Minutes of 2nd Committee Meeting (2023-24), for By-Products and Hazardous waste categorization

Date : **30/01/2024**

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.	Dr. B. R. Naidu, Ex Zonal Officer, CPCB	Member
6.	Shri. N. N. Gurav, Assistant Secretary (Tech), MPCB	Member convener

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

(i) **Application unique No.:** MPCB-BY_PRODUCT-0000000049.
(ii) **Environmental Clearance details:** NA.
(iii) **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>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>Nickel Aluminum alloy</td><td>96 MT/A</td><td>-</td></tr>
<tr><td></td><td>Noble Metal Chemicals</td><td>6 MT/A</td><td>-</td></tr>
<tr><td></td><td>Noble Metal (sponge & flats)</td><td>1.2 MT/A</td><td>-</td></tr>
<tr><td></td><td>Sodium Aluminates Solution</td><td>8402 MT/A</td><td>12 to 25%</td></tr>
</table>
</td>
<td>Industry submission:
Nickel Aluminium Alloy
Alloy formation is an intermediate process step of catalyst manufacturing. Pre weighed quantity of Ni metal chips & aluminum ingots are charged into furnace. After complete melting molten alloy is poured into casting trolley. It is allowed to cool naturally. The alloy is broken into small pieces. These small pieces of alloy are charged into hammer mill. Powder is collected into drums & alloy powder is shifted to Raney ni catalyst manufacturing section for final catalyst manufacturing.
No further reprocessing is required, to be used directly for Raney nickel catalyst manufacturing.
Nickel Aluminium Alloy is used as intermediate in AMC plant for manufacturing of Activated alloy (Raney) catalyst

Noble Metal Chemicals
Pre weighed quantity Pd sponge & glacial acetic acid are heated to 105°C in RBF. pre weighed quantity of nitric acid is charged. It is Mixed for 1 hr. Loaded on filter, DM water wash to residue is given. residue is transferred into a glass tray and dried in oven.</td>
<td>Nickel Aluminum alloy, Noble Metal Chemicals, Noble Metal (sponge & flats):
Committee noted that 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 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.</td>
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</table>

	No further reprocessing required, to be used directly as palladium catalyst at customer end & Used directly as catalyst/Raw Material at customer end in Agrochemicals & Pharma industries **Noble Metal (sponge & flats)** Intended product from precious metal spent catalyst recovery process, having **precious metal content >99.9%.** Formic acid treatment is given to pd ash. The residue is filtered and HCL treatment given. Pd is leached in to Pd chloride solution. Potassium sulphate is added to precipitate Pd in form of Pd sulphate under chlorine purging. Ammonia & HH are added to form Pd sponge. Pd sponge is dried in oven. No further reprocessing required, to be used directly as intermediate for Precious metal catalyst manufacturing in catalyst section of PMC plant. Sponge is adsorbed on carbon for manufacturing of precious metal catalysts in PMC plant. This sponge can be supplied to other industries for various similar / other applications. **Sodium Aluminates Solution** In Raney nickel catalyst manufacturing, selective removal of aluminum from alloy particles using aqueous sodium hydroxide is carried out.	After due deliberations, it was decided to defer the case for next meeting, meanwhile industry shall submit the following documents • 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 aluminate is formed as by-product. Industry has made detailed presentation and submitted following details; a. Source of by-products b. Material Balance along with mfg. process of products in which the claimed by-Products are being generated, along with chemical reactions. c. Declaration regarding Purity of By-products d. End use of the By products e. Prefeasibility study, Environmental & Health Impact and Risk Assessment Studies, Safety Data Sheets. **Deliberations:** Industry presented that the claimed By-Products is directly used as Raw material in various industries. The claimed By-Product Sodium aluminate solution is used as raw material to produce sodium aluminate granular powder by heating the solution. It is used as raw material along with soda ash solution & aluminium chloride solution to produce Aluminium Hydroxide Gel (paste).	

Agenda Item No. 02

Project Name: **M/s. DMCC Speciality Chemicals Ltd..,**
Plot No. 105, MIDC Dhatav, Tal. Roha, Dist. Raigad..

