Minutes of 3rd meeting of Technical Committee (2023-24) for assessment of application of under change in product-mix

Date : **08/09/2023**

Venue : **4th Floor, Conference Hall, Kalpataru Point, Sion, Mumbai & Microsoft Team Video conferencing.**

Technical Committee Members present for the meeting:

1) Shri. Nandkumar Gurav, Assistant Secretary (Technical), MPCB	Chairman
2) Shri. A.M. Pimparkar, Scientist-1, Environment Department	Member
3) Shri. Dr. V. M. Motghare, Joint Director (APC)	Member
4) Shri. Dr. J. B. Sangewar, Joint Director (WPC)	Member
5) Dr. B.R. Naidu, Ex. Regional Director, CPCB	Member
6) Shri. M.P. Patil, Representative of NEERI	Member
7) Shri. Anurag Garg, Chair Professor	Member
8) Shri. S.V. Patil, Vasantdada Sugar Institute	Special Invitee

At the outset, the request received from the members (1) Regional Director, CPCB, Pune, (2) Shri. Dr. Ravindar Kontham, Principal Scientist, NCL Pune and (3) Shri. Sagar Auti, Member Convener for leave of absence from attending the meeting was placed before the Committee meeting. The Committee considered the same.

Shri. Nandkumar Gurav, Assistant Secretary (Technical), MPCB & Chairman of the Committee welcomed all the Committee members. Committee deliberated on the agenda items placed and following decision were taken.

Agenda Item No.	**1**
Proposal No.	**MPCB-CONSENT-0000152833**
Project Details	**M/s. Pioneer Distilleries Ltd. (PDL),** Sr No. 286/1, 2 & 291, 285/1 /A,B, 285/2, At- Balapur Village, Taluka- Dharmabad, Dist- Nanded.
NIPL Certificate	NIPL Certificate issued By Equinox Environments (I) Pvt Ltd., vide letter No.: EEIPL/370/2022-23, Date: 07/12/2022.

Introduction:

This has reference to the online proposal submitted vide No. MPCB-CONSENT-0000152833 along with the copies of documents seeking consent to establish for enhancement of grain-based alcohol production in the existing 100 KLPD molasses-based distillery by changing raw material from molasses to grain under the provisions of EIA Notification 2006 amended on 23/11/2016 & amended on 02/3/2021. The industry is having presently dedicated manufacturing lines for manufacture of alcohol (RS/ENA/Impure Spirit) by using Molasses, Grains & Malt as raw materials. Accordingly, PDL has obtained Consent to Operate for 100 KLPD Molasses, 60 KLPD Grains and 12 KLPD Malt based distillery units.

Existing Clearances:

1. The Environmental Clearance was obtained for expansion of distillery unit from 100 KLPD to 200 KLPD ENA/Ethanol, 16 MW power generation, Acetic Acid 30 MT/Day & Ethyl Acetate 20 MT/Day vide No.J-11011/171/2006-IA-II (I) dated 19.03.2008.
2. The unit has obtained consent to operate from Board vide consent No. Format 1.0/ CAC/ UAN No. MPCB- CONSENT – 0000075891/CR/2205000417 dated 08.05.2022 valid up to 31.08.2024.

Project Details:

The industry is having presently distillery units for manufacture of alcohol (RS/ENA/Impure Spirit) by using Molasses, Grains & Malt as raw materials. Accordingly, industry has obtained combined Consent to Operate for 100 KLPD Molasses, 60 KLPD Grains and 12 KLPD Malt based distillery unit. Now the unit has proposed to enhance their production of grain

distillery 60 KLPD to 160 KLPD by changing raw material from molasses to grain in their existing 100 KLPD molasses base distillery plant. 100 KLPD molasses base distillery operation will be discontinued after shifting of molasses operation to grain & all other existing product remain same.

A. Product Details:

Sr. No.	Products	Existing Production	Proposed change in production under NIPL	Total
1	Molasses based RS/ENA/Impure Spirit/ Ethanol	2400 MT/M (100 KLPD)	- 2400 MT/M (100 KLPD)	0
2	Grain based RS/ENA/Impure Spirit	1440 MT/M (60 KLPD)	+ 2400 (100 KLPD)	3840 MT/M (160 KLPD)
3	Malt Spirit	360 KL/M (12 KLPD)	No change	360 KL/M (12 KLPD)
4	IMFL Bottling	3600 KL/M	No change	3600 KL/M
	By-Products			
1	Fusel Oil	8.6 KL/M	No change	8.6 KL/M
2	DDGS	3600 MT/M	+ 2200 MT/M	5800 MT/M
3	Malt Spent Grain	2500 MT/M	No change	2500 MT/M
4	CO2	2250 MT/M	No change	2250 MT/M
5	Grain Syrup	1200 MT/M (40TPD)	+ 2000 MT/M (67 TPD)	3200MT/M (107 TPD)

- **CO_2 Gas is sent to Bottling Plant of capacity 75 MT/D.**
- **After NIPL, total alcohol production on Grains based will be 3840 MT/M (160 KLPD).**
- **100 KLPD Molasses based operations will be discontinued. No change in capacity of Malt based operations.**

B. Pollution load Details:

(i) Process Water Consumption & Wastewater Aspect:

	Description	Quantities granted in CTO	100 KLPD Molasses (Quantity as per Actual)	60 KLPD Grains (Quantity as per Actual))	12 KLPD Malt (Quantity as per Actual)	100 KLPD Grains (After change)	IMFL Bottling Plant (Quantity as per Actual)
1	Water Consumption in Manufacturing Process	5,227.50 CMD	1380 CMD	863 CMD	357 CMD	1464 CMD	434 CMD
2	Effluent Generation (M3/ Day) a. Spent wash	1870 CMD	800 CMD Raw Spent wash (160 Conc. Sp. wash)	402 CMD	80 CMD	444 CMD	0
	b. Other Effluents (Cooling b/d, Boiler b/d, DM backwash & Lab & Washing)		118 CMD	78 CMD	18 CMD	118 CMD	72 CMD

Total Water <u>Consumption for process</u> & Effluent generation from process in PDL Complex: -

