

**MINUTES OF THE 6<sup>th</sup> EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 8-9 April, 2019**

**Venue: Indus Hall, Ground Floor, Jal Wing, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, JorBagh Road, New Delhi-3**

**Time: 10:30 AM**

**6.1 Opening Remarks by the Chairman**

**6.2 Confirmation of the Minutes of the 5<sup>th</sup> Meeting of the EAC (Industry-2) held during 27<sup>th</sup> March, 2019 at Indira Paryavaran Bhawan, New Delhi.**

The EAC, having taken note that no comments were offered on the minutes of its 5<sup>th</sup> meeting held during 27<sup>th</sup> March, 2019 at New Delhi, confirmed the same.

**8<sup>th</sup> April 2019**

**6.3 Environmental Clearance**

**Agenda No.6.3.1**

**Expansion of Grain Based Distillery (110 to 170 KLPD) at Village Durgapur, Block Diamond Harbour-II, District South 24 Parganas (West Bengal) by M/s IFB Agro Industries Limited- For Environmental Clearance**

**[IA/WB/IND2/86195/2006, J-11011/333/2006-IA.II(I)]**

The project proponent and their accredited consultant M/s J M EnviroNet Pvt Ltd, made a detailed presentation on the salient features of the project.

**6.3.1.1 During deliberations, the EAC noted the following:**

The proposal is for environmental clearance to the project for expansion of Grain based Distillery from 110 KLPD to 170 KLPD by M/s IFB Agro Industries Limited in an area of 135100 sqm located at Village Durgapur, Block Diamond Harbour-II, District South 24 Parganas (West Bengal).

The details of products and capacity as under:

<b>S.No.</b>	<b>Unit</b>	<b>Existing</b>	<b>Proposed</b>	<b>Total</b>
1	Grain based distillery (Extra Neutral Alcohol/Rectified Spirit/Ethanol)	110 KLPD	60 KLPD	170 KLPD
2	Co-generation power plant	4.9 MW	---	4.9 MW

The project/activity is covered under category A of item 5 (g) 'Distilleries' of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry.

Standard Terms of Reference (ToR) for the project was granted on 6<sup>th</sup> November, 2017. Public hearing was conducted by the West Bengal Pollution Control Board on 29<sup>th</sup> June, 2018. The main issues raised during the public hearing are related to employment, ESR activities, effect on environment, etc.

Existing land area is 135100sqm(13.51 ha). No additional land is required for the proposed expansion. Industry has developed greenbelt in an area of 47300 sqm(4.73 ha), covering 35 % of total project area. The estimated project cost for expansion is Rs.40 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 7.35 crores (for revamping of existing ETP) and the recurring cost (O&M) will be about Rs.0.5 crores per annum. Employment opportunity will be for 300 persons directly & indirectly after expansion.

There are no National Parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Hugli river is flowing adjacent to the plant site (S), Hilji tidal canal is at a distance of 4.5 km (WSW), Rupnarayan river at a distance of 4.5 km (W) and Damodar river at a distance of 7.2 km (NNW).

Total water requirement is estimated to be 2313 cum/day, out of which fresh water requirement of 1380 KLPD cum/day will be met from ground water. Necessary permission in this regard has been obtained from State Water Investigation Department, Government of West Bengal vide letter dated 17<sup>th</sup> April, 2012.

Effluent of 933 cum/day will be treated through Effluent Treatment Plant (anaerobic digestion, aerobic treatment and RO plant) of capacity 1300 cum/day and reused in the plant. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement after expansion will be 4.5 MW and will be met from Co-Generation Power Plant via straight back pressure turbine. During emergency, existing D.G Sets (2 x 725 KVA, 1 x 500 KVA) and SEB power (501 KVA) supply would be used.

Existing unit has two rice husk/biogas/coal fired boilers of 22 TPH capacity each. Electrostatic Precipitator with a stack of height 40 m is installed for controlling the particulate emissions.

Solid waste from the unit in the form of DDGS will be used/sold as animal feed. Yeast sludge will be added to the wet cake for the production of DDGS. Ash from the boiler will be supplied to brick/ cement manufacturers. Used oil & grease generated from plant machinery/gear boxes as hazardous waste are being / will be sold out to the authorized WBPCB recycler.

Ambient air quality monitoring was carried out at 8 locations during 1<sup>st</sup> October, 2017 to 31<sup>st</sup> December, 2017 and the baseline data indicates the ranges of concentrations as: PM10 (62.6-92.8 µg/m<sup>3</sup>), PM2.5 (28.6-49.8 µg/m<sup>3</sup>), SO<sub>2</sub> (6.3- 16.8 µg/m<sup>3</sup>) and NO<sub>2</sub> (12.4-28.5 µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.36 µg/m<sup>3</sup>, 0.12 µg/m<sup>3</sup>, 0.90 µg/m<sup>3</sup>, 1.55 µg/m<sup>3</sup> with respect to PM10, PM2.5, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Ministry had issued EC earlier vide letter dated 14<sup>th</sup> March, 2007 to the project for 60 KLPD grain based distillery in favour of M/s IFB Agro Industries Limited. The monitoring report on compliance status of EC conditions by the Regional Office vide their letter dated 19<sup>th</sup> February, 2018 and action taken report forwarded vide letter dated 29<sup>th</sup> November, 2018, was found to be satisfactory.

Consent to Operate for the existing capacity has been obtained from the West Bengal PCB vide letter dated 24<sup>th</sup> January, 2019, which is valid up to 31<sup>st</sup> January, 2024.

**6.3.1.2** The EAC, after deliberations, desired for clarification/inputs in respect of the following:-

- (i) Details of proposed feedstock/non edible grains namely, broken rice, sorghum, bajra, maize, etc, their source and firmed up plan for procurement.
- (ii) Test report from a Govt recognized laboratory to ensure non edibility of the grains.
- (iii) Permission required from the concerned regulatory authority to meet the increased water requirement of 1380 cum/day. Even the present certificate of registration of existing well dated 17<sup>th</sup> April, 2012 issued by the State Water Investigation Department, Government of West Bengal, needs revalidation.
- (iv) Approval from PESO for the site and layout plan for storage facilities.
- (v) Plan for Corporate Environment Responsibility.
- (vi) Measures taken to reduce carbon footprint.

The proposal was deferred for the needful.

**Agenda No.6.3.2**

**Bulk drug and intermediates manufacturing unit at Sy.No. 52,53,58,59,61,62,63,64,65,66,67,68,69,70,71,72,73,74, 75,76,77 and 78 (Pydibhimavaram Village), Sy. No. 2,4,5,6,7,8,9 & 11, Village Chittivalasa, Mandal Ranasthalam, District Srikakulam(Andhra Pradesh) by M/s Aurobindo Pharma Limited (Unit-XI) - For Environmental Clearance**

**[IA/AP/IND2/78618/1900, J-11011/53/2005-IA II (I)]**

The project proponent and their accredited consultant M/sTeam Labs and Consultants, made a detailed presentation on salient features of the project

**6.3.2.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of bulk drugs and Intermediates manufacturing unit from 583.31 TPM to 1518.3 TPM by M/s Aurobindo Pharma Limited (Unit XI) in an area of 165 acres located at Sy. Nos. 52, 53, 58, 59, 61 to 78, Village Pydibhimavaram, Sy.Nos. 2, 4 to 9 & 11, Village Chittivalasa, Mandal Ranasthalam, District Srikakulam (Andhra Pradesh). The project also involves installation of captive power plant of 8.85 MW.

The details of products are as under:

**Existing Product**

S. No.	Product	Capacity (TPM)
<b>Group - A</b>		
1	6 APA	20
2	Ampicillin Dane Salt	15
3	Amoxycillin Dane Salt	15
4	AmpilillinTrihydrate	10
5	AmoxycillinTrihydrate	10
6	Cephalexin	15
7	Cloxacillin	10
8	Sulbuctum Sodium	2
9	SutamicillinTosylate	2

10	7 ACA	10
11	CMIC Chloride	30
12	DICMIC Chloride	5
13	Ciprofloxacin	25
14	Enrofloxacin	5
15	EthambutalHCl	10
16	Pyrazinamide	12
17	Cefachlor	0.5
	<b>Total Group A: Worst Case 6 Products on Campaign Basis</b>	<b>120</b>
<b>Group - B</b>		
1	Ampicillin	100
2	Amoxicillin	150
3	Cephalexin	60
4	Cloxacillin Derivatives	35
5	Lamovudine	8
6	Nevirapine	4
7	Cefazolin sodium	6
8	Stavudine	3.3
9	Effavarencz	5
10	Abcavir	1.5
11	Retanovir	1.2
12	Lopinavir	1
13	Zidovudine	20
	<b>Total Group B: Worst Case 5 Products on Campaign Basis</b>	<b>365</b>
<b>Group - C</b>		
1	Cefradine	8
2	Cefadroxil	20
3	Cefixime	10
4	CefdoximeProxetil	10
5	Cefrozil	2
6	Cefidinin	2
7	AtomoxitinHCl	0.08
8	Carisprodolol	6
9	Clarithromycin Carbopol	0.13
10	Clindamycin PalmiateHCl	0.04
11	DuloxitineHCl	0.5
12	Esomeprazole Magnesium	0.83
13	Felodipine	0.04
14	GalanthamineHBr	0.04
15	Ibandranote Sodium	0.4
16	Lamotrigine	3
17	Levetiracitam	6
18	Levofloxacin	4
19	Naproxen Sodium	7.4
20	Neteglinide	0.17
21	Omeprazole	0.92
22	Omeprazole Magnesium	0.13
23	Pioglitazone HCl	0.25
24	Quetiapine Fumerate	1.83

25	RaloxifineHCl	0.21
26	Repaglinide	0.02
27	Risedronate Sodium	0.04
28	Rizatriptan Benzoate	0.02
29	Rosuvastatin Calcium	0.17
30	Tramadol HCl	1.42
31	ValacyclovirHCl	2.5
32	ZipresidoneHCl	0.17
33	Tenofovir	7
34	EmtricitabineSalicylate	3
	<b>Total Group C : (34 Products)</b>	<b>98.31</b>
	<b>Grand Total (Group A + Group B + Group C)</b>	<b>583.31</b>

**After Expansion**

S. No.	Name of Product	Capacity (TPM)
<b>Group A</b>		
<b>Regular Products</b>		
1	Abcavir	3.5
2	Alendronate Sodium	3
3	AtomoxetineHCl	2.2
4	Carisprodolol	6
5	Cefprozil	2
6	Celecoxib	7
7	Cilastatin Na	1
8	Ciprofloxacin	25
9	Clopidogrel Bisulfate	6
10	ColesavelanHCl	1
11	Darunavir propylene glycolate	1.5
12	Dextromethorpan	1
13	Didanosine	1
14	Divalproex Sodium	7
15	Dolutegravir sodium	15
16	DuloxetineHCl	15
17	Effavarenc	5
18	EmtricitabineSalicylate	3.5
19	Enrofloxacin	5
20	Esmoprazole Sodium	1
21	Esomeprazole Magnesium	2.5
22	EthambutalHCl	10
23	Gabapentin Hydrochloride	50
24	Lacosamide	2.4
25	Lamotrigine	6
26	Lamovudine	35
27	Levetiracetam	40
28	Levofloxacin	20
29	Lopinavir	4
30	Metformin Hydrochloride	100
31	MethenamineHippurate	7

32	Methyl Iodide	1
33	Naftopidil	1
34	Naproxen Sodium	10
35	Nevirapine	10
36	OlmesartanMedoxomil	1.5
37	Omeprazole	12
38	Pioglitazone HCl	1
39	Pregablin	6
40	Pyrazinamide	12
41	Quetiapine Fumerate	12
42	RaloxifineHCl	5
43	Ranolazine	1.3
44	Retanovir	1.2
45	Rosuvastatin Calcium	2
46	Sertraline Hydrochloride	30
47	Sevelamer Hydrochloride/Carbonate	15
48	Stavudine	1.4
49	Tenofovir	40
50	Tramadol HCl	5
51	ValacyclovirHCl	35
52	Valganocyclovir	1
53	Valsartan	15
54	Voriconazole	1
55	Zidovudine	20
	<b>Total – I</b>	<b>628</b>
<b>Campaign Products</b>		
1	Acetoxy compound	0.3
2	Apixaban	0.25
3	Atovaquone	0.25
4	AzilsartanKamedoxomil	0.16
5	Bosentan	0.25
6	Canaglifozin	0.25
7	Cefachlor	0.5
8	Cinacelcet-Hcl	0.3
9	Clarithromycin Carbopol	0.13
10	Clindamycin PalmiateHCl	0.75
11	Clobazam	0.25
12	Cobicistat	0.25
13	Dabigatran EtextilateMesylate	0.63
14	Dalfampyridine	0.5
15	Darifenacin	0.1
16	Deferasirox	0.25
17	DesuenLafaxine Succinate	0.25
18	Dexlansoprazole Anhydrous	0.25
19	Dimethyl Fumarate	0.25
20	Dronedarone Hydrochloride	0.5
21	Elvitegravir	0.25
22	Ezitimibe	0.3
23	Felodipine	0.04
24	Fudosteine	0.8

25	GalanthamineHBr	0.4
26	Ganciclovir	0.4
27	HydralizinHCl	0.25
28	Ibandranote Sodium	0.04
29	Iron sucrose	0.34
30	Ledipasvir	0.25
31	Linagliptin	0.3
32	Lorcaserin Hydrochloride	0.1
33	Lurasidone Hydrochloride	0.4
34	Methohexital	0.5
35	Mirabegron	0.1
36	Montelukast	0.5
37	Nebivololhcl	0.25
38	Neteglinide	0.39
39	Omeprazole Magnesium	0.5
40	Paliperidone	0.25
41	Penicillamine	0.25
42	Pitavastatin Ca	0.2
43	PrasugrelHCl	0.1
44	R&D products	0.5
45	Raltegravir Potassium	0.25
46	Repaglinide	0.25
47	Risedronate Sodium	0.8
48	Ritanovir	0.5
49	Rivaroxaban	0.1
50	Rizatriptan Benzoate	0.3
51	Roflumilast	0.25
52	Saxagliptan	0.05
53	Sildenafil Citrate	0.7
54	Silodosin	0.25
55	Sitagliptan	0.8
56	Sodium Ferric Gluconate	0.25
57	Sofosbuvir	0.25
58	Solifenacin	0.25
59	Teriflunamide	0.25
60	ZipresidoneHCl	0.7
61	Zolimitriptan	0.1
	<b>Total - II - Worst Case 20 Products on Campaign Basis</b>	<b>11.11</b>
	<b>Total (I+II) - Group A</b>	<b>639.1</b>
<b>Group B</b>		
1	7-AVNA	2
2	Amoxicillin	400
3	Amoxicillin Dane Salt	100
4	AmoxicillinTrihydrate	10
5	Ampicillin	100
6	Ampicillin Dane Salt	100
7	AmpilillinTrihydrate	10
8	Bacampicillin	0.5
9	CefdoximeProxetil	10
10	Cefidininir	2

11	Cefixime	15
12	Cephalexin	15
13	Cephalexin(Modified Route)	60
14	Cloxacillin	10
15	Cloxacillin Derivatives	35
16	DBDO (6-6- Dibromopencillanic Acid 1, 1- Dioxide)	3.7
17	Flucloxacillin Mg	0.5
18	SutamicillinTosylate	2
19	Tazobactam	3.5
	<b>Total Group B</b>	<b>879.20</b>
	<b>Grand Total (Group A + Group B)</b>	<b>1518.3</b>
	<b>Captive Power Plant</b>	<b>8.85 MW</b>

The project/activity is covered under category A of item 5(f) 'Synthetic Organic chemical' of Schedule of Environmental Impact Assessment (EIA) Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 31<sup>st</sup> May, 2017. Public hearing was conducted by the Andhra Pradesh Pollution Control Board on 28<sup>th</sup> March, 2018. The main issues raised during the public hearing are related to employment, pollution control measures and village development.

Existing land area is 165 acres. No additional land is required for proposed expansion. Industry has developed greenbelt in an area of 55 acres, covering 33.33% of total project area. The estimated project cost for expansion is Rs. 250 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 32.77 crores and the recurring cost (O&M) will be about Rs. 8.84 crores per annum. Employment opportunity will be for 600 persons directly & 120 persons indirectly after expansion.

There are no National parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Kandivalasagedda is flowing at a distance of 0.2 km (SW). Bay of Bengal is at a distance of 7.2 km in southeast direction.

Total water requirement is estimated to be 6058 cum/day, which includes fresh water requirement of 4043 cum/day, proposed to be met from ground water. Necessary permission in this regard has been obtained from the State Ground Water Department, Government of Andhra Pradesh vide letters dated 7<sup>th</sup> October, 2001 (410 cum/day, 5 tube wells), 4<sup>th</sup> January, 2015 (2240 cum/day, 7 tube wells), 26<sup>th</sup> July, 2017 (560 KLD, 5 tube wells) and 26<sup>th</sup> November, 2018 (968 KLD, 9 tube wells).

Effluent of 2015 cum/day will be treated stream wise in effluent treatment plant consisting of stripper, multiple effect evaporator (MEE), Agitated thin film dryer (ATFD), biological treatment plant, reverse osmosis (RO) plant, Membrane Bio Reactor (MBR) and Guard ponds. The treated effluent of 2015 meeting disposal standards will be sent to marine outfall system. Domestic wastewater of 305 cum/day will be sent to sewage treatment plant and treated wastewater will be reused for greenbelt development.

Power requirement after expansion will be 16630 kVA, which will be met from AP Transco/captive power plant. Existing unit has three DG sets of capacity 1000 kva, 350 kva and 125 kva, which will be dismantled after expansion. Additionally, DG sets (6 x 1500 kva, 5 x



1010 kva, 2 x 1000 kva, 1 x 380 kva and 1 x 200 kva) are proposed as standby during power failure.

Existing unit has 1 x 35 TPH, 1 x 25 TPH, 1 x 20 TPH coal fired boilers and 1 x 6 TPH oil fired boiler (oil fired boiler will be kept as standby after expansion). Additionally, 1 x 35 TPH coal fired boiler will be installed. Electrostatic precipitator (ESP) with a stack height of 47 m will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm<sup>3</sup>) for proposed boiler

Ambient air quality monitoring was carried out at eight locations during March 2018 to May 2018 and the baseline data indicates that ranges of concentrations of PM<sub>10</sub> (35-56 µg/m<sup>3</sup>), PM<sub>2.5</sub> (14-24 µg/m<sup>3</sup>), SO<sub>2</sub> (9-15 µg/m<sup>3</sup>) and NO<sub>2</sub> (9-14 µg/m<sup>3</sup>) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLC<sub>s</sub> after the proposed project would be 2.71 µg/m<sup>3</sup>, 14.57 µg/m<sup>3</sup>, and 16.52 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS)..