(i) Application unique No.: MPCB-BY_PRODUCT- 0000000060.
(ii) Environmental Clearance details: Industry is established prior to EIA notification, 2006.
(iii) Consent details: Format1.0/CC/UAN No. MPCB-CONSENT_AMMENDMENT-0000009826/CR/2311000025, dated 12/11/2023 which is valid up to 29/02/2024.

<table>
<tr><th colspan="4">Proposed inclusion of By-product</th><th>Industry submission and deliberation</th><th>Committee decision</th></tr>
<tr><td colspan="4" rowspan="4"><table>
<tr><th>Sr. No.</th><th>Name</th><th>Qty</th><th>Purity</th></tr>
<tr><td>1</td><td>Dil. Sulphuric acid (60-70%)</td><td>11000 MT/M</td><td>70%</td></tr>
<tr><td></td><td>Dil. Sulphuric acid (50-60%)</td><td>600 MT/M</td><td>60%</td></tr>
<tr><td>2</td><td>Diphenyl Sulphone</td><td>24 MT/M</td><td>99.88%</td></tr>
</table></td><td rowspan="4">Industry submission:
The industry is for the manufacturing of Sulphuric acid along with other inorganic products and synthetic organic chemicals.
Claimed By-Product Dil. Sulphuric acid is generated during mfg. of Chlorosulphonic Acid. Dilute Sulphuric acid is obtained during the generation of the hydrogen chloride gas, which is transferred back to Sulphuric Acid plant or sold as by-product. Also Dil. Sulphuric acid is generated from mfg. of Benzene Sulphonyl Chloride. Benzene & Chlorosulphonic acid are contacted in a reactor with heat removal. Benzene is transferred from the main storage tank (underground) to a process tank periodically. A metering pump delivers benzene to the reactor from the process</td><td rowspan="4">After due deliberations, 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.
• 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>

3	Sodium Sulphate	400 MT/M	91.9%	tank. Chlorosulphonic acid is also added to the reactor from the storage through metering pump. Chlorosulphonic acid is taken in large excess to ensure that benzene reacts completely and no trace of it remains in the system. After the reaction Benzene Sulphonyl Chloride is formed as product and along with dil. Sulphuric Acid and hydrochloric acid as by-products. Hydrochloric acid is reused in house for mfg. process. By-product Diphenyl Sulphone is generated during mfg. of Benzene Sulphonyl Chloride. 2 moles of chlorosulphonic acid reacts with one mole of benzene which gives Benzene Sulphonyl Chloride and Simultaneously one mole of chlorosulphonic acid reacts with 2 moles of benzene to produce Diphenyl sulphone. The claimed By-Product Sodium Sulphate is generated during mfg. of Sodium Vinyl Sulphonate. Caustic lye reacts with excess Sulphur trioxide to form Sodium sulphate. Industry has made detailed presentation and submitted following details; a. Source of by-products b. Material Balance along with mfg. process of products in which the claimed by-Products are being	end consumer with commercial value. • Last month's statement of sale of by product to end user.

	generated, along with chemical reactions. c. Declaration regarding Purity of By-products d. End use of the By products e. Prefeasibility study, Environmental & Health Impact and Risk Assessment Studies, Safety Data Sheets. **Deliberations:** Industry claims that the claimed by-products are as pure as a fresh product and generated from the unit operation of the manufacturing process and not from pollution control equipment. As the claimed by-product does not contain any contamination/ impurity there will not be any generation of other waste due to use of the claimed by-product. Hence, there is no negative impact on the quality where this by-product will be used directly. Industry stated that 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. Also, as per the Framework on 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. Industry stated that the claimed by-products are not listed in Schedule-III, Schedule-IV, Schedule-VI and column (3) of Schedule-I. Industry further stated that while manufacturing of any intended product, initially it is always in impure 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. The industry has uploaded some of the names of the direct end users for by-products.	

Agenda Item No. 03

Project Name: **M/s. Megafine Pharma (P) Ltd..,**
(Gat No. 201, Village Lakhmapur,
Tal. Dindori, Dist. Nashik).

(i) Application unique No.: MPCB-CONSENT-0000128248.
(ii) Environmental Clearance details: Industry has obtained Environmental Clearance Date. 21/02/2020.
(iii) Consent details: Consent to Operate under Red/LSI category, vide dated 28/08/2022 valid upto 10/12/2024.