Overall Total Water Consumption in PDL Complex			Overall Effluent Generation in PDL Complex		
Quantities granted in CTO	**Existing Operations** (100 KLPD Molasses Distillery + 60 KLPD Grain Distillery + 12 Malt Spirit Plant + IMFL Bottling Plant)	**After NIPL** (160 KLPD Grain Distillery + 12 Malt Spirit Plant + IMFL Bottling Plant)	**Quantities granted in CTO**	**Existing Operations** (100 KLPD Molasses Distillery + 60 KLPD Grain Distillery + 12 Malt Spirit Plant + IMFL Bottling Plant)	**After NIPL** (160 KLPD Grain Distillery + 12 Malt Spirit Plant + 72 IMFL Bottling Plant)
5227.50 CMD	3034 CMD	3118 CMD	1870 CMD	1568 CMD	1212 CMD

Pollution Loads for Principle Effluent (Spent wash) in Existing 100 KLPD Molasses Distillery & 100 KLPD Grain Distillery after Change in Raw Material

No	Para.	SET – A			SET - F		
		100 KLPD Molasses			Proposed Onsite Status 100 KLPD Grain		
		Char. Mg/Lit	Discharge M3/Day	Load Kg/Day	Char. Mg/Lit	Discharge M3/Day	Load Kg/Day
1	TS	1,15,000	1159	1,33,285	1,00,000	444	44,400
2	SS	20,000		23,180	4,000		1,776
3	TDS	90,000		1,04,310	95,000		42,180
4	BOD	80,000		92,720	45,000		19,980
5	COD	1,40,000		1,62,260	90,000		39,960
	Total			**5,15,755**			**1,48,296**

- Total actual spent wash generation under existing operations is- 800 CMD (Molasses based distillery) + 402 CMD (Grain based distillery) + 80 CMD (Malt based distillery) – i.e total 1282 CMD. After a change in raw material under NIPL the total spent wash generation will reduce to- 926 CMD. The pollution loads in 100 KLPD plant for molasses shall get reduced by 32% after switching to grains as raw material.
- Total actual generation of trade Effluent under existing operations is 1568 CMD & after NIPL will be reduced to 1212 CMD.

Treatment System:

a. **Trade effluent Treatment:**

The effluent is directly treated through Multi-Effect Evaporator (MEE) and the MEE condensate will be treated in existing CPU plant having Primary, Secondary and Tertiary treatment system followed by Reverse Osmosis and the centrifuge wet cake / MEE concentrate will be treated in Dryer.

Industry has provided Effluent Treatment Plant (CPU) comprising Equalization Tank, Anaerobic Digester, Lamella Clarifier, Aeration Tank, Clarifier, MMF, ACF, Reverse Osmosis and treated effluent is recycled in the process/ utilities to achieve Zero Liquid Discharge.

(ii) Air Emission Load:

Steam Consumption & Fuel Utilization for Manufacturing Operations in PDL Distillery Complex after Discontinuation of Molasses based Operations

No.	Description	Fuel & Steam Consumption				As per the CTO
		100 KLPD Grain Operations (Replacing Molasses)	60 KLPD Grains Operations	12 KLPD Malt Operations	Total as per Industry working after raw material change in NIPL	100 KLPD Molasses, 60 KLPD Grain & 12 KLPD Malt
1	Total Steam Consumption	700 MT/Day	420 MT/Day	156 MT/Day	1276 MT/Day	2496 MT/Day
2	Boilers	52 TPH & 40 TPH		12 TPH	52, 40 & 12 TPH	52, 40 & 12 TPH
3	Fuels (TPD)	Rise Husk – 204 TPD + Rice Husk – 250 TPD=Total 454 TPD 204 TPD - Qty. of Rise Husk equivalent to 288 TPD Spent wash from CV calculations.		Rise Husk - 95 TPD	Rice Husk 454 + Rice Husk 95 = Total 549 TPD	Spent wash & Rise Husk 588 + Rise Husk 107 = Total 695 TPD

- Present spent wash & rice husk consumption in the industry for existing operations (100 KLPD Molasses Distillery, 60 KLPD Grain Distillery, and 12 KLPD Malt) are 633 MT/Day after change in raw material in the 100 KLPD plant, the Rice husk / coal consumption will be reduced to 549 MT/Day and the spent wash burning and its use as fuel will be totally eliminated.
- The incineration boiler will be used as normal boiler after change in raw material from Molasses to Grain.
- The Steam required for Distillery operations is taken from Existing boilers 52 TPH & 40 TPH. Provided MDC followed by ESP as an APC to 52 TPH and Bag filter & wet scrubber to 40 TPH with common stack of height 65 mtr.
- The total Steam consumption and overall steam consumption per KL is increased, but due to change in fuel (Spent wash to Rice husk) the TPM load will decreases from 241.80 kg/Day to 217.42 kg/Day.
- CO2 scrubbing system provided.

(iii) Solid Waste Load:

No.	Type of Waste	Qty. (MT/Day)			Disposal
		As per CTO	Actual generation	After change in product mix.	
1	MEE Concentrate	5	4	4	Used as fuel for Boiler mixed with Rise Husk / Sold as fertilizer
2	Yeast Sludge	10	8	6	
3	Boiler Ash	135	110	83	Sold to Brick Manufacturer/ manure

- **Total Solid Waste load under existing operations 122 MT/D will get reduced after raw material to 93 MT/D which is 24% lesser.**

(iv) Hazardous Waste Load:

No.	Type of Waste	Quantity	Disposal
1	5.1 Used or Spent Oil	800 Ltr/M	Authorized Recycler (AR) / CHWTSDF
2	33.1 Empty barrels/ Containers/ Liners contaminated with hazardous chemicals/ wastes	2000 Nos./Y	Authorized Recycler / CHWTSDF
3	5.2 Wastes or residues containing oil	5 Kg/M	CHWTSDF
4	3.3 Sludge & filters contaminated with oil	216 Kg/Annum	CHWTSDF
5	27.1 Process residue	2000 Kg/Annum	CHWTSDF
6	Asbestos Waste	2000 Kg/Annum	CHWTSDF
7	WTP Resin	2000 Ltr/Annum	Authorized Recycler / CHWTSDF

8	RO/UF Membrane	60 Kg/Annum	Authorized Recycler / CHWTSDF
9	Active Carbon	100 Kg/Annum	Authorized Recycler / CHWTSDF
10	Caustic/Chemical gunny bag	1000 Kg/Annum	Authorized Recycler / CHWTSDF
11	27.1 Process residue	2000 Kg/Annum	Authorized Recycler / CHWTSDF

- There is no change in Hazardous Waste before & after change in product mix i.e change in raw material.