Ministry has issued EC&CRZ vide letter dated 23<sup>rd</sup> May, 2002 to the project for Bulk drug plant including laying of marine disposal pipeline for discharge of treated effluent in favour of M/s Aurobindo Pharma Limited. Later, the Ministry has issued EC on 21<sup>st</sup> June, 2005 to the project for expansion of bulk drug unit in favour of M/s Aurobindo Pharma Limited (Unit XI). The monitoring report on compliance status of EC conditions forwarded by the Regional Office vide their letter dated 18<sup>th</sup> July, 2018, was found to be satisfactory.

It has been informed that there is increase in quantity of effluent to be discharged in the marine environment due to the proposed expansion. The existing pipeline facilities will suffice for additional effluent discharge, and no additional pipeline/facilities are proposed in the CRZ area. In view of addition in effluent quantity, application has been submitted to the State Coastal Zone Management Authority vide letter dated 4<sup>th</sup> September, 2018, as per the provisions contained in the CRZ Notification, 2011.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been appropriately addressed by the project proponent.

As committed by the project proponent, CER shall be 3.5% of the project cost.

Consent to Operate for the existing products/utilities has been obtained from the Andhra Pradesh PCB vide letter dated 26<sup>th</sup> October, 2017, which is presently valid up to 31<sup>st</sup> December, 2021.

**6.3.2.2** *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *The treated effluent of 2015 cum/day shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, for discharge into deep sea.*
- *Necessary permission/recommendation from the State Coastal Zone Management Authority shall be obtained for discharge of 2015 cum/day to the marine outfall system, as applicable.*

- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21<sup>st</sup> July, 2010 and amended from time to time shall be followed.*
- *Coal with Sulphur content less than 0.5% shall be used as fuel in the boiler, and/or, lignite/bio-fuel/briquettes/bagasse/agro waste.*
- *No raw material/solvents prohibited by the concerned regulatory authorities from time to time, shall be used.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines. Fugitive emissions shall be controlled at 99.5% with effective chillers.*
- *Solvent management shall be carried out as follows:*
  - (a) *Reactor shall be connected to chilled brine condenser system.*
  - (b) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
  - (c) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
  - (d) *Solvents shall be stored in a separate space specified with all safety measures.*
  - (e) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
  - (f) *Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
  - (g) *All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 4043 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the CGWA. 10% reduction in fresh water shall be achieved within five years.*
- *Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE. Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.*
- *Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash & dust should be avoided.*
- *The company shall undertake waste minimization measures as below:-*
  - (a) *Metering and control of quantities of active ingredients to minimize waste.*
  - (b) *Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - (c) *Use of automated filling to minimize spillage.*
  - (d) *Use of Close Feed system into batch reactors.*
  - (e) *Venting equipment through vapour recovery system.*

- (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- All the commitments made regarding issues raised during the public hearing/consultation meeting shall be satisfactorily implemented.
- Disease monitoring in the study area shall be done and report shall be submitted to concerned authority and Regional Office of Ministry.
- As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 3.5% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- Safety and visual reality training shall be provided to employees.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.

### **Agenda No.6.3.3**

#### **Offshore Oil and Gas Development and Production from Discovered Small Field of B-9 Cluster fields at Mumbai Offshore Basin at Mumbai (Maharashtra) by M/s Adani Welspun Exploration Limited- For Environmental Clearance**

**[IA/MH/IND2/82182/2017, J-11011/565/2017-IA II (I)]**

The project proponent and their accredited consultant M/s Asian Consulting Engineers Pvt Ltd, made a detailed presentation on the salient features of the project and informed that:

**6.3.3.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for offshore oil and gas development and production from B-9 Cluster Offshore Fields (comprises offshore fields namely, B-9, B-7 & BRC) in the Discovered Small Field (DSF) by M/s Adani Welspun Exploration Limited in an area of 183.23 sqkm located at Mumbai Offshore Basin (Maharashtra).

Products and capacity will be as under:

<b>S. No.</b>	<b>Product</b>	<b>Area (in sq km)</b>	<b>No. of wells</b>	<b>Quantity</b>
1	Gas (from B-9 Gas Field)	138.5	7	32 mmscfd
2	Gas (from B-7 Gas Field)	22.7	3	21 mmscfd

3	Oil (from BRC Oil Field)	22.03	2	800 bopd & 0.4 mmscfd
	Total	183.23	12	

The project/activity is covered under category A of item 1(b) 'Offshore and onshore oil and gas exploration, development & production' of schedule to the Environment Impact Assessment (EIA) Notification under category 'A' and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

ToR for the project was granted on 13<sup>th</sup> March 2018. Public hearing is not applicable as the project is in the offshore.

The estimated project cost is Rs.825 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 1.5 crores and the recurring cost (operation and maintenance) will be about Rs. 38 lakhs per annum. Employment opportunity will be for 120 persons directly and 20-25 persons during operations.

There are no National parks, Wildlife Sanctuaries, Biosphere Reserves, etc. within 10 km distance from the project site.

Total water requirement is estimated to be 55 cum/day for each well. Drill water requirement of 5 cum/day shall be met from treated sea water. Effluents will be treated through STPs on rig and Derrick and/or Lay Barges (DLB) as per MARPOL and marine practices for treatment and disposal of waste water.

Solid/hazardous waste will be stored in drums and transported to recyclers for its final disposal.

**6.3.3.2** *The EAC, after deliberations, found the proposal deficient in respect of compliance of many of the terms and conditions stipulated in the ToR dated 13<sup>th</sup> March 2018, as under:-*

- (i) *Baseline air quality of the areas immediately affected by the development drilling, particularly with reference to Hydrogen Sulphide, Sulphur Dioxide, NOx and background levels of Hydrocarbons and VOCs.*
- (ii) *Details on estimation and computation of air emissions (such as Nitrogen Oxides, Sulphur Oxides, Carbon Monoxide, Hydrocarbons, VOCs, etc) resulting from flaring, DG sets, combustion, etc. in all project phases.*
- (iii) *Baseline data collection within 1km of each development well, in respect of oil/metal/hydrocarbon content in the surface water and sediments.*
- (iv) *Details of DG Sets and other utilities.*
- (v) *Prediction of various parameters vis-à-vis estimated gas production.*
- (vi) *Source of fresh water, water balance and effluent treatment mechanism.*
- (vii) *Procedure for handling oily water discharges from deck washing, drainage systems, bilges, preventing spills and spill contingency plans, treatment and disposal of produced water.*
- (viii) *Details of blowout preventer installation.*
- (ix) *Risk assessment and mitigation measures including independent reviews of well design, drilling and proper cementing and casing practices.*
- (x) *Details of all environment and safety related documentation within the company (regarding Life of pipeline, Corrosion prevention method, inspection etc) in the form of guidelines, manuals, monitoring programmes including Occupational Health Surveillance Programme etc.*
- (xi) *Applicability of OISD Standards.*

*The proposal was deferred for the needful.*

#### **Agenda No.6.3.4**

### **Exploratory/Development Drilling & Production in Bhimanapalli Onshore Marginal Block and Gas Production at East Godavari (Andhra Pradesh) by M/s PFH OIL & GAS PRIVATE LIMITED - For Environmental Clearance**

**[IA/AP/IND2/69708/2017, IA-J-11011/483/2017-IA-II(I)]**

The project proponent and their accredited consultant M/s Bhagavathi Ana Labs Pvt Ltd, made a detailed presentation on the salient features of the project.

**6.3.4.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for exploration/appraisal and development of oil and gas in Bhimanapalli Field (KG/ONDSF/BHIMNAPALLI/2016) by M/s PFH Oil & Gas Private Limited in an area of 15.01 sqkm located at District East Godavari (Andhra Pradesh). The scope of the work includes work over of onetemporarily abandoned sweet gas well and drilling of five development wells, laying gas pipeline with associated facilities for connecting the production wells to the nearest Group Gathering Station (GGS) of M/s ONGC located at Gopavaram in District East Godavari.

The project/activity is covered under category A of item 1(b) 'Offshore and onshore oil and gas exploration, development & production' of schedule to the Environment Impact Assessment (EIA) Notification under category 'A' and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

ToR for the project was granted on 6<sup>th</sup> November 2017. Public hearing for the project has been conducted by the State Pollution Control Board on 23<sup>rd</sup> November, 2018. The main issues raised during the public hearing are related to safety measurements, development of the villages, wastewater discharge, employment opportunities, etc.

Total block area available for the project is 15.01 sqkm. The proposed operations require 1ha of land per well. The estimated project cost is Rs. 50.0 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 20 lakhs and the recurring cost (O&M) will be about Rs. 5 lakhs. Employment opportunity will be for 40 persons indirectly during operation phase.

There are no National parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km from the project site. Gowthami River is flowing at a distance of 2.9 Km in North East direction.

Total water requirement is estimated to be 25 cum/day, which includes fresh water requirement of 21 cum/day, proposed to be met through tankers.

Effluent of 4 cum/day will be treated through cartridge filters. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement for the proposed project at each drill site including campsite is 2.5 MW, proposed to be met through DGsets (3 X 1000 KVA at drill site and 1X 440 KVA at campsite). Stack (height 30 m) will be provided as per CPCB norms to the DG sets.

Washed drill cuttings will be disposed into the impervious HDPE-lined pits. At the end of drilling campaign, the pits will be closed with the top soil and plantation will be done. The site will be handed over to the owner in native state.

Ambient air quality monitoring was carried out at 6 locations during December 2017 to February 2018 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (38.1-50.4 µg/m<sup>3</sup>), PM<sub>2.5</sub> (19-26 µg/m<sup>3</sup>), SO<sub>2</sub> (12.4-14.7 µg/m<sup>3</sup>) and NO<sub>2</sub> (8.6-15.9 µg/m<sup>3</sup>) respectively. The concentrations are within the National Ambient Air Quality Standards.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during public hearing have been properly addressed by the project proponent.

The expenditure towards CER for the project would be 3.5 5% of the project cost as committed by the project proponent.

**6.3.4.2** *The Committee, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *Effluent shall be treated in mobile ETP, as proposed by the project proponent. Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide GSR No. 826(E) dated 16<sup>th</sup> November, 2009 for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, CH<sub>4</sub>, HC, Non-methane HC etc.*
- *During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.*
- *The project proponent also to ensure trapping/storing of the CO<sub>2</sub> generated, if any, during the process and handling.*
- *Approach road shall be made pucca to minimize generation of suspended dust.*
- *The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.*
- *Total fresh water requirement shall not exceed the proposed quantum of 21 cum/day proposed to be met through tankers.*
- *The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.*
- *Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal*

of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30<sup>th</sup> August, 2005.

- Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.
- The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.
- The company shall develop a contingency plan for H<sub>2</sub>S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H<sub>2</sub>S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and Regional Office.
- Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.
- Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- After completion of drilling process, suitable measures shall be taken for well plugging and secured enclosures, decommissioning of rig and drilling site shall be restored to the original condition. In case of the hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- All the commitments made to the public during public consultation/hearing shall be satisfactorily implemented.
- At least 3.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.
- An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.
- Company shall have own Environment Management Cell having qualified persons with proper background.
- Company shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.
- Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.

#### **Agenda No.6.3.5**

**Expansion Pesticides and Intermediates manufacturing unit at MIDC Industrial Estate Tarapur, Boisar, District Palghar (Maharashtra) by M/s UPL Limited (Unit-10) - For Environmental Clearance**  
**[IA/MH/IND2/82826/2017, J-11011/7/2017-IA-II(I)]**

The project proponent and their accredited consultant M/s Shivalik Solid Waste Management Limited, made a detailed presentation on the salient features of the project.

**6.3.5.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of Pesticides from 1620 TPA to 25920TPA (12 nos of products) and Pesticide Specific Intermediates from 1968 TPA to 18900 TPA (8 nos of products) manufacturing unit by M/s UPL Ltd (Unit 10) in an area of 23,454 sqm located at E51-1&2, E52, MIDC Notified Industrial Estate Tarapur, Boisar, District Palghar (Maharashtra).

The details of products are as under:-

S. No	Product Name	Existing (TPA)	Proposed (TPA)	Total (TPA)	CAS Number	Category
<b>Pesticide Technical</b>						
1	Metribuzin	1620	4980	6600	21087-64-9	A-5(b) Pesticide (Herbicide)
2	Acephate	---	6000	6000	30560-19-1	A-5(b) Pesticide (Insecticide)
4	Glyphosate	---	1200	1200	1071-83-6	A-5(b) Pesticide (Herbicide)
5	Clomazone	---	2400	2400	81777-89-1	A-5(b) Pesticide (Herbicide)
6	Sulfosulfuron (SF-10)	---	120	120	141776-32-1	A-5(b) Pesticide (Herbicide)
7	Pyrazosulfuron Ethyl	---	600	600	93697-74-6	A-5(b) Pesticide (Herbicide)
8	Bensulfuron Methyl	---	600	600	83055-99-6	A-5(b) Pesticide (Herbicide)
9	Metsulfuron Methyl	---	600	600	74223-64-6	A-5(b) Pesticide (Herbicide)
10	Asulam	---	4800	4800	3337-71-1	A-5(b) Pesticide (Herbicide)
11	Azoxystrobin	---	1800	1800	131860-33-8	A-5(b) Pesticide (Fungicide)



12	Devrinol	---	1200	1200	15299-99-7	A-5(b) Pesticide (Herbicide)
<b>Total – A</b>		<b>1620</b>	<b>24300*</b>	<b>25920*</b>		
<b>Pesticide Intermediates</b>						
13	Tri Phenyl Phosphite (TPPI)	240	1560	1800	101-02-0	A-5(b)
14	Triazinone	---	7200	7200	33509-43-2	A-5(b)
15	Tri Phenyl Phosphate (TPPA)	---	1800	1800	115-86-6	A-5(b)
16	Phosphorous Trichloride	900	4200	5100	7719-12-2	A-5(b)
17	Phosphorous Oxychloride	600	600	1200	10025-87-3	A-5(b)
18	Phosphorous Acid Crystals	120	780	900	13598-36-2	A-5(b)
19	Phosphorous Acid (60% solution)	48	252	300	7664-38-2	A-5(b)
20	Di-Potassium Hydrogen Phosphate (DHP)	60	540	600	7758-11-4	A-5(b)
<b>Total- B</b>		<b>1968</b>	<b>16932</b>	<b>18900</b>		
<b>* In ToR, the product Dichlorovos (DDVP) was included but now we have deleted since it is now banned from 1 Jan 2019</b>						

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

ToR for the project was granted on 29<sup>th</sup> April 2017. Public hearing is exempted as the project site is located inside the notified industrial area.

Existing land area is 23,454sqm, no additional land will be used for proposed expansion. Industry has developed greenbelt in an area of 1750sqm covering 33% of total project area. The estimated project cost is Rs. 227.06 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 22.12 crores and the recurring cost (O&M) will be about Rs. 5.33 crores per annum. Employment opportunity will be for 140 persons directly and 160 persons indirectly after expansion.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc within 10 km distance from the project site. Banganga river is flowing at a distance of 1.5 Km in North direction.

Total water requirement is estimated to be 705cum/day, which includes fresh water requirement of 498 cum/day, proposed to be met from MIDC supply.

Effluent of 297 cum/day quantity will be treated through full-fledged Effluent Treatment Plant (ETP) having Primary, Secondary & Tertiary Treatments. Treated effluent of 207 cum/day shall

be reused in the process. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement after expansion will be 4332 KW, which will be met from Maharashtra State Electricity Board (MSEB). Existing unit has two DG sets (1X500 KVA & 1X250 KVA). Additionally, 2 X 750 KVADG sets will be used as standby during power failure. Stack (height 30m) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has one 10 TPH coal/biomass/ briquettes / rice husk fired boiler and a standby 4 TPH FO Fired Boiler. Additionally, one 10 TPH coal fired boiler will be installed. Multi cyclone separator/ bag filter with a stack of height of 40 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup> for the boilers.

Ambient air quality monitoring was carried out at 8 locations during March 2017 to May 2017. and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (70.27 – 93.85 µg/m<sup>3</sup>), PM<sub>2.5</sub> (20.8 – 55.8. µg/m<sup>3</sup>), SO<sub>2</sub> (11.91-25.84. µg/m<sup>3</sup>) and NO<sub>2</sub> (20.2- 45.8 µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 93.92 µg/m<sup>3</sup>, 25.95µg/m<sup>3</sup> and 45.8 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, Sox and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be 2.5% of the project cost as committed by the project proponent.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components.

Earlier, the Ministry has granted EC vide letter dated 15<sup>th</sup> April, 2008 to the project for manufacturing of additional Pesticides at Plot No.51/1, MIDC, Tarapur, Boisar, Thane (Maharashtra) in favour of M/s Punjab Chemicals and Crop Protection Ltd. The monitoring report on compliance status of above EC conditions forwarded by the Regional office at Nagpur vide letter dated 2<sup>nd</sup> July 2018 (site visit conducted on 17<sup>th</sup> May 2018) was found to be satisfactory. Application has been submitted for transfer of the said EC in favour of M/s UPL Limited.

Consent to Operate for the existing capacity has been obtained from the Maharashtra PCB vide letter dated 5<sup>th</sup> February, 2017, which has validity up to 28<sup>th</sup> February, 2019.

**6.3.5.2** *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to transfer of the environmental clearance in favour of M/s UPL Limited (Unit 10), and the terms and conditions as under: -*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13<sup>th</sup> June, 2011, as amended from time to time, shall be followed.*
- *No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD<sub>50</sub><100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the*

- concerned regulatory authorities from time to time, shall be used for production of pesticides.
- To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
  - Coal with sulphur content less than 0.5% or natural gas/lignite/bio-fuel/briquettes/bagasse/agro waste, shall be used as fuel in the boiler. LSHS/LDO/NG shall be used as fuel in place of furnace oil.
  - Solvent management shall be carried out as follows:
    - (i) Reactor shall be connected to chilled brine condenser system.
    - (ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
    - (iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
    - (iv) Solvents shall be stored in a separate space specified with all safety measures.
    - (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
    - (vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
    - (vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
  - Total fresh water requirement shall not exceed 498cum/day to be met from MIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
  - Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and organic stripper. Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.
  - Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system
  - Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
  - Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
  - The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.
  - The company shall undertake waste minimization measures as below:-
    - (i) Metering and control of quantities of active ingredients to minimize waste.
    - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
    - (iii) Use of automated filling to minimize spillage.
    - (iv) Use of Close Feed system into batch reactors.
    - (v) Venting equipment through vapour recovery system.
    - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
  - The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

- As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 2.5% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- Safety and visual reality training shall be provided to employees.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.

