliberations, it was therefore decided to defer the case for next meeting.</td>
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</table>

Agenda Item No. 04

Project Name: **M/s. DMCC Specialty Chemicals Limited.**
105, MIDC Dhatav, Tal. Roha, Dist. Raigad, Maharashtra

(vii) **Application unique No.:** MPCB-BY_PRODUCT-0000000060.
(viii) **Environmental Clearance details:** NA.
(ix) **Consent details:** Obtained consent to operate vide Format1.0/CC/UAN No. MPCB-CONSENT-0000190331/CR/2403002522, dated 23/03/2023 which is valid up to 28/02/2027.

<table>
<tr><th>Proposed inclusion of By-product</th><th>Industry submission and deliberation</th><th>Committee decision</th></tr>
<tr>
<td>
<table>
<tr><th>Sr. No.</th><th>Name</th><th>Qty</th><th>Purity</th></tr>
<tr><td>1</td><td>Dil. Sulphuric acid</td><td>11600 MT/M</td><td>70%</td></tr>
<tr><td>2</td><td>Diphenyl Sulphone</td><td>24 MT/M</td><td>99%</td></tr>
<tr><td>3</td><td>Sodium Sulphate</td><td>400 MT/M</td><td>95%</td></tr>
</table>
</td>
<td>1) As per the definition of by-product the claimed by-products are fully in line with the definition. Moreover, it is clearly mentioned in the definition that they are generated during the manufacture of intended product although not intended and also the claimed by-products are used as such by the end users.
2) As per the Framework on the Identification of Materials Generated from Industrial Processes as Wastes or By-products as per CPCB guidelines, their by-products are perfectly in line with the said framework.
3) The claimed by-products are not listed in Schedule-III, Schedule-IV, Schedule-VI and column (3) of Schedule-I.
4) While manufacturing of any intended product, initially it is always in impure</td>
<td>Committee noted that the said proposal was discussed before 2nd committee meeting of 2023-24 held on 30/01/2024 & it was decided that both Dilute Sulphuric acid and Sodium sulphate shall continue as HW as Dilute sulphuric acid generates during the processing of raw materials into intermediates and final products and Sodium sulphate in the process of scrubbing excess SO_3 with caustic. However, in case of Diphenyl Sulphone industry shall submit the following documents for consideration in next meeting:
• Purity of the by-product with indicating its usability.</td>
</tr>
</table>

	stage to some extent after completion of the reaction which is further separated and purified to acceptable quality by the users. Similarly, the case is with the by-products also. Hence, based on the above, the Industry has requested to consider Dil. H_2SO_4 generated from Benzene Sulphonyl Chloride along with Dil. H_2SO_4 generated from Chloro Sulphonic Acid and also the remaining two products viz. Diphenyl Sulphone, Sodium Sulphate as byproducts. 5) The industry has submitted that all the by-products mentioned in the application for consideration of by-products are listed in valid consent which are currently in hazardous waste. 6) Industry has uploaded the source of these by-products i.e., from which product manufacturing the particular by-product is generated. Particular product's flow diagram is uploaded showing the point of generation of by-product. 7) The industry has uploaded the analysis report about the concentration of by-products i.e. dil. Sulphuric acid, Sodium sulphate and Diphenyl Sulphone.	• End use of the by -product followed by the manufacturing process involves thereof. • Last month invoices for by product indicating being sold to end consumer with commercial value. • Last month's statement of sale of by product to end user. It was noted that the expert member of the committee that had raised queries during the meeting held on 30/01/2024 was not present for the instant meeting. After due deliberations, it was therefore decided to defer the case for next meeting.

Agenda Item No. 05

Project Name: **M/s. DOW CHEMICAL INTERNATIONAL PVT LTD,**
(Plot No. T-22(PT), MIDC Industrial Area,
Tal. Panvel, Dist. Raigad - 410208)

(i) Application unique No.: MPCB-BY_PRODUCT- 0000000064.
(ii) Environmental Clearance details: NA.
(iii) Consent details: Format1.0/CAC/UAN No. 0000103323/CR/2103001539, dated 24/03/2021 which is valid up to 31/01/2026.