Technical Committee Deliberations:

The project proposal was discussed based on presentation made and documents- NIPL Certificate, NIPL proforma submitted by the proponent. Product wise load calculation in terms of wastewater and Air Emissions were discussed. Existing Consent to Operate, Environmental Clearance, No Increase in Pollution Load certificate issued by M/s. Equinox Environments (I) Pvt Ltd. and product-mix proforma are taken on the record.

After due deliberations Committee noticed that:

(i) The industry is having three dedicated manufacturing lines for 100 KLPD Molasses based distillery unit, 60 KLPD Grain based distillery unit and 12 KLPD Malt based distillery unit. The proposal submitted for enhancement in capacity of grain based distillery unit 60 KLPD to 160 KLPD by switching the raw material from molasses to grain in their existing 100 KLPD molasses based distillery unit. The use of molasses as a raw material will completely stopped.

(ii) PP has proposed plant modifications for change in raw material from molasses to grain.

(iii) There is overall reduction in water consumption, wastewater generation and Air Pollution Load. The total pollution load will reduce by 32%.

(iv) The consented water consumption and trade effluent generation are more than the actual quantities of water consumption and effluent generation. For the proposed change in product mix the actual water consumption for process is proposed 3118 CMD and the total trade effluent generation will be 1212 CMD, which is less than the exisitng consented quantities.

(v) Present spent wash & rice husk consumption in the industry for existing operations (100 KLPD Molasses Distillery, 60 KLPD Grain Distillery, and 12 KLPD Malt) are 633 MT/Day, after change in raw material in the 100 KLPD plant, the total fuel consumption will be rice husk - 549 MT/Day. The spent wash burning and its use as fuel will be eliminated.

(vi) Industry has proposed process modification of ETP by installing the centrifuge system to reduce the load of MEE.

(vii) Industry has provided Zero Liquid Discharge system. i.e MEE followed by dryer and condensate is recycled back into process and utilities.

(viii) Industry in their existing operations has discontinued the coal as a fuel in boiler and completely shifted to the rice husk as fuel.

(ix) PP installed MDC & ESP as an air pollution control system to one boiler and Bag Filters and Wet Scrubber to another boiler.

(x) PP has installed CO2 bottling plant and low NOx burners in the boiler.

(xi) Industry has scrapped the spent wash lagoons as per the directions of the Board and only one dedicated RCC pond for rain water is provided.

Technical Committee Decision:

Technical Committee decided to recommend the case for change in product mix after getting the verification report from the Board Officials regarding the status of the compliance of the directions issued by the Board about scrapping of the lagoons and with a compliance of the following condition.

1) The industry shall submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF & CC, the respective Zonal Office of CPCB & MPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the industry.
2) The consent to be issued after change in product mix shall be in line with the new actual water consumption quantities and trade effluent submitted.
3) PP should not manufacture any other product for which permission is not granted by the MPCB.
4) PP shall ensure connectivity of OCEMS data to Board server.
5) PP shall submit the undertaking that PP shall use only rice husk as fuel for boiler and shall discontinue the use of coal completely in the boiler as proposed.
6) PP shall install adequate capacity CO_2 bottling plant.
7) PP shall ensure that there is no increase in the effluent and shall ensure Zero Liquid Discharge system.

Agenda Item No.	**2**
Proposal No.	**MPCB-CONSENT-0000146534**
Project Details	**M/s. Solara Active Pharma Sciences Limited.** Plot No. N 39 / N 39-1, Additional Ambernath MIDC, Anand Nagar, Ambernath (East), Thane Ambernath
NIPL Certificate	NIPL Certificate issued By M/s. Mahabal Enviro Engineers Pvt. Ltd. dated 28.03.2023.

Introduction:

This has reference to the online proposal submitted vide No. MPCB-CONSENT-0000146534 along with the copies of documents seeking Amendment in consent under change in product mix under the provisions of EIA Notification 2006 amended on 23/11/2016 & amended on 02/3/2021. The industry is having Consent to operate for the manufacturing of 12 Nos. of API products to the tune of 600 MT/A and R & D activity on 14/06/2021.

Industry has sent mail on 07.09.2023 and reported that due to some unavoidable circumstances they are unable to attend the meeting scheduled on 08.09.2023 and requested to postpone their proposal in upcoming meeting.

In view of above, Technical Committee decided to consider this proposal in next meeting.

Agenda Item No.	3
Proposal No.	MPCB-CONSENT-0000170972
Project Details	**M/s. Vinati Organics Limited.,** Plot No. B12,13/1, B4, B 5, B6, MIDC Mahad, Tal.- Mahad, Dist.- Raigad.
NIPL Certificate	NIPL Certificate issued by M/s. Aditya Environmental Services Pvt. Ltd. dated Nil and revised NIPL certificate submitted. No.: AESPL/23-24/NIPL-4Rev2 Date: 11.09.23

Introduction:

This has reference to the online proposal submitted vide No. MPCB-CONSENT-0000170972 along with the copies of documents seeking consent to establish for proposed reduction in the production quantity of Iso Butylbenzene from 18000 MT/A to 13500 MT/A and introduce 03 Nos. of new products namely Normal Propyl Benzene by 3000 MT/A, Meta Isobutyl toluene by 500 MT/A & Tert Amyl Benzene by 500 MT/A under change in product-mix under the provisions of EIA Notification 2006 amended on 23-Nov-16 & 02/3/2021.

Existing Environment Clearances (EC):

1. Environmental clearance is accorded by SEIAA, Maharashtra vide no. SEAC-2013 /CR259 /TC-2 dt 14/12/2015 for Proposed expansion of Synthetic Organic Chemicals.
2. Existing Consent to operate from MPCB CONSENT NO - Format1.0/CAC/UAN No.0000108586/CR 2107000886 dated 15/07/2021 valid up to 31/03/2026.