#### **Agenda No.6.3.6**

**Manufacturing of bulk drugs & intermediates at PlotNo.B/1085, LamdapuraRoad,VillageManjusar, Taluka Savli, District Vadodara (Gujarat) by M/s J R Corporation - For Environmental Clearance**

**[IA/GJ/IND2/83015/2018, J-11011/356/2016-IA-II(I)]**

The project proponent and their consultant M/s Jyoti Om Chemical Research CentrePvt Limited, made a detailed presentation on the salient features of the project.

**6.3.6.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of Bulk Drugs and Intermediates manufacturing unit from the present capacity of 2.6 TPM (2 products) to 227.6 TPM (23 nos of products) by M/s J R Corporation in an area of 9765 sqm located at Plot No. B/1085, Lamdapura Road, Village Manjusar, Taluka Savli, District Vadodara (Gujarat).

The details of products are as under:

<b>S. No.</b>	<b>Product</b>	<b>Existing (TPM)</b>	<b>Proposed (TPM)</b>	<b>Total (TPM)</b>
1	Cellulose Acetate Phthalate-I plus EP grade	1.5	0	1.5
2	Hydroxypropyl methyl cellulose phthalate USP grade(HPMCP)	1.1	0	1.1
3	Crude sodium Acetate(by-product)	8	0	8
4	Metoprolol succinate		3	3
5	Diclofenac sodium		100	100
6	DextromethophanHbr		5	5
7	Captopril		1	1
8	Fexofenadine HCl		3	3
9	Entaxapone		1	1

10	AmoldipineBesylate		2	2
11	Clinidipine		1	1
12	Devalproex sodium		1	1
13	Iopamidol& its derivatives		20	20
14	Nebivolol		1	1
15	Venlafaxine HCl&derivative		5	5
16	Bethanechol chloride		1	1
17	Pidotimod		5	5
18	Oxybutynin chloride		1	1
19	Pregabalin		4	4
20	Aceelofenac		50	50
21	Valproic acid		3	3
22	Sodium valproate		10	10
23	Diatrizoic acid		5	5
24	R & D Products		3	3
	<b>Total</b>	<b>2.6 + 8.0</b>	<b>225</b>	<b>235.6</b>

The project/activity is covered under category A of item 5(f) 'Synthetic Organic chemical' of Schedule of Environmental Impact Assessment (EIA) Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

Standard ToR for the project was granted on 23<sup>rd</sup> March, 2018. Public hearing has been conducted by the State Pollution Control Board on 5<sup>th</sup> September, 2018. The main issues raised during the public hearing are related to employment to local people, safety precautions, etc.

Existing land area is 9765 sqm, no additional land will be required for proposed expansion. Industry will develop greenbelt in an area of 2930 sqm, covering 30% of total project area. The estimated project cost is Rs.9.02 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.1.60 crores and the recurring cost (O&M) will be about Rs. 1.91 crores per annum. Employment opportunity will be for 80 persons directly and 50 persons indirectly after expansion.

There are no National parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km distance.

Total water requirement is 86.525 cum/day, which includes fresh water requirement of 48.025 cum/day will be met from ground water. Application in this regard has been submitted to CGWA.

Effluent of 53.5 cum/day quantity will be treated through Effluent Treatment Plant and Multi Effect Evaporator. Treated effluent of 38.5 cum/day shall be reused in the plant, and 15 cum/day will be sent to CETP for further treatment and disposal.

Power requirement after expansion will be 672 KVA and will be met from State power distribution corporation limited (MGVCL). Existing unit has 1 DG sets of 100 KVA capacity, additionally 2 DG sets are used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 0.8 TPH Wood fired boiler. Additionally, two 1TPH Bio-coalfired boiler will be installed. One of these, one boiler will be stand by. Multi cyclone separator and bag filter with a

stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup> for the proposed boilers. One Thermo Pack (2 lack Kcal/hr) based on Furnace oil will be installed. Adequate stack height 30 m for the controlling the emissions will be installed.

Ambient air quality monitoring was carried out at 11 locations during March 2017 to May 2017 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (70 – 87 µg/m<sup>3</sup>), PM<sub>2.5</sub> (20 – 36 µg/m<sup>3</sup>), SO<sub>2</sub> (10 – 25 µg/m<sup>3</sup>) and NO<sub>2</sub> (16 – 29 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.602, µg/m<sup>3</sup>, 2.027 µg/m<sup>3</sup> and 1.437 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

The unit was established in the year 2005 i.e. prior to EIA Notification, 2006 and thus not requiring prior EC.

Consent to Operate for the existing products/utilities has been obtained from the Gujarat PCB vide letter dated 22<sup>nd</sup> February, 2015, which is presently valid up to 10<sup>th</sup> February, 2020.

**6.3.6.2** *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *The treated effluent of 15 cum/day shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, for discharge to the CETP for further treatment and disposal.*
- *Production of Diclofenac sodium shall be in conformity with the guidelines/orders issued by the Central Drugs Standard Control Organization/The Drug Controller General of India.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21<sup>st</sup> July, 2010 and amended from time to time shall be followed.*
- *Coal with sulphur content less than 0.5% or natural gas/lignite/bio-fuel/briquettes/bagasse/agro waste, shall be used as fuel in the boiler. LSHS/LDO/NG shall be used as fuel in place of furnace oil.*
- *No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines. Fugitive emissions shall be controlled at 99.5% with effective chillers.*
- *Solvent management shall be carried out as follows:*
  - (h) *Reactor shall be connected to chilled brine condenser system.*
  - (i) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
  - (j) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
  - (k) *Solvents shall be stored in a separate space specified with all safety measures.*

- (l) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
- (m) *Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
- (n) *All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 48 cum/day proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.*
- *Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE. Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.*
- *Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash & dust should be avoided.*
- *The company shall undertake waste minimization measures as below:-*
  - (g) *Metering and control of quantities of active ingredients to minimize waste.*
  - (h) *Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
    - (i) *Use of automated filling to minimize spillage.*
    - (j) *Use of Close Feed system into batch reactors.*
    - (k) *Venting equipment through vapour recovery system.*
    - (l) *Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made regarding issues raised during the public hearing/consultation meeting shall be satisfactorily implemented.*
- *As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 2.5% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *Safety and visual reality training shall be provided to employees.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be*

transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

### **Agenda No.6.3.7**

**Expansion of Synthetic Organic Pigments Manufacturing Unit at Plot No. 1196/1/A &B, Rajpur Village, GhumasanPatia Road, Chhatral -Mehsana Highway, Kadi Taluka, Mehsana District (Gujarat) by M/s Navpad Pigments Pvt Ltd- For Environmental Clearance**

**[IA/GJ/IND2/80246/2017, J-11011/151/2017-IA II (I)]**

The project proponent and their accredited consultant M/s Rightsource Industrial Solutions Pvt Ltd, gave a detailed presentation on the salient features of the project

**6.3.7.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of Synthetic Organic Pigments manufacturing unit from 3 TPM to 125 TPM by M/s Navpad Pigments Pvt Ltd in an area of 10357 sqm located at Plot No.1196/1/A & B, Village Rajpur, GhumasanPatia Road, Chhatral Mehsana Highway, Taluka Kadi, District Mehsana (Gujarat).

The details of different products are proposed as under:

S. No	Existing Product	Quantity (TPM)
1	Pigment Violet 23	3

### **Products and Capacities after expansion**

S. No	Product	CAS No.	Quantity (TPM)	Quantity (TPD)
<b>Group-A</b>				
1	Pigment Violet 23	6358-30-1 / 215247-95-3	50	1.67
	<b>Total</b>		<b>50</b>	<b>1.67</b>
<b>Group-B</b>				
1	Pigment Red 122	980-26-7	25	0.83
2	Pigment Violet 19	1047-16-1	25	0.83
3	Pigment Beta blue (15:3)	147-14-8	75	2.5
4	Pigment Beta blue (15:4)	147-14-8	75	2.5
5	Carbazole	86-74-8	50	1.67
6	Solsperse 5000	86753-78-8	50	1.67
	From Group-B products, we will manufacture with production capacity of 75mt/month with the <b>combination of:</b> either S.No.1& 5 (25+50) MT/month or S.No. 2&6 (25+50) MT/month or S.No. 3 75 MT/month or S.No.4 75MT/month		<b>75</b>	<b>2.5</b>
<b>Grand Total (Group-A + Group-B)</b>			<b>125</b>	<b>4.17</b>



The project/activity are covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

ToR for the project was granted on 31<sup>st</sup> May 2017. Public hearing was conducted by the Gujarat State Pollution Control Board on 13<sup>th</sup> June, 2018.

Existing land area is 2.559 acres (10357 sqm), no additional land is required for the proposed expansion. Industry will develop greenbelt in an area of 1.023 acres, covering 40% of total project area. The estimated project cost is Rs. 15 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 225 lakhs and the recurring cost (O&M) will be about Rs. 40 lakhs per annum. Employment opportunity will be for 100 persons directly & 80 persons indirectly after expansion.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, river within 10 km distance from the project site.

Total water requirement is estimated to be 289 cum/day, which includes fresh water requirement of 79 cum/day, proposed to be met from ground water sources. Application in this regard has been forwarded to the CGWA from the CGWB vide letter dated 9<sup>th</sup> January, 2019.

Effluent of 288.50 cum/day will be treated through stripper followed by MEE/ATFD, Biological Treatment Plant followed by RO plant. Treated water of 210 cum/day will be reused in the process/cooling tower. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement after expansion will be 1500 KVA, which will be met from Gujarat Electricity Board (GEB). DG set of 1x1000 KVA capacity with Stack height of 10m will be provided as standby during power failure.

Existing 0.8 TPH steam boiler will be dismantled and 5 TPH coal fired boiler will be installed with a stack height of 32 m. Multi cyclone separator/ bag filter will be installed for controlling the particulate emissions within statutory limit of 115 mg/Nm<sup>3</sup>.

Ambient air quality monitoring was carried out 8 locations during October to December, 2017 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (58.8 – 74.1 µg/ m<sup>3</sup>), PM<sub>2.5</sub> (21.5 – 33.1 µg/ m<sup>3</sup>), SO<sub>2</sub> (14.3 – 21.0 µg/ m<sup>3</sup>), NO<sub>x</sub> (20.2 – 30.5 µg/ m<sup>3</sup>), CO (0.37 – 0.76 mg/ m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project expansion PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> would be 1.57µg/ m<sup>3</sup>, 2.15µg/ m<sup>3</sup>, 3.59µg/ m<sup>3</sup>. The resultant concentrations are within the National Ambient Air Quality Standards (NAQSS).

The expenditure towards CER for the project would be 2.5% of the project cost as committed by the project proponent.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

The unit was established prior to the EIA Notification, 2006 and thus not requiring prior EC.

Consent to Operate for the existing products/utilities has been obtained from the Gujarat PCB vide letter dated 18<sup>th</sup> August, 2017, which is presently valid up to 31<sup>st</sup> March, 2022.

**6.3.7.2** *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Emission shall be controlled at 99.98% efficiency.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of resins.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21<sup>st</sup> July, 2010 and amended from time to time shall be followed.*
- *Coal with sulphur content less than 0.5% or natural gas/lignite/bio-fuel/briquettes/bagasse/agro waste, shall be used as fuel in the boiler.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
  - (a) *Reactor shall be connected to chilled brine condenser system.*
  - (b) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
  - (c) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
  - (d) *Solvents shall be stored in a separate space specified with all safety measures.*
  - (e) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
  - (f) *Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
  - (g) *All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 79cum/day to be met through ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *Fly ash shall be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.*

- *The company shall undertake waste minimization measures as below:-*
  - (a) *Metering and control of quantities of active ingredients to minimize waste.*
  - (b) *Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - (c) *Use of automated filling to minimize spillage.*
  - (d) *Use of Close Feed system into batch reactors.*
  - (e) *Venting equipment through vapour recovery system.*
  - (f) *Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*
- *At least 2.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*
- *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

### **Agenda No.6.3.8**

**Setting up synthetic organic resin manufacturing in the existing particle board manufacturing unit at S. No.441/P 1 & 2, Haripar-Kerala Road, Village-Bela (Rangpar), District & Taluka Morbi (Gujarat) by M/s Sun Particle Board Pvt Ltd- For Environmental Clearance**

**[IA/GJ/IND2/80288/2017, J-11011/284/2017-IA II (I)]**

The project proponent and their accredited consultant M/s Unistar Environment and Research Labs Pvt Ltd, made a detailed presentation on the salient features of the project.

**6.3.8.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up Synthetic Resin Manufacturing unit of capacity 850 TPM by M/s Sun Particle Board Pvt Ltd in the existing Particle Board unit, in an area of 25192 sqm located at S. No.441/P 1 & 2, Haripar-Kerala Road, Village- Bela (Rangpar), Taluk& District Morbi (Gujarat).

The details of different products are proposed as under:

S. No	Product	Capacity (TPM)		
		Existing	Proposed	Total
1	Bonding glue and Lamination compound			
	Urea Formaldehyde Resin	---	500	500
	Melamine Formaldehyde Resin	---	300	300
	Paraffin Wax Emulsion	---	50	50
Total		---	850	850
<i>Product not requiring EC</i>				
2	Plain and Pre-laminated Particle Boards	1500	900	2400

The project/activity are covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

ToR for the project was granted on 25<sup>th</sup> September, 2017. Public hearing was conducted by the Gujarat Pollution Control Board on 26<sup>th</sup> June 2018. The main issues raised during the public hearing are related to increase in pollution due to the company.

Existing land area is 25192sqm, no additional land will be required for proposed expansion. Industry has already developed greenbelt in an area of 8313.31 sqm, covering 33% of total project area. The estimated project cost is Rs. 13.10 crores including the existing investment. Total capital cost earmarked towards environmental pollution control measures is Rs. 1.3 crores and the recurring cost (O&M) will be about Rs. 10 lakhs per annum. Employment opportunity will be for 96 persons directly after expansion.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, river within 10 km distance from the project site. Rivers Khetarkhadi and Macchu are flowing at 1.36km (E) and 5.50km(W) direction respectively.

Total water requirement is estimated to be 15 cum/day, which includes fresh water requirement of 14.50 cum/day, proposed to be met from existing open well within premises.

Industrial Effluent of 0.50 cum/day (condensed water from cooling) will be reused in process. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement after expansion will be 1200 KVA, which will be met from Paschim Gujarat Vij Company Ltd. Existing unit has one DG set of 500 KVA capacity, additionally another DG set of 125 KVA will be used as standby during power failure. Stack of 9m height will be provided as per CPCB norms to the DG set.

Existing unit has one Themopack of 30 lakh Kcal. Bag filter with a stack height of 30 m is installed for controlling the particulate emissions within the statutory limit. Cyclone separator and bag filter is installed for controlling the particulate emissions from trimming and sanding machines. Bag filter with a stack height of 15 m will be installed for controlling the particulate emissions from forming.

Ambient air quality monitoring was carried out at 8 Locations during October 2017 to December 2017 and the baseline data indicates that ranges of concentrations as: PM<sub>10</sub> (66.79 to 88.38 µg/m<sup>3</sup>), PM<sub>2.5</sub> (22.46 to 39.33 µg/m<sup>3</sup>), SO<sub>2</sub> (15.67 to 20.04 µg/m<sup>3</sup>), NO<sub>x</sub> (23.13 to 27.25 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs for the proposed project would be 1.68 ug/m<sup>3</sup>, 0.76 ug/m<sup>3</sup> and 5.72 ug/m<sup>3</sup> with respect to PM<sub>10</sub>,

SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be 1% of the project cost as committed by the project proponent.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

The unit was established prior to the EIA Notification, 2006 and thus not requiring prior EC.

Consent to Operate for the existing products/utilities has been obtained from the Gujarat PCB vide letter dated 28<sup>th</sup> March, 2016, which is presently valid up to 31<sup>st</sup> December, 2020.

**6.3.8.2** *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of resins.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21<sup>st</sup> July, 2010 and amended from time to time, shall be followed.*
- *Coal with sulphur content less than 0.5% or natural gas/lignite/bio-fuel/briquettes/bagasse/agro waste, shall be used as fuel in the boiler.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
  - (h) *Reactor shall be connected to chilled brine condenser system.*
  - (i) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
  - (j) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
  - (k) *Solvents shall be stored in a separate space specified with all safety measures.*
  - (l) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
  - (m) *Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
  - (n) *All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 14.5cum/day to be met through open well. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.*

- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *Fly ash shall be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.*
- *The company shall undertake waste minimization measures as below:-*
  - (g) Metering and control of quantities of active ingredients to minimize waste.*
  - (h) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - (i) Use of automated filling to minimize spillage.*
  - (j) Use of Close Feed system into batch reactors.*
  - (k) Venting equipment through vapour recovery system.*
  - (l) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*
- *At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*

### **Agenda No.6.3.9**

**Expansion of Chemicals and APIs production unit at Village FatehgarhChanna on Mansa Road Tehsil and District Barnala (Punjab) by M/S IOL Chemicals and Pharmaceuticals Limited - For Environmental Clearance**

**[IA/PB/IND2/86998/2018, J-11011/976/2008-IA-II(I)]**

The project proponent and their accredited consultant M/s EQMS India Pvt Ltd, made a detailed presentation on the salient features of the project.

**6.3.9.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of chemicals and API manufacturing unit from 526.45 TPD to 654.95 TPD by M/s IOL Chemicals & Pharmaceuticals Limited in an area of 250154.21 sqm located at Village Fatehgarh Channa on Mansa Road, Tehsil & District Barnala (Punjab).

The details of products are as under:

S.No	Product	Existing (TPD) [after change in product mix ]	Proposed (TPD)	Total (TPD)
1	Acetic Acid	0	0	0
2	Ethyl Acetate	300	0	300
3	Acetic Anhydride	70	0	70
4	Ibuprofen	29	16	45
5	Monochloroacetic Acid	40	0	40
6	Acetyl Chloride	32	0	32
7	Iso Butyl benzene	40	20	60
8	Rabiprazole Sodium	0	0	0
9	Diclofenac Sodium	3.5	3.5	7
10	Metformin Hydrochloride	10	30	40
11	Fenofibrate	0.25	0.5	0.75
12	Clopidogrel Bisulphate	0.5	0.5	1
13	Amlodipine	0.25	0	0.25
14	Lamotrigine	0.1	0	0.1
15	Pheneramine Base	0.1	0	0.1
16	Ibuprofen Lysinate	0.5	0	0.5
17	Ursodeoxycholic Acid	0.25	0	0.25
18	Quetiapine	0	3	3
19	Dex - Ibuprofen	0	0.5	0.5
20	Gabapentene	0	5	5
21	Pentaprazole	0	1	1
22	losartan Potassium	0	1	1
23	Fexofenadine	0	0.5	0.5
24	Ibuprofen Sodium	0	2	2
25	CMIC Chloride	0	2	2
26	DCMIC Chloride	0	0.5	0.5
27	FCMIC Chloride	0	0.5	0.5
28	MIBT	0	10	10
29	Propyl Acetate	0	20	20
30s	<b>Intermediate Products</b>			
	1) HEEP	0	1	1
	2) Methyl-2-amino-3-chloropropionate HCl	0	0.5	0.5

	3) 2-(2-(Aminothiazole-4-yl)-2-[2-(terbutoxycarbonyl)isopropoxyimino] acetic acid (ATTBA) Ceftazidime intermediate	0	0.25	0.25
	4) 2-chloro-3-cyanopyridine Mirtazipine intermediate	0	0.25	0.25
	5) 4'-methyl-2-cyanobiphenyl (OTBN)	0	1	1
	6) m-Phenoxybenzaldehyde	0	2	2
	7) 4-aminobenzamide	0	2	2
	8) p-nitrobenzoyl chloride	0	3	3
	9) Vanillin	0	2	2
31	Cogeneration	17		17
	<b>Total</b>	526.45	128.5	654.95

The project/activity is covered under category A of item 5(f) 'Synthetic Organic chemical' of Schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

Standard ToR for the project was granted on 1<sup>st</sup> June 2018. Public Hearing has been conducted by the State Pollution Control Board on 26<sup>th</sup> October 2018. The main issues raised during the public hearing are related to employment of local peoples, CSR, environmental issues, etc.

