

**GOVERNMENT OF INDIA**  
**MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE**  
**(IMPACT ASSESSMENT DIVISION)**  
**INDUSTRY -2 SECTOR**

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**MINUTES OF THE 15<sup>th</sup> MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-2 SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006, HELD DURING DECEMBER 30-31, 2019 AND JANUARY 1, 2020**

**Venue: Indus Hall, Ground Floor, Jal Wing, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003.**

**Time: 10:00 AM**

**15.1 Opening Remarks by the Chairman**

The Chairman welcomed the Committee members and gave the opening remarks.

**15.2 Confirmation of the Minutes of the 14<sup>th</sup> Meeting of the EAC (Industry-2) held during 20-22 November, 2019 at Indira Paryavaran Bhawan, New Delhi**

The Minutes of the 14<sup>th</sup> Meeting of EAC (Industry-2) held during **20-22 November, 2019** were circulated to the members of the Committee. The Committee made brief deliberations on the proposals placed in the last meeting and confirmed the same, subject to the item as mentioned below.

**Agenda No. 15.2.1**

**Onshore Oil & Gas exploration & development drilling and production in Ningru Oil & Gas Field in Districts Changlang and Namsai for Ningru PML Block (Arunachal Pradesh) by M/s Oil India Ltd - Environmental Clearance - reg.**

[F. No. J-11011/116/2018-IA-II (I), IA/AR/IND2/123232/2018]

The proposal has been recommended for grant of EC by the EAC (Industry-2) in its meeting held on 20-22 November, 2019. The committee has recommended for drilling of 33 wells, however, only 32 wells were found mentioned in the minutes, and the well named 'KUAS' was not mentioned.

*The Committee noted that the same is a **typographical error** and recommended to include the well name 'KUAS' in the proposed drilling location list.*

## **DAY 1: 30<sup>th</sup> December 2019 (Monday)**

### **15.3 Consideration of Environmental Clearance**

#### **Agenda No. 15.3.1**

**Expansion of Grain/Molasses based Distillery Plant (90 KLPD to 150 KLPD) & Co-generation Power Plant (3.0 MW to 5.0 MW) by adding 60 KLPD Molasses based Ethanol Plant along with 2 MW Co-generation Power, located at village BhadsonUmri Road Tahsil Indri District Karnal (Haryana) by M/s PiccadilyAgro Industries Limited- Consideration of Environmental Clearance.**

**[IA/HR/IND2/28750/2008,**

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

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

The proposal is for environmental clearance to the project for Grain/Molasses based Distillery Plant (90 KLPD to 150 KLPD) & Co-generation Power Plant (3.0 MW to 5.0 MW) by adding 60 KLPD Molasses based Ethanol Plant along with 2 MW Co-generation Power by M/s PiccadilyAgro Industries Limited in an area of 283000 sqm at village BhadsonUmri Road Tahsil Indri District Karnal (Haryana).

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

Terms of Reference (ToR) for the project was granted on 13<sup>th</sup> December, 2016. Public hearing was conducted by the Haryana State Pollution Control Board on 25<sup>th</sup> October, 2018. The Public Hearing was chaired by Additional District Collector. The main issues raised during the public hearing are related to employment, CSR activities in nearby areas, maintenance of ponds, odour problem and pollution etc. The Committee deliberate the issues raised during PH. The Committee deliberated the action plan submitted by the PP and found that the action plan alongwith the budgetary provision to be satisfactory and addressing the concerns raised during the public hearing.

Existing land area is 283000m<sup>2</sup> (28.3 Hectares). No additional land will be required for proposed expansion. Industry has already developed greenbelt in an area of 33% i.e. 93000 m<sup>2</sup>(9.3 Hectares). The estimated project cost is Rs.47 Crores for expansion project. Total capital cost earmarked towards environmental pollution control measures is Rs. 10 Crores and the recurring cost (operation and maintenance) will be about Rs. 1 Crore per annum. Total

Employment during operation phase after proposed expansion will be 190 persons on regular basis.

There are no national parks, wildlife sanctuaries, biosphere reserves, Tiger/Elephant reserves, Wildlife corridors etc. within 10 km from the project site. Bir Seonti Reserve Forest is at 7.5 km in North. Four water bodies are present within 10 km radius study area i.e. ChautangNadi flowing at a distance of 2.5 km in West direction, Sirsa Branch Canal flowing at a distance of 3.0 km in South direction, Khand Nala flowing at a distance of 7.5 km in NNW direction and Western Yamuna Canal flowing at a distance of 5.5 km in SW direction.

The existing fresh water requirement of the plant is 980 cum/day. Additional fresh water requirement will be 435 cum/day for expansion project. Thus, the total fresh water requirement after expansion will be 1415 KLPD which will be met from groundwater. The EAC suggested to reduce the fresh water requirement for distillery as per 5 KL/KL. The project proponent was agreed on the same and reduce the fresh water requirement as 1340 cum/day.

Effluent of 543 KLPD quantity will be treated through Effluent Treatment Plant (Based on Anaerobic, aerobic digestion, Filters and Reverse Osmosis) of capacity 700m<sup>3</sup>. The plant is being/will be based on Zero Liquid discharge system.

Total Power requirement after expansion will be 4.2MW including existing power requirement of 3.0 MW which will be met from the existing 3.0 MW & proposed 2.0 MW Co-Generation Power Plant. Existing unit has two D.G. sets each of 500 KVA capacity and after expansion the same will be adequate to fulfil emergency requirement. Stackheight of 5 m has been provided as per CPCB norms to the existing DG set.

In existing unit, 25 TPH boiler (biomass fired) is operational for 90 KLPD grain based operation. If 90 KLPD molasses based process will be operational, then 30 TPH incineration boiler (Conc. Spent wash and biomass fired) will be required. Additionally, 25 TPH biogas and biomass fired boiler will be installed for proposed 60 KLPD ethanol plant. ESP along with stack height of 35 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boiler.

PP reported that Ambient air quality monitoring was carried out at 8 locations during Winter Season (December, 2016 to February, 2017) and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (59.2 to 91.4 µg/m<sup>3</sup>), PM<sub>2.5</sub> (26.1 to 49.5 µg/m<sup>3</sup>), SO<sub>2</sub> (6.7 to 18.6 µg/m<sup>3</sup>) and NO<sub>2</sub> (11.8 to 26.4 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 1.049 µg/m<sup>3</sup>, 0.57 µg/m<sup>3</sup>, 0.88 µg/m<sup>3</sup>, 1.87 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 Ministry has earlier issued EC vide letter no. J-11011/495/2008-IA.II(I) dated 23<sup>rd</sup> October, 2008 to the existing project of 90 KLPD Molasses / Grain based distillery along with

3.0 MW Co-generation Power Plant in favour of PiccadilyAgro Industries Limited. The said EC was further amended on 25<sup>th</sup> May, 2016 for increase of number of working days from 270 days/ annum to 330 days/annum. Compliance status of the existing EC conditions has been forwarded by Ministry's Regional Office at Chandigarh vide letter no. 4-220/2006-RO(NZ)/849 dated 9<sup>th</sup> May, 2018. The committee deliberated the compliance report and found that the certified compliance report to be satisfactory.

The EAC suggested to increase the CER budget from 1% to 1.5 %, the project proponent was agreed with it and the revised CER plan of Rs. 75 Lacs has been submitted the same to be spent in three years.

The project proponent has further confirmed that the no closure notice/ direction is pending as on date. Earlier the direction was received from SPCB on 13<sup>th</sup> May, 2015, the same was replied on 23<sup>rd</sup> May, 2015 by the PP and further consent was issued by the SPCB.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that 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 properly addressed in the EIA/EMP report. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) 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.

- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. The project proponent shall follow the directives issued by the Ministry, CPCB, SPCB & other Government organization from time to time.
- (iii) Concentrated spent wash shall be incinerated or Advanced Tumble Flow Induction Technology (ATFT) – spray dryer for treatment of spent wash and not to be released in open space. The existing molasses based unit shall ensure complete incineration/ATFT in place of bio-composting.
- (iv) The PP shall ensure that the proposed expansion be only for production of bio-fuel. After expansion, the company will operate for 350 days/ annum.
- (v) 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.
- (vi) 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.
- (vii) Odour shall be prevented at the source and effective odour management scheme shall be implemented.
- (viii) Total fresh water requirement shall not exceed 1340 cum/day, proposed to met from ground water. Prior permission shall be obtained from the concerned regulatory authority/CGWA.
- (ix) 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.
- (x) 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.
- (xi) 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.
- (xii) 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.
- (xiii) 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.
- (xiv) All commitments made during public hearing shall be satisfactorily implemented.
- (xv) As proposed Rs. 75 Lacs shall be allocated for Corporate Environment Responsibility (CER) and action plan prepared and submitted shall be completed in time bound manner.
- (xvi) 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.
- (xvii) 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.
- (xviii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xix) 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.
- (xx) Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xxi) 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 ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises. For continuous discharge the unit shall install pH, TSS, BOD,COD and flow meter at the ETP outlet.
- (xxii) CO<sub>2</sub> generated from the process shall be bottled/made solid ice and sold to authorized vendors.
- (xxiii) Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.

### Agenda No. 15.3.2

**Setting up Pesticide, Pesticides intermediates and specialty chemicals manufacturing unit by M/s Mangal Murti Bio-Chem Pvt Ltd at Survey No. 311/2, Block No. 261, At and PO Nana Borsara, Taluka Mangrol, Distt. Surat (Gujarat) - Consideration of Environmental Clearance.**

**[IA/GJ/IND2/106010/2017, IA-J-11011/536/2017-IA-II(I)]**

The project proponent and their consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd (with order from Hon'ble High Court of Gujarat), made a detailed presentation on the salient features of the project.

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

The proposal is for environmental clearance to the project for Setting up Pesticide, Pesticides intermediates and specialty chemicals manufacturing unit by M/s Mangal Murti Bio-Chem Pvt Ltd in an area of 23,427 sqm at Survey No. 311/2, Block No. 261, At and PO Nana Borsara, Taluka Mangrol, Distt. Surat (Gujarat).

The details of products are as under:

S. No.	Products	CAS No.	LD50 (Oral) mg/Kg	End Use	Production Quantity (MT/Month)	
					Existing	Total after Proposed Expansion
<b>Inorganic Chemical</b>						
1	Liquid Bromine	7726-95-6	2600	Agro-Intermediate	50	50
<b>Fertilizers</b>						
2	NPK Fertilizer	66455-26-3	--	Farming	3000	3000
3	Magnesium Sulphate	10034-99-8	--		462	462
4	Ammonium Sulphate	7783-20-2	2840		52	52
5	Di Ammonium Phosphate	7783-28-0	--		51	51
6	Mono Ammonium Phosphate	7722-76-1	--		20	20

7	Calcium Nitrate	35054-52-5	--		20	20
8	Tri Sodium Phosphate	7601-54-9	4150		50	50
9	Mono Potassium Phosphate	7778-77-0	--		20	20
<b>Pesticides &amp; Pesticide Intermediates</b>						
10	Ethion	563-12-2	13	Agro Formulati on	--	633
11	Permethrin	586-78-7	1030	Agro Formulati on	--	
12	Cypermethrin	34911-51-8	250-4150	Agro Formulati on	--	
13	Meta Phenoxy Benzaldehyde (MPBD)	3915-51-0	1222	Agro Chemical	--	
14	Meta Phenoxy Benzyl Alcohol (MPBA)	13826-35-2	1496	Agro Chemical	--	
<b>Specialty Chemicals</b>						
15	Streneted Phenol	61788-44-1	2500	Rubber Chemicals	--	451
16	Meta Bromo Anisole	2398-37-0	--		--	
17	Para Bromo fluoro Benzene	460-00-4	2700		--	
18	Meta Bromo Nitro Benzene	585-79-5	--		--	
19	N-Butyl Bromide	109-65-9	2761		--	
20	Tetra Butyl Ammonium Bromide	1643-19-2	2143.38		--	
21	N-Propyl Bromide	106-94-5	4260		--	
22	1-Bromo 3 Chlorine Propane	109-70-6	--		--	
23	ISO-Butyl Bromide	78-77-3	--		--	
24	4-Amino, 1,2,4 Trizole	100-11-8	--		--	
25	Para Nitro Benzyl Bromide	110-53-2	--		--	
26	N-Pentyl Bromine	10035-10-6	--		--	
27	Hydro Bromic Acid in Water (48%)	106-93-4	--		--	

28	1,2-di bromo ethane	79-96-4	108	Pharma Intermediates	--	
29	Ethyl Bromide	603-35-0	1350		--	
30	Tri Phenyl Phosphine	--	1380 (mouse)		--	
31	Ethyl tri phenyl Phosphonium Bromide	1530-32-1	200-2000		--	
32	Mono Bromo Acetic Acid	2398-37-0	--		--	
33	N-Bromo Succinimide	79-08-3	--		--	
34	Diethyl, Dipropyl Malonate	128-08-5	--		--	
35	Methyl Tri Phenyl Phosphonium Bromide	6065-63-0	--		--	
36	Tri ethyl benzyl ammonium chloride	1779-49-3	--		--	
37	1H-1,2,4 Trizole	56-37-1	1750		--	
38	1,3 Dichloro Acetone	288-88-0	--			
39	Bromo Benzene	534-07-6	2699		--	
<b>Total</b>					<b>3725</b>	<b>4809</b>
<b>PESTICIDES FORMULATION &amp; PACKING</b>						
40	Dichlorovos 76% EC	62-73-7	80	Farming	357.5	357.5
41	Monocrotophos 36% SL	6923-22-4	17-20			
42	Hexaconazole 5% E.C	79983-71-4	2200-6100			
43	Acephate 75% S.P.	30560-19-1	1030			
44	Glyphosate 41% SL	1071-83-6	>4000			
45	Mencozeb 75% WP	8018-01-7	>5000			
<b>Total</b>					<b>357.5</b>	<b>357.5</b>
<b>BULK REPACKING</b>						
46	Acetamipride 20% SP	160430-64-8	1065	Farming	--	<b>195</b>
47	Ammonium Salt of Glyphosate 71% SG	114370-14-8	>3000			
48	Atrazine 50% WP	1912-24-9	--			
49	Carbendazim 50% WP	10605-21-7	5826-15595			

50	Carbendizam 12% + Mencozeb 63% WP	10605-21-7 + 8018-01-7	--			
51	Carbofuran 3% CG	1563-66-2	8			
52	Cartop Hydrochlorid 50% GR	15263-52-2	--			
53	Cartop Hydrochloride 50% SP	15263-52-2	--			
54	Chloropyrifos 20% EC	2921-88-2	51-500			
55	Chloropyrifos 50% EC	2921-88-2	--			
56	Cypermethrine 25% EC	52315-07-8	>300-2000			
57	Ethion 50% EC	821-48-7	--			
58	Ethion 40% + Cypermethrine 5% EC	821-48-7 + 52315-07-8	--			
59	Fenvalrate 20% EC	51630-58-1	451			
60	Hexaconazole 5% SC	79983-71-4	>2000			
61	Imidachloprid 17.8% SL	138261-41-3	480-650			
62	Imidachloprid 70% WS	138261-41-3	695.74			
63	Imidachloprid 70% WG	138261-41-3	981			
64	Indoxacarb 14.5% SC	144171-61-9	268-1730			
65	Lamdacylothrin 2.5% EC	91465-08-6	--			
66	Lamdacylothrin 5% EC	91465-08-6	--			
67	Malathion 50% EC	121-75-5	>5500			
68	Mencozeb 64% + Metalaxyl 8% WP	8018-01-7 + 57837-19-1	--			
69	Metalaxyl 35% WS	57837-19-1	>600			

70	Paraquate Dichloride 24% SL	1910-42- 5	612-707			
71	Pendimethrine 30% EC	40487- 42-1	>2000			
72	Phorate 10% CG	298-02-2	--			
73	Pretilachlore 50% EC	51218- 49-6	5508.1			
74	Profenophos 50% EC	41198- 08-7	358			
75	Profenophos 40% + Cypermethrine 4% EC	41198- 08-7 + 52315- 07-8	--			
76	Qunolphos 25% EC	13593- 03-8	--			
77	Sulphur 80% WDG	7704-34- 9	>5000			
78	Thiomethoxam 25% WG	153719- 23-4	>5000			
79	Trizophos 40% EC	24017- 47-8	--			
80	Trycyclozole 75% WP	41814- 78-2	245-314			
<b>Total</b>				--		<b>195</b>

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 at central level by the sectoral EAC in the Ministry. Standard ToR for the project was granted on 24th May, 2019. Public hearing was conducted by the Gujarat State Pollution Control Board on 2<sup>nd</sup> November, 2018.

Total land area is estimated to be 23,427 sqm. Green belt will be developed in an area of 12,000 sqm out of total area of the project. The estimated project cost is Rs.31.5694 Crores including existing investment of Rs. 9.6185 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 2.8210 Crores and the recurring cost (O&M) will be about Rs.1.2 Crores per annum. Total Employment will be 95 persons as direct & indirect for project.

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

Total water requirement is 319.7 m<sup>3</sup>/day of which fresh water requirement of 233.7 m<sup>3</sup>/day will be met from GIDC Water Supply Authority. Total wastewater generation will be 94.4

KL/day (Industrial: 87.9 KL/day + Domestic: 6.5 KL/day). Low COD & TDS waste water (46 KLD) from boiler, Cooling, Washing and Softener Generation will be treated in ETP within premises along with MEE Condensate (62 KLD) followed by RO. RO permeate (86 KLD) will be reused within plant premises. RO reject (22 KLD) will be sent to MEE. Cyanide Process waste water (7.5 KLD) will be treated in Reactors-1 & 2 followed by primary settling and treated waste water will be sent to MEE. High TDS Process waste water (34.4 KLD) will be given primary treatment and treated waste water will be sent to MEE. MEE Condensate (62 KLD) will be sent to ETP for further treatment.

Power requirement for proposed project will be 750 KVA and will be met from DGVCL. 2 Nos. DG set of 250 KVA & 500 KVA capacity shall be used as standby during power failure. Stack (height 11 m & 6 m) will be provided as per CPCB norms to the proposed DG sets of 250 KVA & 500 KVA respectively which will be used as standby during power failure.

Ambient air quality monitoring was carried out at 9 locations during March, 2017 to May, 2017 and submitted baseline data indicates that ranges of concentrations of PM10 (74.91 – 95.94 µg/m<sup>3</sup>), PM2.5 (43.55 – 51.28 µg/m<sup>3</sup>), SO<sub>2</sub> (15.75 – 26.72 µg/m<sup>3</sup>) and NO<sub>x</sub> (18.63 – 25.12 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 0.349 µg/m<sup>3</sup>, 0.573 µg/m<sup>3</sup>, and 0.205 µg/m<sup>3</sup> with respect to PM10, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

**15.3.2.2** The EAC, during deliberations noted that the project proponent was unable to establish that existing products does not requires prior EC. The Committee, also observed that the project details mentioned in the Form-2 are not in conformity with the EIA report and with that presented during the meeting. The EAC, after detailed deliberations decided to **return the proposal in its present form** and have asked for clarification/inputs, in respect of the following:-

- (i) The Committee noted that Consultant has not followed the generic structure of the EIA Notification, 2006. EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) Incremental GLC values in the EIA/Form 2 were reported to be much higher side, and needs to be confirmed.
- (iii) PP needs to submit all the details of old CTO and production details for verifying any violation, if made by PP.
- (iv) PP in Form 2 at S.No. 33(1) mentioned that benefits of quarry projects, however this instant project related to pesticides.
- (v) PH proceeding forwarded through SPCB needs to be uploaded on Form 2 alongwith all the annexures and action plan on the issues raised during PH.

- (vi) Onsite emergency plan as per MSIHC Rules.
- (vii) Revised water balance with details of total water and fresh water requirement.
- (viii) Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (ix) Details of Wildlife Sanctuary/Protected Area within 10 km of the project site, and status of wildlife recommendations for the project, and conservation plan for Schedule I species, if any.
- (x) Plan for Corporate Environmental Responsibility @ 3%.
- (xi) *Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.*

The proposal was accordingly **returned in its present form.**

**Agenda No. 15.3.3**

**Expansion of Synthetic Resin Adhesive from capacity by M/s Jyoti Resins & Adhesives Ltd at Gandhi Nagar (Gujarat) - Consideration of Environmental Clearance.**

**[ IA/GJ/IND2/67445/2017 ,IA-J-11011/429/2017-IA-II(I)]**

The project proponent and their accredited consultant M/s Green Circle, Inc, made a detailed presentation on the salient features of the project.