Project Details:

A. Products with change in product mix as below:

S.No	PRODUCTS	Quantities are in MT/A				Remarks
		As per EC	Existing as per CTO	Proposed change	After Change in Product Mix	
1	Iso Butylbenzene (IBB)	18024	18000	- 4500	13500	Decrease
2	Normal propyl benzene (NPB)	0	0	+ 3000	3000	New Product

3	Meta isobutyl toluene (MIBT)	0	0	+500	500	New Product
4	Tert, Amyl Benzene (TAB)	0	0	+500	500	New Product
4	Spent gases (Mixed propylene + propane/ liquefied propane)	3756	3756 (from IBB)	- 746	3010 (IBB 2922 + MIBT 88)	Decrease
	TOTAL PRODUCTS	**21780**	**21756**	**- 1246**	**20510**	5.7% Decrease

- **Total production will reduce from 21756 TPA as per existing valid CTO to 20510 TPA (reduction of 5.7% after Change in Product Mix).**

B. Pollution load Details:

(i) Water & Wastewater Aspect:

Category	Quantity for Water Consumption permitted as per CTO and EC in CMD	Quantity of Water consumption after change in product mix in CMD	Remark
1) Industrial Cooling	95	95	No change
2) Domestic Purpose	12	12	No change
3) Processing whereby water gets polluted and pollutants are easily biodegradable.	32	31.6	Actual qty as per material balance is 31.6 CMD
5) Gardening	5	5	No change
Total Water	144	143.6	Reduced

- **There will be a reduction in process water consumption as per the actual material balance.**

(ii) The existing & proposed effluent generation

Category	* Effluent Generation permitted as per CTO	Actual Effluent Generation Post proposal	Remarks
1) Trade Effluent	46 CMD (26 to CETP+ 20 to Viral Alkali for salt recovery)	45.6 CMD (11.7 CMD from process + 14 CMD effluent from utilities = 25.7 CMD to CETP and 19.9 CMD to Viral Alkali for salt recovery)	As per mass balance qty process effluent to Viral alkalis is 19.9 CMD (unchanged in both scenarios) and to ETP is 11.7 CMD + 14 CMD effluent from utilities.
2) Domestic Effluent	8	8	No Change
Total Effluent	**54**	**53.6**	
Effluent discharge to CETP	**26**	**25.7**	

- **There is reduction in water consumption and effluent generation post change in product mix.**

iii) Effluent Loads, Organic and TDS Load – Existing vs Proposed

Description	Existing Scenario	Proposed after NIPL
Water requirement for process from Material Balance	32 CMD	31.6 CMD
Low TDS Effluent from Process Material Balance to ETP	12 CMD	11.7 CMD
COD load to ETP from process effluents	139.6 kg/d	130.06 kg/d
TDS load to ETP from process effluents	21.72 kg/d	20.61 kg/d
High TDS effluent from process to Viral alkalis	20 CMD	19.9 CMD

Reduction in Effluent Load from Process to ETP:

- **COD Load will decrease from 139.6 Kg/D to 130.06 Kg/D.**
- **TDS load will decrease from 21.72 kg/D to 20.61 kg/D.**
- **Cooling Tower blowdown remains unchanged at 14 CMD, thus total effluent load to ETP will be 25.7 CMD.**

C. Treatment System:

i) **Trade Effluent:**
Industry has segregated trade effluent into strong & weak stream and provided treatment system as below.

Strong Stream: High COD/TDS stream effluent 19.9 CMD from neutralizer is sent by closed pipeline to M/s. Viral alkalis (a sister concern of unit located on adjoining plot B-12/2, MIDC Mahad) for recovery of salt.

Weak Stream: Low COD/TDS stream 25.7 CMD is treated in ETP of designed capacity 40 CMD & COD 560 kg/day comprising of primary, secondary and tertiary treatment system, further the treated effluent is sent to CETP.

ii) **Sewage effluent**
Domestic effluent from canteen and toilet is treated into sewage treatment plant of 20 CMD.

D. Fuel burning emissions:

S. No.	Parameter	As per CTO *	Proposed additional	Total Proposed post Product Volume
1	Coal requirement	12 MT/day	NIL	12 MT/day
2	Heavy Hydrocarbon OR	2.736 MT/day OR	NIL	2.736 MT/day
	Spent gas	2.4 MT/day	NIL	2.4 MT/day
3	HSD lit/day	4320 lit/day	-	4320 lit/day

- No new stack /process vent is proposed after proposed change in product mix.

iii) Process / Air Emission Load after change in product mix:

Stack no	Source	APC system provided	Stack Height m	Type of fuel	Sulphur content %
S1	Thermic Fluid Heater 30LKcal/hr	MDC and Bag Filter	35	Coal-500 kg/hr	0.5
	Thermic Fluid Heater 30LKcal/hr (Stand-by)	MDC and Bag Filter		Coal-500kg/hr	0.5
S2	Thermic Fluid Heater 8.5LKcal/hr (Stand-by)	Stack	30	HHC114 kg/hr Or Spent gas 100kg/hr	*Nil (HHC/Spent Gas)
S3	Thermic Fluid Heater 6LKcal/hr (Stand-by)	Stack	30	HHC114 kg/hr Or Spent gas 100kg/hr	*Nil (HHC/Spent Gas)
S4	DG set 1000KVA	Acoustic enclosure/Stack	6.2	HSD 180 kg/hr	1%

- **SO2 emissions is decreasing from existing 672 Kg/d to 326 Kg/d due to discontinuation of FO in THF after proposed change in product mix.**
- **Industry has submitted undertaking dtd. 11/09/2023 for not to use Heavy Hydrocarbons & Spent Gas as fuel in the existing TFH till obtaining permission from CPCB.**

(iii) Hazardous Waste Load:

Sr. No	Type of WASTE	As per EC	As per EXISTING CTO	Post Change of product mix
1	5.1 Used/ Spent Oil	500 KG/A	500 kg/A	500 KG/A
2	34.3 Chemical sludge from waste water treatment	300 KG/A	300 kg/year	300 KG/A

3	By Product Light hydrocarbon (mixed xylenes) Hexenes	1836 MTPA	153 MT/M	112.88 MT/M
4	By Product heavy hydrocarbon (Normal Butyl Benzene/C10/Butyl Benzene)	3744 MTPA	312 MT/M	333.2 MT/M
	TOTAL GENERATION		5580.8 MT/A	5353.9 MT/A

- **Total Hazardous waste i.e claimed by-products will be reduced by 227.8 MT/A after change in product mix.**

Technical Committee Deliberations:

The project proposal was discussed based on presentation made and documents- revised NIPL Certificate, NIPL proforma submitted by the proponent. Product wise load calculation in terms of wastewater, Air Emissions & Hazardous Waste generations were discussed. Existing Consent to Operate, Environmental Clearance, No Increase in Pollution Load certificate issued by M/s. Aditya Environmental Services Private Limited vide letter dated Nil and product-mix proforma are taken on the record.