Existing land area is 206617.21sqm, additionally 43537 sqm land will be required for the proposed expansion. Industry has developed greenbelt in an area 97124 sqm, covering 33% of the total project area. The estimated cost for expansion is Rs. 205 crores. Total capital cost earmarked for environmental pollution control measures and the recurring cost (O&M) will be Rs. 6.9 crores and Rs. 4.83 crores per annum respectively. Employment opportunity will be for 1850 persons after expansion.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, rivers etc. within 10 km distance from the project site.

Total water requirement after expansion is estimated to be 1800 cum/day, which includes fresh water requirement of 1456 cum/day. Additional fresh water requirement of due to expansion will be met from surface water sources. The existing fresh water requirement is met through ground water. Approval from CGWA for ground water extraction of 900 cum/day has been obtained vide letter dated 12<sup>th</sup> February, 2018 and permission for withdrawal of surface water of 2500 cum/day has been obtained from Department of Irrigation, Punjab vide letter dated 2<sup>nd</sup> November, 2018.

Effluent of 977 cum/day is generated from the unit, which will be segregated to low TDS /low COD effluent and high TDS/high COD effluent and treated separately. Low TDS effluent of 824 cum/day will be treated in ETP consisting of four stages treatment viz Equalization, Anaerobic digestion, Aerobic digestion followed by tertiary treatment. Treated effluent of 344 cum/day will be reused in the process/cooling tower. High TDS effluent of 153 cum/day will be sent to Multi



Effect Evaporator (MEE)/Mechanical Vapour Recompression (MVR) for evaporation. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

The unit has 13 MW and 4 MW existing power cogeneration plant, which will cater the power requirement. The unit have DG sets of 2 X 1000 KVA and 1 X 625 KVA capacities, additionally, one DG set of capacity 1000 KVA will be installed for additional power backup.

The existing unit has rice husk fired boilers of capacities 80 TPH, 32 TPH and 14 TPH and six thermic fluid heater/furnace (1500000, 2x2000000, 3x200000 KCal/Hour) and additionally two Furnace/ Thermic Fluid Heater of 200000 Kcal/hour is proposed. ESP/ Trema Cyclone will be installed to control the particulate emission along with stack as per the CPCB norms.

Ambient air quality monitoring was carried out at 8 locations during 15<sup>th</sup> March 2018 to 15<sup>th</sup> June 2018 and the baseline data indicates the pollutants concentrations range as: PM<sub>10</sub> (85 – 93 µg/m<sup>3</sup>), PM<sub>2.5</sub> (42 – 48µg/m<sup>3</sup>), SO<sub>2</sub>(10.9-12.7 µg/m<sup>3</sup>) and NO<sub>2</sub> (21.1– 27.4 µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum predicted incremental GLCs after the proposed project for PM, SO<sub>2</sub>, NO<sub>x</sub> &HCL would be 0.95, 0.64, 3.1, 0.23µg/m<sup>3</sup> respectively at a distance of 1.6 Km in SE direction. The maximum net baseline (with incremental GLC) is assessed to be 93.00µg/m<sup>3</sup>, 12.83µg/m<sup>3</sup> and 27.40µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are expected to be within the National Ambient Air Quality Standards (NAAQS).

The Ministry, had issued EC earlier vide letter dated 24<sup>th</sup> August, 2009 to the project for expansion of existing and additional of new products at Village Dhaula, District Sangrur (Punjab) in favour of M/s IOL Chemicals and Pharmaceuticals Limited. Change in product mix has been obtained from Punjab SPCB for a capacity of 543.5 TPD, vide Letter dated 13<sup>th</sup> February, 2018. The monitoring report on compliance status of EC conditions forwarded by the Regional Office vide their letter dated 29<sup>th</sup> February, 2016, was found to be satisfactory.

The expenditure towards CER for the project would be 2.5% of the project cost as committed by the project proponent.

Consent to Operate for the existing products/utilities has been obtained from the Punjab PCB vide letter dated 6<sup>th</sup> August, 2018, which is presently valid up to 31<sup>st</sup> March, 2020.

**6.3.9.2** *The EAC, after deliberations, noted that the treated water of 741 cum/day is proposed to be discharged on land for irrigation/plantation in an area of 24 acres. The Committee expressed concern over such a huge quantity of water not proposed for recycling to reduce fresh water consumption, and accordingly desired for clarification/inputs in respect of the following:-*

- (i) Revised water balance with reduction in fresh water input.*
- (ii) Commitment not to discharge the treated industrial water to the canal passing through the unit.*
- (iii) Schematic diagram of domestic waste water treatment in STP, and plan for utilizing for green belt development.*
- (iii) Detailed effluent treatment scheme along with plan for achieving zero liquid discharge system, and to use treated water in the process to the maximum.*

*The proposal was deferred for the needful.*

## 6.4 Any Other

### Agenda No.6.4.1

#### **Expansion of Linear Alkyl Benzene (LAB) at Alindra, Savli, Vadodara (Gujarat) by M/s Nirma Limited- Amendment in EC**

**[IA/GJ/IND2/85502/2007, J-11011/130/2007-IA.II(I)]**

**6.4.1.1** The proposal is for amendment in environmental clearance granted by the Ministry vide letter dated 3<sup>rd</sup> August, 2007 to the project for expansion of Linear Alkyl Benzene plant to the capacity 1,25,000 TPA in favour of M/s NIRMA Limited located at Alindra, Savli, District Vadodara (Gujarat).

**6.4.1.2** The project proponent has requested for amendment in EC with the details as under:

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
1.	EC 2007	<p>There is no specific type of fuel mentioned in the granted EC 2007.</p> <p>However as per granted consent from State pollution control board, fuel used is FO and/or NG.</p>	<p>The following shall be used as a fuel FO and/or NG and/or Coal in place of FO and/or NG.</p> <p>Only addition of coal as a fuel along with NG and FO is requested.</p>	<p>We have granted two numbers of EC from the Ministry of Environment and forest (MOEF), New Delhi in 1997 and 2007 for expansion subsequently. In both, no particular type of fuel usage condition had been mentioned.</p> <p>At present we are using furnace oil &amp; natural gas in existing hot oil heaters. Considering the constant supply and cost effectiveness of coal in current market scenario we are proposing it as an alternate fuel.</p> <p>As our existing hot oil heaters are NG &amp; oil based, Seven (7) new Coal Based Thermic Fluid Heaters are proposed. Out of these, Two (2) would be as a Stand By.</p> <p>When the proposed Coal Fired Thermic Fluid Heaters will be in operation, existing FO / NG based Hot Oil Heaters will be in stand-by mode and when existing FO/NG based Hot, Oil Heaters will be in operation proposed Coal based Thermic Fluid Heaters will be in stand-by mode.</p> <p>As per the MoEF&amp;CC Notification S.O. 3518 (E) dated 23/11/2016. Notification says that "the modernization or change in product mix of existing projects (having environment clearance) within existing plot may be exempted from separate</p>

				environmental clearance if there is no additional pollution load beyond the earlier approved limit envisaged". In our proposal, no increase in production capacity, water requirement and pollution load is envisaged in comparison to existing provided GPCB norms. Our proposal is to use coal as alternate fuel along with FO/NG. We here by request you to grant our EC amendment application for the proposed scenario
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**6.4.1.3** The EAC, after detailed deliberations, observed that the said environmental clearance dated 3<sup>rd</sup> August 2007, nowhere mentioned about the fuel to be used for different utilities. Accordingly, the Committee was of the opinion that amendment in the EC was not required and the project proponent should approach the SPCB for necessary amendment in the CTO.

The Committee was also of the view that coal with sulphur content less than 0.5% could be used as alternate fuel in the boiler, other than natural gas/bio-fuel, subject to meeting the emissions standards prescribed under the Environment (Protection) Rules, 1986.

#### **Agenda No.6.4.2**

**Setting up pesticides, pesticide intermediate and Fine Chemicals Manufacture unit at plot No.SPM-29, Sterling SEZ & Infrastructure Ltd At &Po:-Sarod, Tal:-Jambusar, District: Bharuch (Gujarat) M/sPI Industries Limited (Unit II)- For Environmental Clearance**

**[IA/GJ/IND2/61491/2017, IA-J-11011/6/2017-IA-II(I)]**

**6.4.2.1** The proposal is for amendment in environmental clearance granted by the Ministry vide letter dated 26<sup>th</sup> July, 2018 to the project for setting up pesticides, pesticide intermediates and fine chemicals manufacturing unit of total capacity 43240 TPA by M/s PI Industries Ltd (Unit-II) at Plot No.SPM-29, Sterling SEZ & Infrastructure Ltd, Post Sarod, Taluka Jambusar, District Bharuch (Gujarat).

**6.4.2.2** The project proponent has requested for amendment in EC with the details as under:

<b>S. No.</b>	<b>Para of EC issued by MoEF&amp; CC</b>	<b>Details as per the EC</b>	<b>To be revised/read as</b>	<b>Justification/Reasons</b>
1	Point No.5, The details of products & by-products are as	B, Synthetic Organic Chemicals, Pyrazoles	Pyrazoles to be included under, <b>"Pesticides and Intermediates"</b> instead of <b>"Synthetic Organic Chemicals"</b> in	At the time of appraisal of our project during the 35th EAC held during 27th-28th March, 2018 it was insisted by the committee to indicate the category of the products as per the EIA notification, 2006. While doing so, we had mistakenly included

	under:-		product list	Pyrazoles under the “5(f)” category instead of “5(b)”. As a reference, you may kindly refer the 43rd MOM of EAC, Industry-II dated 26-27th November, 2018 for our EC application of SPM-28 (Unit-I) expansion, wherein we had correctly categorized Pyrazoles under “5(b)” category.
2	Pont No. 10 (i)	Total production of pesticides shall include manufacturing at least 25% of bio-pesticides	The percent quantity of bio-pesticides to be reduced to 10% of total production from existing 25%. Also the resultant quantity as per 10% limit i.e. 4330 MT/Annum to be included in the product list without any additional increase in the overall production quantity of 43,240 MT/Annum. Proportionate quantity of 4330 MT/Annum is reduced from “Performance Chemicals” to accommodate the quantity of bio pesticides in the product list.	<p><b>a)</b> The market for bio pesticides is at a nascent stage in India which is evident from the current share of bio pesticides which is around 4.5%. These products come with a shortened shelf life and there’s a debate on the efficacy of these products which is why the farmer community is apprehensive in its adoption on a large scale basis. Very little study exists to show that they are equally or more potent than synthetic pesticides and can destroy all the targeted pests, thereby increasing the per hectare/acre yield. Based on these facts it doesn’t make a business sense to currently enter this market with such huge risks, thereby we do not envisage a good market for bio pesticides at this stage.</p> <p><b>b)</b> We don’t have any expertise whatsoever, as far as manufacturing of bio pesticides is concerned. This will require considerable investment in terms of capital as well as time. We will have to carry out R&amp;D before we even think of investing in any infrastructure for production of bio pesticides. Till the time we develop the infrastructure for these products we won’t be able to produce other products which will result in a huge loss. By including in product list, we will be able to manufacture</p>

				<p>other products for which we already have orders in hand, till we develop technology for bio pesticides.</p> <p><b>c)</b> Our unit is an Export Oriented Unit (EOU) wherein we carry out manufacturing of products as per the demand of our overseas business partners. We are situated in SEZ and as per SEZ Act-2005; we cannot sell any product from this unit to the domestic market.</p> <p><b>d)</b> The quantity arrived considering the proposed percent value of 10% (i.e. 4330 MT/Annum) is in itself a humongous quantity and it adequately serves the purpose of promoting bio pesticides as per the current and futuristic scenarios.</p>
3	Subject	Setting up Pesticides, Pesticide Intermediates and Fine Chemicals manufacturing unit at Plot No. SPM-29, Sterling SEZ & Infrastructure Ltd. Post Sarod, Taluka Jambusar, District Bharuch (Gujarat) by M/s PI industries Ltd (Unit-II) – Environmental Clearance – reg.	<i>Setting up Pesticides, Pesticide Intermediates and Fine Chemicals manufacturing unit at Plot No. SPM-29/2, Sterling SEZ &amp; Infrastructure Ltd. Post Sarod, Taluka Jambusar, District Bharuch (Gujarat) by M/s PI industries Ltd (Unit-II) – Environmental Clearance – reg</i>	In our TOR application wherein the proposed expansion is to be carried out, we had mentioned the plot no. as SPM 29 based on the initial information received from M/s Sterling SEZ. However at the time of drafting EIA report we were intimated about the change in plot No. from SPM 29 to SPM 29/2 by M/s Sterling SEZ and accordingly we incorporated the proposed change in the EIA report. This correction also reflected in our EC presentation before the EAC (Industry-2) held on 27th March. As documentary evidence we have the plot allotment letter issued by M/s Sterling SEZ and Infrastructure limited vide letter SSIL/PIIND/24/2016-17 dated 27.10.2016 wherein the earmarked plot admeasuring 87,300 sq. meters for the proposed expansion is titled as SPM-29/2.
4	Point 10, XXi	Continuous online (24X7)	<i>“Continuous online (24X7)</i>	As per the guidelines issued by CPCB in context of online

		<p>monitoring system for stack emissions and the effluent shall be installed for measurement of flow/discharge and the pollutants concentration and the emission and effluent monitoring data to be transmitted to the CPCB and SPCB server as per the directions of CPCB in this regard.</p>	<p><i>monitoring system for effluent shall be installed for measurement of flow/discharge and the pollutants concentration, and the effluent monitoring data to be transmitted to the CPCB and SPCB server as per the directions of CPCB in this regard"</i></p>	<p>monitoring, for pesticide industries its mandatory to install continuous online monitoring system only for effluent discharge and not for stack emissions.</p>
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**6.4.2.3** *The EAC, after detailed deliberations, recommended for amendment in the EC with the details as under:-*

- (i) Para 5 - Pyrazoles to be read under, 'Pesticides and Intermediates' instead of 'Synthetic Organic Chemicals' in the product details.*
- (ii) Para 10(i) - Total production capacity shall be 43240 TPA, including 10% of bio-pesticides.*
- (iii) Plot No.SPM-29 shall be read as Plot No. SPM-29/2, subject to submission of layout plan from Sterling SEZ & Infrastructure Ltd and the same to be verified/cross checked from the project details made available.*

**Agenda No.6.4.3**

**Expansion of Epoxy Hardeners manufacturing unit by M/s AdmarkPolycoats Pvt Ltd at Sy. Nos. 206 & 207, Village Luna, TahsilPadra, District Vadodara (Gujarat)- Amendment in Environmental Clearance**

**[IA/GJ/IND2/35855/2015, J-11011/15/2016-IA II (I)]**

**6.4.3.1** The proposal is for amendment in environmental clearance granted by the Ministry vide letter dated 8<sup>th</sup> January, 2019 in favour of M/s AdmarkPolycoats Pvt Ltd to the project for expansion of epoxy hardeners manufacturing unit from 1000 TPM to 2000 TPM located at Sy.Nos.206 & 207, Village Luna, Taluka Padra, District Vadodara(Gujarat).

**6.4.3.2** The project proponent has requested for amendment in the EC with the details are as under:

S. No	Para of EC issued by MoEF&C	Details as per EC	To be revised/revised as	Justification / reasons
1	<b>Condition No. 5</b>	Total effluent generation from industrial operation is estimated to be 11.8 cum/day. Effluent 7.8 cum/day will be sent for amine recovery, 1.4 KLD to the CETP for the further treatment and remaining effluent of 2.6 KLD will be recycled after treatment.	Total effluent generation from the unit will be 11.8 cum/day. 7.2 KLD effluent will be sent for amine recovery, 1.4 KLD effluent will be sent to CETP for further treatment. The remaining sewage of 3.2 KLD will be disposed through septic tank / soak pit system.	Copy of water balance diagram submitted as a part of final EIA study report
2	<b>Condition no. 10(b)</b>	Effluent of 7.8 cum/day shall be sent for amine recovery and 1.4 KLD shall be sent to CETP.	Effluent of 7.2 KLD shall be sent for amine recovery and 1.4 KLD shall be sent to CETP.	
3	<b>Condition no. 10(h)</b>	Industrial / trade effluent shall be segregated into High COD/TDS and low COD/TDS streams. High COD/TDS stream shall be passed through stripper followed by MEE and ATFD. Low COD/TDS effluent stream shall be treated in ETP/RO to meet the prescribed norms.	Industrial /trade effluent management system will be as follows : 7.2 KLD will be sent for amine recovery. 1.4 KLD will be sent to CETP for further treatment.	<b><u>Request is to remove the condition, as the same is not applicable to the project proposal.</u></b> Segregation of effluent as mentioned in EC condition no. 10(h), has nowhere proposed in Final EIA study report.
4	<b>Condition No. 10(f)(i) :</b>	Reactor shall be connected to chilled brine condenser system.	Reactor shall be connected to cooling water condenser system.	We would like to state that, in our manufacturing process, the chemicals being used are having high boiling point. Hence, we request you to allow us to have cooling water condenser system instead of chilled brine condenser system. For, our existing manufacturing

				activities, we are already having the said system functional with cooling water circulation. We would also like add here that, chilled brine circulation has not been proposed by us in the EIA study report submitted by us during the processing of EC application.
5	<b>Condition no. 10(f) (vii):</b>	All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	Hence, humble request is to remove the condition mentioned in EC at Condition no. 10(f)(vii).	We have underground storage tanks of solvents which are designed as per recommendations of Petroleum & Explosive Safety Organization (PESO) Government of India, Ministry of Commerce & Industry and also have valid approved license.
6	<b>Condition no. 10(t)</b>	Continuous online (24 X7) monitoring system for stack emission shall be installed for measurement of flue gas discharge and the pollutant concentration and the data to be transmitted to CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in channel/drain carrying effluent within premises.	Request to exempt us from the condition.	For, explanation pl. Refer <b><u>Annexure - B</u></b> .