**15.3.3.1** The proposal was earlier considered by the EAC in its meeting held during **30-31 May, 2019**, wherein the EAC, *asked for clarifications and inputs in respect of certain points.*

In response of the same the project proponent has submitted point wise reply as under:

S. No.	<i>clarifications and inputs sought by the EAC</i>	Reply submitted by the project proponent	Remark of the EAC
1.	<i>One season baseline data and prediction for air quality to be carried out by recognized labs/institution</i>	The baseline survey has been conducted for one season i.e. 1 <sup>st</sup> June to 30 <sup>th</sup> June, 2019 by M/s Green Circle, Inc.	The project proponent has conducted one month baseline monitoring instead of three months
2.	<i>Action taken report on observations of the</i>	<i>Action plan on observations of the Regional office has been</i>	The Action plan has not duly certified by

	<i>Regional Office during their site visit on 15th June, 2018 and as per the monitoring report dated 2nd November, 2018.</i>	<i>submitted</i>	the Ministry's Regional office at Bhopal
3.	<i>Details of different pollution control measures and detailed justification for their efficacy and adequacy.</i>	Details of different pollution control measures and detailed justification for their efficacy has been submitted	EAC found the reply to be satisfactory
4.	<i>Details of effluent treatment plan/scheme as to achieve ZLD.</i>	There will not be any waste water generation. There is only waste water generated from washing of vessel which will be carried with product.  Therefore there is no requirement of ETP plant. And generated sewage is disposed of through septic tank & soak pit.	Reply is not satisfactory
5.	<i>Status of wildlife clearance</i>	The project doesn't come under general condition and it does not require wildlife clearance.	Reply is not satisfactory
6.	<i>Wildlife conservation management and air quality monitoring in ESZ</i>	Submitted	Reply is not satisfactory
7.	<i>Socio-economic action plan</i>	Submitted	Reply is not satisfactory
8.	<i>Compliance of TOR point 6 (ii) shall be done by setting up one Air Quality monitoring station in Sensitive receptor zone since Thol Sanctuary is extremely nearby i.e. within 6 Km. Therefore PP is advised to resubmit at least one month AAQ monitoring data of all the stations within 10 Km radius</i>	The baseline survey has been conducted.	Reply is not satisfactory
9.	<i>Results of Faecal</i>	The baseline survey has been	-

	<i>Coliform and E. Coli has been reported ABSENT in surface water sample in Table 3.19 of EIA whereas contrary to this under sub head of "Observation on Surface Water Quality" page 86 of EIA it is mentioned that "facial coliform are observed high at all locations....." This need to be reanalyzed and resubmitted.</i>	conducted.	
10.	<i>Biodiversity Index is required to be mentioned against TOR Point 6 (X) once the Flora fauna studies are carried out.</i>	Details of Biodiversity Index is attached	Reply is not satisfactory
11.	<i>Predicted GLC of PM 10, SO2, NOx has been reported "0.00" for AAQ station no.2,3,4,6 &amp; 7 which is not matching with the given wind rose. This need to be resubmitted.</i>	As one Month baseline survey for the month of June – 2019 has been done, The PP has revised Air Quality Modelling.	Reply is not satisfactory
12.	<i>Project proponent shall be required to submit an original analysis reports for AAQ monitoring &amp; Modeling results of GLC in respect to AAQ station no.2,3,4,6 &amp; 7 including analysis report of surface water sample.</i>	As one Month baseline survey for the month of June – 2019 has been done, The PP has submitted revised report.	Reply is not satisfactory

**15.3.3.2** During deliberations, the EAC noted that the reply submitted by the project proponent is not in line with the observation made by the EAC. **The project proponent has conducted one month baseline monitoring instead of one season i.e. three months.** The EAC further noted that as the location is comes under over exploited area, the project proponent need to provide the source of water which is supplied by tanker supply. The source should be surface water source.

The Committee observed that PP/Consultant has not submitted the requisite information as sought by the EAC. Also the report and Form 2 is mismatching with relates to data provided.

The Committee, also observed that as the quality of EIA report is not in line as per the Appendix III of the EIA Notification, 2006, the EAC suggested to send the EIA/EMP report to the QCI for examination and for further action against the consultant. The EAC, after detailed deliberations decided to **return the proposal in its present form.**

**Agenda No. 15.3.4**

**Capacity Enhancement of Complex Fertiliser Production at Ambalamedu Kochi (Kerala) by M/s The Fertilizers and Chemicals Travancore (FACT) Ltd- Consideration of Environmental Clearance.**

**[IA/KL/IND2/122629/2019, J-11011/17/2011-IA-II]**

**15.3.4.1** The project proponent and their accredited consultant made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for expansion of fertilizer manufacturing unit through modernization by M/s The Fertilizers and Chemicals Travancore Ltd (FACT) in an area of 332 acres at Ambalamedu, Village Puthencruz, District Ernakulam (Kerala).

The project/activity is covered under category A of item 5 (a) 'Chemical fertilizers' of the schedule to the EIA Notification, 2006 and requires appraisal/approval at central level in the Ministry.

Ministry had issued earlier EC on 4<sup>th</sup> February, 2015 to the existing project "Expansion of fertilizer manufacturing unit from 2000 to 3000 TPD at Ambalamedu, Village Puthencruz, District Ernakulam (Kerala) in favour of M/s The Fertilizers and Chemicals Travancore Ltd (FACT).

The details of products and capacity as under:

S. No.	Product	Quantity Metric Ton Per Day		
		Existing	Proposed	Total
1	NPK Fertiliser	3000 MTPD (2000 MTPD +1000 MTPD)	650 MTPD	3650 MTPD (2000 MTPD + 1650 MTPD)

2	Ammonia Storage Tank	5000 MT	10000 MT	15000 MT (5000MT +10000MT)
3	Sulphuric Acid Storage	20000 MT (5000 MTx4 nos.)	10000 MT (5000MT X 2 nos.)	30000 MT (5000 MTX6 nos.)
4	Sulphuric Acid plant	1000 MTPD	-	1000 MTPD
5	Phosphoric Acid Plant	360 MTPD of P2O5	-	360 MTPD of P2O5

The existing land area at FACT, Ambalamedu, Kochi is 856 acres of which plant area is 332 acres. The proposed expansion will be set up in the existing plant area. No additional land is required for the proposed project. Industry has already developed greenbelt area of 300 acres, covering 33% of total project area.

The estimated project cost is Rs. 480 crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 95 crore and the Recurring cost (operation and maintenance) will be about Rs.1.28 crore per annum. Total Employment will be 50 persons as direct & 200 persons indirect 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. Back water stretch of Chitrapuzha at a distance of 1 km in the west direction.

Total existing fresh water requirement is 7850 m<sup>3</sup>/day. No additional fresh water is required for the proposed expansion, which will be met from existing rain water collecting reservoir of 168 acre which is connected to Boothathanketu dam for supply of water during dry season.

Effluent generation from the existing unit is 120 m<sup>3</sup>/day and no additional effluent will be generated from the proposed expansion. The wastewater generated will be treated in, already existing effluent treatment plant (ETP) capacity of 280 m<sup>3</sup>/hr. Treated effluent is passed through ammonia stripper. Treated effluent from stripper will contain ammonical nitrogen less than 50 ppm. The proposed plant will be based on Zero Liquid Discharge (ZLD) system. All the liquid effluents generated in the system are recycled in the process. Sewage shall be treated in existing Sewage Treatment Plant. Spent catalysts and used oil will be sold to authorized re-processors/recyclers.

Power requirement for proposed project operation will be 3.1 MW. The additional requirement will be met from Kerala State Electricity Board (KSEB) or open access. Existing unit has DG set

of 110 KVA. Two additional DG sets of Capacity one of 500 kVA and the other of 1000 kVA will be provided.

Existing unit has 14 TPH FO/RLNG (Regasified Liquefied Natural Gas) fired boiler for start up and shutdown only. No additional boiler will be required. 23.25 MMBtu/h RLNG (0.6 TPH FO) will be fired in dryer. All fumes generated during the process will be scrubbed and stipulated emission levels of Kerala State Pollution Control Board (KSPCB)/Central Pollution Control Board (CPCB) are strictly adhered.

The certified compliance report dated 29<sup>th</sup> November, 2019 forwarded by the Ministry's Regional office at Bangalore. The Committee deliberated the compliance status of earlier EC and found the same to be satisfactory. PP is reported that there is no Litigation Pending against the proposal.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**15.3.4.2** The EAC, after detailed presentation noted that the proposal has been submitted for grant of environmental clearance under para 7(ii) of EIA Notification, 2006; there is no increase in the gaseous pollutants (Ammonia, SPM, Fluorine); the increase in the production is based on more efficient "Pipe Reactor Technology" rather than the old Conventional Slurry Granulation process.

**15.3.4.3** *The EAC, after deliberations, **recommended** the project for grant of environmental clearance under para 7(ii) providing exemption from public hearing and preparation of EIA report, subject to compliance of terms and conditions as under:-*

*(i) 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.*

(ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. The reuse of treated effluent in gardening/ horticulture shall not be considered as ZLD.

(iii) 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.

(iv) The gaseous emissions (SO<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub> and HC) and particulate matter from various process units shall conform to the norms prescribed by the CPCB/SPCB from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.

(v) 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.

(vi) Existing fresh water requirement is 7850 cum/day, which is met through Boothathanketu dam. No additional water shall be required for the proposed modernization.

(vii) 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.

(viii) Natural gas shall be used as fuel in all the boilers.

(ix) 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.

(x) 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.

(xi) 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.

(xii) The green belt of at least 5-10 m width shall be developed in nearly 35% 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.

(xiii) As committed, Rs. 3.6 Crores shall be allocated towards Corporate Environment Responsibility (CER). Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.

(xiv) Safety and visual reality training shall be provided to employees.

(xv) 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.

(xvi) 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.

(xvii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

(xviii) 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.

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

### **Agenda No. 15.3.5**

**Proposed change in product mix for bulk drugs and intermediates manufacturing unit at Plot No.285, 286 &287 KIABD Industrial Area by M/s Cipla Limited- Consideration of Environmental Clearance.**

**[IA/KA/IND2/106235/2016, IA-J-11011/382/2019-IA-II(I)]**

The project proponent and their accredited consultant M/s Hubert Enviro Care Systems (P) Ltd, made a detailed presentation on the salient features of the project.

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

Minutes of EAC (Industry 2 Sector) held during December 30-31, 2019 & January 01, 2020

The proposal is for environmental clearance to the project for proposed change in product mix for bulk drugs and intermediates manufacturing unit by M/s Cipla Limited in an area of 115335.23 sqm. at Plot No.285, 286 &287 KIABD Industrial Area by M/s Cipla Limited.

The details of existing and proposed are as under:

Sl No	Category	Products	Existing Quantity (Kg/A)	Proposed Qty (Kg/A)	Category Wise Qty	Variation in quantity	Change in product mix scenario
1	CARDIOVASCULAR DRUGS	AMLODIPINE BESYLATE	1000	1000	2600	0	No change
		AMLODIPINE MESYLATE	2000	1000		-1000	Decrease
		CIOLASTRAZOLE	1000	100		-900	Decrease
		FELODIPINE	1000	500		-500	Decrease
2	ANTICANCER DRUGS	ANAGRELIDE	25	25	74430	0	No change
		BICALUTAMIDE	1000	2500		1500	Increase
		CARBOPLATIN	50	50		0	No change
		CISPLATIN	50	50		0	No change
		ETOPOSIDE	250	500		250	Increase
		FLUTAMIDE	2500	2000		-500	Decrease
		MITIXANTRONE HCL	20	10		-10	Decrease
		ANASTRAZOLE	100	100		0	No change
		OXALIPLATIN	100	100		0	No change
		CAPACITABINE	20000	38000		18000	Increase
		IMATINIB MESYLATE (Alpha and Beta Forms)	7500	10000		2500	Increase
		VINORELBINE TARTRATE	100	50		-50	Decrease
		TEMOZOLOMIDE	500	500		0	No change
		ERLOTINIB HCL	1000	1500		500	Increase
		GEFTINIB	1000	1500		500	Increase
		SORAFENIB TOSYLATE	1500	1500		0	No change
DOCETAXEL TRIHYDRATE	100	100	0	No change			

		IRINOTECAN TRIHYDRATE	100	100		0	No change
		PACLITAXEL	100	100		0	No change
		LAPATINIB DITOSYLATE	1000	500		-500	Decrease
		LENALIDOMIDE	1000	1000		0	No change
		TOPOTECAN HCL	10	10		0	No change
2	ANTICANCER DRUGS	PEMETREXED DISODIUM	150	200	74430	50	Increase
		BORTEZOMIB	10	10		0	No change
		LETROZOLE	500	500		0	No change
		SUNITINIB MALATE	255	255		0	No change
		VINCRIStINE SULPHATE		50		50	New Product under anticancer drugs
		VINBLASTINE SULPHATE		50		50	
		TEGAFUR		1000		1000	
		PAZOPANIB HCL		2500		2500	
		ABIRATERONE ACETATE		1000		1000	
		CARFILZOMIB		20		20	
		RUXOLITINIB PHOSPHATE		100		100	
		EVEROLIMUS		50		50	
		EXEMESTINE		500		500	
		ESTRAMUSTINE		500		500	
		NILOTINIB		4000		4000	
		DASATINIB		500		500	
		REGORAFENIB		200		200	
		IBRUTINIB		500		500	
		NINTEDANIB ESYLATE		500		500	
		POMALIDOMIDE		500		500	
AXITINIB		500	500				
3	CNS DRUG	DULOxETINE	1500	500	7130	-1000	Decrease
		OXCARBAZEPINE	200	50		-150	Decrease

		RILUZOLE	1000	580		-420	Decrease
		RISPERIDONE	1000	500		-500	Decrease
		TOPIRAMATE	2500	2500		0	No change
		LAMOTRIGINE POWDER	5000	2500		-2500	Decrease
		VENLAFAXINE	1000	500		-500	Decrease
4	GASTROINTESTINAL DRUGS	ESOMEPRAZOLE	2000	2000	7000	0	No change
		LANSOPRAZOLE	4500	1000		-3500	Decrease
		OMEPRAZOLE	8000	2000		-6000	Decrease
		PANTOPRAZOLE	1000	500		-500	Decrease
		RABEPRAZOLE SODIUM	1500	500		-1000	Decrease
		RABEPRAZOLE POWDER	2000	500		-1500	Decrease
		ESOMEPRAZOLE POWDER	2500	500		-2000	Decrease
5	OSTEOPOROSIS	RALOXIFENE	5000	1500	1500	-3500	Decrease
6	ANTIBIOTICS / ANTIBACTERIALS	LEVOFLOXACIN	8300	3000	4700	-5300	Decrease
		OFLOXACIN USP	1000	500		-500	Decrease
		CIPROFLOXACIN POWDER	190	190		0	No change
		GATIFLOXACIN POWDER	10	10		0	No change
		ENROFLOXACIN POWDER	1500	1000		-500	Decrease
7	OTHERS - ANTOGONADOTROPHIN	DANAZOL	500	500	500	0	No change
8	ARTHRITIC / RHEUMATIC AGENTS	LEFLUNOMIDE	500	1000	1000	500	Increase
9	ANTIVIRALS	RIBAVIRIN	1500	1000	3100	-500	Decrease
		STAVUDINE	100	100		0	No change
		ZIDOVUDINE	1500	1000		-500	Decrease
		VALACICLOVIR HCL	500	500		0	No change
		DIDANOSINE	500	500		0	No change
10	OPHTHALMIC DRUGS	REPROTEROLE	5000	1000	1000	-4000	Decrease
11	ANTI	FEBANTEL	2000	2000	10000	0	No change

	HELMINTICS	POWDER					
		MEBENDAZOLE POWDER	2000	2000		0	No change
		ALBENDAZOLE POWDER	4500	4500		0	No change
		FENBENDAZOLE POWDER	1500	1500		0	No change
12	R&D products			500	500	500	Increase
			114220	113460	113460		
13	<b>FORMULATIONS</b>	TABLETS : 1500 L / A					No change
		CAPSULES :1560 L/ A					No change

The project/activity is covered under category B of item 5(f) 'Synthetic Organic Chemicals' of schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at State level. However being the project is located inside the Critically polluted area, the project appraised at Central level in the Ministry

The ToR for the project was granted by the SEIAA, Karnataka on 24<sup>th</sup> September, 2016. Public hearing was exempted as the project site is located in the notified Industrial area.

The total land area is 115335.23 sq.mts(28.49 acres). There is no additional land requirement for proposed change in product mix. Industry has already developed greenbelt in an area of 33 % i.e.38035.8 m<sup>2</sup> (9.39 Acres) out of total area of the project. There is no additional project cost as it is in existing unit. The cross value of the existing infrastructure is Rs. 166 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs 67.5 Lakhs and the recurring cost (operation and maintenance) will be about Rs. 6.75 Lakhs per annum. Total Employment will be 300 persons as direct & indirect after expansion. As the project site is located inside the CPA, the EAC suggested to increase the greenbelt area. The project proponent was agreed for 40% of the total

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Bannerghatta National Park boundary is at a distance of 5.26 km towards West from the project site.

Total water requirement is 300 cum/day of which fresh water requirement of 140 cum/day treated water 160 cum/day will be meeting from Ground water through bore well within the premises. Effluent of 160 cum/day will be treated through Combined Effluent Treatment Plant (CETP) ZLD. The plant will be based on Zero Liquid discharge system. Power requirement will be 1500 kVA including and will be met from BESCO. The unit has 3 No of 1250 kVA DG set will be used as the standby during power failure. Stacks will be (height 20 m AGL) provided as per CPCB norms. The unit has 1 x 200000 k cal TFH (fire wood heater). Stacks will be (height 20 m AGL) provided as per CPCB norms.

PP reported that the Ambient air quality monitoring was carried out at 8 locations area during September 2016 to November 2016 and the average baseline data indicates the ranges of concentrations as: PM10 (46.6-60.4  $\mu\text{g}/\text{m}^3$ ), PM2.5 (17.9-27.2  $\mu\text{g}/\text{m}^3$ ), SO2 (7.65-11.0  $\mu\text{g}/\text{m}^3$ ), NO2 (16.4 -24.9  $\mu\text{g}/\text{m}^3$ ), CO (0.01-0.11 mg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.307  $\mu\text{g}/\text{m}^3$ , 0.314  $\mu\text{g}/\text{m}^3$  and 3.221  $\mu\text{g}/\text{m}^3$  with respect to PM10, Sox and NOx. The resultant concentrations are within the National Ambient Air Quality Standard (NAAQS).

The expenditure towards CER for the project would be 3% of the project cost as committed by the project proponent.

Earlier, the Ministry had issued EC vide letter dated 5<sup>th</sup> March 2006 for bulk drug unit in favour of M/s CIPLA Limited.

SEIAA, Karnataka vide letter dated 23<sup>rd</sup> May, 2019 has informed the project proponent that the proposal was placed before the SEAC in its meeting held on 2<sup>nd</sup> March, 2019 and the SEIAA took note of the recommendation of the SEAC and observed that the proposed project site is located within the 10 km from the boundary of Bannerghatta National Park and it would require EC from MoEF&CC. The SEIAA advise the project proponent to approach the MoEF&CC for the required Environmental clearance.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that 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. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i). 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.
- (ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iii). 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.
- (iv). National Emission Standards for Pharmaceuticals Industry (Bulk Drugs) issued by the Ministry vide G.S.R.149(E) dated 4<sup>th</sup> March, 2009 and amended from time to time shall be followed. Fugitive emissions shall be controlled at 99.98% with effective chillers.
- (v). No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vi). 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.
- (vii). 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.
- (viii). Total fresh water requirement shall not exceed 140 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/ CGWA.

- (ix). 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.
- (x). 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.
- (xi). 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.
- (xii). 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.
- (xiii). 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 and dust should be avoided.
- (xiv). 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.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 40% 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.
- (xvi). At least 3 % 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.
- (xvii). 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.

- (xviii). 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.
- (xix). Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xx). 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.
- (xxi). Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.

### **Agenda No.15.3.6**

#### **Proposed Establishment of Synthetic organic Chemicals – Pigment at Plot No. 7 & 8, S.No.111 & 112, Dhanot, Taluka - Kalol, Distt – Gandhinagar (Gujarat) by M/s Shrey Industries- Consideration of Environmental Clearance**

**[IA/GJ/IND2/85152/2018, IA-J-11011/369/2018-IA-II(I)]**

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

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

The proposal is for environmental clearance to the project for setting up of pigment manufacturing unit of capacity 100 TPM by M/s Shrey Industries in an area of 3366 sqm located at Survey No. 111 & 112, Plot No. 7 & 8, Village Dhanot, Taluka Kalol, District Gandhinagar (Gujarat).

The project/activity is covered under category A of item 5(f) 'Synthetic Organic Chemicals' of schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at Central level in the Ministry.

The standard ToR for the project was granted on 31<sup>st</sup> December, 2018. The Public hearing was conducted by the state pollution control board on 25<sup>th</sup> September 2019. The Public hearing was chaired by the ADM. The main issued during the public hearing are related to Effluent management & Local Employment.

Total land area is 3366 m<sup>2</sup> will be used for proposed project. Industry will develop greenbelt in an area of 33 % i.e. 1121 m<sup>2</sup> out of 3366 m<sup>2</sup> total area of the project. The estimated project cost is Rs 3 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs 56.5 lacs and the recurring cost (operation and maintenance) will be about Rs 195.2 lacs Per annum. Total employment will be 17 persons as direct & 10 Persons indirect.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Narmada Canal is flowing at a distance of 6.01 km in S direction.