Committee after due deliberations noticed that:

(i) PP has applied for the consent to establish under change in product mix.
(ii) Total production will reduce from 21756 TPA as per existing valid CTO to 20510 TPA after Change in Product Mix (reduction of 5.7%).
(iii) The total water consumption and trade effluent generation will be reduced by 0.4 CMD respectively.
(iv) The high salt containing effluent (19.9 CMD) from neutralizer is sent by closed pipeline to Viral alkalis (a sister concern of VOL located on adjoining plot B-12/2, MIDC Mahad) for recovery of salt.
(v) COD Load will decrease from 139.6 Kg/D to 130.06 Kg/D.
(vi) TDS load will decrease from 21.72 kg/D to 20.61 kg/D.
(vii) No new stack/process vent are proposed after change in product mix activity.
(viii) The spent gas is having the contents of propane and propylene gas which is compressed and sold in market and the residue gases are using as fuel in exisitng Thermic Fluid Heater.
(ix) As per the present practice the HHC and LHC are used as fuel in TFH without authorization from CPCB.
(x) SO2 emissions are decreasing from existing 672 Kg/d to 326 Kg/d due to discontinuation of FO in THF after proposed change in product mix.
(xi) Total Hazardous waste i.e claimed by-products will be reduced by 227.8 MT/A after change in product mix.

(xii) The PP has shown the Hazardous waste namely Light Hydrocarbon (LHC) and Heavy Hydrocarbon (HHC) in By-products and in Hazardous waste also, however, PP clarified that due to oversight it was listed in by-products and it should be in Hazardous Waste. Accordingly, later on PP has submitted corrected presentation.

Technical Committee Decision:

Technical Committee decided to recommend the case for change in product mix based on revised "No Increase in Pollution Load" as per the provision of EIA notification 2006 with compliance of the following conditions;

1) Industry shall submit the undertaking for not to use the HHC & LHC as a fuel in Boiler till obtaining permission/ Authorization from CPCB under Rule 9 of Hazardous & Other Wastes (Management & Transboundry Movement) Rules, 2016. Till that time the HHC and LHC shall be disposed to CHWTSDF/Co-processor through Pre-processor.
2) Consent shall be amended for discontinuation of HHC & LHC as fuel to TFH.
3) The standards of the parameter Total Particulate Matter shall be stringent to the 50 mg/NM3.
4) Industry shall comply with all the conditions stipulated in Environmental Clearance and ensure display/upload of six-monthly compliance monitoring report on their official website.
5) Industry should not manufacture any other product for which permission is not granted by the MPCB.
6) Industry shall ensure connectivity of OCEMS data to Board server.
7) The industry shall dispose of the claimed by-products as Hazardous waste as per the provisions of Hazardous & Other Wastes (M & TM) Rules,2016.

Agenda item No	**Item No. 4**
Proposal No.	MPCB-CONSENT-0000174975
Project Details	**M/s. Beetachem Industries** W-177, TTC MIDC, Thane Belapur Road, Pawane Village, Navi Mumbai
NIPL Certificate	NIPL certificate issued by M/s. Goldfinch Engineering Systems Private Limited Date.27/6/2023.

Introduction:

This is an existing unit engaged in manufacturing synthetic organic chemicals. This has reference to the online proposal submitted vide No. MPCB-CONSENT-0000137129 along with the copies of documents seeking amendment in existing consent to operate under change in product – mix under the provisions of EIA Notification, 2006 amended on 23/11/2016 & on 02/3/2021.

Exiting Clearances:

1. Environmental Clearance is accorded to the industry ref no. F. No. EC22B021 MH110847 dated 21.04.2022.
2. The unit has obtained valid consent to operate vide No: - Format 1.0 – Format 1.0 / AS(T) / UAN No. 0000150447 / CR/2211001485 dated 18.11.2022 valid upto 31.12.2027.
3. Authorization for the recycling of spent / mixed solvents is accorded by the Board vide No. BO/22070000001, Date.01.07.2022 valid upto 31.05.2027.

Project details:

A. Production Details:

Sr no	Name of Product	Production			
		As per EC (TPA)	As per CTO (TPA)	Proposed Changes	Total (TPA)
1	Methylal OR Ethylal	120	120	0	120

Sr no	Name of Product	Production			
		As per EC (TPA)	As per CTO (TPA)	Proposed Changes	Total (TPA)
2	Methyl Formate OR Ethyl Format	120	120	0	120
3	Iso propyl Acetate OR Ethyl Propionate	120	120	0	120
4	Ethyl Acetate OR Methyl Acetate **OR 1,3 Dioxolane***	**120**	**120**	**0**	**120**
5	Methyl Iso Butyl Carbinol (MIBC)	300	300	0	300
6	Ethyl Propionate	120	120	0	120
	Sub Total (A)	**900**	**900**	**0**	**900**
7	Rectification / Purification of Solvents From Waste Process under Schedule -I(cat. No.1.4/1.6/20.1/20.2/20.3/28.6) and all other categories from which solvent recovery is possible (Quantity to be handled - 4000 MT/A)	3500	3500	0	3500
8	Copper Sulphate and Nickel Sulphate and process under Schedule –I (Cat .No.1.7/17.2/18.1/35.2) (Quantity to be handled - 250MT/A)	150	150	0	150
	Sub Total (B)	**3650**	**3650**	**0**	**3650**
9	Recycling, Reconditioning and cleaning of barrels, containers for captive reuse	2500 No/M	2500 No/M	0	2500 No/M
	Grand Total (A+B)	**4550**	**4550**	**0**	**4550**

- * Industry has proposed a change in the product mix in its existing facility by addition of one new product (**1,3 Dioxolane**) which will be proposed to manufacture in Either / OR condition to existing products (Ethyl Acetate OR Methyl Acetate), without change in total production capacity.