<table>
<tr><th colspan="4">Proposed inclusion of By-product</th><th>Industry submission and deliberation</th><th>Committee decision</th></tr>
<tr><th>Sr. No.</th><th>Name</th><th>Qty</th><th>Purity</th><td rowspan="2">Industry submission:
Industry stated that the application was previously discussed in 2nd Committee meeting of 2022-23 held on 15/12/2022 & it was decided that
• The By-product Latex Polymer cake which is shown in current consent shall be considered as Hazardous Waste & disposed to the Actual user having permission under Rule 9 of Hazardous & Other Wastes (M & TM) Rules, 2016.
• The By-product shown in current consent shall be shifted to Hazardous Waste as category 20.4 by amending the consent.

Industry stated that Latex Polymer cake is not generated from any pollution control equipment.</td><td rowspan="2">Committee noted that the said proposal was previously discussed in 2nd Committee meeting of 2022-23 held on 15/12/2022 & it was decided that
• The By-product Latec Polymer cake which is shown in current consent shall be considered as Hazardous Waste & disposed to the Actual user having permission under Rule 9 of Hazardous & Other Wastes (M & TM) Rules, 2016.
• The By-product shown in current consent shall be shifted to Hazardous Waste as category 20.4 by amending the consent.</td></tr>
<tr><td>1</td><td>Latex Polymer Cake</td><td>2425 MT/A</td><td>-</td></tr>
</table>

	And based on Guidelines for Identification of Materials Generated from Industrial processes as waste or by-products – the LPC is clearly the By-product and not the waste. • The by-product LPC composition doesn't have any hazardous chemical and it is confirmed via analysis report from ICT & IIT. • ICT report analysis is clearly mentioned the by-product is not hazardous. • IIT report is also confirmed that – the LPC is non-hazardous in nature Industry has submitted report of ICT & IIT which mentioned that – Latex Polymer Cake is Non-hazardous in nature. Industry requested to consider & conclude their application and approve Latex Polymer Cake as Non-hazardous By-product .	It was noted that the expert member of the committee that had raised queries during the meeting held on 30/01/2024 was not present for the instant meeting. After due deliberations, it was therefore decided to defer the case for next meeting.

Agenda Item No. 06

Project Name: **M/s. Metallurgical Products (I) Pvt. Ltd**
(Plot T-27, MIDC Industrial Area Taloja Tal-Panvel, District- Raigad.

(iv) Application unique No.: MPCB-BY_PRODUCT- 0000000066.
(v) Environmental Clearance details: NA.
(vi) Consent details: Format1.0/AS(T)/UAN No. 0000114973/CR-2109000389, dated 13/09/2021 which is valid up to 31/07/2026.

<table>
<tr><th colspan="2">Proposed inclusion of By-product</th><th>Industry submission and deliberation</th><th>Committee decision</th></tr>
<tr><td colspan="2"><table>
<tr><th>Sr. No.</th><th>Name</th><th>Qty</th><th>Purity</th></tr>
<tr><td>1</td><td>Sodium Fluoride</td><td>2000 Kg/D</td><td>96%</td></tr>
<tr><td>2</td><td>Calcium Fluoride</td><td>12000 Kg/D</td><td>95%</td></tr>
<tr><td>3</td><td>Calcium Sulphate</td><td>8000 Kg/D</td><td>96%</td></tr>
</table></td><td>Industry submission:
1) Sodium Fluoride (NaF), Calcium Fluoride – CaF2 & Calcium Sulphate – CaSO4: They are generated during mfg. of Tantalum Pentoxide Or Ferro Tantalum Or Potassium Fluoro Tantalate and Niobium Pentoxide Or Niobium Metal (ATR) Or Ferro Niobium. They are mentioned as by-product in the previous Consent to Operate dated-18/10/2017. Not falling under Guidelines for Identification of Materials Generated from Industrial Processes as Wastes or By-products [Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. The process of production is not listed in the projects or activities which require Environment Clearance (EC) under the EIA</td><td>Committee noted that the industry has submitted analysis reports of purity of the By-products conducted in house by the industry.
After due deliberations, it was decided to defer this claimed By-Products for next meeting, meanwhile industry shall carry out & submit detailed analysis report from IIT/NEERI/NCL showing concentration level of organic impurities along with;
• Purity of the by-product with indicating its usability.
• End use of the by -product followed by the manufacturing process involves thereof.
• Last month invoices for by product indicating being sold to</td></tr>
</table>