Total water requirement is 84.6 m<sup>3</sup> /day. Fresh water requirement of 49.0 m<sup>3</sup> /day will be met from Tanker Water Supply. Effluent of 53.9 m<sup>3</sup> /day quantity will be treated through Effluent treatment plant with primary treatment and then it will be sent to In-House RO. From that 35.6 KLD RO Permeate water reuse in manufacturing process, Washing & Cooling and remaining 18.3 KLD RO Rejected water will be sent to Common Spray Drying facility (Chhatral Environment Management System Pvt. Ltd.) for Spray Drying. Domestic effluent of 0.8 KLPD will go to soak pit via septic tank.

Ambient air quality monitoring was carried out at 8 locations during October 2018 to December-2018 and the baseline data indicates the ranges of concentration as: PM10 (72.40-88.66 ug/m<sup>3</sup>), PM2.5 (30.41-44.77 ug/m<sup>3</sup>), SO<sub>2</sub> (9.42-42.02 ug/m<sup>3</sup>) NO<sub>2</sub> (12.99-49.92 ug/m<sup>3</sup>), HCl (<1ug/m<sup>3</sup>) and Cl<sub>2</sub> (< 1ug/m<sup>3</sup>). AAQ modeling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 0.89 ug/m<sup>3</sup>, 0.42 ug/m<sup>3</sup>, 0.32 ug/m<sup>3</sup>, 0.08 ug/m<sup>3</sup> and 0.11 ug/m<sup>3</sup>, with respect to PM10, SO<sub>x</sub>, NO<sub>x</sub>, HCl and Cl<sub>2</sub>. The resultant concentrations are within the national ambient air quality standards (NAAQS).

**15.3.6.2** The EAC, during deliberations noted that the project details mentioned in the EIA report were not consistent with that presented during the meeting. **The Committee also took serious note on the quality of the EIA/EMP report prepared by the consultant and underrated the consultant. The Committee desired that the Ministry/QCI shall take action as appropriate on the matter against the consultant for providing wrong and inconsistent information the EIA/EMP and presentation.** The EAC, after detailed deliberations decided to **return the proposal in its present form** and has asked for clarification/inputs, in respect of the following:-

- (i) The Committee noted that Consultant has not followed the generic structure of the EIA Notification, 2006. EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) The Committee noted that there are various deficiencies in Form 2 uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (iii) EIA Report mentioned the details of Schedule I species, however Form 2 is mentioned as NIL.

- (iv) PP uploaded the PH proceeding of M/s Wonder Cement Rajasthan, however the project is located at State of Gujarat.
- (v) Water quality analysis report submitted is wrong.
- (vi) Alternate source of water to be submitted as tanker supply may not be allowed.
- (vii) Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (viii) Plan for Corporate Environmental Responsibility.
- (ix) Action plan with commitments in time bound manner for issues raised during public hearing.

The proposal was accordingly **returned in its present form.**

### **Agenda No.15.3.7**

#### **Manufacturing of Synthetic Organic Chemicals Plot No. 1, Survey No.367, Paiki - 4, Bagathala Road, Morbi (Gujarat) by M/s Radhe Resin - Consideration of Environmental Clearance**

**[IA/GJ/IND2/87858/2018, IA-J-11011/407/2018-IA-II(I)]**

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

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

The proposal is for environmental clearance to the project for setting up resin manufacturing unit of capacity 400 TPM (Phenol Formaldehyde Resin- 100 TPM, Melamine Formaldehyde Resin- 100 TPM and Urea Formaldehyde Resin -200 TPM) by M/s Radhe Resin in an area of 1245.54 sqmat Plot No.1, Survey No.367, Paiki -4, District Morbi (Gujarat).

The project/activity is covered under category A of item 5(f) 'Synthetic Organic Chemicals' of schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at Central level in the Ministry.

The standard ToR for the project was granted by the Ministry on 14<sup>th</sup> January, 2019. Public hearing for the project was conducted by the State Pollution Control Board on 19<sup>th</sup> October, 2019. The main issues raised during the Public Hearing are related to welcoming the project proponent & employment potential and measures for air pollution control.

Total 1245.54m<sup>2</sup> land area will be used for proposed project. Industry will develop greenbelt in an area of 33 % i.e. 565 m<sup>2</sup> out of 1245.54 m<sup>2</sup> area of the project. The estimated project cost is approx. Rs. 55.00Lakhs.Total capital cost earmarked towards environmental pollution control measures is Rs. 5.00Lakhsand the recurring cost (operation and maintenance) will be about Rs. 2.30 Lakhs per annum. Total employment will be 5persons as a skilled and unskilled.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. River Macchu is flowing at a distance of 6.47 km in East North East direction and Phuldi River is flowing at a distance of 2.74 Km in South West direction.

Total water requirement is 4.4 cum/day out of which fresh water requirement which will be met from Borewell. Industrial effluent of 0.29 cum/day will be treated through Effluent Treatment Plant to achieve Zero Liquid Discharge. Domestic effluent of 0.22 cum/day will be disposed off through septic tank /soak pit system.

Power requirement of proposed project will be 40 HP and will be met from Paschim Gujarat Vij Company Limited (PGVCL). One DG set o 250 kVA will be used as standby during power failure. Thermic Fluid Heater (2 lac Kcal/Hr) and D G Set (25 kVA) will be installed. LDO -200 Kg/Day will be used as fuel in Thermic Fluid Heater. Adequate stack height of 30 m will be provided.

Ambient air quality monitoring was carried out at 8 locations during December 2018 to February-2019 and the baseline data indicates that ranges of concentrations of PM<sub>10</sub> (59.97 to 86.42 µg/m<sup>3</sup>), PM<sub>2.5</sub> (29.65 to 52.98 µg/m<sup>3</sup>), SO<sub>2</sub> (4.07 to 18.76 µg/m<sup>3</sup>), NO<sub>2</sub> (8.94 to 29.69 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 0.00045 µg/m<sup>3</sup>, 0.06 µg/m<sup>3</sup> and 0.003 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 EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that 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 properly addressed in the EIA/EMP report.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) 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.
- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iii) 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.
- (iv) National Emission Standards for Pharmaceuticals Industry (Bulk Drugs) issued by the Ministry vide G.S.R.149(E) dated 4<sup>th</sup> March, 2009 and amended from time to time shall be followed. Fugitive emissions shall be controlled at 99.98% with effective chillers.
- (v) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vi) 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.
- (vii) 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.

(viii) Total fresh water requirement shall not exceed 4.4 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/ CGWA.

(ix) 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.

(x) 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.

(xi) 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.

(xii) 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.

(xiii) 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 and dust should be avoided.

(xiv) 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.

(xv) The green belt of at least 5-10 m width shall be developed in nearly 40% 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.

(xvi) 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.

(xvii) 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.

(xviii) 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.

(xix) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

(xx) 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. 15.3.8**

**Expansion of Sugar manufacturing unit (4000 TCD to 10,000 TCD), Co-Generation unit (15MW to 60 MW) and setting up molasses based distillery of capacity 120 KLPD by M/s Shirguppi Sugar Works Ltd at Kagwad, Taluka Athani, District Belgaum (Karnataka) - Consideration of Environmental Clearance.**

**[IA/KA/IND2/119111/2018, IA-J-11011/299/2018-IA-II(I)]**

The project proponent and their accredited consultant M/s Equinox Environments (I) Pvt Ltd, made a detailed presentation on the salient features of the project.

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

The proposal is for environmental clearance to the project for expansion of Sugar manufacturing unit (4000 TCD to 10,000 TCD), Co-Generation unit (15MW to 60 MW) and setting up molasses based distillery of capacity 120 KLPD by M/s Shirguppi Sugar Works Ltd at Kagwad, Taluka Athani, District Belgaum (Karnataka).

The details of proposed products are as under:-

Industrial unit	Product& By-product	Quantity		
		Existing (4000 TCD)	Expansion (6000 TCD)	Total (10,000 TCD)
<b>Sugar Factory (MT/M)</b>	Sugar	12,000	20,700	32,700
	<b>By-product</b>			
	Molasses	4,800	7,200	12,000
	Bagasse	36,000	54,000	90,000
	Press mud	4,800	7,200	12,000
<b>Co-Gen</b>	<b>Product</b>	<b>Existing</b>	<b>Expansion</b>	<b>Total</b>

Industrial unit	Product & By-product	Quantity		
		Existing (4000 TCD)	Expansion (6000 TCD)	Total (10,000 TCD)
(MW/M)		(15 MW)	(45 MW)	(60 MW)
	Electricity	450	1350	1800
	<b>Product</b>	<b>Existing</b>	<b>Expansion (120 KLPD)</b>	<b>Total (120 KLPD)</b>
<b>Distillery (Molasses based) (KL/M)</b>	Ethanol/Rectified Spirit /ENA	--	3600	3600
	CO <sub>2</sub> Gas (MT/D)	--	2850	2850
	Fusel Oil	--	7.5	7.5

Standard ToR has been issued by Ministry vide letter dated 9<sup>th</sup> November 2018. Public hearing for the project was conducted by the State Pollution Control Board on 24<sup>th</sup> June, 2019 under the Chairmanship of Additional District Magistrate. The main issues raised during the public hearing are related to effluent generation its disposal, benefits to farmers from proposed project, employment generation etc. The Committee found the action plan submitted by the project proponent and budgetary provisions satisfactory and addressing the concerns raised during public consultation/hearing.

Total land area acquired by industry is 49.74 ha. Industry has developed an area of 16.69 ha. (33.5 % of total plot area) and additional green belt area of 0.30 ha. (0.6% of total plot area) will be developed. After expansion the total green belt area would be 16.99 ha which accounts for 34.1% of total plot area. The estimated cost for expansion of sugar & cogen project is Rs.180 crores while for establishment of distillery is Rs. 120 crores. Existing investment is 337.65 crore. Total capital cost earmarked towards environmental pollution control measures under expansion is Rs. 33.61 crores and the recurring cost (operation and maintenance) will be about Rs.1.41 crores per annum. Total employment generation under proposed project would be 240 persons as direct as well as indirect after expansion of projects.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild life Corridors etc within 10 km distance from the plant site. River Krishna is flowing at a distance of 3.1 Km in North-West to West direction.

Total water requirement for Sugar, Co-gen and distillery will be 345 cum/day, out of which fresh water requirement of 145 cum/day, proposed to be met from Krishna River. The permission for lifting of fresh water is granted to SSWL by Krishna River Water Lifting Scheme.

The effluent generated from 120 KLPD distillery would be in the form of raw spent wash to the tune of 895 M<sup>3</sup>/Day. Spentwash shall be treated in concentration in Multiple (Five) Effect Evaporator (MEE). Concentrated spent wash to the tune of 180 cum/day (1.5 KL/KL of alcohol against norm of 8 KL/KL of alcohol) shall be incinerated in boiler.

Power requirement to the tune of 20.5 MW after expansion of project will be procured from own Co-gen Plant. Two DG set of capacity 1010 kVA each has already been installed under existing project. DG sets will be used as standby during turbine tripping. Stack of height 7 M ARL is provided as per CPCB norms to the DG sets.

Two boilers of capacity 100 TPH and 40 TPH will be installed. Bagasse to the tune of 1008 MT/D will be used as fuel for 100 TPH boiler. Further, Coal to the tune of 75 MT/D & Spentwash to the tune of 243 MT/D would be used for 40 TPH Boiler. Electrostatic Precipitator (ESP) along with stack of 90 M height and 70 M height will be installed to the same for controlling the particulate emission.

Ambient air quality monitoring was carried out at 8 locations during October 2018 – December 2018 and submitted baseline data indicates that ranges of concentrations of PM10 (51.40 – 66.90 µg/m<sup>3</sup>), PM2.5 (14.50 – 31.10 µg/m<sup>3</sup>), SO<sub>2</sub> (12.40 – 29.80 µg/m<sup>3</sup>) and NO<sub>x</sub> (25.40 – 38.40 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.364 µg/m<sup>3</sup> PM10 (towards West side), 0.091 µg/m<sup>3</sup> PM2.5 (towards West side), 5.45 SO<sub>2</sub> µg/m<sup>3</sup> (towards West side) and 1.40 µg/m<sup>3</sup> NO<sub>x</sub> (towards West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Existing sugar factory is having capacity of 4000 TCD and Co-generation plant 15 MW which do not attract EC procurement condition hence only Consents from pollution control board procured.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that 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 properly addressed in the EIA/EMP report.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC

have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

(i) 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.

(ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. The reuse of treated effluent in gardening/ horticulture shall not be considered as ZLD.

(iii) 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.

(iv) *No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.*

(v) *Briquettes shall be used as boiler fuel. No Coal shall be used as fuel.*

(vi) 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.

(vii) Odour shall be prevented at the source and effective odour management scheme shall be implemented.

(viii) Total fresh water requirement shall not exceed 145 cum/day cum/day, proposed to met from Krishna River. Prior permission shall be obtained from the concerned regulatory authority/CGWA.

(ix) 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.

(x) 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.

(xi) 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.

- (xii) 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.
- (xiii) 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.
- (xiv) *All the commitments made regarding issues raised during the public hearing/consultation meeting shall be satisfactorily implemented.*
- (xv) *At least 3% 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.*
- (xvi) 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.
- (xvii) 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.
- (xviii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xix) 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.
- (xx) Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xxi) 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 ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the

premises. For continuous discharge the unit shall install pH, TSS, BOD,COD and flow meter at the ETP outlet.

(xxii) The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry’s Office Memorandum No. 22-34/2018-IA.III, dated 9th August, 2018. The said OM is available at the Ministry’s website (PARIVESH portal i.e. www.parivesh.nic.in). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry’s Office Memorandum No. 22-34/2018-IA.III, dated 9th August, 2018.

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

### Agenda No. 15.3.9

#### **Expansion and debottlenecking of existing petrochemical manufacturing facility at Vadodara (Gujarat) Manufacturing Division (VMD) of M/s Reliance Industries Limited (RIL)- For Environmental Clearance**

**[IA/GJ/IND2/100410/1998, J-11011/13/99-IA-II(I)]**

The project proponent and their accredited consultant M/s Kadam Environmental Consultants, made a detailed presentation on the salient features of the project.

**15.3.9.1** The proposal was earlier considered by the EAC in its meeting held during 28-29 August, 2019, wherein *the Committee desired certain inputs/clarifications.*

In response of the same the project proponent has submitted point wise reply as under:

S. No.	Clarifications and inputs sought by the EAC	Reply submitted by the project proponent	Remark of the EAC
1.	<i>Para-wise compliance of the ToR dated 7<sup>th</sup> August 2017 which inter-alia include achieving ZLD in phases, increase in water consumption not to exceed 4000 cum/day.</i>	The planning and work has been started to achieve Zero Liquid Discharge. The project proponent submitted that the ZLD will be achieved over a period of 6-7 years.	The Committee deliberated the issues and is of the view that ZLD shall be implemented with in 3 years after the grant of EC.
2.	<i>Transfer of EC dated 27<sup>th</sup> September, 1999 in favour of M/s Reliance Industries Ltd,</i>	The request for name change of EC was submitted to Ministry’s Regional office at Bhopal vide letter dated 8 <sup>th</sup> October, 2007.	The project proponent need to submit proposal for transfer of EC at Ministry’s

			online portal as per the procedure laid down in the EIA Notification with in 15 days after the grant of EC falling which the EC shall be auto revoked. The transfer of EC proposal may be examined by the Ministry.
3.	<i>Consent to Operate for the present industrial operations vis-à-vis the environmental clearance granted and Existing production of different products in line with the existing EC dated 27<sup>th</sup> September, 1999</i>	The copy of consent granted in 2007 and latest consent granted in 2019 has been submitted	PP shall be asked to resubmit the copy of all the consent granted.
4.	<i>Hazard communication model</i>	Information submitted	The committee deliberated the information submitted by the PP
5.	<i>Health risk assessment for Vinyl Chloride Monomer (VCM), Benzene, Acrylonitrile and special test/investigation for the same</i>	Information submitted	The committee deliberated the information submitted by the PP
6.	<i>Report on safety/ Risk analysis to be submitted using advanced models</i>	<i>Safety/ Risk analysis to be conducted by using advanced models and report to be submitted within one year</i>	The committee deliberated the information submitted by the PP
7.	<i>As the unit will be discharged additional effluent through VECL(CETP), a permission letter is required from CETP whether CETP has adequate capacity to</i>	The permission letter of VECL has already submitted.	The committee deliberated the information submitted by the PP

<i>handle the excess effluent to treat and meet the deep discharge norms. Further a declaration from the unit there will be no negative impact on the Marine environment</i>		
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**15.3.9.2** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion & debottlenecking of petrochemical facility of Vadodara Manufacturing Division (VMD) by M/s Reliance Industries Limited in an area of 350 ha located at Vadodara (Gujarat).

The details of products and capacity as under:

Plant	Products	Capacity (MTM)		
		Existing	Proposed	Total
GOP	Ethylene	17000	8000	25000
	Propylene	8000	7000	15000
GAP	Ortho xylene	3784	0	3784
	Para xylene	4050	0	4050
	Dimethyl Terephthalate	3333	0	3333
C2 Derivatives including Vinyl	Ethylene Glycol (EG)	1670	470	2140
	Ethylene Oxide (EO)	836	1004	1840
	Low Density Poly Ethylene (LDPE)	13335	0	13335
	Ethylene Dichloride (EDC)	8335	0	8335
	Vinyl Chloride Monomer (VCM)	4750	3020	7770
	Poly Vinyl Chloride (PVC)	4585	3315	7900
	Chlorinated Poly Vinyl Chloride (C-PVC) (New product)	0	6000	6000
C3 Derivatives	Poly Propylene (PPCP (PP-II))	2085	3255	5340
	Poly Propylene (PP-IV)	6250	7120	13370
	Polypropylene (PP-I)	3000	0	3000
	Acrylonitrile	2500	0	2500

	Methyl Acrylates	170	0	170
	Ethyl Acrylates	250	0	250
	Butyl Acrylates	334	0	334
C4 Derivatives	Butadiene (GOP Plant)	4500	2000	6500
	Poly-Butadiene Rubber (PBR-I)	1670	2260	3930
	Poly-Butadiene Rubber (PBR-II)	4166	1134	5300
C6+ Derivatives	Benzene	4585	2655	7240
	Toluene (New Product)	0	2250	2250
	Normal Paraffin (New Product)	0	5000	5000
	Linear Alkyl Benzene	3625	3295	6920
Mono-component Acrylic fibre	Acrylic Fiber (AF)	1000	0	1000
	Dry Spun Acrylic Fiber (DSAF)	1000	0	1000
Carbon fibre	Carbon Fibre (CF)	1	0	1
PR	Petroleum Resin	417	0	417
Utilities	Steam	620 TPH	96 TPH	716 TPH
	Steam *	0	500 TPH	500 TPH
	Power	81 MW	14	95 MW
GOP	Carbon Black Feed Stock (CBFS)	1585	1415	3000
	Mix C4	10585	0	10585
	Pyrolysis Gasoline (PGH)	18335	0	18335
C2 Derivatives including Vinyls	Di Ethylene Glycol (DEG) (New Product)	0	135	135
	Tri Ethylene Glycol (TEG) (New Product)	0	15	15
	Poly Ethylene Glycol (PEG) (New Product)	0	150	150
	HCL (New Product)	0	1417	1417
C4 Derivatives	C4 Raffinate	6085	0	6085
C6+ Derivatives	Heavy Normal Paraffin (HNP) (New Product)	0	700	700
	Light Normal Paraffin (LNP) (New Product)	0	200	200
	Heavy alkylates (New	0	400	400

	Product)			
	Naphtha Return Stream (NRS)	13750	0	13750
	Heavy Aromatics (New Product)	0	4500	4500
<p><i>Note: * Petcock fuel-based boilers to be used as Stand - by for existing steam &amp; power generation by creating flexibility in the existing fuel mix. Apart from this the existing railway gantry will be modernized for much more convenient handling of raw material and products</i></p>				

The project/activity is covered under category A of item 5(c) 'Petro-chemical complexes' of the schedule to the Environment Impact Assessment (EIA) Notification and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC).

The ToR for the project was granted by the Ministry vide letter dated on 7<sup>th</sup> August 2017. Public hearing for the project has been exempted as per the provisions contained in para 7 (ii) of the EIA Notification, 2006. The Member Secretary informed to the Committee that as per provisions of Para 11 of the EIA Notification 2006, PP has to apply for transfer of EC online on the Parivesh Portal.

Existing land area is 350 ha. No additional land will be required for the proposed expansion. Industry has developed greenbelt in an area of 105 ha out of total plot area and the same will be strengthened. The estimated project cost is Rs.2270 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.47 crores and the recurring cost will be about Rs.7.6 crores per annum. Employment is provided to 3000 (direct & indirect) persons & no additional manpower would be required for the proposed project.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. Mahi river flows at a distance of 3 km in west direction.

**15.3.9.3** The EAC, after detailed deliberations, noted that as the project site is located inside the critically polluted area declared by CPCB i.e. Vadodara, the proposal need to be examined as per the Ministry's OM dated 31<sup>st</sup> October, 2019. Also, the EAC was accordingly accepted for recommendation subject to submission of the following documents.