B. Pollution load Details:

i) Water & Wastewater Aspect

Before Product Mix

Sr. No.	Particulars	Quantity in CMD										
1	Water Consumption	5.35										
2	Trade Effluent Generation											
Sr. No	Particular	Total Flow, CMD	Flow, CMD		COD				TDS			
			Strong	Weak	Strong		Weak		Strong		Weak	
					Mg/L	Kg/Day	Mg/L	Kg/Day	Mg/L	Kg/Day	Mg/L	Kg/Day
a	Process	0.5	0	0.1	--	--	3600	0.36	--	--	Nil	Nil
b	Washing & Other Industrial Activity		0	0.3	--	--	734	0.22	--	--	1500	0.45
c	Cooling Tower & Boiler		0	0.1	--	--	200	0.02	--	--	1200	0.12
Total (Trade)		**0.5**		**0.5**	**--**	**--**	**1200**	**0.6**	**--**	**--**	**1140**	**0.57**
c	Domestic Effluent Generation, CMD	1.1	0	1.1	--	--	600	0.66	--	--	600	0.66
		Total	**-**	**1.6**	**--**	**--**	**788**	**1.26**	**--**	**--**	**769**	**1.23**

After Product Mix:

Sr. No.	Particulars	Quantity in CMD										
1	Water Consumption	5.35										
2	Trade Effluent Generation											
Sr. No	**Particular**	**Total Flow, CMD**	**Flow, CMD**		**COD**				**TDS**			
			Strong	**Weak**	**Strong**		**Weak**		**Strong**		**Weak**	
					Mg/L	**Kg/Day**	**Mg/L**	**Kg/Day**	**Mg/L**	**Kg/Day**	**Mg/L**	**Kg/Day**

Sr. No.	Particulars	Quantity in CMD									
a	Process	0.5	0	0.1	--	--	3600	0.36	--	--	Nil	Nil
b	Washing & Other Industrial Activity		0	0.3	--	--	734	0.22	--	--	1500	0.45
c	Cooling Tower & Boiler		0	0.1	--	--	200	0.02	--	--	1200	0.12
Total (Trade)		**0.5**		**0.5**	**--**	**--**	**1200**	**0.6**	**--**	**--**	**1140**	**0.57**
c	Domestic Effluent Generation, CMD	1.1	0	1.1	--	--	600	0.66	--	--	600	0.66
		Total	**-**	**1.6**	**--**	**--**	**788**	**1.26**	**--**	**--**	**769**	**1.23**

- **Water Consumption, Effluent generation & Average COD Load will remain same.**

Pollution Load with respect to the Changes proposed: -

At Actual existing effluent characteristic: -		
(From Process Washing Activity, Cooling Tower & Boiler Blow down)		
Flow (CMD)	0.5	
Parameter	**Kg/Day**	**mg/L**
COD	0.6	1200
BOD	0.27	540
TDS	0.6	1200
After Product Mix Effluent characteristic: -		
(From Process Washing Activity, Cooling Tower & Boiler Blow down)		
Flow (CMD)	0.5	
Parameter	**Kg/Day**	**mg/L**
COD	0.6	1200
BOD	0.27	540
TDS	0.6	1200

- After change in product mix the COD, BOD & TDS values of effluent are same which are considered on worst case scenario basis. Newly added product which is proposed to manufacture in Either/ Or condition to exiting product will not have any increase in pollution load.

Treatment System

a) **Trade Effluent:** Effluent Treatment Plant (ETP) is of Design capacity 5 CMD. Strong COD /TDS stream from each product is distilled (in plant itself individually) to recover product / solvents. The distilled effluent from process (0.1 CMD) is treated along with the effluent from utilities & washings i.e. 0.4 CMD in primary treatment system and further discharged to the CETP.

b) **Domestic Effluent:**
The domestic effluent is treated separately in septic tank followed by soak pit.

ii) **Air Emission Load: -**

Sr. No.	Stack Attached to	Fuel	Existing Fuel Consumption EC	Existing Fuel Consumption CTO	Fuel Consumption after Change in Product Mix	APC system	Stack Height Meter
S-1	Chimney (Thermal Heating System)	PNG	15 Kg/Day	Not mentioned	15 Kg/Day	Stack	30
S-2	D G Set (125 KVA)	HSD	28 Lit/Hr	Not mentioned	28 Lit/Hr	Stack	4.5
S-3	Process Vent	NA	NA	NA	NA	Scrubber	11

Flue Gas Emissions:-

Sr. No.	Source	Parameters:	Before change in product-mix	After change in product-mix	MPCB Norms
S-1	Chimney (Thermal Heating System)	TPM	15-20 mg/Nm^3	No Change	150 mg/Nm^3
S-2	D G Set (125 KVA)	TPM (From HSD)	40-60 mg/Nm^3	No Change	150 mg/Nm^3
		SO_2 (HSD)	0.1- 2 kg/day	No Change	13.44 Kg/day

- **The process emissions will remain the same as existing quantities.**
- **DG Set (125 KVA) is already installed at site as per EC.**
- **Process Vent is existing in the plant, and it is also mentioned in Environmental clearance (EC).**

iii) Hazardous Waste Load

Sr. No	Type of Waste	Cat. No.	As Per EC	As Per CTO.	Existing Qty.	After Change in Product Mix Qty.	Disposal
1	1.6 Spent Cu/Ni Catalyst /Molecular Sieves (From Petrochemical Process)	1.6	25 MT/A	25 MT/A	25 MT/A	25MT/A	CHWTSDF
	17.2 Spent Cu/Ni Catalyst From (Production of Acid)	17.2					
	18.1 Spent Cu/Ni Catalyst From production of Nitrogenous and complex fertilizers)	18.1					
	Spent Cu/Ni Catalyst (From purification process of organic compounds/ solvents)	-					