**6.4.3.3** *The EAC, after deliberations, agreed for amendment in the EC with the details as under:-*

*(i) Para 5, 10(b) & 10(h) - Total effluent generation will be 11.8 cum/day. Effluent of 7.2 cum/day will be sent for amine recovery and 1.4 cum/day will be sent to CETP for further treatment. Remaining sewage of 3.2 cum/day will be disposed through septic tank/soak pit system.*

*(ii) Para 10(f)(i) - Reactor shall be connected to cooling water condenser system.*

*(iii) Para 10(t) - Continuous online (24X7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutant concentration, as per the*



directions of CPCB/SPCB in this regard and as applicable to the project, and the data to be transmitted to CPCB and SPCB server.

## **Day Two - 9<sup>th</sup> April, 2019**

### **6.5 Environmental Clearance**

#### **Agenda No.6.5.1**

**Expansion of Sugar, Co-generation unit and setting up molasses based distillery of 150 KLPD at Gat No.61/A, AkiwatTakaliwadi Road, Takaliwadi, Taluka Shirol, District Kolhapur (Maharashtra) by M/s Shri Gurudatt Sugars Ltd - For Environmental Clearance**

**[IA/MH/IND2/59911/2014, J-11011/41/2015-IA II (II)]**

The project proponent and the accredited consultant M/s sd engineering services Pvt Ltd, made a detailed presentation on the salient features of the project.

**6.5.1.1** During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for expansion of sugar plant from 6000 to 13000 TCD, co-generation power plant from 21 to 90 MW, and setting up molasses based distillery of 150 KLPD in existing area of 55 acre by M/s Shri Gurudatt Sugars Ltd at Gat No. 61/A, AkiwatTakaliwadi Road, Takaliwadi, Taluka Shirol, District Kolhapur (Maharashtra)

The details of existing/proposed products are as under:-

<b>S. No.</b>	<b>Products</b>	<b>Existing</b>	<b>Proposed</b>	<b>Total</b>
1.	Sugar Unit	6000 TCD	7000 TCD	13000 TCD
2.	Co-Generation Unit	21 MW	69 MW	90 MW
3.	Distillery Unit	Nil	150 KLPD	150 KLPD
4.	Refined Sugar	Nil	1755 TPD	1755 TPD

The project/activity is covered under category A of item 5 (g) 'Distilleries', 1(d) 'Thermal Power Plants' and category B of item 5(j) 'Sugar Industry' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal/approval at Central level in the Ministry.

Standard Terms of Reference for the project was issued on 17<sup>th</sup> August, 2017. Public hearing was conducted by the State Pollution Control Board on 5<sup>th</sup> December 2018. Main issues raised during the public hearing are related to waste water generation and its management, employment to local peoples, pollution arising from the industry and its management to control.

Existing land area is 222577 m<sup>2</sup> (55 Acres). No additional land shall be required for the proposed expansion. Green belt will be developed in 33% i.e. 73449 sqm out of total area of the project. The estimated project cost is Rs.350 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs.19.6 Crore and the recurring cost (O&M) will be about Rs.167.5 Lack per annum. Total Employment will be 300 persons as direct & 500 persons indirect.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc. within 10 km distance from the project site. Krishna River

flows at distance of 4 km in the West.

Total water requirement is 760 m<sup>3</sup>/day including fresh water requirement of 760 m<sup>3</sup>/day proposed to be met from Krishna River. The approval has been obtained by Chief Engineer, Irrigation Department, Kolhapur (Maharashtra) for fresh water withdrawal of 769 cum/day.

Effluent of 1300 m<sup>3</sup>/day from sugar and co-gen unit will be treated through ETP consist of Primary, Secondary and Tertiary treatment unit and followed by CPU for sugar unit. The effluent of 1350 m<sup>3</sup>/day from distillery unit will be sent to MEE + Incineration Boiler. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Two Multi fuel boilers of 120 TPH capacity each and one Multi fuel boiler of 60 TPH will be installed. Electrostatic Precipitator with a stack of height of 70 m each for 120 TPH capacity boiler and 90 m for 60 TPH boiler will be installed to control the particulate emissions within statutory limit of 150 mg/Nm<sup>3</sup> for proposed boiler.

Ambient air quality monitoring was carried out at 9 locations during October 2015 to December 2015 and the baseline data indicates that ranges of concentrations as: PM<sub>10</sub> varies between 25 µg/m<sup>3</sup> to 47.8 µg/m<sup>3</sup>, PM<sub>2.5</sub> varies between 7.5 µg/m<sup>3</sup> to 18.5 µg/m<sup>3</sup>, SO<sub>2</sub> varies between 7.1 µg/m<sup>3</sup> to 9.2 µg/m<sup>3</sup> and NO<sub>x</sub> varies between 9.1 µg/m<sup>3</sup> to 12.3 µg/m<sup>3</sup> respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.10 µg/m<sup>3</sup> for PM<sub>10</sub>, 0.27 µg/m<sup>3</sup> for PM<sub>2.5</sub> and 2.10 µg/m<sup>3</sup> for SO<sub>2</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be 0.75% of the project cost as committed by the project proponent.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent. The Committee also found additional information submitted by the project proponent to be satisfactory.

Earlier, the Ministry has issued EC vide letter dated 20<sup>th</sup> March, 2017 for sugar and cogeneration unit to M/s Shri Gurudatt Sugars Ltd. The monitoring report on compliance status of EC conditions has been forwarded by the Ministry's Regional Office at Nagpur vide letter dated 21<sup>st</sup> January, 2019. The committee found the certified compliance report to be satisfactory.

Application has been submitted to PESO for approval of site and layout plan of storage facilities (Petroleum storage Class A installation).

Consent to Operate for the existing industrial operations have been obtained from Maharashtra PCB vide letter dated 19<sup>th</sup> April, 2018 which is presently valid up to 31<sup>st</sup> July, 2019.

**6.5.1.2** *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under:-*

- *Prior approval shall be obtained from PESO for site and layout plan of storage facilities (Petroleum storage Class A installation).*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Coal less than 0.5% sulphur content shall be used as fuel in boiler.*
- *Total fresh water requirement shall not exceed 760 cum/day proposed to be met from Krishna River. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
  - (i) Metering and control of quantities of active ingredients to minimize waste.*
  - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - (iii) Use of automated filling to minimize spillage.*
  - (iv) Use of Close Feed system into batch reactors.*
  - (v) Venting equipment through vapour recovery system.*
  - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.*
- *At least 0.75% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*

- Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- CO<sub>2</sub> generated from the process shall be bottled/made solid ice and sold to authorized vendors.
- There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

### **Agenda No.6.5.2**

**Expansion of expansion of pesticides and Pesticide specific intermediate at Plot No.(27+28)/A, GIDC Industrial Estate Panoli, Taluka Ankleshwar, District Bharuch (Gujarat) by M/s Cheminova India Limited (Intermediate Division) - For Environmental Clearance**

**[IA/GJ/IND2/88017/1995, J-11011/53/2018-IA-II(I)]**

The project proponent and the accredited consultant M/s Siddhi Green Excellence Pvt Ltd, made a detailed presentation on the salient features of the project.

**6.5.2.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of pesticides and Pesticide specific intermediates by M/s Cheminova India Limited (Intermediate Division) in an area of 149163.17 sqm at Plot No.(27+28)/A, GIDC Industrial Estate, Panoli, Taluka Ankleshwar, District Bharuch (Gujarat).

The details of existing and proposed products are as under:-

<b>S. No.</b>	<b>Name of Product</b>	<b>CAS No.</b>	<b>Existing (TPA)</b>	<b>Proposed (TPA)</b>	<b>Total (TPA)</b>	<b>End Use</b>	<b>LD50 oral mg/kg Rat</b>
1.	Sulfentrazone	122836-35-5	--	2000	2000	Herbicide	2855 mg/kg Rat
2.	F-9600 (2-(2,4-dichlorobenzyl)-4,4-dimethylizoxazolidin-3-one)/Bixlozone	81777-95-9	--	4200	4200	Herbicide	>2000 mg/kg Rat
3.	F 9990 (Fluindapyr)	1383809-87-7	--	1200	1200	Fungicide	>2000 mg/kg Rat
4.	Malathion	121-75-5	--	10000	10000	Insecticide	1000 - 1350 mg/kg Rat
5.	F-4050	113614-	--	1500	1500	Herbicide	>5000

	(2-(4-fluoro-3-(trifluoromethyl)phenoxy)-N-benzylbutanamide)	09-8					mg/kg Rat
6.	Beflubutamide	113614-08-7	--	450	450	Herbicide	>5000 mg/kg Rat
7.	Gamma Cyhalothrin	76703-62-3	--	300	300	Insecticide	>2500 mg/kg Rat
8.	Bifenthrin	82657-04-3	--	300	300	Insecticide	>2000 mg/kg Rat (dermal)
9.	Clomazone	81777-89-1	--	2000	2000	Herbicide	1369 mg/kg Rat
10.	FMC-57091 (4,4-dimethyl isoxazolidin-3-one)/ (Isoxazolidinone)	81778-07-6	--	2600	2600	Intermediate Herbicide	>541 mg/kg Rabbit (dermal)
11.	Thifensulfuron Methyl	79277-27-3	--	205	205	Herbicide	>5000 mg/kg Rat
12.	Tribenuron Methyl	101200-48-0	--	215	215	Herbicide	>5000 mg/kg Rat
13.	Metsulfuron Methyl	74223-64-6	--	200	200	Herbicide	>5000 mg/kg Rat
14.	Ethametsulfuron Methyl	97780-06-8	--	10	10	Herbicide	>5000 mg/kg Rat
15.	Chlorsulfuron	64902-72-3	--	60	60	Herbicide	5545 mg/kg Rat
16.	Triflurosulfuron Methyl	126535-15-7	--	50	50	Herbicide	>5000 mg/kg Rat
17.	Azimsulfuron	120162-55-2	--	4	4	Herbicide	>5000 mg/kg Rat
18.	Flupyr sulfuron Methyl Sodium	144740-54-5	--	12	12	Herbicide	>5000 mg/kg Rat
19.	Diethyl Thio Phosphoryl Chloride (DETPC) /Sodium salt of Diethyl Thio	2524-04-1 / 3338-24-7	5330	2670	8000	Pesticide Intermediate	1340 mg/kg Rat

	Phosphoryl Chloride (Na-DETA)						
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**Existing Products to be continued with consented production capacity:**

S. No.	Name of Product	CAS No.	Existing (TPA)	Proposed (TPA)	Total (TPA)	End Use
20.	Phosphorus Trichloride (PCl <sub>3</sub> )/ Phosphoryl chloride (POCl <sub>3</sub> )	7719-12-2/ 10025-87-3	1000	--	1000	Pesticide Intermediate
21.	Tri methyl Phosphite (TMP) or Tri ethyl Phosphite (TEP)	121-45-9 / 122-52-1	100	--	100	Pesticide Intermediate
22.	Cyhalothrin Acid	76023-99-9	250	--	250	Pesticide Intermediate
23.	Phosphorus Penta Sulphide (P <sub>2</sub> S <sub>5</sub> )	1314-80-3	3400	--	3400	Pesticide Intermediate
24.	Acid based products [2-bromobutyric Acid ( <b>int</b> ), ethyl 2-(4-hydroxyphenoxy) propionate (O-HPPA) ( <b>int</b> ), Thiocyclam( <b>I</b> ), Bipyribac-Sodium ( <b>H</b> ), Pyriproxyfen-Sodium( <b>H</b> ), Methoxy Amine Hydrochloride ( <b>int</b> ), 2-hydroxyphenyl Acetic Acid (HPAA) ( <b>int</b> ), amino acid ( <b>int</b> )] etc.	80-58-0/ 65343-67-1/ 31895-21-3/ 125401-92-5/ 123343-16-8/ 593-56-6/ 614-75-5	150	--	150	I – Insecticide H- Herbicide F- Fungicide Int- Intermediate
25.	Amide group based products [Pretilachlor ( <b>H</b> ), Captan( <b>F</b> ), Cymoxanil ( <b>F</b> ), Beflubutamide( <b>H</b> ), Pethoxamide( <b>H</b> ), Carboxin ( <b>F</b> ), Flubendamide( <b>I</b> ), Chlorantraniliprole ( <b>I</b> ), Thiaflusamide( <b>F</b> ), Zoxamide ( <b>F</b> ), Flufenacet ( <b>H</b> ), 2-Aminosulfonyl-N,N-Dimethylnicotinamide (SNA) ( <b>int</b> ), 2-(Methoxycarbonyl) thiophene thiophene-3	51218-49-6/ 133-06-2/ 57966-95-7/ 113614-08-7/ 106700-29-2/ 5234-68-4/ 272451-65-7/ 500008-45-7/ 130000-40-7/ 156052-68-5/ 142459-58-3/ 112006-75-4/ 59337-93-8	150	--	150	I – Insecticide H- Herbicide F- Fungicide Int- Intermediate

S. No.	Name of Product	CAS No.	Existing (TPA)	Proposed (TPA)	Total (TPA)	End Use
	Sulfonamide (MST) <b>(Int)]</b> etc.					
26.	Aniline group Bases products [Pendirnethalin <b>(H)</b> , Fluazinam <b>(F)</b> ,Metalaxyl <b>(F)</b> , Famoxadone <b>(F)</b> ] etc.	40487-42-1/ 79622-59-6/ 57837-19-1/ 131807-57-3	1200	--	1200	I – Insectici de H- Herbicid e F- Fungicid e Int- Intermed iate
27.	Azine group based product Fenpyroximate <b>(I)</b> , Metribuzin <b>(H)</b> ,Pymetrozine <b>(I)</b> , Arnitraz <b>(I)</b> , Indoxacarb <b>(I)</b> ,Clofentezine <b>(I)</b> , 2 Methoxy- 4 - Methyl-6- Methylamino-1,3,5- Triazine (MMMT) <b>(Int)]</b> etc.	134098-61- 6/ 21087-64- 9/ 123312- 89-0/ 33089- 61-1/ 173584-44- 6/ 74115-24- 5/ 5248-39-5	300	--	300	I – Insectici de H- Herbicid e F- Fungicid e Int- Intermed iate
28.	Azole group based products [Fipronil <b>(I)</b> , Hexaconazole <b>(F)</b> , Propiconazole <b>(F)</b> , Difenconazole <b>(F)</b> ,Tricydazole <b>(F)</b> , Myclobutanil <b>(F)</b> ,Florasulam <b>(H)</b> , Tebuconazole <b>(F)</b> , Flusilazole <b>(F)</b> ,Tridemefon, Paclobutrazol <b>(F)</b> , Thiamethoxam <b>(I)</b> , Flutriafol <b>(F)</b> ,Safenerlsoxadifen ethyl <b>(Int)</b> ,Irnidacloprid <b>(I)</b> , 2, 6 DiChloroBenzoxazolone <b>(Int)</b> ,Penoxasulam <b>(H)</b> ] etc.	120068-37- 3/ 79983-71- 4/ 60207-90- 1/ 119446- 68-3 41814- 78-2/ 88671- 89-0/ 145701-23- 1/ 107534- 96-3/ 85509- 19-9/ 43121-43-3/ 76738-62-0/ 153719-23- 4/ 76674-21- 0/ 163520- 33-0/ 138261-41- 3/ 5285-41- 6/ 219714- 96-2	200	--	200	I – Insectici de H- Herbicid e F- Fungicid e Int- Intermed iate
29.	Carbamate group based product [Thiodicarb <b>(I)</b> , Propineb	59669-26-0/ 12071-83-9/ 9006-42-2/	500	--	500	I – Insectici de H-

S. No.	Name of Product	CAS No.	Existing (TPA)	Proposed (TPA)	Total (TPA)	End Use
	(F), Metiram (F), Thiram (F), Cartap hydrochloride (I), Thiophanate Methyl (F) etc.	137-26-8/ 15263-52-2/ 23564-05-8				Herbicide F- Fungicide Int- Intermediate
30.	Ester group based products [Fenoxaprop-p-Et (H), Clodinafop-Pr(H), Quizalofop-p-ethyl (H), Quinzoalofop-p-terfuryl(H), Cyhalofop(H), Isoprothiolane (F), Alphamethrin(I), Lambda Cyhalothrin(I), Cypermethrin (I), Bifenazate(I), Phthalide (Int) etc.	71283-80-2/ 105512-06-09/ 100646-51-3/ 119738-06-6/ 122008-78-0/ 50512-35-1/ 67375-30-8/ 91465-08-6/ 52315-07-8/ 149877-41-8/ 87-41-2	300	--	300	I – Insecticide H- Herbicide F- Fungicide Int- Intermediate
31.	Ether group based products [Propargite(I), oxyfluorfen(H), 2 Ethoxy Ethyl Amine (Int), S-Cyano MPB (Int) ] etc.	2312-35-8/ 42874-03-3/ / 38256-95-0	200	--	200	I – Insecticide H- Herbicide F- Fungicide Int- Intermediate
32.	Ketone group based product [Mesotrione(H), Suctioned (H), Isoxanotole(H), Dimethomorph (F), Isobutyrophenone (IBP) (Int)] etc.	104206-82-8/ 153719-23-4/ 141112-29-0/ 110488-70-5/ 611-70-1	1200	--	1200	I – Insecticide H- Herbicide F- Fungicide Int- Intermediate
33.	Phosphate group based product [Chlorpyrifos (I) or its intermediate Na-TCP (Int), Acephate(I), Monocrotophos(I) or its	2921-88-2/ 37439-34-2/ 30560-19-1/ 6923-22-4/ / 60-51-5/	5000	--	5000	I – Insecticide H- Herbicide F-



S. No.	Name of Product	CAS No.	Existing (TPA)	Proposed (TPA)	Total (TPA)	End Use
	intermediates MCMMAA (Int.), Dimethoate (I), Profenofos(I), Ethephon (PGR)] etc.	41198-08-7/ 16672-87-0				Fungicide Int- Intermediate
34.	Pyridine group based product [Pyridalyl(I), Imazethapyr (H) Cloquintocet Methyl(H), Acetamiprid (I), 4, 6-DiChloro Pyridine (Int)], Azoxystrobin(F) etc	179101-81-6/ 81335-77-5/ 99607-70-2/ 160430-64-8/ 1193-21-1/ 131860-33-8	250	--	250	I – Insecticide H- Herbicide F- Fungicide Int- Intermediate
35.	Urea group based product [Buprofezin(I), Lufenuron (I), Linuron (H), Diafenthiuron(I), Diuron (H), Novaluron (I), Chlorimuron (int), Hexythiazox(I), Spiromesifen(I), Azimsulfuron(H), Sulfonyl Ureas(H)] etc.	69327-76-0/ 103055-07-8/ 330-55-2/ 80060-09-9/ 330-54-1/ 116714-46-6/ 99283-00-8/ 78587-05-0/ 283594-90-1/ 120162-55-2/ 35507-37-0	100	--	100	I – Insecticide H- Herbicide F- Fungicide Int- Intermediate
36.	Phenol group based product [2- Cyanophenol (Int), 4- Fluoro-3-trifluoromethylphenole (Int)] etc.	611-20-1/ 61721-07-1	75	--	75	I – Insecticide H- Herbicide F- Fungicide Int- Intermediate
<b>Total</b>			<b>19705</b>	<b>27976</b>	<b>47681</b>	

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal/approval at central level in the Ministry.