- (i). PP to provide ZLD with in 3 years after the grant of EC
- (ii). The project proponent shall submit proposal for transfer of EC at Ministry's online portal as per the procedure laid down in the EIA Notification with in 15 days after the grant of EC falling which the EC shall stand auto revoked.
- (iii). PP shall resubmit the copy of all the consent granted.

- (iv). PP shall adhere the all applicable provisions of CPA as per the Ministry's OM dated 31<sup>st</sup> October, 2019 on including i.e. increase in green belt by 40 % of the total land area beyond the permissible requirement of 33% and 2 (two) times of CER.
- (v). PP shall not be permitted to use *pet coke*.

The Committee desired that the PP/Consultant to once read the documents before submitting to the EAC for appraisal.

## **15.4 Any Other**

### **Agenda No. 15.4.1**

#### **BS-VI fuel quality up-gradation and expansion of PX/PTA Plant at Panipat Refinery & Petrochemical Complex (PRPC), Panipat (Haryana) by M/s IOCL - Amendment in Environment Clearance.**

**[IA/HR/IND2/122779/2019, J-11011/177/2016- IA II(I)]**

**15.4.1.1** The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 26<sup>th</sup> March, 2019 in favour of M/s IOCL for the project BS-VI fuel quality up-gradation and expansion of PX/PTA Plant at Panipat Refinery & Petrochemical Complex (PRPC), Panipat (Haryana).

**15.4.1.2** The project proponent has now requested for amendment in the EC to install a IndResid Demo Plant of capacity 850 Kg/hr for R&D purpose. It does not envisage any modernization or capacity expansion of existing plant and will not be any impact on environment as no additional effluent will be generated and no fuel will be used.

**15.4.1.3** The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order.

The EAC, after detailed deliberations, the EAC is of the view that the said facility is for R&D and demo purpose for showcasing the achievement in technological aspects. Also there is no increase in the capacity of existing plant and there may not be any impact due to this facility. The Committee made due diligence on the proposal and accordingly **recommended** the amendments in EC to install a IndResid Demo Plant of capacity 850 Kg/hr for R&D purpose.

### **Agenda No. 15.4.2**

#### **Molasses/Grain based Distillery 945 KLD), Co-generation Plant (30 MW) and Captive Power Plant (1.5MW) at S.F.No.51, village Makavalli, Tehsil Krishnarajpet, District**

**Mandya, Karnataka by M/s Coromandel Sugars Ltd – Amendment in Environmental Clearance.**

**[IA/KA/IND2/125303/2019, J-11011/565/2010-IA II (I)]**

**15.4.2.1** The proposal is for extension in validity of the Environmental Clearance granted by the Ministry vide letter number J-11011/565/2010-IA II (I) dated 31<sup>st</sup> December 2012 for the project M/s Coromandel sugars located at Survey No. 151, Makavalli Village, Krishnarajpet Taluk, Mandya District.

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

<b>Sl. 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 by PP</b>
1.	Validity is not mentioned in the EC letter issued	Validity of the EC as per Office memorandum no. 22-27/2015-IA-III dated 12 <sup>th</sup> April 2016 is 7 years	The validity of the EC is extended by 3 years	Due to Hon'ble NGT court case the considerable amount of time is lost in erection of the distillery in the litigation before the NGT and in the process our financial conditions also got affected. We are now planning to proceed with the installation of the distillery plant without any change in the configuration.  Hence, we request you to kindly consider for the extension / validity of EC and oblige.
2.	<ul style="list-style-type: none"> <li>• Subject of Environmental clearance letter</li> <li>• Point Number 2.0 of Environmental clearance letter</li> </ul>	S.F. No.51	S.F. No mentioned as 51 in the EC, to be amended as Survey No. 151	Typographical error in the application submitted earlier is to be corrected now.

**15.4.2.2** The EAC, during deliberations, noted that in the Certified Compliance report dated 27<sup>th</sup> December, 2019 received from Ministry's Regional office at Bangalore, it is mentioned that during the monitoring visit, several non-compliances to EC conditions were noted. The EAC suggested to submit action taken report on each non complied points mentioned in the report dated 27<sup>th</sup> December, 2019. The proposal for validity extension will be taken up after the receipt of said action taken report duly forwarded by the Ministry's Regional office. The proposal was therefore **deferred**.

### **Agenda No. 15.4.3**

**Expansion of Specialty Chemicals, Pesticide, Fluoro Chemicals & Captive Power Plant by M/s SRF Limited at Plot No. D-2/1, Village Suva, GIDC Phase II, Dahej, Taluka Vagra, District Bharuch (Gujarat) – Amendment in Environment Clearance.**

**[IA/GJ/IND2/128318/2019, J- 11011/379/2016-IA.II(I)]**

**15.4.3.1** The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter F.No. J-11011/379/2016-IA II (I) dated 19<sup>th</sup> December 2017 for the project Expansion of Specialty Chemicals, Pesticide, Fluoro Chemicals & Captive Power Plant in favour of M/s SRF Limited at Plot No. D-2/1, Village Suva, GIDC Phase II, Dahej, Taluka Vagra, District Bharuch (Gujarat).

**15.4.3.2** The project proponent has requested for amendment in the EC with the details are 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 as/ read as</b>	<b>Justification/ reasons</b>
1.	<b>Condition No. 12 Sub Condition : (t)</b>	Raw Materials Storage should not exceed 3 days at any point of time	Raw Materials Storage should be kept in a safe manner at any point of time	We are using raw materials, which are either imported or procured from various corners of India. It is practically not possible to store inventory of only 3 days for following reasons: <b>1. Lot size:</b> If RMs are imported (ISOs or containers), minimum inventory would be about 20 MT. How many days of inventory is sufficient would then depend upon plant capacity. Many of our key RMs are not available domestically, so it is practically not possible to avoid imports. <b>2. Campaigns:</b> If the company is taking a campaign, RMs are ordered based on planned production.

				<p>a. Delayed startup: If the startup of the campaign is delayed due to any reason, inventory would build up initially and eventually get consumed when the campaign is taken.</p> <p>b. Delayed achievement of yield/capacity: If a new product is being commercialized, sometimes it takes some time to achieve design yield/ capacity. While the plant is yet to achieve design capacity, the same quantity of inventory can represent many more days of consumption.</p> <p>c. Delayed achievement of product quality: If a new product is being commercialized, sometimes it takes some time to achieve the right product quality. In the interim, we may have some work-in-progress that is to be reprocessed and/or blended with subsequent good material before dispatch. Until the batch is completed, the work-in-progress reflects as inventory.</p> <p>d. Better than expected solvent recovery: The company does its best to recover solvents and estimates requirement conservatively. To the extent, actual recovery is better than plan, solvent inventory would be more than plan, and the impact may be substantial.</p> <p>3. <b>Extended BCTs:</b> We have processes that may take 7,10, 15, 20, even 45 days before the final product comes out. The RM consumption would reflect as on-site inventory till such time production is declared. It is practically impossible to have not more than 3 days of RM inventory if we have 45 days' of RMs in the process.</p> <p>4. <b>Safety and Ownership of Hazardous Inventory:</b> The company would prefer to keep hazardous inventory on-site rather than leaving it at dealers, suppliers or (bonded) warehouses as we feel we are much more competent and equipped to ensure safe storage and handling of</p>
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				<p>hazardous chemicals. On-site inventory may therefore be higher than what other industries (e.g., automobiles) may find necessary.</p> <p>5. <b>Reduction of Risk:</b> Some key RMs are made by very few suppliers, or specially for us against an order. Further, customer contracts sometimes have heavy penalties for non-delivery (e.g., 5 million dollars for late or incomplete delivery). To protect itself and minimize risk of breach of contract, the company may be forced to take and keep inventory at the time it is available to ensure we are able to produce and dispatch in line with commitments. e.g.: BTF, mABTF.</p> <p>6. <b>Safeguard against Unplanned Plant Downtimes:</b> There are gaps in production due to unplanned plant downtimes. Some inventory is kept to safeguard against unplanned downtime of a feedstock plant based on statistical analysis of historical downtimes. e.g.: 1,1,2,2-Tetrafluoroethyl Methyl Ether.</p> <p>7. <b>Safeguard against Planned Plant Downtimes:</b> Specific inventory may be built up to feed downstream plants if an upstream plant will be shut down for planned maintenance, enhancement in capacity, improvement in process to improve yield and/or production capacities. To keep the downstream plant operating while the upstream plant is down, RM inventory for the downstream plant would be built up before the shutdown, and this would be more than 3 days' worth.</p> <p>8. Some raw materials are dispatched in standard packing/ container /packing size hence we can break consignments as per our consumption pattern of three days.</p> <p>9. Import of some material happens in bulk containers – in this case unloading of inventory of more than three days comes by default. For example, daily consumption of</p>
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				<p>one material in ONE ton and packing size is of TWENTY TONS then how it will be possible to import and store inventory of THREE TONS</p> <p>10. Strategic Raw material (i.e. Fluorspar), availability worldwide is challenge so procured with bulk ordering and imported in bulk. Spar is not available locally.</p> <p>11. In house AHF/TCE/PCE generation and consumption. Critical raw material for all HFC plants and Speciality Chemicals. AHF/TCE/PCE plant goes in shutdown once in every 35 ~ 40 days during this period; stock goes down. So, this minimum seven-day stock margin will be needed.</p>
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**15.4.3.3** The Committee noted that there are considerable number of Raw Materials envisaged in the storage. PP is unable to provide the list of raw material involve in the proposal. The Committee want to know the hazard nature of the raw material as per MSIHC Rule. The EAC, after detailed deliberations, has asked for clarification/inputs, in respect of the following: -

- (i) Data base of additional raw material in respect of hazardous chemicals.
- (ii) Risk assessment study shall be carried out by using advanced model.
- (iii) Details of locally available raw materials and imported raw materials.
- (iv) Certified compliance report of existing EC dated 19<sup>th</sup> December 2017.
- (v) Details of developed green belt.
- (vi) Status of implementation report on the issues raised during PH and implementation of CER/ESC

The proposal is therefore **deferred** for want of above mentioned additional information.

**DAY 2: 31<sup>st</sup> December 2019 (Tuesday)**

**15.5 Consideration of Environmental Clearance**

**Agenda No.15.5.1**

**Establishment of Pesticide specific intermediates & Synthetic Organic Chemicals Manufacturing Facility at Plot No 53A, MIDC Roha, Dist- Raigad (Maharashtra) by M/s Deepak Nitrite Limited- Consideration of Environmental Clearance.**

[IA/MH/IND2/90992/2019, IA-J-11011/17/2019-IA-II(I)]

The project proponent and their accredited Consultant M/s Aditya Environmental Services Pvt. Ltd. made a detailed presentation of the project.

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

The proposal is for environmental clearance to the project for Establishment of pesticide specific intermediate and synthetic organic chemicals manufacturing facility of capacity 12540 TPA by M/s Deepak Nitrite Limited in an area of 20224 sqm located at Plot No 53A, MIDC Roha, District Raigad, Maharashtra.

Details of products and by-products are as under:

<b>S.No.</b>	<b>Product</b>	<b>Quantity (TPA)</b>
1	Triazinone	4500
2	Thiocarbohydrazide (TCH)	
3	ADENINE (6- Amino Purine)	2000
4	3-NAP (3 Nitro acetophenone)	
5	3-AAP (3 Amino acetophenone)	
6	3-HAP (3 Hydroxy acetophenone)	
7	2,3-Xylenol	
8	2,4-Xylenol	
9	2,5-Xylenol	
10	Phenyl Hydrazine	600
11	SMIA (2-Furanacetic acid, $\alpha$ -(methoxyimino)-, ammonium salt)	
12	DBTZ (Quetiapine Int.) (Dibenzo[b,f][1,4]thiazepine-11(10H)- one)	2000
13	Guanine	
14	Aciclovir	
15	PMPA (TENOFIVIR) ((R)-9-[2-Phosphonomethoxy) propyl] adenine)	
16	Omeprazole Chloro Intermediate (2-Chloromethyl-3,5-Dimethyl-4-methoxy pyridine hydrochloride)	
17	Omeprazole Nitro Intermediate (2,3,5-trimethyl-4-nitropyridine N-oxide)	
18	7-ETP (7-Ethyl tryptophol) Etodolac intermediate	

19	S-Alcohol (Duloxetine Intermediate)	
20	2-Methyl-3-Amino Benzotrifluoride (MTA)	
21	3-ABTF (3 Amino benzotrifluoride)	2000
22	TFMAP (3-Triflouromethyl Acetophenone)	
23	Pilot Plant products (Synthetic Organic Chemicals)	240
24	Distillation of crude Chemicals/solvents such as Nitroxylens, Nitrocumens, crude Toluene, Crude benzotrifluoride, Crude Methanol etc, Spent acid recovery, Formamide recovery	1200
	<b>Total</b>	<b>12540</b>

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 at central level by the sectoral EAC in the Ministry.

Standard ToR for the project was granted on 26<sup>th</sup> February 2019. Public hearing is exempted as per para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27<sup>th</sup> April 2018, as the project site is located in the notified industrial area.

Project Proponent reported that the Land area available for the project is 20,224 sqm. Industry will develop greenbelt in an area of 6767 sqm covering 33.46% of total project area. The estimated project cost is Rs. 150 crores. Total capital cost earmarked towards environmental pollution measures is Rs. 10 crores & the recurring cost (operation & maintenance) will be about Rs. 4.37 crores per annum. The project will provide employment for 500 persons direct & 1000 persons indirectly. Industry proposes to allocate Rs. 225 Lakhs (@ of 1.5%) towards Corporate Environment Responsibility.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Village Dhatav wherein the Roha MIDC is setup has appeared in the list of ESA village of Western Ghats (Ecological Sensitive Area Village) draft notification dated 14.03.2014, 04.09.2015, 27.02.2017 and 03.10.2018. Kundalika River is flowing at a distance of 0.8 km in north direction.

Project Proponent reported that the Ambient air quality monitoring was carried out at 8 locations during 1<sup>st</sup> March 2019 to 31<sup>st</sup> May 2019 and baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (52.4 to 79.2 µg/m<sup>3</sup>), PM<sub>2.5</sub> (18.6 to 37.5 µg/m<sup>3</sup>), SO<sub>2</sub> (9.5 to 18.5 µg/m<sup>3</sup>), NO<sub>x</sub> (15.3 to 32.8 µg/m<sup>3</sup>), CO (0.17 to 0.44 mg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.31 µg/m<sup>3</sup>, 4.33 µg/m<sup>3</sup> & 1.62 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> &

NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is estimated to be 1756 cum/day, which includes fresh water requirement of 1726 cum/day, proposed to be met from MIDC and remaining 30 cum/day will be met from treated effluent from STP. Effluent of 937 cum/day will be treated through ETP, RO, MEE with stripper and treated effluent will be discharged to CETP. Separate STP of 30 cum/day capacity will be provided. Treated sewage of 30 cum/day will be used for green belt maintenance within site.

Power requirement for proposed project will be 5000 KVA and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). DG sets (3x1000 KVA) will be used as standby during power failure. Stack will be provided as per CPCB norms to the proposed DG sets. Coal fired boiler of capacity 20 TPH will be installed. Mechanical dust collector followed by ESP with a stack height of 47 m will be installed for controlling the Particulate emissions within statutory limit of 50 mg/Nm<sup>3</sup>.

Project Proponent reported that the details of solid waste/ Hazardous waste generation and its management.

#### **Solid waste generation & it's disposal**

<b>Type of waste</b>	<b>Quantity</b>	<b>Disposal</b>
Boiler ash	8 TPD	Sale to brick manufacturer.
Insulating Material	2 TPA	To CHWTSDF, Taloja / Sale to authorized party
Glass ware / Broken Discarded Glass	1 TPA	To CHWTSDF, Taloja / Sale to authorized party
Rubber hand gloves/PVC shoes/Tarpaulin/paper bags/ paper waste etc.	2 TPA	To CHWTSDF, Taloja / Sale to authorized party

#### **Hazardous waste generation & it's disposal**

<b>Type of waste</b>	<b>Cate- gory</b>	<b>Quantity per Annum</b>	<b>Method of Disposal</b>
MEE Salt	35.3	10800 MT	To CHWTSDF for landfill
Hyflow		127.8 MT	
Iron Sludge	35.3	766.8 MT	To CHWTSDF for landfill or to MPCB authorized reprocessor
Process waste (Organic)	35.3	799.3 MT	To CHWTSDF for incineration <b>OR</b> Co- Processing in Cement plant
Charcoal Sludge	36.2	174.4 MT	

Residue	36.2	654.3 MT	
Spent Catalyst	19.2	63.8 MT	Sell / Regeneration & Re-use
Waste /Residue Containing Oil	33.2	1.04 KL	To CHWTSDF for landfill
Used /Spent Oil	5.1	2.8 MT	selling to registered recyclers OR Reused as Lubricant within premises
Empty barrels/ containers/liners contaminated with hazardous chemicals /wastes	33.1	100 MT	selling to scrap vendors

**15.5.1.2** The EAC, after detailed deliberations noted that the project details mentioned in the EIA/EMP report were not consistent with that presented during the meeting. The Committee took serious objection on the project proponent M/s Deepak Nitrite Limited/Consultant and noted that the EAC in its meeting held during November, 2019 has advised the proponent to improve the quality of the report and presentation, however, same issues persists. The EAC, after detailed deliberations **decided to return the proposal in its present form**, and has asked for clarification/inputs, in respect of the following:-

- (i) The Committee noted that Consultant has not followed the generic structure of the EIA Notification, 2006. EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) The Committee noted that there are various deficiencies in Form 2 uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (iii) Suitability of the project site and permissibility of pesticide industry in the Village Dhatav/Roha MIDC, which is listed as Western Ghats Ecological Sensitive Area, and in view of Ministry's direction regarding setting up of industries in the said ESAs. In this context, the comments of ESZ Division may also be sought on Western Ghats Ecological Sensitive Area.
- (iv) Effluent treatment mechanism with plan for Zero Liquid Discharge. Adequacy/capacity of treated STP water proposed to be reused in the process and greenbelt.
- (v) Product list to be revised vis-à-vis the EIA Notification, 2006 (item 5 (b)/5(f)).
- (vi) The consultant mentioned in the EIA report that the baseline data was conducted in March-May 2019, however the laboratory accreditation was only up to 30.04.2019. Consultant was unable to explain the issues. The Committee also observed that the water quality analysis reported wrongly wherein the value of TDS was less than the

Sr. No.	Name of Product	Category Type.	Existing ( MTPA)	Proposed ( MTPA)	Total ( MTPA )
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total cation/anion in the sample. Consultant need to conduct root cause analysis and examine the issues why such error reported in the report. Consultant to re- monitor the three month data through MOEFCC or NABL accredited Laboratory and submit their accreditation certificate along with details parameters given authorization by the accreditation/approval Agency. Act of the Consultant be reported to QCI/NABET for the lapse.

- (vii) Process emissions generation and its management.
- (viii) Conservation plan with budgetary provisions for Schedule 1 species, needs to be submitted to CWLW.
- (ix) Plan for Corporate Environmental Responsibility.
- (x) Occupational Health Plan.
- (xi) Safety and risk assessment study using advanced models.

The proposal was accordingly **returned** in its present form.

### **Agenda No. 15.5.2**

#### **Expansion of Synthetic Organic Chemicals (API's & Intermediates) Manufacturing Facility at Plot No. 31 to 35, 48 to 51, 1 to 5, 26 & K/ Gut No 201, Lakhmapur, Tal-Dindori Distt.- Nashik (Maharashtra) by M/s MEGAFINE PHARMA PVT LTD- Consideration of Environmental Clearance.**

[IA/MH/IND2/50828/2016, J-11011/91/2016- IA II(I)]

The project proponent and their accredited Consultant M/s. Aditya Environmental Services Pvt. Ltd., made a detailed presentation on the salient features of the project.

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

The proposal is for environmental clearance to the project for Expansion of Synthetic Organic Chemicals (API's & Intermediates) Manufacturing Facility from 338.3 TPA 650 TPA by Megafine Pharma (P) Ltd in an area of 23605 sqm located at Plot No. 31 to 35, 48 to 51, 1 to 5, 26 & K/Gut No 201, Lakhmapur, Taluka Dindori, District Nashik, Maharashtra.

The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 11<sup>th</sup> meeting held during 20<sup>th</sup>-21<sup>st</sup> July 2016 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter dated 23<sup>rd</sup> September 2016 and application for extension of the ToR validity has also been submitted in the Ministry.