<table>
<tr><th colspan="4">Proposed inclusion of By-product</th><th>Industry submission and deliberation</th><th>Committee decision</th></tr>
<tr><td>Sr. No.</td><td>Name</td><td>Qty</td><td>Purity</td><td rowspan="2">Industry submission:
Industry reported that the application submitted was for amendment in consent to Operate accorded vide dated 28/08/2022 which is valid upto 10/12/2024 for change in disposal path of Hazardous Waste Categories 28.4, 20.3, 33.2, 35.3, 36.2, 28.3 & 28.1 to authorized Pre-processor/Co-processor.
Industry also stated that they have not applied for categorization fo Hazardous Waste & By-products</td><td rowspan="2">Committee noted that the industry had applied for amendment in consent to Operate accorded vide dated 28/08/2022 which is valid upto 10/12/2024 for change in disposal path of Hazardous Waste Categories 28.4, 20.3, 33.2, 35.3, 36.2, 28.3 & 28.1 to authorized Pre-processor/Co-processor. The said application was discussed before 19th Consent Committee meeting of 2023-24 held on 04/11/2023 & it was decided to defer the case & place the application before Technical Committee for Hazardous Waste & By-Product categorization for examination.

After due deliberations, it was noted that this case is an application for just change in disposal path of Hazardous Waste only. Hence the application does not come under the</td></tr>
<tr><td>1</td><td>NA</td><td>-</td><td>-</td></tr>
</table>

		purview of Technical committee for By-Product & Hazardous Waste categorization. Committee decided to communicate to Consent Committee that the Board can consider for change in disposal path of Hazardous Waste as per Board's circular dated 28/08/2022.

Agenda Item No. 04

Project Name: **M/s. Spectrum Ethers Pvt Limited.,**
Gat No 367.,Rasegaon Village
Tal- Dindori, Dist-Nashik.

(i) Application unique No.: MPCB-CONSENT_AMMENDMENT-0000011605 dated 25.08.2023.
(ii) Environmental Clearance details: Obtained EC dtd. 28.03.2016 for Expansion of Pesticide manufacturing unit.
(iii) Consent details: Obtained Consent to Operate vide Format1.0/CC/UAN No.0000115569/CO/2203001232 dated 24.03.2022 valid upto 31.03.2024.

Proposed inclusion of By-product	Industry submission and deliberation	Committee decision
1) It is an existing unit engaged in manufacturing of Pesticides. 2) Industry is having Consent to operate dtd. 24.03.2022 valid upto 31.03.2024. 3) Now industry has applied for Amendment in existing Consent to operate for bifurcation of Hazardous Waste quantity (without change in Total HW quantity). 4) They have proposed bifurcation in one HW category, reduction in two HW categories, increase in two HW categories & addition of one new HW category. 5) Industry has submitted the justification for changes in hazardous waste quantity with the application. 6) The said application was discussed before 20th Consent Committee Meeting of 2023-24 held on 04/11/2023 and it was	**Industry submission:** Industry has applied for the amendment for changes in quantities of some of the hazardous waste & change in categories for disposal path and also addition of some applicable categories specifically proposed bifurcation in one category, reduction in two categories, increase in two categories & addition of one new category. Industry has submitted justification for the same is enclosed as ANNEXURE-A:	Committee noted that the industry had applied for amendment in consent to Operate accorded vide dated 24.03.2022 valid upto 31.03.2024 for Amendment in existing Consent to operate for bifurcation of Hazardous Waste quantity (without change in Total HW quantity). The said application was discussed before 19th Consent Committee meeting of 2023-24 held on 04/11/2023 & it was decided to defer the case & place the application before Technical Committee for Hazardous Waste & By-Product categorization for examination. After due deliberations, it was noted that this case is an application for

decided to defer the case and to place the application before Technical Committee for Hazardous waste & By-product categorization for examination and Technical Committee shall communicate the recommendation to Consent Committee.		Amendment in existing Consent to operate for bifurcation of Hazardous Waste quantity (without change in Total HW quantity). Hence the application does not come under the purview of Technical committee for By-Product & Hazardous Waste categorization. After due deliberations, it was recommended to place the case before Product-mix committee(TCM)

The meeting ended with vote of thanks to Chair.

(N.N. Gurav)
Assistant Secretary (Tech.) & Member Convenor

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