2	1.4-Organic residue	1.4	480 MT/A	480 MT/A	480 MT/A	480 MT/A	CHWTSDF
	Still Bottoms From distillation process.	-					
	20.1-Contaminated Aromatic, Aliphatic or Napthenic solvents not fit for originally intended use	20.1					
	20.2-Spent Solvent	20.2					
	20.3-Distillation Residue	20.3					
3	Chemical Sludge from waste water treatment	35.3	2 MT/A	10 MT/A	2 MT/A	2 MT/A	CHWTSDF
4	34.1 Chemical-containing residue arising from decontamination.	34.1	2.5 MT/A	2.5 MT/A	2.5 MT/A	2.5 MT/A	CHWTSDF
5	34.2 Sludge from treatment of waste water arising out of cleaning / disposal of barrels / containers	34.2	2.5 MT/A	2.5 MT/A	2.5 MT/A	2.5 MT/A	CHWTSDF

- **The quantity of chemical sludge from wastewater treatment mentioned in EC is 2 MT/A & in CTO it is mentioned as 10 MT/A. However, generation of chemical sludge from wastewater treatment is within 2 MT/A.**

Technical Committee Deliberations:

The proposed project was discussed based on documents – NIPL Certificate and presentation made by the industry. Product wise load calculation in terms of wastewater, Air emissions & Hazardous waste generation were discussed. Existing consent to operate, Environmental Clearance, NIPL Certificate issued by M/s. Goldfinch Engineering Systems Private Limited Date.27/6/2023 and product –mix Proforma are taken on the record.

After due deliberations, Committee noticed that:

i) Industry has proposed addition of one new product (1,3 Dioxolane) which will be proposed to manufacture in Either / OR condition to existing products (Ethyl Acetate OR Methyl Acetate), without change in total production capacity.

ii) The water consumption, effluent generation & Average COD Load will remain the same.
iii) The trade effluent is treated into distillation for product recovery before being sent to ETP.
iv) After change in product mix the COD, BOD & TDS values of effluent are same which are considered on worst case scenario basis.
v) The process emissions will remain the same as existing quantities.
vi) DG Set (125 KVA) is already installed at site as per EC.
vii) Scrubber exists in the existing plant, and it is mentioned in Environmental clearance (EC).
viii) The overall Hazardous waste quantity after product mix will remain same. The quantity of chemical sludge from wastewater treatment mentioned in EC is 2 MT/A & in CTO it is mentioned as 10 MT/A. However, generation of chemical sludge from wastewater treatment is within 2 MT/A. Quantity of Hazardous Waste namely chemical sludge from wastewater treatment shall be restricted to 2 MT/A.

Technical Committee Decision:

Technical Committee decided to recommend the case for change in product under product mix with compliance of the following conditions;

1) Industry shall obtain the amendment in the consent to operate for inclusion of D.G Set and Scrubber and shall obtain the amendment for the Haz. Waste 35.3 Chemical Sludge from wastewater treatment quantity as 2 MT/A as mentioned in Environmental Clearance.
2) Industry shall comply with the conditions stipulated in Environmental Clearance and ensure display /upload of six-monthly compliance monitoring report on their official website.
3) Industry shall not manufacture the other products for which permission is not granted by the MPCB.
4) Industry shall ensure the connectivity of the OCEMS data to the Board Servers.

Agenda Item No.	5
Proposal No.	MPCB-CONSENT-0000176458
Project Details	**M/s Balaji Amines Ltd. (Unit-I) (Gut.No.197, Village-Tamalwadi.)** Gat No. 197 Gat No. 197, Tamalwadi, Tal.: Tuljapur, Dist.: Osmanabad.
NIPL Certificate	NIPL Certificate issued by M/s. Equinox Environments (I) Pvt. Ltd., Dated. 28.06.2023 and Acknowledgement of Parivesh portal.

Introduction:

This has reference to the online proposal submitted vide No. MPCB-CONSENT-0000176458 along with the copies of documents seeking amendment in consent to operate for proposed change in product-mix under the provisions of EIA Notification 2006 amended on 23-Nov-16 & 02/3/2021.

Existing Environment Clearances (EC):

1. Environmental clearance is accorded by SEIAA, Maharashtra vide no. EC F. No. J-11011/296/2011-IA II(I), Date.15.07.2015 for expansion.
2. Existing Consent to operate from MPCB CONSENT NO - MPCBCONSENT-0000129327/CR/2211001973 dated 24/11/2022 valid up to 29/02/2024.

Project Details:

C. Products with change in product mix as below:

No	Product	Quantity (MT/M)		Remark
		Existing CTO	After NIPL	
1	Mono Methyl Amine (MMA)	600	600	--
2	Di Methyl Amine (DMA)	1448	1448	--
3	Tri Methyl Amine (TMA)	304	304	--
4	Mono Ethyl Amine (MEA)	83.2	83.2	--
5	Di Ethyl Amine (DEA)	173.6	173.6	--

6	Tri Ethyl Amine (TEA)	396	396	--
7	Di Methyl Amine Hydrochloride (DMA HCl)	**1260**	**630**	Decrease by 630 MT/M
8	**Di Methyl Acetamide (DMAC)**	**375**	**625**	Increase by 250 MT/M
9	**Choline Chloride (CC)**	**150**	**750**	Increase by 600 MT/M
10	Di Methyl Amino Ethanol (DMAE)	305	305	--
11	Di Ethyl Amino Ethanol (DEAE)	316	316	--
12	Tri Ethyl Benzyl Ammonium Chloride (TEBAC)	100	100	--
13	Dimethyl Urea (DMU)	300	300	--
14	Morpholine	330	330	--
15	Absolute Alcohol	2000 KL/M (1578 MT)	2000 KL/M (1578 MT)	
16	Choline Chloride (50 % on corn cob)	500	500	
17	Choline Chloride (60 % on corn cob)	500	500	
18	N-Methyl-2-Pyrrolidone(NMP)	304	304	
19	Gama Butyro Lactone	533	533	--
20	N-Ethyl-2- Pyrrolidone/ 2-Pyrrolidone	**504**	**252**	Decrease by 252 MT/M
21	Mono Ethyl Amine Hydrochloride (MEAHCL)/ Di Ethyl Amine Hydrochloride (DEAHCL)/ Tri Ethyl Amine Hydrochloride (TEAHCL)	72	72	--
22	Tri Methyl Amine Hydrochloride (TMAHCL) / Mono Methyl Amine Hydrochloride (MMAHCL)	72	72	--
23	Hydrogen	49.2	49.2	--
	Total	**10,253**	**10,221**	Reduction by 32 MT/M
24	Electricity Generation (CPP)	2.5 MW	2.5 MW	--