Details of existing and proposed products are as under:

1	Apixaban	Anti - Coagulant	0.45	9.15	9.60
2	Ethyl chloro [(4-methoxyphenyl)hydrazono]acetate (EPA)				
3	3, 3-dichloro-1-(4-nitrophenyl)piperdin-2-one ( APBIII)				
4	1-(4-nitrophenyl)-3-morpholin-4-yl-5,6-dihydropyridin-2(1H)-one (APV IV)				
5	Ethyl 6-(4-nitrophenyl)-1-(4-methoxyphenyl)-7-oxo-4,5,6,7-tetrahydro-1H-pyrazolo[3,4-c]pyridine-3-carboxylicacid ethyl ester (APB VI)				
6	Dabigatran Etxilate Mesylate				
7	Ethyl 3-(4-(methylamino)-3-nitro-N-(pyridin-2-yl)benzamido) propanoate (DEM I)				
8	3-[(3-Amino-4-methylaminobenzoyl)pyridin-2-ylamino] propionic acid ethyl ester (DEM II)				
9	3-[[[2-[(4-Cyanophenyl)amino]methyl]-1-methyl-1H-benzimidazol-5-yl]carbonyl]Pyridine-2-ylamino]propionic acid ethyl ester(DEM III)				
10	Ethyl 3-(2-((4-carbamimidoylphenylamino)methyl)-1-methyl-N-(pyridin-2-yl)-1Hbenzo[d]imidazole-5-carboxamido)propanoate HCl (DEM IV)				
11	Dabigatran Etxilate				
12	Rivaroxaban				
13	4-(4-Aminophenyl)-3-morpholinone (AMO)				
14	2-({(5S)-2-Oxo-3-[4-(3-oxomorpholin-4-yl)phenyl]-1,3-oxazolidin-5-yl}methyl)-1H-isoindole-1,3(2H)-dione (RIVII)				

15	4-{4-[(5S)-5-(Aminomethyl)-2-oxo-1,3-oxazolidin-3-yl]phenyl}morpholin-3-one HCl (RIV III)				
16	2-[(S)-2-Oxiranylmethyl]-1H-isoindole-1,3-(2H)-dione (OXI)				
17	Edoxaban				
18	Ethyl [(5-chloropyridin-2-yl)amino](oxo)acetate (CPO)				
19	5-methyl-4,5,6,7-tetrahydrothiazolo[5,4-c] pyridine-2-carboxylic Acid hydrochloride (MTP)				
20	Tert-Butyl(1R,2S,5S)-2-azido-5-[(dimethylamino) carbonyl]cyclohexylcarbamate (ADC)				
21	5-(4-bromophenyl)-4,6-dichloropyrimidine (BDP)				
22	Desvenlafaxine Succinate Monohydrate		46.30	61.80	108.10
23	Mirtazapine (Anhydrous / Hemihydrate)				
24	N-Methyl-3-phenyl piperazine (NM3 PP)				
25	1-(3-Hydroxymethyl pyridyl-2)-2-phenyl-4-methylpiperazine (HMPPMP)	Anti-Depressants			
26	1-(3-Carboxy Pyridyl-2)-2-Phenyl-4-Methyl Piperazine (HMA)				
27	Venlafaxine Hydrochloride				
28	1-[2-(Amino)-1-(4-methoxyphenyl ethyl)]cyclohexanol HCl (AMCH)				
29	1-[2-(Amino)-1-(4-methoxyphenyl ethyl)]cyclohexanol acetate(AMCA)				
30	Vilazodone Hydrochloride				
31	Ethyl-5-aminobenzofuran-2-carboxylate (EABC)				
32	3-(4-Chlorobutyl)-1H-indole-5-carbonitrile (CIC)	Anti-			

33	Ethyl 5-piperazin-1-yl-1-benzofuran-2-carboxylate (PBC)	Depressants			
34	Vortioxetine Hydrobromide				
35	2,4-dimethyl-1-[(2-nitrophenyl)thio]benzene ( VOR-I)				
36	2,4 -dimethyl-benzenethiol (DMT)				
37	Duloxetine Hydrochloride				
38	Brexipiprazole				
39	1-(1-benzothiophen-4-yl) piperazine (BTP)				
40	Prasugrel Hydrochloride	Thrombotic	0.25	2.25	2.50
41	Prasugrel Free base				
42	Donepezil Hydrochloride	Alzheimer	4.00	3.50	7.50
43	5,6-Dimethoxy-2-(pyridin-4-yl methylene)-indan-1-one (DOH IV)				
44	1-Benzyl piperidine-4-carbaldehyde (NBPCHO)				
45	1-Benzyl-4-[(5,6-dimethoxy indanon)-2-ylidenyl] methylpiperidine (DON 1)				
46	2-(1-benzyl-1,2,3,6-tetrahydropyridine-4yl) methylene-5,6-dimethoxy indan-1-onehydrochloride (Diene Crystallised)				
47	Memantine Hydrochloride				
48	Ivabradine Hydrochloride	Antianginal	0.10	0.45	0.55
49	(S)-N-{(3, 4-Dimethoxybenzocyclobut-1-yl)}-N-(methyl)-N-(methyl) amine HCl - MBC.HCl				
50	Ambrisentan		57.20	3.25	60.45
51	2-Hydroxy-3-methoxy-3,3-diphenylpropanoic acid (DPA III)				
52	(2S)-2-Hydroxy-3-methoxy-3,3-diphenylpropanoic acid (DPA IV)				

53	Bosentan Monohydrate	Anti - Hypertensive			
54	4,6-Dichloro-5-(2-methoxyphenoxy)-2,2'-bipyrimidine ( DMB)				
55	Macitentan				
56	Riociguat				
57	1-(2-fluorobenzyl)-1H-pyrazolo [3,4-b]pyridine-3-carboximidamide (FPC)				
58	[(E)-Phenyl diazenyl]Malononitrile(RGT-II)				
59	Selexipag				
60	4-Isopropylamino butanol (4-IAV)	Anti - Hypertensive			
61	Ammonium Benzene Sulfonate (ABS)				
62	2-Ethoxy-5-(4-Methyl Piperazinyl Sulfonyl) Benzoic Acid (SIL-III)				
63	4-amino-1-Methyl-3-n-propyl-5-pyrazolecarboxamide hydrochloride (MPC-VII)				
64	Asenapine Maleate		54.50	48.30	102.80
65	11-Chloro-2,3-dihydro-2-methyl-1H-dibenz[2,3:6,7]oxepino[4,5-c]pyrrol-1-one (DOP)				
66	Trans-11-Chloro-2,3,3a, 12b-tetrahydro-2-methyl-1H-dibenz [2, 3:6, 7] oxepino [4,5-c]pyrrol-1-one (TOP)				
67	Iloperidone	Schizophrenia			
68	1-[4-(3-Chloropropoxy)-3-methoxyphenyl]ethanone (CME)				
69	Lurasidone Hydrochloride				
70	(1R,2R)-Cyclohexane-1,2-diyldimethanol (HMC)				
71	3-Piperazin-1-yl-1,2-benzisothiazole (PBT FB)				
72	(3aR,4S,7R,7aS)-hexahydro-4,7-methano-2H-isoindole-1,3-				

	dione (BHC)			
73	Paliperidone			
74	3-(2-Chloroethyl)-9-hydroxy-2-methyl-6,7,8,9-tetrahydro-4H-pyrido-[1,2-a]pyrimidin-4-one (CHP)			
75	Quetiapine Hemifumarate / Fumarate			
76	Dibenzo-[b,f][1,4]-thiazepine-11(10H)-one (DTO)			
77	N-[Dibenzo-[b,f][1,4]-thiazepine-11-yl] piperazine di-HCl (DTPD)			
78	1-(2-(2-Hydroxyethoxy)-ethyl) piperazine (HEEP)			
79	Ziprasidone Hydrochloride Monohydrate			
80	6-Chloro-2-oxindole (6CO)			
81	6-Chloro-5-(chloroacetyl)-1,3-dihydro-2H-indole-2-one			
82	6-Chloro-5-(chloroethyl)-1,3-dihydro-2H-indole-2-one (Zip II)			
83	3-Piperazin-1-yl-1,2-benzisothiazole HCl (PBT HCL)			
84	Blonanserin			
85	Cariprazine			
86	N-[trans-4-(2-oxoethyl)cyclohexyl]-, 1,1-dimethylethyl ester (CRP-II)			
87	Trans-(4-amino-cyclohexyl)-acetic Acid (CRP-I)			
88	Trans-(4-amino-cyclohexyl)acetic Acid ethyl ester			
89	Paliperidone Palmitate			
90	N-Ethoxycarbonyl piperazine (NCP)			
91	Mirabegron		1.55	2.40
92	2-(4-Nitrophenyl) ethanamine HCl (NPA. HCL)			3.95

93	R-2-Hydroxy-N-[2-(4-nitrophenyl)ethyl]-2-phenylacetamide (MBR I)	Over Active Bladder			
94	(R)-2-[2'-(4-Nitrophenyl)ethyl]amino]-1-phenylethanol HCl (MBR II)				
95	R-2-[[2-(4-Aminophenyl)ethyl]-amino]-1-phenylethanol HCl (MBR III)				
96	Solifenacin Succinate				
97	(1S)-1-Phenyl-1,2,3,4-tetrahydroisoquinoline (PTQ IV)				
98	Darifenacine Hydrobromide				
99	(S)-2,2-Diphenyl-2-(pyrrolidin-3-yl)acetamide tartrate (DAR-IV)				
100	Teriflunomide	Multiple Sclerosis	12.00	-7.00	5.00
101	5-methylisoxazole-4-carboxylic acid (MIC)				
102	Ticagrelor	Acute coronary syndrome	0.35	0.20	0.55
103	4,6-Dichloro-2-(propylthio)pyrimidin-5-amine (GTR-03)				
104	Apremilast	Psoriatic Arthritis	0.00	1.50	1.50
105	3-acetamidophthalic anhydride(APA)				
106	(S)-2-(3-Ethoxy-4-methoxyphenyl)-1-methylsulphonyl)-eth-2yl amine (EMS)				
107	Ivacaftor	Cystic Fibrosis	0.00	1.10	1.10
108	4-Oxo-1,4-dihydroquinoline-3-carboxylic acid ethyl ester (ODC)				
109	5-Amino-2,4-di-tert-butylphenol (ADP)				
110	Lumacaftor				
111	Suvorexant	Insomnia	0.00	0.80	0.80
112	Benzyl (5R)-5-methyl-1,4-diazepane-1-carboxylate				

	hydrochloride (MDA)				
113	Netupitant	Antiemetic	0.00	0.60	0.60
114	Rolapitant				
115	Vildagliptin	Antidiabetic	0.50	3.50	4.00
116	3-Aminoadamantan-1-ol (HAA)				
117	(2S)-1-(Chloroacetyl) pyrrolidine-2-carbonitrile (CCP - II)				
118	Brinzolamide	Anti ocular Hypertensive	0.10	0.40	0.50
119	N-phenyl piperazine (NPP)	Cough suppressant & not antidepressants	0.00	11.00	11.00
120	1-(2,4-Difluorophenyl)-2-(1H 1,2,4-triazol-1-yl)-1-ethanone (DFTA-III)	Antifungal	25.00	0.00	25.00
121	Morantel Citrate	Anthelmintic	136.00	164.00	300.00
122	3 Methyl Thiophene -2- Aldehyde (3MT2A)				
123	Morantel Tartrate				
124	Oxantel Pamoate				
125	Pyrantel Pamoate / Embonate				
126	Disodium Pamoate (DSP)				
127	Pamoic Acid (PA)				
128	Thiophene -2- Aldehyde (T2A)				
129	1,2-Dimethyl-1,4,5,6-tetrahydropyrimidine (THP)				
130	Pyrantel Tartrate / Zeolex				
131	Piperazine Dihydrochloride				
132	Neostigmine Methyl Sulphate	Post Operative Distention	0.00	0.50	0.50
133	Cinacalcet Hydrochloride	Antihyperparathyroidis	0	4.00	4
134	R)-(+)-1-(1-Naphthyl) ethylamine HCl -RNA(IV)				

135	3-[3-(Trifluoromethyl) phenyl] propanol-TPP-II	m			
136	1-(3-Bromopropyl)-3-(trifluoromethyl) benzene-TPP-III				
137	R&D	For All Above Products	0	0.00	0
<b>Total Annual Capacity</b>			<b>338.30</b>	<b>311.70</b>	<b>650</b>

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

Public Hearing for the project has been conducted by the Maharashtra State Pollution Control Board on 7<sup>th</sup> September 2019 under the Chairmanship of Additional District Magistrate. The main issues raised during the public hearing are related to employment to the local people, safety and security of the plan, e-waste, Corporate Social Responsibility, etc. The Committee deliberated the action plan submitted by the PP and found that the action plan alongwith the budgetary provision to be satisfactory and addressing the concerns raised during the public hearing.

PP reported that the total plot area available for the project is 23,605 sqm. Existing built up area is 21,347.05 sqm, additional 6,185 sqm built up area will be used for proposed expansion. Industry has initially planned to develop Green belt in an area of 8,170 sqm, covering 34.61% of total plot area, which will be now enhanced to achieve 40% greenbelt in the area. The estimated project cost is Rs. 75 crores and existing investment is Rs. 128.78 crores. Total capital cost earmarked towards environmental pollution measures is Rs. 3 Crores & the recurring cost (O&M) will be about Rs. 2.89 crores per annum. The project will provide employment for 100 persons directly & 500 persons 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. Kadwa river (S) is flowing at a distance of 1.1 km.

PP reported that the Ambient air quality monitoring was carried out at 8 locations during 6<sup>th</sup> March 2017 to 25<sup>th</sup> May 2017 and baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (46.7 to 69.2 µg/m<sup>3</sup>), PM<sub>2.5</sub> (12.9 to 22.1 µg/m<sup>3</sup>), SO<sub>2</sub> (7.8 to 15.1 µg/m<sup>3</sup>), NOx (7.7 to 15.6 µg/m<sup>3</sup>), CO (0.18 to 0.72 mg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.78 µg/m<sup>3</sup>, 1.87 µg/m<sup>3</sup> & 0.53 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> & NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is estimated to be 450 cum/day, which includes fresh water requirement of 300 cum/day, proposed to be met from Irrigation Department. Permission in this regard has been obtained from the concerned authority. Effluent of 150 cum/day will be treated through ETP, RO & MEE. 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 2990 KVA, which will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Existing unit has two DG sets of 750 KVA capacity & additionally two DG sets of 750 KVA will be set up as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 2 TPH&3 TPH IBR/briquette fired boiler, 2 Lakh kcal/ hr Thermic Fluid heater & 0.6 TPH non IBR boiler. Additionally, 6 TPH & 3 TPH IBR/briquette fired boiler will be installed replacing existing 2 TPH IBR/briquette boiler & 0.6 TPH non IBR boiler. Mechanical dust collector with stack height of 30.4 m each will be installed for controlling the Particulate emissions within statutory limit of 150 mg/Nm<sup>3</sup>.

Details of solid waste/ Hazardous waste generation and its management.

### Solid waste generation & it's disposal

S. No.	Type of Waste	UOM	Existing Qty.	Add. Qty.	Total	Disposal Method
1	Boiler ash	TPD	0.8	2.24	3.04	Landfill / brick manufacturer
2	Empty Containers (MS/ GI/ Fiber Drums etc.)	Nos/A	720	6000	6720	After decontamination sale to scrap dealer
3	HDPE bags	Nos./A	3000	6000	9000	After decontamination sale to scrap dealer
4	Paper waste	TPA	-	1.8	1.8	Sale to scrap dealer
5	Scrap (MS/SS)	TPA	-	60	60	Sale to scrap dealer
6	Garden waste	TPA	-	6	6	Composting & used as manure
7	Food waste	TPA	-	40	40	Composting & used as manure
8	Discarded Aprons and Uniforms	TPA	-	0.6	0.6	Sale to Scrap dealer Or used in cleaning purpose in maintenance activities.
9	Packing materials e.g. wood.	TPA	-	6	6	Sale to scrap dealer
10	Empty glass bottles	Nos./A	-	6000	6000	After decontamination sale to scrap dealer

### Hazardous waste generation & it's disposal

Sr. No	Category	Type of Waste	UOM	Existing Qty.	Add. Qty.	Total	Disposal Methods
1	5.1	Used or spent oil	TPA	0.5	6.0	6.5	Sale to authorized recycler
2	5.2	Waste / residue containing oil	TPA	0.10	1.0	1.1	CHWTSDF
3	20.3	Distillation residues	TPA	2.58	12	14.58	CHWTSDF
4	28.1	Process Residue and wastes	TPA	--	100	100	CHWTSDF
5	28.2	Spent catalyst	TPA	0.15	2.0	2.15	Recovered and Recycled.
6	28.3	Spent carbon	TPA	4.90	25	29.9	CHWTSDF
7	28.4	Off specification products	TPA	--	12	12	CHWTSDF
8	28.5	Date-expired products	TPA	--	6	6	CHWTSDF
9	28.6	Spent Organic solvents	TPA	2220.8	--	2220.8	Sale to authorized recycler
10	33.1	Empty barrels/ containers/liners contaminated with hazardous chemicals /wastes	Nos./ A	5400	Barrel s: 6000	Barrels: 11400	Sale to authorized recycler.
			TPA		Liners: 2.4	Liners:2.4	
11	35.3	Chemical sludge from waste water treatment	TPA	237.94	--	237.94	CHWTSDF
12	36.2	Filter and filter materials which have organic liquid.	TPA	2.49	1.51	4	CHWTSDF
13	As per Schedule	E- waste	TPA	--	3	3	Authorized Agency

<b>Sr. No</b>	<b>Category</b>	<b>Type of Waste</b>	<b>UOM</b>	<b>Existing Qty.</b>	<b>Add. Qty.</b>	<b>Total</b>	<b>Disposal Methods</b>
	-I of E waste Managem ent Rules- 2016						
14	As per BMW Rules, 2016	Bio medical waste	TPA	--	0.1	0.1	CBMWTSDF
15	As per Batteries Rules, 2016	Discarded Batteries	Nos./ A	--	25	2	Authorized Recycler

The existing unit is reported to be in operation before the year 2006 with Consent to Establish/operate from the State PCB. It is informed that no litigation is pending against the project.

It was informed that 4% of the total project amount shall be allocated towards Corporate Environment Responsibility (CER). The Committee has deliberated on the CER plan and found to be satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that 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 properly addressed in the EIA/EMP report. Additional information submitted by the project has been found to be in order. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of

the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i). 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.
- (ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. The project proponent shall ensure that no waste water from the plant shall be flowed/released into the adjacent drain/nallah.
- (iii). 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.
- (iv). National Emission Standards for Pharmaceuticals Industry (Bulk Drugs) issued by the Ministry vide G.S.R.149(E) dated 4<sup>th</sup> March, 2009 and amended from time to time shall be followed. Fugitive emissions shall be controlled with effective chillers.
- (v). No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vi). 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.
- (vii). 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.
- (viii). Total fresh water requirement shall not exceed 300 cum/day, proposed to be met from Irrigation Department water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority and renewed time to time.
- (ix). 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.
- (x). 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.
- (xi). 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.
- (xii). 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.
- (xiii). Fly ash, if any, 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 and dust should be avoided.
- (xiv). 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.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 40% 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.
- (xvi). As proposed Rs 3.0 cores shall be allocated for Corporate Environment Responsibility (CER). As proposed, the CER funds shall be utilized for addressing the issues raised

during the public hearing including plantation in community area, skill development, rainwater harvesting, infrastructure development for drinking water, roads, drains, solar panel, scientific awareness to farmers, etc. The CER plan shall be completed within a period of 5 years or before commissioning of the project.

- (xvii). 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.
- (xviii). 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.
- (xix). Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xx). 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.
- (xxi). Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.

### **Agenda No. 15.5.3**

**Expansion of Grain based distillery from 120 KLPD to 145.2 KLPD by modernization and efficiency improvement at Industrial FEZ, Village Haripur Hinduan&Saidupura, Tehsil Derabassi, District SAS Nagar by M/s RAJASTHAN LIQUORS LTD - Consideration of Environmental Clearance.**

[IA/PB/IND2/123702/2019, J-11011/263/2010-IA-II(I) ]

The project proponent and their accredited Consultant M/s JMEnviroNet Pvt.Ltd. made a detailed presentation on the salient features of the project.

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

The proposal is for environmental clearance to the project for Expansion of Grain based distillery from 120 KLPD to 145.2 KLPD by modernization and efficiency improvement by M/s Rajasthan Liquors Limited in an area of 4.25 ha located at Industrial FEZ, Village Haripur Hinduan&Saidupura, Tehsil Derabassi, District SAS Nagar (Mohali), Punjab.

The details of products and capacity as under:

<b>S. No.</b>	<b>Product Details</b>	<b>Existing capacity</b>	<b>Proposed enhancement in capacity</b>	<b>Total final capacity</b>
1.	Grain based Distillery (Extra Neutral Alcohol /Ethanol / Rectified Spirit)	120 KLPD	25.2 KLPD	145.2 KLPD
2.	Co-generation Power Plant	3.0 MW	Nil	3.0 MW
3.	IMFL/ CL Bottling Plant	12000 cases/day		

The project/activity is covered under category B of item 5 (g) 'Distilleries' of the Schedule to the EIA Notification, 2006. Due to applicability of general condition (Interstate boundary of Punjab and Haryana at 2.2 km), the project requires appraisal at central level by the sectoral EAC in the Ministry.

The proposal is submitted under Section 7(ii) of EIA Notification, 2006 as amended on 23<sup>rd</sup> November, 2016, requesting exemption from fresh ToR, EIA/EMP report and public hearing.