Standard ToR for the project was granted on 23<sup>rd</sup> March, 2018. Public hearing is exempted as per the para 7.III.Stage (3)(i)(b) the project site is located inside the notified industrial area.

Existing land area is 149163.17 sqm. No additional land area will be required. Industry has already developed greenbelt in an area of 33.18 % i.e., 49497 sqm out of total area of the project. The estimated project cost is Rs.790.36 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 25.05 Crores and the recurring cost (O&M) will be about Rs.102crores per annum. Total employment generation will be 178 nos. persons as direct & 422 nos. persons indirect after expansion.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Rivers etc. within 10 km from the project site. Ukai Canal is at a distance of 1.66 km in west.

Total water requirement is estimated to be 1351 cum/day including fresh water requirement of 764 cum/day proposed to be met from GIDC supply.

Effluent of 206 cum/day will be treated through Effluent Treatment Plant (ETP) having Primary, Secondary & Tertiary Treatments & treated effluent of 181 cum/day is discharged into u/g conveyance pipeline connected to Final Effluent Treatment Plant (FETP) of M/s. Narmada Clean Tech (NCT).

Power requirement after expansion will be 3500 kVA proposed to be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has one DG set of 1250 kVA. Two more DG sets of 1250 & 1500 kVA will be required under proposed expansion.

The details of existing/proposed boilers and other utilities, fuel used and the air pollution control measures are as under:-

Stack No.	Stack Attached to	Capacity	Name of Fuel	Air Pollution Control Measure (APCM)	Stack Height (m)
1 (Existing)	Boiler &	10 TPH	Furnace oil or Natural gas	Not Applicable	32
	Boiler	10 TPH			
2 (Existing)	D.G. Set (Stand-by)	1250 KVA	HSD	Not Applicable	09
3 (Existing)	Boiler	18 TPH	Briquettes/ Bagasse/ Groundnut shell	Dust collector + Bag filter	40
4 (Existing)	Incinerator (for waste gas)	--	--	Water Scrubber + Alkali Scrubber (Dhal chamber)	45
5 (New)	D.G. Set (Stand-by)	1500 KVA	HSD	Not Applicable	30
6 (New)	Thermic fluid heater	1000000 Kcal/Hr	Natural Gas	Not Applicable	30
			or HSD		
7 (New)	D.G. Set (Stand-by)	1250 KVA	HSD	Not Applicable	30

Ambient air quality monitoring was carried out at 9 (including project site) locations during February 2017 to April 2017 and the baseline data indicates the ranges of concentrations of PM10 (74-91 µg/m<sup>3</sup>), PM2.5 (19-33 µg/m<sup>3</sup>), SO<sub>2</sub> (19-26 µg/m<sup>3</sup>) and NO<sub>x</sub> (21-32 µg/m<sup>3</sup>) (98th percentile values) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.227 µg/m<sup>3</sup>,

1.215 µg/m<sup>3</sup> and 1.123 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be 0.50% of the project cost as committed by the project proponent.

The company took over the industrial unit in the year 2015 from M/s , and since then operating without addition of any new product and/or change of product mix. There being no prior EC by the earlier project proponent and/or by the present one, there is no requirement of certified compliance report.

**6.5.2.2** *The EAC, in the first instance, observed that there was no consistency in the products details, as mentioned in the Consent to Operate granted and/or the change of product mix allowed by the State Pollution Control Board, ToR granted by the Ministry on 23<sup>rd</sup> March, 2018 and that presented during meeting. The Committee further noted that the unit has been in operation with consent to operate granted by the SPCB from time to time, and change of product mix category of the products requiring environmental clearance.*

*The Committee, after detailed deliberations, asked the project proponent to establish that the unit is engaged in production of pesticides and pesticides specific intermediates @19705 TPA, only after obtaining prior environmental clearance as mandated under the EIA Notification, 2006 and thus ensuring no violation of the said Notification. The Committee also desired for confirmation from the State Pollution Control Board that there has been no change in scope of the project, since taking over the unit in 2015 by the project proponent with its capacity of 19705 TPA, and subsequent transfer of CTOs in their name.*

*The proposal was deferred for the needful.*

### **Agenda No.6.5.3**

**Manufacturing of Dyes & Dye Intermediates at Sy. No.384, Village Lunej, Tehsil Khambhat, District Anand (Gujarat) By M/s DTC Industries - For Environmental Clearance**

**[IA/GJ/IND2/73817/2018, IA-J-11011/118/2018-IA-II(I)]**

The project proponent and accredited consultant M/s San Envirotech Pvt Ltd, made a detailed presentation on the salient features of the project.

**6.5.3.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up synthetic organic dyes and dye intermediates manufacturing unit of capacity 750 TPM by M/s DTC Industries in an area of 4701 sqm at Sy. No.384, Village Lunej, Tehsil Khambhat, District Anand (Gujarat).

The details of proposed products are as under:

Sr. No.	Name of Products	CAS No.	Product Category	Quantity (MT/month)
1.	Para Nitro Toluene Ortho Sulphonic Acid (PNTOSA)	121-03-9	<b>5(f) - Dye Intermediate</b>	20
2.	Di-Nitro Stilbene Di Sulphonic Acid (DNSDSA)	3709-43-1		20
3.	4 Sulpho Anthranilic Acid	98-43-1		25
4.	4 SulphoHydrozene	118969-		25

	(2-[2-Phenylmethylene hydrazinyl]-4-sulfobenzoic acid sodium salt)	29-2		
5.	Yellow TGLL/Direct Orange 39	1325-54-8	<b>5(f) - Dyes</b>	50
6.	Reactive Blue 220	128416-19-3		50
7.	Reactive Blue 221	93051-41-3		50
8.	Resist Salt (Meta Nitrobenzene Sulphonic Acid)	127-68-4	<b>5(f) - Dye Intermediate</b>	150
9.	Metanilic Acid (3-Aminobenzenesulfonic Acid)	121-47-1		100
10.	Aniline 2:5 DSA (1-Amino Benzene 2,5 - Disulphonic Acid)	98-44-2		25
11.	Sulphanilic Acid (4-Aminobenzenesulfonic Acid)	121-57-3		150
12.	Aniline 2,4 DSA (1-Amino Benzene 2,4- Disulphonic Acid)	137-51-9		25
13.	Peri Acid (1-Aminonaphthalene-8-Sulfonic Acid)	82-75-7		10
14.	4 Nitro 2 Amino Phenol 6 Sulphonic Acid (4 NAPSA)	96-67-3		10
15.	6 Acetyl OAPSA (6 Acetyl 2 Amino Phenol 4 Sulfonic Acid)	40306-75-0		5
16.	Copper Formazone Base (Copper Formazone Blue of 4-Sulfo Anthranilic Acid)	77840-01-8		5
17.	Para Amino Azo Benzene 4 Sulphonic Acid (PAABSA)	104-23-4		25
18.	NaphthoSultone (1-Naphthol-8-sulfonic acid sultone)	83-31-8	5	
19.	Ferrous Sulphate Heptahydrate- <b>By Product</b>	7720-78-7	<b>Inorganic Product(Non-EC product)</b>	100
<b>Total</b>				<b>850</b>

The project/activity are covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal/approval at central level in the Ministry.

Standard ToR for the project was granted on 4<sup>th</sup> May, 2018. Public hearing was conducted by the Gujarat Pollution Control Board on 15<sup>th</sup> November, 2018. The main issues raised during the public hearing are related to employment opportunities, CSR activities, water salinity & rain water harvesting.

The land area available for the project is 4701sqm. Industry will develop greenbelt in an area of 1550 sqm covering 33% of the total project area. The estimated project cost of proposed unit is Rs.6 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs.2 Crore and the recurring cost (O&M) will be about Rs.3.55 Crore per annum. Total employment including direct and indirect will be 35 persons.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, river within 10 km distance from the project site.

Total water requirement estimated to be 158 cum/day, which includes fresh water requirement of 74 cum/day, proposed to be met from ground water through bore well. Necessary application in this regard has been submitted to CGWA.

Effluent of 103 cum/day will be treated in ETP and passed through the RO system, RO permeate (70 KLD) will be reused within premises and reject (33 KLD) will be spray dried in in-house spray dryer. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Steam boiler (2 TPH) and Hot Air Generator (25 lakhs Kcal/hr.) will be installed. White Coal/Imported Coal will be used as fuel in proposed Boiler & HAG. Cyclone separator followed by bag filter with a stack height of 21 m & 30 m respectively will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup> for the proposed utilities.

Ambient air quality monitoring was carried out at 8 locations during March, 2018 to May, 2018 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (60.5–68.6 µg/m<sup>3</sup>), PM<sub>2.5</sub> (30.5–39.2 µg/m<sup>3</sup>), SO<sub>2</sub> (10.8–14.8 µg/m<sup>3</sup>) and NO<sub>x</sub> (14.1–18.1 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.620 µg/m<sup>3</sup>, 1.111 µg/m<sup>3</sup>, and 0.792 µg/m<sup>3</sup>, with respect to PM<sub>10</sub>, SO<sub>2</sub>, and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be 2% of the project cost as committed by the project proponent.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

**6.5.3.2** *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of resins.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21<sup>st</sup> July, 2010 and amended from time to time, shall be followed.*
- *Coal with Sulphur content less than 0.5% shall be used as fuel in the boiler, along with lignite/bio-fuel/briquettes/bagasse/agro waste.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*

- Solvent management shall be carried out as follows:
  - (i) Reactor shall be connected to chilled brine condenser system.
  - (ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - (iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
  - (iv) Solvents shall be stored in a separate space specified with all safety measures.
  - (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
  - (vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
  - (vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- Total fresh water requirement shall not exceed 74cum/day to be met through ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.
- Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
- Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- Fly ash shall be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.
- The company shall undertake waste minimization measures as below:-
  - (i) Metering and control of quantities of active ingredients to minimize waste.
  - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - (iii) Use of automated filling to minimize spillage.
  - (iv) Use of Close Feed system into batch reactors.
  - (v) Venting equipment through vapour recovery system.
  - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.
- At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*

**Agenda No.6.5.4**

**Expansion of Sugar Plant (4500 TCD to 7500 TCD) & Cogeneration Power Plant (14 MW to 30 MW) and setting up molasses based distillery of 60 KLPD at Sy.No 411/1, 411/2, 411/3, 412& 413/1, Saundatti Village, Belgaum,Belgaum,Karnataka by M/s Harsha Sugars Ltd - For Environmental Clearance reg**

**[IA/KA/IND2/64689/2017, IA-J-11011/236/2017-IA-II(I)]**

The project proponent and the accredited consultant M/s Environmental Health and Safety Consultants Pvt Ltd, gave a detailed presentation on the salient features of the project.

**6.5.4.1** During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for expansion of sugar plant from 4500 TCD to 7500 TCD& Cogeneration power plant from 14 MW to 33 MW, and setting up molasses based distillery of 60 KLPD in an area of 51.3 acres by M/s Harsha Sugars Ltd located at Sy.No.411/1, 411/2, 411/3, 412& 413/1, Village Saundatti, Taluka Saundatti, District Belagavi (Karnataka).

The details of proposed products/by-products are as under:-

<b>S. No.</b>	<b>Products</b>	<b>Existing</b>	<b>Proposed</b>	<b>Total Quantity</b>
1	Sugars	540TPD (from 4500 TCD sugarcane crushing)	360TPD (from 3,000 TCD sugarcane crushing)	900TPD (from 7,500 TCD sugarcane crushing)
2	Power	14 MW/hr	16MW/Hr	30MW/Hr +3 MW from incineration boiler
3	RS/Ethanol/ ENA	--	60KLPD	60 KLPD

The project/activity is covered under category A of item 5 (g) 'Distilleries' and 1 (d) 'Thermal Power Plants' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal/approval at Central level in the Ministry.

Terms of Reference for the project was issued on 19<sup>th</sup> July, 2017. Public Hearing for the proposed distillery project has been conducted by the State Pollution Control Board on 18<sup>th</sup> July 2018. The main issues raised during the public hearing are related to maintenance of greenbelt development, proper management of APC & employment opportunities.

Existing land area is 51.3 Acres. Expansion will be carried out within the existing premises. Green belt will be developed in 33% i.e.17 Acres out of total area of the project. The estimated

project cost is Rs. 307.32 Crores (for expansion investment of Rs.62.32 Crores) including existing investment of Rs.245 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.9.39 Crores and the recurring cost (O&M) will be about Rs.87.73 Lakhs per annum. Total employment generation will be 100-110 persons as direct and 200 persons indirect after expansion.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc. within 10 km from the project site. A Reservoir is at a distance of 5Km in North.

Total water requirement is 5296 cum/day during season (Sugar and Co-gen & Distillery) out of which fresh water requirement will be 748 cum/day for sugar, cogen and distillery. During off season total water requirement will be 1746 m<sup>3</sup>/day out of which fresh water requirement will be 1297 cum/day (Co-gen & Distillery) will be met from Malaprabha River. The permission has been obtained from Water Resource department, Karnataka on 18<sup>th</sup> February, 2019 for withdrawal of 3000 cum/day.

During season effluent generation will be 739 KLD and during off-season will be 619 KLD. Effluent will be treated through ETP (capacity 1000 KLD). Effluent (Condensate, spentlees, boiler and cooling tower blowdown, washing, reject) of 586KLD from distillery section will be treated through CPU. Spentwash will be concentrated and used as fuel in the incineration boiler. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Existing unit has 140 TPH bagasse fired boiler. No additional boiler required for expansion project. For proposed distillery unit 22 TPH 60% concentrated spent wash and 40% Bagasse fired boiler will be connected to ESP with stack height 70 mtrs will be installed to control the particulate emissions (within statutory limit of 115mg/Nm<sup>3</sup>) for the proposed boilers.

Ambient air quality monitoring was carried out at 8 locations during October to December, 2017 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (47 µg/m<sup>3</sup>- 80 µg/m<sup>3</sup>), PM<sub>2.5</sub> (11 µg/m<sup>3</sup> - 24 µg/m<sup>3</sup>), SO<sub>2</sub> (7.10 µg/m<sup>3</sup>-13.87 µg/m<sup>3</sup>) and NO<sub>2</sub> (14.32 µg/m<sup>3</sup>-19.87 µg/m<sup>3</sup>) respectively. AAQ modeling study for the point source emissions indicates that the maximum incremental GLC after the proposed project would be 2.491 µg/m<sup>3</sup>, 0.5 µg/m<sup>3</sup> and 1.2 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Existing capacity of the industry is 4500 TCD cane crushing and 14 MW/Hr co-generation, doesn't attract the provisions of EIA Notification, 2006 and further amendments.

The expenditure towards CER for the project would be 2% of the project cost as committed by the project proponent.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent. The Committee also found additional information submitted by the project proponent to be satisfactory.

PESO has given approval for the site and layout plan of storage facilities (Petroleum storage Class A installation) vide letter dated 1<sup>st</sup> April, 2019 to enable the mandatory licence in Form XV as per the Petroleum Rules, 2002.



Consent to *Operate* for the existing industrial operations have been obtained from Maharashtra PCB vide letter dated 30<sup>th</sup> April, 2015 which is presently valid up to 30<sup>th</sup> April, 2020.

**6.5.4.2** *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under:-*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 748 cum/day (during season) and 1297 cum/day (during off season) proposed to be met from Malaprabha River. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
  - (i) *Metering and control of quantities of active ingredients to minimize waste.*
  - (ii) *Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - (iii) *Use of automated filling to minimize spillage.*
  - (iv) *Use of Close Feed system into batch reactors.*
  - (v) *Venting equipment through vapour recovery system.*
  - (vi) *Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.*
- *At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*

- *There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*
- *CO2 generated from the process shall be bottled/made solid ice and sold to authorized vendors.*
- *There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.*

### **Agenda No.6.5.5**

**Proposed Resin manufacturing unit at Survey No.44/1 Paiki 3/2, NH-8A, Near Affil Vitrified, Village Pipli, Taluka & District Morbi (Gujarat) by M/s Priva laminates LLP - For Environmental Clearance**

**[IA/GJ/IND2/71282/2017, IA-J-11011/556/2017-IA-II(I)]**

The project proponent and accredited consultant M/s T.R. Associates, made a detailed presentation on the salient features of the project.

**6.5.5.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up Resin manufacturing unit of capacity 300 TPM (Phenol Formaldehyde Resin/Urea Formaldehyde Resin/Melamine Formaldehyde Resin) by M/s Priva laminates LLP in a total area of 10,750 sqm at Survey No. 44/1 Paiki 3/2, NH-8A, Near Affil Vitrified, Village Pipli, Taluka & District Morbi (Gujarat).

The details of products are as under:

<b>S. No.</b>	<b>Products</b>	<b>Capacity (TPM)</b>
1.	Phenol Formaldehyde Resin	200
2.	Melamine Formaldehyde Resin	50
3.	Urea Formaldehyde Resin	50
	<b>Total</b>	<b>300</b>

Total land area required for the project is estimated to be 10,750 sqm. Green belt will be developed in 33% i.e. 3,548 sqm out of total area of the project. The estimated project cost is Rs.85 Lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs.29 Lakhs and the recurring cost (O&M) will be about Rs. 8.60 Lakhs per annum.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Rivers etc. within 10 km from the project site. Machhu River flows at a distance of 3.10kmin West South West.

The project/activity is covered under category A of item 5(f) 'Synthetic Organic Chemicals' of schedule to the Environment Impact Assessment (EIA) Notification under category 'A' and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

Standard ToR for the project was granted on 14<sup>th</sup> January, 2018. Public hearing was conducted by the State Pollution Control Board on 19<sup>th</sup> November, 2018. The main issues raised during the Public Hearing are related to local employment and their health.

Total water requirement is estimated to be 15.2 cum/day, which includes fresh water of 14 cum/day to be met from the ground water/borewell. Application in this regard has been submitted to CGWA.