Technical Committee Deliberations:

The project proposal was discussed based on presentation made and documents- NIPL Certificate, NIPL proforma submitted by the proponent. Product wise load calculation in terms of wastewater, Air Emissions & Hazardous Waste generations were discussed. Existing Consent to Operate, Environmental Clearance, No Increase in Pollution Load

certificate issued by M/s. Equinox Environments (I) Pvt. Ltd., Dated. 28.06.2023 and product-mix proforma are taken on the record.

Committee after due deliberations noticed that:

(i) PP is engaged in manufacturing of Amines and its derivatives. PP has applied for the amendment in consent to operate under change in product mix for changing quantities within the products by reduction in mfg. quantities of existing two products and increase in mfg. quantities of other two existing products.
(ii) PP has submitted that due to changing in the quantities within the products there will no increase in pollution load.
(iii) PP has presented the PPT and during presentation committee noted that PP has shown the Choline Chloride 75% as product as well as raw material. Committee noted that there is mismatch in mass balance calculation and resulting mismatch in calculation of whole stoichiometry.

Technical Committee Decision:

Technical Committee decided to defer the case and instructed PP to reassess the mass balance, pollution load along with the NIPL certificate and was advised the PP to furnish the above details before the committee. After receipt of report from PP, it will be placed before Committee.

Review Agenda item No	**Item No. 6**
Proposal No.	MPCB-CONSENT-0000167993
Project Details	**M/s. Cipla Ltd (Unit-1)** **Plot No. A-33, A-37/2/2, Patalganga, Tal. Khalapur, Dist. Raigad**
NIPL Certificate	NIPL certificate issued by M/s. Ultra Tech (Environmental Consultancy & Environmental Laboratory) dated 04.04.2023.

Introduction:
This is an existing unit having consent to operate which is valid upto 30/4/2023 for mfg of Pharmaceutical Products. PP has applied for amendment in consent to operate under change in product mix. The application under change in product mix was discussed in 2nd Technical Committee meeting dtd. 09.06.2023.

After due deliberations committee noted that though the Technical committee is having mandate to compare / determine the "Pollution Load" on the basis of prior Environmental Clearance, in absence of the same and on the request of project proponent., the committee has decided to determine "Pollution Load" on the basis of last consent to operate certificate issued by the Board vide No. Format 1.0/CAC/UAN No. 0000131364 /CR /2209001232 dtd. 19.09.2022 and come to conclusion that, there is "No Increase in Pollution Load". However, this facility is available to those units which have obtained prior environmental clearance under EIA Notification, 1994 and EIA Notification, 2006.

After due deliberations and discussions Technical Committee decided that, it will be appropriate to seek guidance from MoEF & CC/ State Govt. regarding this product – mix applicant as well other such units, who were then not required to obtain EC/ exempted as having old establishment prior to EC applicability, if NIPL is satisfied and in such cases the pollution load can be compared with valid consent to operate (CTO) for getting exemption from going through entire EIA process and the Technical Committee further decided to defer the case till receipt of guidance from MoEF & CC/ State Govt. with liberty that PP may pursue in this regard with MoEF & CC.

PP has submitted request letter dated 01.09.2023 for review of the application before the Technical Committee, stating following points;

1) The unit was established in 1982 before the EIA Notification 1994 and 2006.
2) They have obtained the change in product mix in 2008 from the Board and there was no prerequisite of having Environmental Clearance for NIPL.
3) PP has applied for the change in product mix in 2016.

4) Meanwhile the MoEF & CC has issued new Office Memorandum, wherein it is mentioned that there is mandate to compare the NIPL applications with Environmental Clearance.
5) The PP has submitted that they has applied for EC, presented the case to SEAC as well as SEIAA and received letter dated 17.11.2022 from SEIAA about non-applicability EC in present case.
6) Therefore the PP has submitted the case under NIPL before the Technical Committee for change in product mix.
7) The application under change in product mix was discussed in 2nd Technical Committee meeting dtd. 09.06.2023. Technical Committee decided that, it will be appropriate to seek guidance from MoEF & CC/ State Govt. regarding this product – mix applicant as well other such units, who were then not required to obtain EC/ exempted as having old establishment prior to EC applicability, if NIPL is satisfied and in such cases the pollution load can be compared with valid consent to operate (CTO) for getting exemption from going through entire EIA process and the Technical Committee further decided to defer the case till receipt of guidance from MoEF & CC/ State Govt. with liberty that PP may pursue in this regard with MoEF & CC.
8) Accordingly, the Board has issued a letter to The Joint Director, MoEF & CC, Dtd. 30.06.2023.
9) Then PP has submitted a letter dtd. 01.09.2023 for review of the application before the Technical Committee.

During discussion, PP has stated that the Board has referred the case to MoEF & CC as a general without quoting their name, hence they have requested the Committee to refer their case to MoEF & CC as a special case in the name of M/s. Cipla Ltd.

Technical Committee Decision:

Technical Committee noted that, PP does not have the Environmental Clearance (EC) for the existing consented products being the unit is established in the year 1982. Now PP has proposed to manufacture additional products by replacing/ reducing some of the existing product/ production quantity under Change in Product-Mix. However, as per EIA Notification, 2006 and subsequent amendments thereto, it is understood that Product-Mix benefit can be availed by the units who were earlier having Environmental Clearance (EC).

Technical Committee decided to send the reminder letter to the Joint Director, MoEF&CC and it was also decided to make a special case reference in the name of M/s. Cipla Ltd to the MoEF&CC by submitting all the details.