Ministry had issued EC earlier vide letter no. J-11011/263/2010-IA-II (I) dated 26<sup>th</sup> September, 2012 to the existing distillery plant (grain based -120 KLD) with the cogeneration power plant (3MW) in favor of Rajasthan Liquors Limited located at Village Haripur Hinduan, Derabassi, District SAS Nagar, Punjab.

Existing land area is 4.25 Ha (10.5 Acres). The proposed expansion will be done within the existing plant premises, and no additional land is required. Industry has developed greenbelt in an area of 1.4 ha (3.5 Acres) covering 33 % of total project area. The estimated project cost is Rs 25 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 5 Crores and the recurring cost (operation and maintenance) will be about Rs. 0.3 Crores per annum. The project will provide employment for 120 persons directly & 60 persons indirectly after expansion.

There are no national parks, wildlife sanctuaries, biosphere reserves, Tiger/ Elephant Reserves, wildlife corridors etc., within 10 km distance from the plant site. Protected and Reserved Forests are present within 10 km radius study area i.e. Bir Dadrala PF at a distance of 3.0 km in WSW direction, Bir Kheri PF at a distance of 3.2 km in SSW direction, Bir Baoarpura PF at a distance of 4.5 km in WSW direction, Bir PirMachhela RF at a distance of 6.5 km in NNW direction, Bir Baraul PF at a distance of 8.5 km in WSW direction. River Ghaggar is flowing at a distance of 4.5 km in NW direction, MankanNadi is flowing at a distance of 4.5 km in NNE direction, MullawaliNadi is flowing at a distance of 4.5 km in NNE direction, MattanwaliNadi is flowing at a distance of 4.5 km in NE direction and DangriNadi is flowing at a distance of 6.2 km in East direction. There are few Nalas and drains present in 10 km radius of the plant site.

Existing fresh water requirement is 1200 KLD. After expansion net fresh water requirement will be reduced to 1127 KLD which will be met from existing ground water source. Necessary permission in this regard has been obtained from the CGWA, and application for renewal has been submitted.

Effluent (Process condensate) of 541KLD quantity will be treated through state of art CPU (Filters & RO) of capacity 700 m<sup>3</sup>/day. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

The existing power requirement is 3.0 MW, being met from Co-generation Power Plant, State Electricity Board & D.G. Sets (for emergency), which will cater to the proposed expansion. Existing unit has DG set of 500 KVA & 1010 KVA which is used as standby during power failure. Stack (Height – 6 m) has been provided as per CPCB norms to the existing DG sets. No additional DG set is proposed.

Existing unit has 36 TPH (AFBC Type) rice husk/coal fired boiler. No additional boiler will be installed. ESP with a stack height of 52 m is already installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for boiler.

Electrostatic Precipitators (ESP) has been installed to maintain the particulate emission levels within the stipulated standards. CO<sub>2</sub> generated during the fermentation process is being/will be recovered by CO<sub>2</sub> scrubbers and may be sold to beverage & packaging industry. Online Stack Monitoring System has been installed as per CPCB guidelines.

Solid waste from the grain based operations generally comprises of fibers and proteins in the form of DDGS, which is being / will be ideally used as Cattle Feed. ETP sludge is being / will be dewatered in sludge drying beds and will be used as manure. Fly ash generated from the boiler is being / will be supplied to brick/cement manufacturers. Used oil & grease generated from plant machinery/gear boxes as hazardous waste will be sold out to the CPCB authorized recyclers.

Certified compliance report of existing EC was obtained from Regional Office of MoEFCC (Chandigarh) vide file no. 5-299/2011/338-339 dated 20.05.2019 (site visit on 14<sup>th</sup> February, 2019), which was found to be satisfactory. The Committee deliberated the compliance status of earlier EC.

Industry proposes to allocate Rs. 1.25 Crores towards Corporate Environment Responsibility. The Committee found the CER plan submitted by the project proponent to be satisfactory.

Honourable NGT vide its OA no. 901/2018 hearing dated 07.05.2019 concluded that the analysis results of treated industrial effluent of M/s Rajasthan Liquors are conforming to the prescribed standards as per thereport by the Punjab Pollution Control Board and Central Ground Water Authority. The tribunal has noted that the distillery has obtained permission

from CGWA for abstraction of 1783 KLD of ground water. However, permission for ground water extraction for bottling plant has not been obtained, which is informed to be applied to CGWA. Hon'ble NGT has directed that the PPCB shall ensure that the unit has requisite permission for abstraction of ground water for the bottling plant. If such permission is obtained in the reasonable time, coercive measures will be taken in accordance with law.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with PFR prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the PFR. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the proposed expansion is achieved by process improvement, modernization and efficiency improvement, without any addition of land, water and effluents. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal, exempting fresh ToR, EIA/EMP report and public hearing. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) The grant of environmental clearance is subject to decision of Punjab Pollution Control Board/CGWA regarding permission for ground water extraction, and subject to final order of Hon'ble NGT regarding extraction of ground water in the Derabassi area.
- (ii) Grain unfit for human consumption shall only be used for industrial operations.
- (iii) 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.

- (iv) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (v) Concentrated spent wash shall be incinerated and not to be released in open space.
- (vi) Solid waste from the grain based operations in the form of DDGS, shall be sold/utilized.
- (vii) CO<sub>2</sub> generated from the process shall be bottled/made solid ice and sold to authorized vendors.
- (viii) 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.
- (ix) 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.
- (x) Odour shall be prevented at the source and effective odour management scheme shall be implemented.
- (xi) Total fresh water requirement shall not exceed 1127 cum/day cum/day, proposed to meet from ground water. Prior permission shall be obtained from the concerned regulatory authority/CGWA, and renewed from time to time.
- (xii) 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.
- (xiii) 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.
- (xiv) 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.
- (xv) 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.
- (xvi) 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.
- (xxii). As proposed Rs.1.25 Crores shall be allocated for Corporate Environment Responsibility (CER). As proposed, the CER funds shall be utilized for renovation/infrastructure development of schools, hospitals, skill development of farmers/youths, upgrading & maintenance of the ponds, rainwater harvesting in nearby villages, etc. The CER plan shall be completed within a period of 3 years.
- (xvii) 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.
- (xviii) 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.
- (xix) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xx) 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.
- (xxi) Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xxii) 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 ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

#### **Agenda No. 15.5.4**

#### **Expansion of Synthetic Organic Chemical Plant at Khata No. 45, Mouza-Khapri, PO-Kalambi, Tehsil- Kalmeshwar, District Nagpur, MH by M/s Ran Chemicals Pvt Ltd- Consideration of Environmental Clearance**

[IA/MH/IND2/103229/1984, IA-J-11011/380/2019-IA-II(I)]

The Project Proponent and their Consultant M/s SMS Envocare Ltd. Pune made a detailed presentation on the salient features of the project.

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

The proposal is for environmental clearance to the project for Expansion of Synthetic Organic Chemical Plant at Khasara No. 45, Mouza-Khapri, PO-Kalambi, Tehsil- Kalmeshwar, District Nagpur, MH by M/s Ran Chemicals Pvt Ltd

The details of products and capacity as under:

<b>Product</b>	<b>Existing (MT/day)</b>	<b>Proposed (MT/day)</b>	<b>Total (MT/day)</b>
Polyester based resin & other polyester	28	36	64
Finishing agents & preparations used in textile	1.4	14.6	16
Spent Menthol and Glycol	1.2	0.8	2
Total	30.6	51.4	82

The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 17<sup>th</sup> EAC (Industry 2) meeting held during 26<sup>th</sup> to 29<sup>th</sup> Dec. 2016 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/340/2016-IA-II (I) dated 28<sup>th</sup> February, 2017.

All such projects are listed at S.N. 5 (f) of Schedule of Environment Impact Assessment (EIA) Notification 2006 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

Project was established before EIA Notification 2006, hence Environmental Clearance was not required for Existing Unit.

Existing land area is 27600.00 m<sup>2</sup>. No additional land will be used for proposed expansion as project side will be developed within existing unit area by developing few specific components. Industry has already developed greenbelt in an area of 33 % i.e. 2386.00 m<sup>2</sup> out of total area of the project.

The estimated project cost is Rs. 2000.00 Lakhs including existing investment of Rs 1020 Lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs 61 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 17 Lakhs per annum. Total manpower for both existing and expansion unit is 172 people. Total 100 people are appointed as administrative work as well as 72 people have been appointed as workforce. Local people have been appointed for existing unit.

There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Vena Dam is at 3.52 Km towards SW from the project site.

PP reported that the Ambient air quality monitoring was carried out at 8 locations during 1<sup>st</sup> Jan. 2017 to 31<sup>st</sup> March 2017 and the baseline data indicates the ranges of Concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> for all 8 AAQM locations range between 35.4 µg/m<sup>3</sup> to 65.3 µg/m<sup>3</sup> and 15.1 to 31.4 µg/m<sup>3</sup> respectively. As for as the gaseous pollutants SO<sub>2</sub> and NO<sub>2</sub> are concerned, SO<sub>2</sub> concentrations are in the range of 1.2 µg/m<sup>3</sup> to 26.2 µg/m<sup>3</sup> and NO<sub>2</sub> concentrations are in the range of 8.3 µg/m<sup>3</sup> to 29.3 µg/m<sup>3</sup>. AAQ modeling study for point source emissions indicates that the maximum GLC of PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> and CO due to both existing and proposed stacks are predicted to be approximately 0.56 µg/m<sup>3</sup>, 1.02 µg/m<sup>3</sup>, 2.32 µg/m<sup>3</sup>, 10.85 µg/m<sup>3</sup> and 10.99 µg/m<sup>3</sup> respectively and occur within 500 m distance from the boiler stack location. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement for the proposed expansion project during construction period is 30 m<sup>3</sup>/day whereas total water requirement during operation phase is about 200 m<sup>3</sup> /day. Water shall be sourced from nearby surface water source for which required pipeline system shall be installed from reservoir to the plant. Industry already taking water from MIDC supplied surface water source through pipeline.

ETP is provided with aerobic treatment facilities with the capacity of 3.5 CMD respectively to treat the general and high COD effluent. As per MPCB consent, Aerobic bio reaction Technique for COD reduction and recycle has been adopted to ensure Zero Liquid Discharge (ZLD)

Total power requirement for proposed expansion project is 1000 KW. The required power will be sourced from MSEDCL in construction and operation phase. 2 No. of DG set of capacities of 500 KVA & 320 KVA will be installed as back-up power support for in case of emergency. Proper height of stack will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 1 TPH Coal fired boiler and Two Thermic Fluid Heaters of 6.6 Lac kcal/Hr and 15 Lac kcal/Hr capacities. Mechanical dust collector, single and Multi- cyclone separator with a stack of height of 30.5 have been installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup>.

Details of Process emissions generation and its management.

Sr. No	Process	Source	Controls
1	Esterification process	Gas Vents from Reactor during process.	All vents are connected to Water Scrubber system to trap gases. Once in a week this water is transferred to ETP for waste water treatment
2	Esterification process Raw materials Storage, transport and Addition	Liquid materials Spillages	All storage and transport of liquids are done by closed system (tanks and pipelines) Overflow of tanks are interconnected from receivers to Drawn tank. High level alarms are provided Transfer pumps Stop buttons are provided near to

			receivers. Level indicators are provided to each tanks
3	Solid Raw Materials charging in Esterification reactor	Dusting while addition of solid materials in Reactor	All charging point ducts are connected to Vacuum blower with water scrubber system to trap dust. Once in a week this water is transferred to ETP for waste water treatment
4	Esterification reaction process (PTA route )	Water generated during esterification reaction	Water generated in reaction is cooled and transferred to ETP for waste water treatment. Treatment of waste water is done as per annexure - I
5	Esterification reaction process (DMT route )	Spent solvent generated during esterification reaction	Spent solvent generated during esterification reaction is cooled, collected sell to CCOE approved parties.
6	Polycondensation reaction Vacuum system	Exhaust Gases from Vacuum Pumps vent	All vents are connected to Water scrubber to trap gases in water Once in a week this water is transferred to ETP for waste water treatment
7	Heating System for Reactor heating with thermic fluid heater	Exhaust Gases generation	Ashes produces on burning coal is sell to brick manufacturer Exhaust gases generated on coal generation are taken in Mechanical Cyclone and Reverse Pulse jet Bag house to trap Dust and particulate matter Dust collected is sell for Brick manufacturer
8	Finish products bagging area	Dusting of solid power during transport and packing	All bagging point ducts are connected to Reverse Pulse jet Bag house to trap Dust which later recycle back to reaction process Air is recirculated the bagging room so to have clean air is available to the person working there.

Main solid and hazardous waste from the plant are Sludge from ETP, Spent Solvent, Discarded containers/barrels/bags, waste oil and other municipal solid waste. The hazardous waste generated from different process shall be disposed to the CHWTSDF (Butibori, Nagpur), while the waste oil and used batteries shall be sent to authorize recyclers. Solid & Hazardous waste generation and disposal techniques are given in table.

SR NO.	WASTE GENERATION	UOM	EXPECTED	DISPOSAL
1	Ash	MT/M	150	Cell to Bricks Manufacture
2	ETP Sludge	KG/d	35	ETP Sludge shall be sent to CHWTSDF (Butibori, Nagpur)
3	Spent Solvent	MT/M	50	Cell to CCOE approved parties
4	Discarded containers/barrels/bags	Nos/day	10	Send to CHWTSDF (Butibori, Nagpur)
5	Carboy/drums/bags	Nos/M	8000	Cell to Authorized recyclers

Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 16<sup>th</sup> May, 2018. The main issues raised during the public hearing are related to the Local employment and issue related with Ground Water Pollution, Dust Pollution. No litigation is pending against the proposal.

**15.5.4.2** The EAC, during deliberations noted that the project details mentioned in the EIA report were not consistent with that presented during the meeting. **The Committee also took serious note on the quality of the EIA/EMP report prepared by the consultant and underrated the consultant. The Committee desired that the Ministry/QCI shall take action as appropriate on the matter against the consultant for providing wrong and inconsistent information the EIA/EMP and presentation.** The EAC, after detailed deliberations decided to **return the proposal in its present form** and has asked for clarification/inputs, in respect of the following:-

- (i) EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR Compliance adequately.
- (iii) The Committee noted that some of the Technical Person, in the Consulting Organization, were working during October 2016-December 2016, however the EIA/EMP report along with baseline monitoring conducted during January-March 2017. The Committee observed that the Consultant has submitted the wrong information and accordingly QCI/NABET may take necessary action against the consultant.
- (iv) The Committee noted that there are various deficiencies in Form 2 (viz. S. no. 13, 15 etc.) uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (v) Revised product list viz-a-viz the CTO.

- (vi) Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation. Public hearing proceedings to be forwarded by the Member Secretary, SPCB along with complete public hearing/consultation documents.
- (vii) Onsite emergency plan as per MSIHC Rules.
- (viii) Revised water balance with details of total water and fresh water requirement.
- (ix) Effluent treatment mechanism with plan for Zero Liquid Discharge, having MEE/ATFD/RO.
- (x) Revised one season AAQ monitoring and prediction of GLC due to the proposed project.
- (xi) Authorization letter submitted without any date.
- (xii) Revised water quality analysis.
- (xiii) Plan for Corporate Environmental Responsibility.
- (xiv) **PP/Consultant has submitted the undertaking for owning the draft EIA Report. The consultant has not applied his mind during uploading the information on portal. The Committee was very disappointed by this act of consultant.**

The proposal was accordingly **returned in its present form.**

#### **Agenda No. 15.5.5**

**Manufacturing unit for Ethyl Acetate Plant with capacity of 25 TPD, Formaldehyde plant with capacity of 50 TPD and API manufacturing plant with capacity of 1.2 TPD At Village- Malakpur, Lalru, Tehsil- Derabassi, SAS Nagar (Punjab) by M/s BANSTAG LIFE SCIENCES PVT LTD- Consideration of Environmental Clearance**

[IA/PB/IND2/124519/2019, IA-J-11011/158/2019-IA-II(I)]

The Project Proponent and the accredited Consultant M/s Vardan Environet made a detailed presentation on the salient features of the project.

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

The proposal is for environmental clearance to the project for Manufacturing unit for Ethyl Acetate Plant with capacity of 25 TPD, Formaldehyde plant with capacity of 50 TPD and API manufacturing plant with capacity of 1.2 TPD by M/s Banstag Life sciences Pvt. Ltd., located at Village Malakpur, Lalru, Tehsil Derabassi, District- S.A.S. Nagar, Punjab

The details of products and capacity as under:

<b>Products</b>		
<b>S.No</b>	<b>Material</b>	<b>Total Quantity</b>
1	Ethyl Acetate	25MTPD

2	Formaldehyde		50MTPD
3	API (OutofalltheAPIproducts,thecompanywill produceanytwoofthe API(either mentionedinSerialnumber3-8 or9-11or 12-13aspermarketdemand).	PentaprazoleSodium	5000Kg/Month
4		EsomeprazoleMagnesium	4000Kg/Month
5		Dex-lansaprazole	500 Kg/Month
6		Moxifloxacin	1000 Kg/Month
7		Ofloxacin	5000 Kg/Month
8		Levofloxacin	5000 Kg/Month
9		Amoxicillin Trihydrate	20 Tons/Month
10		Cloxacillin Sodium	10 Tons/Month
11		Di-Cloxacillin Sodium	10 Tons/Month
12		Letrozole	500 Kg/Month
13	Temozolomide	500Kg/Month	

Standard ToR was granted for the proposed project. The ToR has been issued by Ministry vide letter No. F.NO. IA-J-11011/158/2019-IA-II(I); dated 17<sup>th</sup> May, 2019.

All Bulk Drug Manufacturing units are listed at S.N. 5(f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

This is a new Bulk Drug Manufacturing project. Since this is a Greenfield project 45% of area will be cover under greenbelt.

The estimated project cost is Rs 752 Lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs 175.5 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 32.5 lakhs per annum. During construction phase approx. 25 persons will be required. Whereas it is estimated that total 117 persons will be required for the proposed project during operation phase.

There are 2 PF i.e. Bir Kheri PF is at a distance of 8.6 km (approx) in NNE direction and Bir Hansla PF is at a distance of 7.7 km (approx) in NW direction within 10 km distance from the project site. Ghaggar River is flowing at a distance of 7 km in West direction.

PP reported that the Ambient air quality monitoring was carried out at 8 locations during 1<sup>st</sup> March to 31<sup>st</sup> May 2019 and the baseline data indicates the ranges of concentrations as: PM10 (66.2  $\mu\text{g}/\text{m}^3$  and 93.5  $\mu\text{g}/\text{m}^3$ ), PM2.5 (25.4  $\mu\text{g}/\text{m}^3$  and 50.4  $\mu\text{g}/\text{m}^3$ ), SO<sub>2</sub> (4.2  $\mu\text{g}/\text{m}^3$  and 11.2  $\mu\text{g}/\text{m}^3$ ) and NO<sub>2</sub> (16.1  $\mu\text{g}/\text{m}^3$  and 31.4  $\mu\text{g}/\text{m}^3$ ). The maximum cumulative GLC concentration of PM10 93.8153  $\mu\text{g}/\text{m}^3$  was predicted inside the study area. As the distance from source increases, the incremental concentration of PM10 drops drastically due to settling of PM10 particles under gravity. The maximum cumulative GLC concentration of SO<sub>2</sub> wiz. 11.8778  $\mu\text{g}/\text{m}^3$  was predicted inside the study area. The maximum cumulative GLC concentration of NO<sub>2</sub> wiz. 31.9881  $\mu\text{g}/\text{m}^3$  was predicted inside the study area.

Total fresh water requirement is 49.2 KLD alongwith recycle water will be met from ground water.(Application for Ground water for 49.2 Capacity applied). Effluent of 16 KLD quantity will be treated through 20 KLD ETP. The plant will be based on Zero Liquid discharge system.

Power requirement will be 600 KW will be met Punjab State Power Corporation Limited. In

case of emergency DG-sets will be used of capacity 325 KVA, 175 KVA, 125 KVA. Stack (height 4 m) will be provided as per CPCB norms to the proposed DG sets. Six TPH fired boiler will be installed. Multi cyclone dust collector with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm<sup>3</sup> for the proposed boilers. Boiler ash will be collected and will be given to authorized vendor for the Brick manufacturing.

Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 20<sup>th</sup> September 2019 at plant. All the issues raised during public hearing have been mitigated and action plan for the future, after project implementation has been made and incorporated in final EIA report. The Committee deliberated the action plan on the issues raised during Public Hearing. No Litigation is Pending against the proposal.

The project proponent has informed their wish to drop certain water intensive products, considering the scarcity of ground water in the region. The PP requested to allow to revise the report with drop of certain products and alternative source of water required for the project considering the scarcity of ground water in the region. The Committee deliberated the request of PP and allow to revise the Report with drop of certain products and alternative source of water accordingly.