Industrial effluent of 1.74 cum/day generated will be treated through Effluent Treatment Plant followed by evaporator and condenser. Domestic effluent of 1.1m<sup>3</sup>/day will be disposed into Soak Pit. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement of proposed project will be 450 KVA and will be met from Paschim Gujarat Vij Company Limited (PGVCL). DG set of 250 KVA capacity will be used as standby during power failure. Stack (height 6 m) will be provided as per CPCB norms to the proposed D.G. set.

3 TPH Steam Boiler and 10 Lakh KCal/Hour Thermic Fluid Heater Coal/Bio-Coal fired will be installed. Multi Cyclone Separator followed by Bag Filter with a stack height of 30 m will be installed for controlling the Particulate Emissions within the statutory limit of 150mg/Nm<sup>3</sup> for the proposed Boiler.

Ambient air quality monitoring was carried out at 8 locations during December 2017 to February 2018 and submitted baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (50.14 to 81.65 µg/m<sup>3</sup>), PM<sub>2.5</sub> (23.16 to 50.58 µg/m<sup>3</sup>), Sox (5.89 to 16.21 µg/m<sup>3</sup>) and NOx (12.53 to 28.27 µg/m<sup>3</sup>) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.12 µg/m<sup>3</sup>, 0.200 µg/m<sup>3</sup> and 0.662 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>2</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be 2% of the project cost as committed by the project proponent.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

**6.5.5.2** *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*

- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21<sup>st</sup> July, 2010 and amended from time to time shall be followed.*
- *Coal with Sulphur content less than 0.5% shall be used as fuel in the boiler, along with bio-fuel/briquettes/bagasse/agro waste.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
  - (i) Reactor shall be connected to chilled brine condenser system.*
  - (ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
  - (iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
  - (iv) Solvents shall be stored in a separate space specified with all safety measures.*
  - (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
  - (vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
  - (vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 14cum/day to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.*
- *The company shall undertake waste minimization measures as below:-*
  - (i) Metering and control of quantities of active ingredients to minimize waste.*
  - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - (iii) Use of automated filling to minimize spillage.*
  - (iv) Use of Close Feed system into batch reactors.*
  - (v) Venting equipment through vapour recovery system.*
  - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*

- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*
- *At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises*

#### **Agenda No.6.5.6**

**Expansion of Molasses Based Distillery from 18 to 30 KLPD at Village Begumabad, Tehsil Modinagar, District Ghaziabad (Uttar Pradesh) by M/s Modi Distillery (A Unit of Modi Industries Limited)- For Environmental Clearance**

**[IA/UP/IND2/87888/2016, J-11011/378/2016-IA II (I)]**

The project proponent and the accredited consultant J.M. EnviroNetPvt. Ltd, made a detailed presentation on the salient features of the project.

**6.5.6.1** During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project forexpansion of molasses based distillery from 18 to 30 KLPD, and installation of 2 KLPD Malt Spirit plant by M/s Modi Distillery (A unit of Modi Industries Limited) in existing plant premises of 505857 sqm located at Village Begumabad, Tehsil Modinagar, District Ghaziabad (UP).

The details of existing/products are as under:-

<b>Units</b>	<b>Existing capacity</b>	<b>Additional Capacity</b>	<b>Total Capacity</b>	<b>Product</b>
Molasses based distillery	18 KLPD	12 KLPD	30 KLPD	Ethanol & Rectified Spirit/ Extra Neutral Alcohol (IMFL bottling plant)
Malt spirit plant	--	2 KLPD	2 KLPD	Malt Spirit
Co-generation power plant	--	0.5 MW	0.5 MW	Power

The project/activity is covered under category A of item 5 (g) 'Distilleries' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal/approval at

Central level in the Ministry.

Terms of Reference for the project was issued on 29<sup>th</sup> April, 2017. Public hearing for the proposed distillery project has been conducted by the Uttar Pradesh Pollution Control Board on 16<sup>th</sup> April, 2018. Main issues raised during the public hearing include increase in pollution load, drinking water facilities, odour problem, insects near distillery unit, sugar mill emissions, etc. Existing land area is 505857 sqm. No additional land shall be required for the proposed expansion. Green belt has already developed in 33% i.e. i.e., 16600 sqm out of total area of the project. The estimated project cost is Rs. 20 Crores for expansion project. Total capital cost earmarked towards environmental pollution control measures is Rs. 5 Crores and the recurring cost (O&M) will be about Rs.1Crores per annum. Total employment generation will be 229 persons as direct & indirect after expansion.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc. within 10 km from the project site. Upper Ganga Canal flowing at a distance of 5 km in West.

Total fresh water requirement for the project after expansion will be 220 KLPD (Distillery – 180 KLPD, Malt plant- 12 KLPD, Bottling of IMFL- 28 KLPD), proposed to be met from groundwater. NOC has been accorded by the CGWA vide letter dated 16<sup>th</sup> May, 2018 for withdrawal of 261.15 cum/day.

Effluent of 309 m<sup>3</sup>/day quantity will be treated through Effluent Treatment Plant (aeration and filters) of capacity 500 m<sup>3</sup>/day. Treated water will be recycled/ reused within the premises. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Existing unit has one boiler of 5 TPH capacity. No additional boiler shall be required. Multi Cyclone Dust Collector with a stack of height of 30 m is already installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the existing boiler. After expansion, multicyclone dust collector will be replaced by bag filter.

Ambient air quality monitoring was carried out at 8 locations during Summer Season (1st March, 2017 to 31st May, 2017) and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (62.3- 95.7 µg/m<sup>3</sup>), PM<sub>2.5</sub> (26.3-56.3 µg/m<sup>3</sup>), SO<sub>2</sub> (5.3- 12.6 µg/m<sup>3</sup>) and NO<sub>2</sub> (7.2- 24.1 µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.29 µg/m<sup>3</sup>, 0.14 µg/m<sup>3</sup>, 1.18 µg/m<sup>3</sup>, 1.10 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The existing plant i.e. 18 KLPD Molasses based distillery is running before the EIA Notification, 1994/2006. CTO compliance has been certified by Regional Officer, UPPCB vide letter no. 3602/C/M-23/2018 dated 12th January, 2018.

The expenditure towards CER for the project would be 3.5% of the project cost as committed by the project proponent.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent. The Committee also found additional information submitted by the project proponent to be satisfactory.

Application has been submitted in PESO for approval of site and layout plan of storage facilities (Petroleum storage Class A installation).

Consent to Operate for the existing industrial operations have been obtained from Maharashtra PCB vide letter dated 16<sup>th</sup> April, 2018 which is presently valid up to 31<sup>st</sup> December, 2019.

**6.5.6.2** *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under:-*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 220cum/day proposed to be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
  - (i) *Metering and control of quantities of active ingredients to minimize waste.*
  - (ii) *Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - (iii) *Use of automated filling to minimize spillage.*
  - (iv) *Use of Close Feed system into batch reactors.*
  - (v) *Venting equipment through vapour recovery system.*
  - (vi) *Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.*
- *At least 3.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*

- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.
- Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- CO2 generated from the process shall be bottled/made solid ice and sold to authorized vendors.
- There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

### **Agenda No.6.5.7**

**Expansion of Bulk Drugs manufacturing unit at Survey No.(Old) 60 & 61/ (Revised) 76 & 77, Opp. Suzuki Synthetic, Chattral-Kadi Road, Village Ankhol, Taluka Kadi, District Mehsana (Gujarat) by M/s Nebula Health Care - For Environmental Clearance**

**[IA/GJ/IND2/88808/2017, J-11011/220/2017-IA-II(I)]**

The project proponent and the accredited consultant M/s San Envirotech Pvt Ltd, made a detailed presentation on the salient features of the project.

**6.5.7.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of bulk drugs manufacturing unit from 240 TPM to 722 TPM by M/s Nebula Health Care in an area of 22050 sqm located at Survey No. (Old) 60 & 61/ (Revised) 76 & 77, Opp. Suzuki Synthetic, Chattral-Kadi Road, Village Ankhol, Taluka Kadi, District Mehsana (Gujarat).

The details of existing and proposed products are as under:

S. No.	List of Products	Quantity (TPM)		
		Existing	Proposed	Total
<b>1.</b>	<b>Paraben Products</b>			
a.	Propyl Paraben	10	400	490
b.	Methyl Paraben	20		
c.	Sodium Propyl Paraben	20		
d.	Sodium Methyl Paraben	40		
	<b>Total</b>	<b>90</b>	<b>400</b>	<b>490</b>
<b>2.</b>	<b>Niacin amide</b>	50	50	100
<b>3.</b>	<b>Metformin</b>	100	00	100
<b>New Products</b>				



<b>4.</b>	<b>Niacin (Nicotinic acid)</b>	0	25	25
<b>5.</b>	<b>Steroid Products</b>			
a.	Beclomethasone Dipropionate	0	2	2
b.	Betamethasone Acetate			
c.	Betamethasone Dipropionate			
d.	Betamethasone Sodium Phosphate			
e.	Betamethasone 17 Valerate			
f.	Clobetasole 17 Propionate			
g.	Clobetasole Butyrate			
h.	Dexamethasone Sodium Phosphate			
i.	Hydrocortisone Hemi Succinate			
j.	Hydrocortisone Acetate			
k.	Methyl Prednisolone Acetate			
l.	Methyl Prednisolone Hemi succinate			
m.	Prednisolone Acetate			
n.	Prednisolone Sodium Phosphate			
o.	Methyl Coblamine			
<b>6.</b>	<b>Steroid products (Single stage process/IP Grade)</b>			
a.	Betamethasone IP	0	1	1 <b>(Non-EC product)</b>
b.	Dexamethasone IP			
c.	Methylprednisolone IP			
d.	Prednisolone IP			
e.	Hydrocortisone IP			
<b>Total</b>		<b>240</b>	<b>477</b>	<b>717</b>

The project/activity is covered under category A of item 5(f) 'Synthetic Organic Chemicals' of schedule to the Environment Impact Assessment (EIA) Notification under category 'A' and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Terms of Reference (ToR) for the project was granted on 16<sup>th</sup> August, 2017. Public hearing for the project has been conducted by the State Pollution Control Board on 12<sup>th</sup> June, 2018. The main issues/suggestions raised during the public hearing are related to Greenbelt development, pollution management, CSR and women empowerment classes, etc.

Existing land area is 9394 sqm, additional land requirement for the proposed expansion will be 12656 sqm. Green belt will be developed in an area of 7277 sqm, covering 33% of total project area. The estimated total project cost will be Rs. 23.5Crore including existing investment of Rs. 20.0 Crore. Total capital cost earmarked towards environmental pollution control measures will be Rs. 50.0 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 30.0 Lakhs per annum. Total employment generation including direct and indirect after expansion will be 30 persons.

There are National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, rivers etc. within 10 km distance from the project site.

Ambient air quality monitoring was carried out at 8 locations during October, 2017 to December, 2017 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (58.5–69.9 µg/m<sup>3</sup>), PM<sub>2.5</sub> (29.1–36.9 µg/m<sup>3</sup>), SO<sub>2</sub> (14.5–18.8µg/m<sup>3</sup>) and NO<sub>x</sub> (18.1–21.3 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs from the proposed project would be 4.569µg/m<sup>3</sup>, 2.449µg/m<sup>3</sup>, 1.310µg/m<sup>3</sup>, 0.360 µg/m<sup>3</sup> with respect to SPM, SO<sub>2</sub>, NO<sub>x</sub> and NH<sub>3</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is estimated to be 95.6 cum/day, which includes fresh water requirement of 73.6 cum/day, proposed to be met through bore well. Application in this regard has been submitted to CGWA on 16<sup>th</sup> April, 2018.

Industrial effluent of 24.5m<sup>3</sup>/day will be passed through RO and process effluent (concentrated stream) along with wastewater of washing, lab, scrubber and RO reject will be taken to ETP and later passed through MEE. MEE condensate of 15 cum/day and RO permeate of 7 cum/day will be reused in the utilities. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

Power requirement will be increased from 75 kVA to 250 kVA proposed to be met from Uttar Gujarat Vij Company Ltd. (UGVCL). Existing unit has one stand by D.G set of 25 kVA capacity, additionally one D.G set of 125 kVA capacity will be used as stand by during power failure. Stack (height 11 meters) will be provided as per CPCB norms to the proposed DG set.

Existing unit has one bio fuel fired boiler of 0.5 TPH capacity and one Agro waste/ briquette fired Thermic Fluid Heater of 6 lakhs kcal/hr capacity. After expansion unit has proposed to install 2 nos. of Agro waste/ briquette fired Boilers (1 and 2 TPH) and one Agro waste/ briquette fired Thermic Fluid Heater (10 Lac Kcal./hr.). Cyclone with stack height of 15 m and Cyclone & bag filter with stack height of 30 m to existing boiler & TFH is provided. Cyclone & bag filter with a stack of height of 30 m each will be provided to control the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup> for the proposed utilities.

The expenditure towards CER for the project would be 1 % of the project cost as committed by the project proponent.

Earlier, the Ministry had issued EC vide letter dated 31<sup>st</sup> March, 2011 for bulk drugs manufacturing unit of capacity 240 TPM in favour of M/s Nebula Health Care. The monitoring report on compliance status of EC conditions has been forwarded by the Regional Office at Bhopal vide their letter dated 15<sup>th</sup> October, 2018. The Certified compliance report was found to be satisfactory.

Consent to operate for the present industrial operations issued by the Gujarat PCB vide letter dated 31<sup>st</sup> December, 2018 is valid up to 26<sup>th</sup> December, 2023.

**6.5.7.2** *The EAC, after deliberations and especially in view of the project site/area identified as over-exploited zone, insisted for not using the ground water any more, but to explore other resources to meet the projected fresh water requirement of 73.6 cum/day. The Committee also opined to consider the proposal, in case permission is granted by CGWA to abstract ground water, as requested on 16<sup>th</sup> April, 2018.*

*The proposal was deferred for the needful.*

### **Agenda No.6.5.8**

#### **Expansion of Pesticides and pesticide specific Intermediates manufacturing unit at Plot No. B-16, 17, 18 &21, MIDC, Mahad, Raigad, (Maharashtra) by M/s Astec Lifesciences Ltd - For Environmental Clearance**

**[IA/MH/IND2/87628/2018, IA/MH/IND2/71778/2017]**

The project proponent and the accredited consultant M/s. SadekarEnviro Engineers Pvt Ltd, made a detailed presentation on the salient features of the project.

**6.5.8.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of Pesticides and pesticide specific Intermediates manufacturing unit from 219 TPM to 781 TPM by M/s Astec Lifesciences Ltd in an area of 13950 sqm at Plot No.B-16, 17, 18 & 21, MIDC, Mahad, Raigad, (Maharashtra).

The details of existing and proposed/by-products are as under:-

<b>S. No.</b>	<b>Product</b>	<b>Existing (TPM)</b>	<b>Proposed (TPM)</b>	<b>Total (TPM)</b>
1	Propiconazole	15.00	150.00	165.00
2	Hexaconazole	14.00	86.00	100.00
3	Tebuconazole	60.00	90.00	150.00
4	Dextrinol - CTX	6.00	--	2.00
5	3,4-Chlorostyrene	30.00	--	25.00
6	Metalaxyl	5.00	5.00	10.00
7	LON	12.00	--	12.00
8	Dichloro Benzyl Cyanide	5.00	--	5.00
9	Bromuconazole	30.00	10.00	40.00
10	Cyproconazole	25.00	--	25.00
11	Prallethrine	12.00	--	12.00
12	Difenoconazole	5.00	25.00	30.00
13	Tricyclazole	--	30.00	30.00
14	2-Ethyl 2-MethylButanoicAcid	--	10.00	10.00
15	Metconazole	--	20.00	20.00
16	5-Methyl-A-(2-Propinyl)-5-FurfurylAlcohol	--	10.00	10.00
17	Myclobutynil	--	25.00	25.00
18	DimethoxyBenzoic Acid	--	20.00	20.00
19	Boscalid	--	20.00	20.00
20	Prothiconazole	--	20.00	20.00
21	Ipconazole	--	20.00	20.00
22	4-Trifluoromethyl Benzyl Alcohol	--	20.00	20.00
23	Fenpyroximate	--	10.00	10.00

<b>Total</b>		<b>219.00</b>	<b>562.00</b>	<b>781.00</b>
<b>S. No.</b>	<b>By-Product</b>	<b>Existing (TPM)</b>	<b>Proposed (TPM)</b>	<b>Total (TPM)</b>
1	Aliphatic Hydrocarbon	--	114.00	114.00
2	Biphenyl	--	2.00	2.00
3	HCL sol.	--	49.00	49.00
4	H3PO3 solution	--	2.00	2.00
5	K2CO3,K2SO4,KTMI,KBr,KOH,KCL solution	--	805.00	805.00
6	Lithium hydroxide monohydrate solution	--	3.00	3.00
7	MGCl2, MgBr2,MgSO4 solution	--	242.00	242.00
8	Na2SO4,NaCl,NaBr,NaOH solution	--	536.00	536.00
9	ZnCl2,Zn,Zn(CH3CO)2 solution	--	21.00	21.00
	<b>Total</b>	<b>--</b>	<b>1774.00</b>	<b>1774.00</b>

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal/approval at central level in the Ministry.

Standard ToR for the project was granted on 15<sup>th</sup> February, 2018. Public Hearing is exempted as per the para 7.III.Stage (3)(i)(b)the project site is located inside the notified industrial area.

Existing land area is 13950 sqm. No additional land area will be required for proposed expansion. Greenbelt will be developed in an area of 14% i.e., 1917 sqm out of total area of the project. The estimated project cost is Rs.10.17 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs.60 Lakh and the recurring cost (O&M) will be about Rs.25.10 Lakhs per annum.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Rivers etc. within 10 km from the project site. Kal River flows at a distance of 0.64 km in south.

Total water requirement is estimated to be 447 cum/day including fresh water requirement of 94.33 cum/day proposed to be met from MIDC supply.

LTDS-LCDeffluent of 51 cum/day will be treated through ETP (55 CMD capacity)& HTDS-HCOD effluent of 241 cum/day and cooling tower blow down will be sent to evaporator (250 cum/day and 55 cum/day). Existing 46.43 cum/day consented quantity of effluent will be discharge to CETP&remaining effluent will be completely recycled/ reused within the premises.

Existing unit has two coal fired boiler of 2.5 and 6 TPH capacity and one furnace oil fired boiler of 850Kg/hr. Out of which 2.5 TPH boiler will scrapped out. Additionally one more Indonesian coal fired boiler of 15 TPH capacity and two furnace oil fired thermic fluid heater of 6 lakh kilo cal./hr and 2 lakh kilo cal./hrwill be installed under proposed expansion. Stack of height of 30 m along with Multi cyclone separator & bag filter for 6 TPH boiler, stack of height of 24 m for 850

kg/hr boiler and 27m common stack for 6 & 2 lakh kilo.cal./hr. TFH and 15 TPH Indonesian coal fired boiler will be installed with Multi cyclone separator & bag filter having stack height of 39 m will be installed to control the particulate emissions within the statutory limit of 115 mg/Nm<sup>3</sup> for the proposed boilers.