	Notification 2006, so does not require EC. **Deliberations:** • Industry claims that the claimed by-products the materials are not intended to be produced but gets produced. • The material are not listed in Schedule-III, Schedule- IV, Schedule VI of HOWM Rules 2016. • The material are also not listed in Schedule I of the HOWM Rules 2016. • Industry has conducted the Pre-feasibility study of the claimed by-products for its end uses, as per Appendix-1 of CPCB guiding document of by-products identification. • The end uses of the material are feasible. Safety Data Sheets for all the By-Products has been submitted. • The process of production is not listed in the projects or activities which require Environment Clearance (EC) under the EIA Notification 2006, so does not require EC.	end consumer with commercial value. • Last month's statement of sale of by product to end user.

Agenda Item No. 07

Project Name: **M/s. DRT-Anthea Aroma Chemicals Pvt Ltd.,**
Plot No. 51-A/1, Roth Budruk, Tal-Roha Dist. Raigad, Maharashtra

(vii) Application unique No.: MPCB-BY_PRODUCT- 0000000068.
(viii) Environmental Clearance details: EC-2008/11/CR.1 was issued on 30/01/2010.
(ix) Consent details: Format1.0/CAC/UAN No. MPCB-CONSENT_AMMENDMENT-0000006908/CR/2402000010 dated 05/02/2024 which was valid up to 28/02/2024.

<table>
<tr><th colspan="2">Proposed inclusion of By-product</th><th>Industry submission and deliberation</th><th>Committee decision</th></tr>
<tr><td colspan="2"><table>
<tr><th>Sr. No.</th><th>Name</th><th>Qty</th><th>Purity</th></tr>
<tr><td>1</td><td>Phosphoric Acid (35%)</td><td>160 MT/M</td><td>35% to 50%</td></tr>
</table></td><td>Industry submission:
1) As per the definition of by-product the claimed by-product is fully in line with the definition as per mentioned in Hazardous & other waste (Management and Trans boundary Movement) rule 2016. Moreover, it is clearly mentioned in the definition that if by-product is generated during the manufacture of intended product although not intended and also the claimed by-product is used as such by the end users, it is to be considered as by-product.
2) As per the Framework on Identification of Materials Generated from Industrial Processes as Wastes or By-products as per CPCB guidelines, claimed by-product is perfectly in line with the said framework.</td><td>Committee noted that the industry has submitted analysis reports of purity of the By-products.
After due deliberations, it was decided to defer this claimed By-Product for next meeting, meanwhile industry shall carry out & submit detailed analysis report from IIT/NEERI/NCL showing concentration level of organic impurities along with;
• Purity of the by-product with indicating its usability.
• End use of the by -product followed by the manufacturing process involves thereof.
• Last month invoices for by product indicating being sold to end consumer with commercial value.</td></tr>
</table>

	3) The claimed by-product is not listed in Schedule-III, Schedule-IV, Schedule-VI and column (3) of Schedule-I. **Deliberations:** 1) During the presentation the industry has submitted that Phosphoric Acid was mentioned as a by-product under hazardous waste in consent to operate dtd. 05/02/2024. 2) Industry has uploaded a) The source of said by-product i.e., from manufacturing of intended product Anthamber, Phosphoric acid is generated as by-product. b) Material balance along with manufacturing process of product (Anthamber) in which the claimed by-product is being generated in the chemical reaction. c) Declaration regarding purity of by-product. d) End use of by-product i.e. sold to end user directly. e) Prefeasibility study and Safety data sheet. 3) The industry has uploaded the analysis report about the concentration of Phosphoric Acid (35%), metal contents (most of the metals are below detectable limits and some are found to be negligible) and concentration of total	• Last month's statement of sale of by product to end user.

	organic carbon (TOC is about 0.008ppm i.e. negligible). 4) Industry presented last month invoice for by-product as a proof for being sold to end consumer (fertiliser Industry-Tinco Chemicals Pvt. Ltd.) with commercial value and last month's statement of sale. 5) The industry has uploaded some more names of the direct end users for by-product. Hence, based on the above, the industry has requested to consider Phosphoric Acid generated from manufacturing of Anthamber as by-product.	

The meeting ended with vote of thanks to Chair.

(Nandkumar Gurav)
Assistant Secretary (Technical)

(Dr. Avinash Dhakne, IAS)
Member Secretary & Chairman of the Technical Committee