**15.5.5.2** The EAC, during deliberations noted that the consultant is not serious about the work/presentation, as even the EIA coordinator is not present during presentation before the Expert Appraisal Committee. The EAC, after detailed deliberations decided to **return the proposal in its present form** and has asked for clarification/inputs, in respect of the following:-

- (i) The project proponent has informed their wish to drop certain water intensive products, considering the scarcity of ground water in the region. The PP requested to allow to revise the report with drop of certain products and alternative source of water required for the project considering the scarcity of ground water in the region. The Committee deliberated the request of PP and allow to revise the Report with drop of certain products and alternative source of water accordingly.
- (ii) Revised product list and justification for dropping certain projects.
- (iii) Considering critical nature of ground water in the region, alternative sit analysis for the projects needs to be submitted.
- (iv) EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (v) EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR Compliance adequately.
- (vi) The Committee noted that there are various deficiencies in Form 2 uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (vii) Water balance scheme and Effluent treatment mechanism with plan for Zero Liquid Discharge, having MEE/ATFD/RO.

- (viii) Alternate source of water other than fresh water and NOC/permission for the same.
- (ix) Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation. Public hearing proceedings to be forwarded by the Member Secretary, SPCB along with complete public hearing/consultation documents.
- (x) Onsite emergency plan as per MSIHC Rules.
- (xi) Revised prediction of GLC due to the proposed project.
- (xii) Details of Schedule 1 species in the study area and conservation plan
- (xiii) Details of court cases/NGT cases related to use of ground water in the Derabassi region/project site.

The proposal was accordingly **returned in its present form.**

**Agenda No. 15.5.6**

**Expansion of Chemical Manufacturing unit PACL Campus, Industrial Area, Naya Nangal, District- Ropar, Punjab by M/s Flowtech Chemicals Pvt Ltd- Consideration of Environmental Clearance.**

[IA/PB/IND2/120631/2012, J-11011/335/2012-IA-II(I)]

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

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

The proposal is for environmental clearance to the project expansion of Chemical manufacturing unit by M/s Flowtech Chemicals Pvt. Ltd at PACL campus, Tehsil Naya Nangal, District Ropar, Punjab.

The details of products and capacity as under:

S. No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1.	Chlorinated paraffin	19,200 TPA	19,200 TPA	38,400 TPA
2.	Hydrochloric acids	38,400 TPA	38,400 TPA	76,800 TPA

Standard ToRs have been issued by Ministry vide letter dated 13<sup>th</sup> May, 2018. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 19.06.2019. The main issues raised during the public hearing are related to project benefits, environmental safety.

The project falls in item 5 (f) under category 'A' and requires appraisal at Central Level by Expert Appraisal Committee (EAC).

Ministry had issued EC earlier vide letter no. F. No.- J-11011/335/2012-IA II (I) dated 30<sup>th</sup> January, 2015 to the existing project. Certified compliance report submitted by RO, MoEF&CC on dated 09.08.2019. No litigation is pending against the project.

PP reported that Total land area is 1200m<sup>2</sup>. No additional land is required for proposed expansion. 3983.27m<sup>2</sup> (33%) green belt is/will be developed. The estimated project cost is Rs.7.60 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 54 lakhs and the Recurring cost (operation and maintenance) will be about Rs. 20 lakh. For expansion additional 50 persons will be required. Total number of manpower after expansion will be 100. Industry proposes to allocate Rs. 8 lakhs towards Corporate Environmental Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Satluj river is flowing at a distance of 3.5km.

PP reported that the Ambient air quality monitoring was carried out at 8 locations during October, 2018 to December, 2018 and ). The P98 levels of criteria pollutants are as follows: PM<sub>2.5</sub> is 44.93µg/m<sup>3</sup>, PM<sub>10</sub> is 79.96µg/m<sup>3</sup>, SO<sub>2</sub> is 9.55µg/m<sup>3</sup>, NO<sub>2</sub> is 21.98µg/m<sup>3</sup>, CO is 0.66 mg/ m<sup>3</sup>, Cl<sub>2</sub> is 18.0 µg/m<sup>3</sup> and HCl is <10 µg/m<sup>3</sup>.

Total water requirement is 180 KLD of which domestic water requirement of 7.0.m<sup>3</sup>/day will be met from tubewell. Proposed project is based on ZERO discharge. There is generation of trade effluents from process. The waste water generated from domestic & cooling tower is being treated through septic tank and used for plantation within premises.

The existing power requirement for the unit is 200 KW. Additional 150KW will be required for expansion. The total power after expansion will be 350 KW and same will be supplied by PSPCL. Additionally, DG sets will be used as standby during power failure. Stack height will be provided as per CPCB norms to the proposed DG sets. The only process emission HCl gas & vapours which are/will be recovered as dilute HCl through water scrubber. The unreacted Cl<sub>2</sub> gas is/will be neutralized with NaOH and recovered as Sodium hypochlorite (NaOCl).

The only hazardous wastes generated from the plant after expansion will have potential to contaminate soil of soil of the plant and nearby area, if not disposed properly. Therefore, plant has already prepared elaborated strategy for collection, storage and disposal of hazardous wastes to common hazardous waste treatment and disposal facility (CHWTSDF) and recyclable hazardous wastes are sold to authorized recyclers.

**15.5.6.2.** The EAC, during deliberations noted that the project details mentioned in the EIA report were not consistent with that presented during the meeting. The Committee also took serious note on the quality of the EIA/EMP report prepared by the consultant and underrated the consultant. The Committee noted that the **consultant is not serious about the work/presentation, as even the EIA coordinator is not present during presentation before the Expert Appraisal Committee.** The Committee observed that the brief/project details were provided only on midnight of the previous day and thus unable to examine the proposal thoroughly, this is even after uploading agenda 20 days before the meeting. **The Committee desired that the Ministry/QCI shall take action as appropriate on the**

**matter against the consultant for providing wrong and inconsistent information the EIA and presentation.** The EAC, after detailed deliberations decided to **return the proposal in its present form** and has asked for clarification/inputs, in respect of the following:-

- (i) EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR Compliance adequately.
- (iii) The Committee noted that there are various deficiencies in Form 2 uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (iv) Revised layout plan with 33% greenbelt area.
- (v) Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation. Public hearing proceedings to be forwarded by the Member Secretary, SPCB along with complete public hearing/consultation documents.
- (vi) Onsite emergency plan as per MSIHC Rules.
- (vii) Revised water balance with details of total water and fresh water requirement, source of water etc.
- (viii) Effluent treatment mechanism with plan for Zero Liquid Discharge, having MEE/ATFD/RO.
- (ix) Details of protected areas within 10 km of the study area. Status of recommendation of Standing Committee of NBWL on the project.
- (x) Conservation plan submitted to CWLW with budgetary provisions.
- (xi) Revised one season AAQ monitoring and prediction of GLC due to the proposed project.
- (xii) Details of boilers, if any.
- (xiii) Action Taken Report/EC compliance report to be forwarded by the Regional Office after conducting fresh site visit.
- (xiv) Plan for Corporate Environmental Responsibility.
- (xv) PP/Consultant has submitted the undertaking for owning the draft EIA Report. The consultant has not applied his mind during uploading the information on portal. The Committee was very disappointed by this act of consultant.

The proposal was accordingly **returned in its present form.**

### **Agenda No. 15.5.7**

**Expansion Project for Manufacturing of Synthetic Organic Chemicals (Acrylic Co-Polymers for Construction Chemicals & Other Industries) at Plot No, E-72, MIDC Additional Patalganga, At – Karade(Budruk), Tal: Panvel, Dist: Raigad, Maharashtra by M/s. M/s CHRYSO INDIA PRIVATE LIMITED - Consideration of Environmental Clearance**

[IA/MH/IND2/113824/2019, No.IA-J-11011/253/2019-IA-II(I)]

The Project Proponent and their accredited consultant M/s ERM India Pvt .Ltd .made a detailed presentation on the salient features of the project and informed that;

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

The proposal is for environmental clearance to the project forexpansion of Manufacturing Synthetic Organic Chemicals (Acrylic Co-Polymers for Construction Chemicals & Other Industries) unit by M/s Chryso India Private Limited at Plot No, E-72, MIDC Additional Patalganga, Karade(Budruk), Tal: Panvel, Dist: Raigad, Maharashtra.

The details of products and capacity as under:

<b>S No</b>	<b>Product Details</b>	<b>Existing Quantity</b>	<b>Proposed Quantity</b>	<b>Total Quantity</b>
1	Cement Admixture & Cement Grinding Aid (Blending & mixing only)	60000 MTM	Nil	60000 MTM
2	Acrylic co-polymer	Nil	4000 MTM	4000 MTM

The proposal is for environmental clearance to the project Proposed expansion Project for Manufacturing of Synthetic Organic Chemicals (Acrylic Co-Polymers for Construction Chemicals & Other Industries).by M/s CHRYSO INDIA PRIVATE LIMITED. The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its13<sup>th</sup>meeting held during 23-25October 2019 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/253/2019-IA-II (I); dated 23<sup>rd</sup> October 2019.

All Synthetic Organic Chemicals Industry (Dyes & Dye Intermediates; Bulk Drugs and Intermediates Excluding Drug Formulations; Synthetic Rubbers; Basic Organic Chemicals, Other Synthetic Organic Chemicals And Chemical Intermediates)arelisted in S.N. 5(f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'B' to be appraised at Central Level Expert Appraisal Committee).

The current operations does not fall under EIA Notification, 2006 and EC was not required during inception. Company has obtained Consent to Operate (Consent No. RO-Raigad/Consent-1805000636 dated 15.05.2018) from Maharashtra Pollution Control Board for manufacturing of Cement Admixture & Cement Grinding Aid through blending & mixing activities only.

Existing land area is 8001 m<sup>2</sup>, No additional land will be used for proposedexpansion as all work will undertake within the existing Industrial Shed. Industry will develop greenbelt in an

area of 5 % i.e., 0.04 Ha. out of total area of the project. The estimated project cost is Rs. 7.8 crores and recurring cost (operation and maintenance) earmarked towards environmental pollution control measures is Rs. 0.1005 crore per annum. Total employment will be approximately 20 persons as direct & 0 persons indirect. CHRYSO proposes to allocate funds for CSR activity as per CSR Act and Rules, Govt. of India.

Karnala Eco-Sensitive Zone (3.62 km West) and Karnala Bird Sanctuary (2.67 West) is within 10 km of the well locations. Patalganga River is flowing at a distance of 0.64 km in west direction.

Ambient air quality monitoring was carried out at 8 locations during October 2018-December 2018 and the average baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (42.5-96.4 µg/m<sup>3</sup>), PM<sub>2.5</sub> (20-58 µg/m<sup>3</sup>), SO<sub>2</sub> (6-12 µg/m<sup>3</sup>) and NO<sub>2</sub> (8-49 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 81.88 µg/m<sup>3</sup>, 15.5 µg/m<sup>3</sup> and 36.70 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).

Total water requirement is 63 m<sup>3</sup>/day of which fresh water requirement of 63 m<sup>3</sup>/day will be met from MIDC piped water supply for the proposed project and 45 m<sup>3</sup>/day for operation of the existing facility.

Effluent of 0.3 m<sup>3</sup>/day quantity will be treated through effluent treatment plant and domestic wastewater through septic tank and soak pit.

Power requirement for proposed project is 185 kVA/225 KW, sufficed through grid supply from Maharashtra State Electricity Distribution Company. One (1) 250 KVA DG set is kept as standby. Stack will be provided as per CPCB norms to the proposed DG sets. Power requirement for existing facility is 185 kVA/225 KW, supplied by Maharashtra State Electricity Distribution Company and for back-up one (1) 250 KVA DG set is installed within the facility.

Details of Process emissions generation and its management: The operation of DG sets, movement of vehicles and machineries during construction and operation of boiler in the generation of air pollutants. Process and back-up DG set stacks will be used as per CPCB norms.

Details of Solid waste/ Hazardous waste generation and its management: Used/Spent Oil, Bags, Liners and Empty Barrels will be disposed of through MPCB Authorized Recycler. While chemical Sludge from ETP will be disposed through, MPCB authorized TSDF. Paper waste will be disposed to municipal waste collection trucks regularly.

Public Hearing for the proposed project is exempted. There are no pending litigation against this proposal.

**15.5.7.2** The EAC, during deliberations noted that the project details mentioned in the EIA report were not consistent with that presented during the meeting. The EAC, after detailed deliberations decided to **defer the proposal** for clarification/inputs, in respect of the following: -

- (i) EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR Compliance adequately.
- (iii) The Committee noted that most of the surface water (eg.Patalganga, MorbeReservoir, MIDC raw water tank &Jambhivali dam) reported the similar concentration of chloride (17 PPM), however the TDS is entirely different of these samples. PP needs to conduct the root cause analysis of reporting wrong results of the water samples.
- (iv) Revised layout plan with 33% greenbelt area.
- (v) Onsite emergency plan as per MSIHC Rules and occupational health plan.
- (vi) Revised water balance with details of total water and fresh water requirement.
- (vii) Revised prediction of GLC due to the proposed project.
- (viii) Details of Schedule 1 species in the study area and conservation plan.
- (ix) Details of SC NBWL recommendations, if applicable.
- (x) All the Consent to Operate before 2006 and the present needs to be submitted.

The proposal was accordingly **deferred** for the needful on the above lines.

### **Agenda No. 15.5.8**

#### **Expansion in manufacturing production capacity of existing chemical intermediates at PlotNo.B-26,27,14,15, Dasarkhed MIDC, TalkukaMalkapur District Buldhana (Maharashtra) by M/s Benzochem Industries Pvt Ltd - Consideration of Environmental Clearance**

[IA/MH/IND2/103300/2019, IA-J-11011/175/2019-IA-II(I)]

The Project Proponent and their accredited Consultant M/s Sadekar Enviro Engineers Pvt.Ltdmade a detailed presentation on the salient features of the project.

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

The proposal is for environmental clearance to the project for Expansion of Manufacturing Capacity of existing chemical intermediates by M/s Benzo Chem Industries Pvt Ltd. located at Plot No. B-26,27 & B-14,15 in MIDC Area, Dasarkhed, Malkapur, Taluka - Malkapur, District Buldhana, State Maharashtra.

The details of products and capacity as under:

Sr. No.	Existing Production	Quantity MT/M
1	Para Chloro Benzyl Chloride,	58
2	Para Chloro Benzyl Cyanide,	
3	Para Fluro Benzaldehyde,	

4	Para Chloro Benzaldehyde,	
5	Para Chloro Phenyl Acetic Acid,	
6	Para Chloro Methyl Ether,	
7	Para Chloro Benzo Tri Chloride,	
8	Ortho Chloro Benzyl Chloride,	
9	Ortho Chloro Benzyl Cyanide,	
10	Ortho Chloro Phenyl Acetic Acid,	
11	Ortho Chloro Benzaldehyde,	
12	2,4,6 Tri Methyl Phenyl Acetic Acid,	
13	2,4,6 Tri Methyl Phenyl Acetyl Chloride,	
14	Methyl 2-Chloro Phenyl Acetate,	
15	2,4 Di Chloro Benzaldehyde,	
16	2,4 Di Chloro Benzyl Chloride,	
17	2,4 Di Chloro Benzyl Cyanide,	
18	2,4 Di Chloro Phenyl Acetic Acid,	
19	2,4 Di Chloro Phenyl Acetyl Chloride,	
20	2,4 Di Chloro Toluene,	
21	Meta Chloro Benzyl Chloride,	
22	Meta Chloro Benzyl Cyanide,	
23	Meta Chloro Phenyl Acetic Acid,	
24	Meta Chloro Benzaldehyde,	
25	2,5 Di Methyl Phenyl Acetic Acid,	
26	2,5 Di Methyl Phenyl Acetyl Chloride,	
27	Di Chloro Ortho Xylene,	
28	Tetra Chloro Ortho Xylene,	
29	Ortho Methyl Benzyl Chloride,	
30	Ortho Methyl Benzyl Cyanide,	
31	Ortho Methyl Phenyl Acetic Acid,	
32	2 Chloro 4,6 Di Methoxy 1,3,5 Triazine,	
33	Benzaldehyde 2, 4- Disulphonic Acid Di Sodium Salt	
Sr. No.	Proposed Production after expansion	Quantity MT/M
	Agrochemical Intermediates:	137
1	Isopropyl (4-Chlorophenyl) acetyl chloride (CPIC),	
2	2,5 Di Methyl Phenyl Acetyl Chloride,	
3	2,4 Di Chloro Benzaldehyde,	
4	Ortho Chloro Phenyl Acetic Acid,	
5	2,4,6 Tri Methyl Phenyl Acetyl Chloride,	
6	Para Chloro Phenyl Acetic Acid,	
7	2,4 Di Chloro Phenyl Acetic Acid,	
8	1-Napthyl Acetonitrile,	
9	Para Chloro Benzyl Cyanide,	

10	2,4 Di Chloro Phenyl Acetyl Chloride,	
11	Para Chloro Benzo Tri Chloride,	
12	Para Chloro Benzyl Chloride,	
13	A,a,a',a' Tetra Chloro Ortho Xylene	
14	Ortho Methyl Benzyl Chloride,	
15	2,5 Di Methyl Phenyl Acetic Acid,	
16	Para Chloro $\alpha$ -isopropyl Phenyl Acetic Acid (CPIA)	
17	Para Chloro Benzyl Cyanide 75% Solution in N-Butyl Acetate,	
	Specialty Chemicals Intermediates:	13
1	Ortho Anisoyl Chloride 75% Solution in Ethylene Dichloride,	
2	Aa Di Chloro Para Xylene,	
3	Benzaldehyde 2,4 Di Sulphonic Acid Di Sodium Salt (Powder),	
4	Benzaldehyde 2,4 Di Sulphonic Acid Di Sodium Salt (Liquid),	
5	Benzaldehyde Ortho Sulphonic Acid Sodium Salt.	
6	Para Hydroxy Benzaldehyde	
	Pharmaceutical Intermediates:	80
1	Para Chloro Benzaldehyde,	
2	Meta Chloro Benzyl Chloride;	
3	Meta Chloro Benzyl Cyanide,	
4	Meta Chloro Phenyl Acetic Acid,	
5	Meta Chloro Benzaldehyde,	
6	2,4 Di Chloro Benzyl Cyanide;	
7	2,4 Di Chloro Benzyl Chloride,	
8	Ortho Methyl Benzyl Cyanide,	
9	Ortho Methyl Phenyl Acetic Acid,	
10	Ortho Chloro Benzyl Chloride,	
11	Ortho Chloro Benzyl Cyanide,	
12	Ortho Chloro Benzaldehyde,	
13	Methyl 2-Chloro Phenyl Acetate,	
14	2-Phenyl Acetyl Chloride,	
15	2-Bromo Benzyl Cyanide,	
16	4-Bromo Benzyl Cyanide	
17	3,4 Di Chloro Benzyl Cyanide	
18	Para Methyl Benzyl Chloride	
19	Para Methyl Benzyl Cyanide	
20	Para Methyl Phenyl Acetic Acid	
Total Proposed Production		230 MT/M

### List of Bi-Products

Sr. No.	Name of By Product	Existing (MT/Month)	Proposed (MT /Month)	After Expansion (MT /Month)
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1	Hydrochloric Acid	30	40	70
2	Sodium Chloride	9.4	20.6	30
3	Hydrobromic Acid	0	3	3
4	Sodium Sulphite	0	20	20
5	Ammonium Sulphate	0	5	5
6	Sodium Bromide	0	3	3
7	Mixed Solvent	0	1	1
8	Ammonia solution	0	40	40
Total		39.4	132.6	172

The TOR has been issued by Ministry vide letter dated 18/06/2019 .All Products are listed at Schedule 5(b) & 5(f) of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

Existing land area is 33350 m<sup>2</sup>, additional land will not be used for proposed expansion. Industry has already developed 3340 sq. M. And will develop remaining greenbelt area of 7679 sq.m. To make 33% i.e., 11019 m<sup>2</sup> out of total area of the project. The estimated total project cost is Rs. 28.22 Crore including existing investment of Rs. 16.22 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 5.35 Crore and the Recurring cost (operation and maintenance) will be about Rs 1.09 Crore per annum. Total Employment will be 242 Nos. As direct after expansion. Industry proposes to allocate Rs. 12 Lakhs @ 1 % of the project cost towards Corporate Environmental Responsibility.

There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc. Within 10 km distance from the project site. River Purna is flowing at a distance of 4.24 Km in North direction.

Ambient air quality monitoring was carried out at 8 locations during March to May 2019 and the baseline data indicates the range of concentrations as: PM<sub>10</sub> (50.2 – 80.8 µg/m<sup>3</sup>), PM<sub>2.5</sub> (20.2 – 52.6 µg/m<sup>3</sup>), SO<sub>2</sub> (14.0 – 37.9 µg/m<sup>3</sup>) and nox (20.9 – 55.6 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental glcs after the proposed project would be 5 µg/m<sup>3</sup>, 4 µg/m<sup>3</sup> and 3 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and nox obtained at Project Site. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 424.9 m<sup>3</sup>/day of which fresh water requirement of 220.9 m<sup>3</sup>/day will be met from MIDC water supply. Effluent of 69.7 CMD quantity will be treated through ETP, MEE, Stripper & RO; 64 CMD will be reused. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 1000 KVA including existing 800 KVA and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Existing unit has 1 DG set of 380 KVA capacity which will be replaced & DG set of 1000 KVA will be set up and to be used as standby during power failure after expansion. Stack of height 7.0 m will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 6TPH Coal fired Boiler & 6.0 Lakh Kilo Calorie/Hr Thermic Fluid Heater. Additionally, 10 TPH Coal fired boiler along with 6.0 Lakh Kilo Calorie/Hr & 2 Lakh Kilo Cal/Hr Thermic Fluid Heater will be installed. Multi cyclone separator with bag filter with a stack of height 30.5 m will be installed for controlling the emissions for boiler 10 TPH & 6.0 Lakh Kilo Calorie/Hr TFH; & Stack of 20 m height will be provided along with Bag filter & Oil/air pre heater to maintain emission concentrations within the statutory limit of 150 mg/Nm<sup>3</sup> for the proposed boiler.