Ambient air quality monitoring was carried out at 8 locations during December 2017 to February 2018 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (96.0–68.5 µg/m<sup>3</sup>), PM<sub>2.5</sub> (51.8– 17.0 µg/m<sup>3</sup>), SO<sub>2</sub> (36.5 – 14.0 µg/m<sup>3</sup>) and NO<sub>2</sub> (50.5 – 18.0 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.0 µg/m<sup>3</sup>, 0.03 µg/m<sup>3</sup>, 2.00 µg/m<sup>3</sup> and 0.5 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be 2% of the project cost as committed by the project proponent.

The company was established in year 1995 and at that time the total investment was less than 1 crore and as per EIA Notification 1994, the unit was exempted from obtaining environmental clearance.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components.

Consent to Operate for the existing industrial operations have been obtained from Maharashtra PCB vide letter dated 25<sup>th</sup> July, 2016 which is presently valid up to 30<sup>th</sup> June, 2020.

**6.5.8.2** *The EAC, in the first instance asked the project proponent to clarify about none of the pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare and/or other regulatory authorities to the satisfaction of the Ministry.*

*However, considering the proposal based on the information available, the Committee recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under: -*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13<sup>th</sup> June, 2011, as amended from time to time, shall be followed.*
- *No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD<sub>50</sub><100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
  - (i) *Reactor shall be connected to chilled brine condenser system.*
  - (ii) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*

- (iii) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
- (iv) *Solvents shall be stored in a separate space specified with all safety measures.*
- (v) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
- (vi) *Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
- (vii) *All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 94.33 cum/day to be met from MIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Unit shall be operate on Zero Liquid Discharge after expansion.*
- *Sewage Treatment Plant shall be installed to treat domestic effluent.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.*
- *The company shall undertake waste minimization measures as below:-*
  - (i) *Metering and control of quantities of active ingredients to minimize waste.*
  - (ii) *Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - (iii) *Use of automated filling to minimize spillage.*
  - (iv) *Use of Close Feed system into batch reactors.*
  - (v) *Venting equipment through vapour recovery system.*
  - (vi) *Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 2% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *Safety and visual reality training shall be provided to employees.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the*

unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

- Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.

### **Agenda No.6.5.9**

**Manufacturing of Pesticides and APIs manufacturing unit at PlotNo.2317, Panoli GIDC Estate, Ankleshwar District Bharuch (Gujarat) by M/s Greenkem Organics Pvt Ltd - For Environmental Clearance**

**[IA/GJ/IND2/80009/2018, IA-J-11011/287/2018-IA-II(I)]**

The project proponent and the consultant M/s B S Rana, made a detailed presentation on the salient features of the project.

**6.5.9.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up pesticides manufacturing @ 317.5 TPM and Active Pharmaceutical Ingredients (APIs) @ 26 TPM by M/s Greenkem Organics Pvt Ltd in an area of 39384.75 sqm at Plot No.2317, Panoli GIDC Estate, Ankleshwar District Bharuch (Gujarat).

The details proposed products are as under:-

S. No.	Name of Product	CAS No.	End use	Quantity (TPM)
<b>Herbicides / Pesticides / Insecticides Products</b>				
1	(2 – Chloroethyl) Trimethylammonium Chloride	999-81-5	Herbicide	100.00
2	Pendimethalin Tech	40487-42-1	Herbicide	25.00
3	Chloropyrifos Tech	2921-88-2	Pesticides	10.00
4	Glyphosate Tech	1071-83-6	Herbicide	35.00
5	Thiamethoxam Tech	153719-23-4	Insecticides	22.50
6	Imdacloprid	138261-41-3	Insecticides	10.00
7	Pretilachlor	51218-49-6	Herbicide	35.00
8	Profenofos	41198-08-7	Insecticides	15.00
9	Metribuzin Tech	21087-64-9	Herbicide	10.00
10	Diafenthurion Tech	80060-09-9	Insecticides	25.00
11	Bifentthrin	82657-04-3	Insecticides	5.00
12	Propanil	709-98-8	Herbicide	25.00
<b>TOTAL</b>				<b>317.50</b>
<b>API Products</b>				
1	Famotidine	76824-35-6	API	2.00
2	Etoricoxib	202409-33-4	API	2.00
3	Derifenacin	133099-04-4	API	2.00
4	Rebeprazole Sodium	117976-89-3	API	2.00

5	Mexilatine Hydrochloride	31828-71-4	API	2.00
6	Prasugrel Hydrochloride	150322-43-3	API	2.00
7	Warfarin	81-81-2	API	2.00
8	Febuxostate	144060-53-7	API	2.00
9	lloperidone	133454-47-4	API	2.00
10	Metaxalon	1665-48-1	API	2.00
11	Nisoldipine	63675-72-9	API	2.00
12	Mindronic Acid	155648-6-5	API	2.00
13	Erlotinib	183321-74-6	API	2.00
TOTAL				26

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' and 5(f) 'Synthetic Organic Chemicals' of the schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal/approval at central level in the Ministry.

Standard ToR for the project was granted on 24<sup>th</sup> December, 2018. Public Hearing is exempted as per the para 7.III.Stage (3)(i)(b)the project site is located inside the notified industrial area.

Total land area required for the project is 39384.75 sqm. Industry will develop greenbelt in an area of 13,785 sqm covering 33% of the total project area. The estimated project cost is Rs.46.84 crore. Total capital cost earmarked towards environmental pollution control measures is Rs.37 Lacs and the recurring cost (O&M) will be about Rs.9 Lacs per annum. Total employment opportunity will be for 70 persons.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Rivers etc. within 10 km from the project site. Narmada River flows at a distance of 12.88 km.

Total fresh water requirement is estimated to be 78.8 cum/day, proposed to be met from GIDC supply.

Effluent of 64.2 cum/day quantity will be treated in ETP and passed through the R.O. system. Domestic effluent will be sent to septic tank followed by soak pit. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Total power requirement will be 1000 kVA which will be sourced from the UGVCL. One DG sets of 500 kVA will be setup for power back up. Stack (height 5m above the roof level of D.G. Set) will be provided as per CPCB norms to the proposed DG set.

One Natural gas fired boiler of 2.5 TPH capacity will be installed in the proposed unit. Multi cyclone separator/ bag filter with a stack height of 32 m will be installed to control the particulate emissions within the statutory limit.

Ambient air quality monitoring was carried out at 10 locations during 1<sup>st</sup> October, 2017 to 12<sup>th</sup>December, 2017 and the baseline data indicates the ranges of concentrations as: PM10 (74-84 µg/m<sup>3</sup>), PM2.5 (33-44 µg/m<sup>3</sup>), SO<sub>2</sub> (26-33 µg/m<sup>3</sup>) and NO<sub>2</sub> (39-47 µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 30.001 µg/m<sup>3</sup> and 41.08µg/m<sup>3</sup> with respect to SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).



The expenditure towards CER for the project would be 2% of the project cost as committed by the project proponent.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components.

**6.5.9.2** *The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to the terms and conditions as under: -*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13<sup>th</sup> June, 2011, as amended from time to time, shall be followed.*
- *No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD<sub>50</sub><100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
  - (i) Reactor shall be connected to chilled brine condenser system.*
  - (ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
  - (iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
  - (iv) Solvents shall be stored in a separate space specified with all safety measures.*
  - (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
  - (vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
  - (vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 78.8 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.*
- *The company shall undertake waste minimization measures as below:-*

- (i) Metering and control of quantities of active ingredients to minimize waste.
  - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - (iii) Use of automated filling to minimize spillage.
  - (iv) Use of Close Feed system into batch reactors.
  - (v) Venting equipment through vapour recovery system.
  - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
  - As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 2% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
  - Safety and visual reality training shall be provided to employees.
  - Ambient air monitoring in work zone area for hazardous chemicals shall be carried out in every six months.
  - For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
  - The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
  - Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
  - Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
  - Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.

## 6.6 Any Other

### Agenda No.6.6.1

**Modification in 125 KLPD Distillery (Grain to Dual mode of operation - Grain & Molasses based) at Village Borali, Tehsil Badnawar, District Dhar, Madhya Pradesh by M/s Oasis Distilleries Limited- For amendment in ToR**

**[IA/MP/IND2/83256/2018, J-11011/257/2015-IA II (I)]**

**6.6.1.1** The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter J-11011/257/2015-IA II (I) dated 29<sup>th</sup> November, 2018 for the project Modification in 125 KLPD Distillery (Grain to Dual mode of operation - Grain & Molasses based) at Village Borali, Tehsil Badnawar, District Dhar, Madhya Pradesh by Oasis Distilleries Limited.

**6.6.1.2** The project proponent has requested for amendment in the ToR with the details are as under:-

S. No.	Para of ToR issued by MoEFCC	Details as per the ToR	To be revised/ read as	Justification/reasons
1.	Standard	Preparing	Preparing	Public Hearing to be exempted for this

	ToR Letter; Page no 2; Para First	environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with public consultation.	environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed without public consultation.	modification project – Environment Clearance was obtained vide letter no. J-11011/256/2015-IA-II (I) dated 28th March, 2017 for expansion of this distillery from 50 to 125 KLPD along with installation of 3.0 MW Co-generation Power Plant within existing plant premises. Public Hearing for the project was conducted on 23 <sup>rd</sup> November, 2017. Now, the company has applied for Modification in 125 KLPD Distillery (Grain to Dual mode of operation - Grain & Molasses based). Request to exempt us from the procedure of public hearing for this project as this is only a modification project with no increase in production capacity, no additional requirement of water and power or increase in pollution load and Public hearing was conducted on 23 <sup>rd</sup> November, 2017 for the same capacity.
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**6.6.1.3** *The EAC, after deliberations noted that earlier the project for expansion of grain based distillery from 50 KLPD to 125 KLPD (for which EC was granted by the Ministry on 20<sup>th</sup> April, 2018), public hearing was conducted by the State Pollution Control Board on 23<sup>rd</sup> November, 2017. Further, in view of the Ministry's Notification dated 17<sup>th</sup> January, 2019 intended to enhance Ethanol production for usage as bio-fuel and also, there being no change in capacity, land area, water requirement and other utilities, the Committee recommended the proposal for exemption from public hearing.*

**Agenda No.6.6.2**

**Enhancement of captive power plant by installing 20 MW Turbo Generator Set in District Porbandar (Gujarat) by M/s Saurashtra Chemicals Division of Nirma Limited - For amendment in ToR**

**[IA/GJ/IND2/62748/2017, IA-J-11011/115/2017-IA-II(I)]**

**6.6.2.1** The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter no. IA-J-11011/115/2017-IA-II(I) dated 25<sup>th</sup> August, 2017 for Enhancement of Captive Power Plant by installing 20 MW Turbo-Generator Set located at Birlasagar, Village Chhaya, Porbandar, Gujarat in favour of M/s.Saurashtra Chemicals Division of Nirma Limited (Saukem).

**6.6.2.2** The project proponent has requested for amendment in the ToR/EC with the details are as under;

S. No.	Para of TOR	Details as per the ToR	To be revised /reads as	Justification
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		Grant for Terms of Reference (ToRs) for Enhancement of Captive Power Plant by installing 20 MW Turbo – Generator set	Grant of Terms of Reference (ToRs) for Enhancement of Cogeneration Power Plant by installing 20 MW Turbo – Generator set	As per Govt. of Gujarat's Notification ( <i>The Gujarat Government Gazette Extraordinary published by Authority dated 06/02/2018.</i> ), we want to apprise your kind authority that, we have cogeneration plant as combined heat and power (CHP) instead of standalone captive power plant. Therefore, we would like to request your good self to amend our Captive Power Plant as "Cogeneration plant".
1	1.		<ul style="list-style-type: none"> <li>•Expansion of Soda Ash from 1190 TPD to 1500 TPD</li> </ul>	<ul style="list-style-type: none"> <li>•Existing unit was established in year 1955.</li> <li>•Major plant machinery needs more maintenance as well as required to be replaced.</li> <li>•Therefore, industry is now planning to carry out technological up gradation in their exiting unit.</li> <li>•Expansion in existing production capacity due to modernization/upgradation of existing process units. However, capacity of the process units is remaining same.</li> <li>•Also water consumption and wastewater generation will remain same as per GPCB consent.</li> </ul>
2.	5.	On further examination..... hereby accords terms of reference for preparation of EIA/EMP reports for the 'Caustic Soda Plant' including the proposed expansion of Captive Power	On further examination..... hereby accords terms of reference for preparation of EIA/EMP reports for the 'Soda Ash Plant' including the proposed expansion of Co-generation Power	M/s Saurashtra Chemicals Division of Nirma Limited is Soda Ash industry and also as per point no. 4 of ToR, the project is under Soda Ash Industry.  For Co-generation Power Plant justification is given

		Plant by installing the 20 MW TG set,.....	Plant by installing the 20 MW TG set,.....	in Sr. No. 1.
3.	5 (i)	Additional ToR specified: - (i) Zero Liquid Discharge plan to be submitted.	Additional ToR specified: - (i) Wastewater Discharge is as per GPCB consent i.e.the Effluent conform the GPCB norms shall be discharge into Arabian Sea through Diffuser system.	Previously ToR was considered only for the Power. But, now production capacity of Soda ash is also increasing and we already have CRZ clearance and permission from GPCB for the same. There shall be no increase in wastewater generation, and shall remain within the GPCB consented quantity.

**6.6.2.3** During deliberations on the proposal, the project proponent preferred to withdraw the proposal, with the request to allow the application afresh for grant of ToR.

### **Agenda No.6.6.3**

**Proposal for demolishing of 4X140 of bullets and construction of new 3X1000 MT mounded storage facility at existing LPG Bottling plant of M/s Hindustan Petroleum Corporation Limited - For amendment in ToR**

**[IA/OR/IND2/92567/2016, SIA/OR/IND2/12183/2016]**

**6.6.3.1** The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter No. 632/SEAC-57 dated 24.09.2016 for the project demolishing of 4x140 MT bullets and construction of new 3x1000 MT mounded storage facility located at existing HPCL LPG Bottling Plant, Po-Box No.11, Jatni, District Khurda (Odisha) in favour of M/s Hindustan Petroleum Corporation Limited.

**6.6.3.2** The project proponent has requested for amendment in the ToR with the details are as under:

<b>S. No.</b>	<b>Para of ToR issued by SEAC, Odisha</b>	<b>Details as per the ToR</b>	<b>To be revised/ read as</b>	<b>Justification/ reasons</b>
1.	Subject	Proposal for demolishing of 4x140 MT bullets and construction of new 3x1000 MT mounded storage facility located at existing HPCL LPG Bottling Plant, Po-Box No. 11, Jatni, Dist – Khurda, Odisha	Proposal for demolishing of 4x140 MT bullets and construction of new 2x500 MT mounded storage facility located at existing HPCL LPG Bottling Plant, Po-Box No. 11, Jatni, Dist – Khurda, Odisha	The management decided to reduce the storage capacity as there was no projected demand/market in the region.
2.	Reference	Demolishing of 4x140 MT bullets and	Demolishing of 4x140 MT bullets and	The management decided to reduce

		construction of new 3x1000 MT mounded storage facility located at existing HPCL LPG Bottling Plant, Po-Box No. 11, Jatni, Dist – Khurda, Odisha	construction of new 2x500 MT mounded storage facility located at existing HPCL LPG Bottling Plant, Po-Box No. 11, Jatni, Dist – Khurda, Odisha	the storage capacity as there was no projected demand/market in the region.
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**6.6.3.3** During deliberations on the proposal, the project proponent preferred to withdraw the proposal, with the request to allow the application afresh for grant of ToR.

#### **Agenda No.6.6.4**

**Proposed Expansion of Sugarcane Crushing Capacity from 9000 TCD to 15000 TCD, Distillery Capacity from 60 KLPD to 90 KLPD and Establishing 21 MW Co-generation Power Plant based on bagasse and 5 MW from Incineration Boiler, At Dattanagar Tal. Shirol, Dist. Kolhapur, Maharashtra by M/s Shree Datta Shetkari Sahakari Sakhar Karkhana Ltd - For amendment in ToR**

**[IA/GJ/IND2/30971/2014, J-11011/313/2014-IA-II(I)]**

**6.6.4.1** The proposal is for amendment in the standard Terms of Reference granted by the Ministry vide letter dated 29<sup>th</sup> November 2018 in favour of M/s Shree Datta Shetkari Sahakari Sakhar Karkhana Ltd for the project 'Expansion of Sugar manufacturing unit from 9000 TCD to 15000 TCD, Distillery from 60 KLPD to 90 KLPD and 21 MW Co-generation Power Plant' located at Dattanagar Tal. Shirol, District Kolhapur (Maharashtra)

**6.6.4.2** The project proponent has requested for amendment in the ToR/EC with the details are as under;

<b>S. No.</b>	<b>Para of TOR issued by MoEF&amp; CC</b>	<b>Details as per the ToR</b>	<b>To be revised/ read as</b>	<b>Justification / reasons</b>
1.	Sr. No. 5 of the Covering Letter issued by the Ministry	The Standard ToR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with public consultation	The Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance. Public consultation is exempted as per OM dated 29 <sup>th</sup> August 2017.	The industry conducted the Public Hearing on 10 <sup>th</sup> November 2016 for the expansion of the Sugar factory capacity from 7500 TCD to 9000 TCD.

**6.6.4.3** The EAC, after deliberations noted that earlier the project for expansion of sugar plant from 7500 to 9000 TCD (for which EC was granted by SEIAA Maharashtra on 1<sup>st</sup> June, 2018), public hearing was conducted by the State Pollution Control Board on 10<sup>th</sup> November, 2016. Further, in view of the Ministry's Notification dated 17<sup>th</sup> January, 2019 intended to enhance Ethanol production for usage as bio-fuel, the Committee recommended the proposal for exemption from public hearing.

**List of the Expert Appraisal Committee (EAC-Industry-2) members attended the meeting**

<b>S. No.</b>	<b>Name and Address</b>	<b>Designation</b>
1.	Dr. J. P. Gupta	Chairman
2.	Dr. Y.V. Rami Reddy	Member
3.	Dr Tudilndrasen Reddy	Member
4.	Dr J S Sharma	Member
5.	Shri S C Mann	Member
6.	Shri Ashok Agarwal	Member
7.	Dr T K Joshi	Member
8.	ShriDinabandhu Gouda	Member
9.	Ms. Saloni Goel	Member
10.	Dr. Ajay Gairola	Member
11.	Shri S.K. Srivastava	Member Secretary