Details of Process emissions generation and its management. "Gases and vapors from manufacturing process are identified source of emission, which will be passed through 2 Nos. of existing scrubbers (HCL/Cl<sub>2</sub> & Ammonia). Additional 1 No. of scrubber (HBr) will be installed to mitigate the process emissions from expansion activity. The scrubbed gases from manufacturing process will be released through 3 stacks each with a 12 meter height."

Details of Solid waste/ Hazardous waste generation and its management.

Sr. No.	Type of waste	Category of HW *	UOM	Quantity			Mode of Disposal
				Existing	Proposed	Total	
1	Distillation Residue	20.3	MT/M	0.5	17.5	18	CHWTSDF
2	Chemical Sludge from waste water Treatment	35.3	MT/M	0.5	2.5	3.0	CHWTSDF
3	Evaporation salt	37.3	MT/M	-	70	70	CHWTSDF
4	Waste oil	5.1	Kg/M	-	20	20	Authorised recycler/CHWTSDF
5	Empty containers/ barrels	33.1	No./M	-	80	80	Authorised recycler /CHWTSDF
6	Spent solvent	20.2	MT/M	-	3	3	CHWTSDF
7	Contaminated cotton rags or other cleaning material	33.2	No./M	-	5	5	CHWTSDF

Public Hearing for the proposed project is exempted as the project site is situated in Notified industrial area. No litigation is pending against the project.

**15.5.8.2.** The EAC, during deliberations noted that the project details mentioned in the EIA report were not consistent with that presented during the meeting. The Committee also took serious note on the quality of the EIA/EMP report prepared by the consultant and underrated the consultant. **The Committee desired that the Ministry/QCI shall take action as appropriate on the matter against the consultant for providing wrong and inconsistent information the EIA and presentation.** The EAC, after detailed deliberations decided to **return the proposal in its present form** and has asked for clarification/inputs, in respect of the following:-

- (i) EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR Compliance adequately.
- (iii) The Committee noted that there are various deficiencies in Form 2 uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (iv) The Committee observed that the water quality analysis reported submitted by Consultant is wrong. The value of TDS was less than the total cation/anion in the sample [EIA Report Page no. 123 (SW123) & Page No. 130 (GW)]. Consultant need to conduct root cause analysis and examine the issues why such mistakes reported in the report. Consultant to take again sample and re-analyze the samples. Report the results.
- (v) In EIA Report (Page No. 184), there are Schedule I species reported, however in Form 2 (S.No. 28), NIL information is mentioned. PP needs to examine the application properly before uploading the information on Parivesh Portal.
- (vi) Details of EC/CTO for present project. Product details shall be revised to have consistency with the existing, proposed and the total products and capacity, in a single tabular format. Commitment for not producing any banned pesticides.
- (vii) Revised layout plan with 33% greenbelt area along with budget needs to be submitted.
- (viii) Onsite emergency plan as per MSIHC Rules and detailed occupational health plan.
- (ix) Commitment for not using Furnace oil.
- (x) Revised water balance with details of total water and fresh water requirement, source of water etc. Effluent treatment mechanism with plan for Zero Liquid Discharge, having MEE/ATFD/RO.
- (xi) Details of protected areas within 10 km of the study area. Status of recommendation of Standing Committee of NBWL on the project.
- (xii) Revised one season AAQ monitoring and prediction of GLC due to the proposed project.

- (xiii) Plan for Corporate Environmental Responsibility.
- (xiv) **PP/Consultant has submitted the undertaking for owning the draft EIA Report. The consultant has not applied his mind during uploading the information on portal. The Committee was very disappointed by this act of consultant.**

The proposal was accordingly **returned in its present form.**

**Agenda No. 15.5.9**

**Setting up Bulk Drugs and Drug Intermediates Manufacturing Unit Suryapet (Telangana) by M/s SGR Laboratories Private Limited - Consideration of Environmental Clearance.**

[IA/TG/IND2/90705/2019, IA-J-11011/14/2019-IA-II(I)]

The Project Proponent and their accredited consultant M/sRightsource Industrial Solutions Pvt.Ltd., gave a detailed presentation on the salient features of the project and informed that:

**15.5.9.1** During deliberation, the EAC noted the following:

The proposal is for environmental clearance to the project for Setting up Bulk Drugs & Intermediates Manufacturing Unit of capacity 81 TPM by M/s SGR Laboratories Pvt Ltd in an area of 9 acres located at Sy No. 290 & Parts, Village Dondapadu, Mandal Chinthalapalem, DistrictSuryapet, State Telangana.

The details of products and capacity as under:

<b>S. No</b>	<b>Name of the Product</b>	<b>Quantity in MT/Month</b>	<b>CAS Number</b>	<b>Therapeutic Category</b>
1	Atorvastatin Calcium	10	134523-03-8	Antihyperlipidemic
2	Dapoxetine Hydrochloride	4	129938-20-1	Premature ejaculation
3	D-penicillamine	5	52-67-5	Antibiotic
4	Duloxetine Hydrochloride	5	136464-34-9	Anti depressant
5	Lansoprazole	10	103577-45-3	Anti ulcer
6	Lopinavir	5	192725-17-0	Anti viral
7	Moxifloxacin hydrochloride	2	186826-86-8	Anti bacterial
8	Nebivolol	5	152520-56-4	Anti hypertensive
9	Ritonavir	5	155213-67-5	Anti viral
10	Sildenafil citrate	15	171599-83-0	Erective dysfunction
11	Valsartan	15	137862-53-4	Anti hypertensive
	<b>Total</b>	<b>81</b>		

### List of By-Products and Quantities

S. No	Name of the Product	Name of the By-Product	Quantity in Kg/Day
1	Dapoxetine Hydrochloride	Isomer for product Recovery	138.67
2	D-penicillamine	2-Phenyl-N-(2-Phenylimino-ethyl)-acetamide	313.57
3	Duloxetine Hydrochloride	Isomer for product Recovery	98.75
		Mandelic acid	80.79

The Standard ToR has been issued by Ministry vide letter dated 13<sup>th</sup> February, 2019. Public hearing for the proposed project has been conducted by Telangana State Pollution Control Board on 7<sup>th</sup> August, 2019, which was presided over by the Joint Collector & Additional District Magistrate. The main issues raised during the public hearing are related to pollution, ZLD, safety, employment, release of poisonous gas, health issues, etc. The Committee deliberated the action plan on the issues raised during the PH. The Committee found the detailed action plan submitted by the project proponent with budgetary provisions are found to be satisfactory and addressing the concerns raised during public hearing/consultation.

The project/activities 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 Expert Appraisal Committee (EAC) in the Ministry.

Land area available for the project is 9 acres (36414 sqm). Industry will develop Greenbelt in an area of 3.37 acres covering 37.51% of total project area. The estimated project cost is Rs. 12 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 110 Lakhs and the recurring cost (operation and maintenance) will be about Rs. 15 Lakhs per annum. The project will provide employment for 70 persons directly & 30 persons indirectly.

There are no national parks, wildlife sanctuaries Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10km distance from the project site. Krishna river is flowing at a distance of 2.5 km in ESE direction.

Ambient air quality monitoring was carried out at 8 locations during Oct 2018 - Dec 2018 and the baseline data indicates that ranges of concentrations as: PM<sub>10</sub> (55.0 – 69.3 µg/ m<sup>3</sup>), PM<sub>2.5</sub> (22.0 – 27.7 µg/ m<sup>3</sup>), SO<sub>2</sub> (12.2 – 15.4 µg/ m<sup>3</sup>), NO<sub>x</sub> (19.6 – 22.8 µg/ m<sup>3</sup>), CO (0.35 – 0.87 mg/ m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> would be 0.975µg/ m<sup>3</sup>, 2.34µg/ m<sup>3</sup>, 2.59µg/ m<sup>3</sup> respectively. The resultant concentrations are within the National Ambient Air Quality Standards.

Total water requirement is estimated to be 134.13 cum/day, which includes fresh water requirement of 90.63 cum/day, proposed to be met from ground water source. The permission to draw ground water for industrial and drinking water purpose has been obtained from AP Ground Water & Water Audit Department.

Effluent generated of 52.86 cum/day will be treated through stripper followed by MEE/ATFD, Biological Treatment Plant followed by RO. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement of 2000 KVA will be met from TSSPDCL. DG set of 500 KVA capacity with stack (height 10 mts) will be set up. Coal fired boilers (2 TPH & 3 TPH) are proposed with stacks of height 30 mtrs each. Multi cyclone separator/ bag filter each will be installed for controlling the particulate emissions within statutory limit of 115 mg/ Nm<sup>3</sup>.

Details of Process emissions generation and its management.

S. No.	Name of the Gas	Quantity In Kg/Day	Treatment Method
1	Sulphur dioxide	251	Scrubbed by using C.S.Lye Solution
2	Hydrogen chloride	323	Scrubbed by using chilled water media
3	Hydrogen Bromide	75	Scrubbed by using C. S. Lye solution
4	Carbon dioxide	228	Dispersed into the atmosphere
5	Hydrogen	16	Diffused by using Nitrogen through Flame arrestor
6	Ammonia	27	Scrubbed by using chilled water media
7	Oxygen	45	Dispersed into the atmosphere
8	Hydrogen fluoride	11	Scrubbed by using C.S.Lye Solution
9	Chloromethane	27	Scrubbed by using C.S.Lye Solution

Details of Solid waste/Hazardous waste generation and its management.

S. No	Name of the Waste	Quantity Kg/Day	Disposal Method
Hazardous Waste Details			
1	Organic waste (Process Residue)	1406	Sent to Cement Industries
2	Spent Carbon	71	
3	Solvent distillation residue	441	
4	Organic Evaporate (liquid from MEE stripper)	380	
5	Spent Mixed Solvents	2 KL/Day	SPCB Authorized Agencies for Reprocessing/Recycling
6	ETP Sludge	350	Sent to TSDF
7	Inorganic waste	504	
8	MEE Salts	2868	
9	Used Oils	500 Ltrs/Annum	SPCB Authorized Agencies for Reprocessing/Recycling
10	Detoxified Containers	500 No's/Month	After Detoxification sent

			back to suppliers/sent to outside Parties
11	Used Lead Acid Batteries	2 No's/Year	Send back to suppliers for buyback of New Batteries
Solid Waste Details			
12	Ash from boiler	5425	Sent to Brick Manufacturers

It was informed that no litigation is pending against the proposal. It was informed that Rs. 60 lakhs has been earmarked towards Corporate Environmental Responsibility and Rs. 4 lakhs towards conservation plan.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that 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 properly addressed in the EIA/EMP report. Additional information submitted by the project has been found to be in order. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) 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.
- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.

- (iii) 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.
- (iv) National Emission Standards for Pharmaceuticals Industry (Bulk Drugs) issued by the Ministry vide G.S.R.149(E) dated 4<sup>th</sup> March, 2009 and amended from time to time shall be followed. Fugitive emissions shall be controlled at 99.98% with effective chillers.
- (v) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vi) 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.
- (vii) 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.
- (viii) Total fresh water requirement shall not exceed 90.63 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA, and renewed from time to time.
- (ix) 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.
- (x) 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.
- (xi) 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.
- (xii) 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.

- (xiii) 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 and dust should be avoided.
- (xiv) 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.
- (xv) 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.
- (xvi) All the issues raised during public hearing/consultation shall be satisfactorily addressed and the commitments made shall be implemented in a timely manner.
- (xvii) As proposed Rs. 60 lakhs shall be allocated for Corporate Environment Responsibility (CER). The CER funds shall be utilized for drinking water supply to nearby villages, educational/infrastructural support to schools, medical camps, skill development and other issues as committed during public hearing. The CER plan shall be completed within a period of five years or before commissioning of the project.
- (xviii) As committed, Rs 4 lakhs shall be allocated towards conservation plan and the same shall be implemented as suggested by the Forest Department/concerned authorities.
- (xix) 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.
- (xx) 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.
- (xxi) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

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

#### **Agenda No. 15.5.10**

**Establishment of 10,000 TCD Sugar Factory (scrapping of existing 800 TCD plant), 60 MW Co-gen Plant (50 MW from Co-gen plant & 10 MW from distillery) and 200 KLPD molasses based Distillery at Ganesh Tekadi, Nabhi (Bk.), Kopergaon, Satara (Maharashtra) by M/s Shivneri Sugars Ltd.- Consideration of Environmental Clearance.**

[IA/MH/IND2/78167/2018, IA-J-11011/277/2018-IA-II(I)]

The project proponent, vide email dated 31.12.2019, has informed their inability to attend the EAC meeting and requested to defer the proposal. Based on the request of the project proponent, the Committee has accordingly **decided to defer the proposal**.

#### **Agenda No. 15.5.11**

**Drilling and Testing of hydrocarbons at 7 (seven) locations under Dibru-Saikhowa National Park Area, North-West of Baghjan PML under Tinsukia District (Assam) by M/s Oil India Limited - For Reconsideration of Environmental Clearance.**

[IA/AS/IND2/92824/2007, J -11011/150/2016-IA II(I)]

The Project Proponent and the accredited consultant M/s ERM India Pvt .Ltd .made a detailed presentation on the salient features of the project.

**15.5.11.1.** The proposal was earlier considered by the Expert Appraisal Committee (Industry-2) in its 7<sup>th</sup> meeting held during 6-8 May 2019. The EAC, after deliberations, acknowledged national importance of the project and in view of last public hearing conducted on 26<sup>th</sup> December, 2016 in the same district, recommended again for exemption from fresh public hearing. However, to consider the present proposal for environmental clearance, the Committee desired to know the distance of the proposed wells from the locations for which public hearing was earlier conducted. The Committee further desired for a confirmation from the concerned regulatory authority for diversion of the forest land involved, if any, as mandated under the provisions of the Forest (Conservation) Act, 1980.

It was informed to the Committee that the recommendations of the EAC to exempt public hearing for the proposed project was not accepted by the Ministry and accordingly, the project proponent vide letter dated 29<sup>th</sup> May, 2019 has been requested to submit the proposal after conducting the public hearing. The Member Secretary informed to the Committee that as per the provisions of the EIA Notification, 2006, Public Hearing is mandatory for this category of the Project.

The project proponent in response to the observations of the EAC and communication to the Ministry has resubmitted the proposal requesting again exemption from public hearing. The project proponent has also submitted the details of public hearing conducted on 26<sup>th</sup> December, 2016. It was informed that conducting public hearing in the area is big challenge and couldn't be completed at a times due to unruly acts by the local pressure groups. Due to vulnerability and blockade from local pressure groups production in these area has been stopped. In addition, the project proponent has informed that the Standing Committee of NBWL in its meeting held on 29<sup>th</sup> July, 2017 and Hon'ble Supreme Court in its order dated 7<sup>th</sup> September, 2017 has recommended the proposal, on wildlife angle.

However, details regarding forest land involved and permission in this regard from the concerned regulatory authority has not been submitted. It was informed that neither there will be any diversion of forest land nor there will be any physical activity on surface/surface strains on the forest land. Seven deep surface wells (depth 3.9 km to 4 km) will be drilled below the forest surface using extended reach drilling (ERD) technology from outside the boundary of Dibru-Saikhowa National Park in Assam.

**15.5.11.2.** During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for Extension Drilling & Testing of Hydrocarbons at 7 (seven) by M/s Oil India Ltd located under Dibru-Saikhowa National Park Area, North-West of Baghjan PML, District Tinsukia, Assam.

The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 10<sup>th</sup> meeting held during 11<sup>th</sup> July 2016 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter dated 3<sup>rd</sup> August 2016.

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, 2006, and requires appraisal at central level by sectoral Expert Appraisal Committee in the Ministry.

Land required for the project is 96000 m<sup>2</sup>. The estimated project cost is Rs.300 crores and total recurring cost earmarked towards environmental pollution control measures is Rs. 0.2618 crore per annum. The project will lead to employment for 50 persons directly & 50 persons indirectly.

Dibru Saikhowa National Park and Bherjan Segment of Bherjan Borjan Podumoni Wildlife Sanctuary within 10 km of the well locations. Dangori River is flowing at a distance of 0.9 km in east-west direction.

Ambient air quality monitoring was carried out at 8 locations during October 2017-December 2017 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub>(21-74.µg/m<sup>3</sup>), PM<sub>2.5</sub>(39.08-47.92µg/m<sup>3</sup>), SO<sub>2</sub>(5.37-6.18µg/m<sup>3</sup>) and NO<sub>2</sub>(19.39- 24.19µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.17µg/m<sup>3</sup>, 13.0µg/m<sup>3</sup> and 30.99µg/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).

Total fresh water requirement is estimated to be 50 cum/day, proposed to be met from tube well. Effluent of 24.8m<sup>3</sup>/day quantity will be treated through effluent treatment plant and septic tank soak pit.

Power requirement of 2500 kVA sufficed through Diesel Generator Sets. One 1250 KVA DG set will be kept as standby. Stack height of 7 m will be provided as per CPCB norms to the proposed DG sets.

The operation of DG sets, movement of vehicles and machineries during construction and drilling, flaring of natural gas will result in the generation of air pollutants, if gas reserves are encountered during drilling operations. Stacks will be used with DG sets and flare system as per CPCB norms.

Drill cuttings and spent drilling mud will be disposed to HDPE lined pit within the drill site. The kitchen waste will be disposed in nearest municipal/village dumping site on a daily basis through approved waste handling contractors. Recyclable wastes will be periodically sold to local waste recyclers. Hazardous waste (waste and used oil) will be managed in accordance with Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2016.

The EAC has earlier recommended to exempt public hearing for the proposed project. The Member Secretary informed to the Committee that as per the provisions of the EIA Notification, 2006, Public Hearing is mandatory for this category of the Project.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that 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. The EAC has noted that the Committee has earlier recommended for exemption from public hearing to the proposed project, in its meetings held during 27-28 February, 2017 and 6-8 May, 2019. Again, EAC considered the following points to exempt the Public Hearing;

- 1. Conduction of Public Hearing:** To conduct Public Hearing is practically impossible in the project area due to the vulnerability of the area, the project will meet its death. Multiple political groups/ NGOs in Khagorijan and Bagjan area with vested interest, do not allow to conduct Public Hearing. This will be evident from the case of Khagorijan

field, ToR was granted on 18.07.2012, first public hearing was organized on 21<sup>st</sup>& 22<sup>nd</sup> Oct, 2014 which was disrupted by local pressure groups and formalities for PH could only be finally completed on 26.12.2016. It took OIL more than 04 years from grant of ToR for completing the PH process. Due to vulnerability of the area, attempt of organizing the fresh PH will result in Manpower, economical and production loss for the company.

2. **Suspension of Production activities:** Production of oil from Khagorijan Oil Field has been completely suspended since Nov, 2007 resulting in production loss of approx.1,10,000 Liters of oil per day i.e. loss of approx.15,950 KL per day since Nov. 2007 till date.
3. **Grant of approvals from various authorities:** SC-NBWL, Supreme Court order and Gazette notification from MoPNG has already been obtained by OIL for expediting the execution of first of its kind project in the country.
4. **Reduced dependency on crude oil imports:** For the energy security of the Nation, every drop of oil production would significantly contribute towards meeting PMO's vision of reducing our oil import 10% by 2022. Drilling of 07 ERD wells is expected to contribute 7,00,000 Liters of oil per day and save Rs.450 Crores of foreign currency per annum of our country towards crude oil imports. The country will have to spend/ lose Rs.1,800 Crores of foreign currency towards crude oil import assuming 04 years delay in executing the said project.

In view of the above, the project is of national importance, should be considered as no local conditions have changed fresh public hearing should be exempted.

The EAC, after deliberations, acknowledged national importance of the project and in view of last public hearing conducted on 26<sup>th</sup> December, 2016 in the same district, and issues in conducting fresh public hearing due to prevailing law, order & local pressures and vulnerability, has recommended again for exemption from fresh public hearing.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC) exempting public hearing/consultation.

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

- (i) No drilling shall be conducted in forest areas without obtaining prior permission under the Forest (Conservation) Act, 1980.
- (ii) Drilling in the National Park/Wildlife Sanctuaries are subject to the recommendations of orders of Hon'ble Supreme Court, recommendations of Standing Committee of NBWL,

recommendations of the State Chief Wildlife Warden and strict compliance of the conditions imposed therein.

- (iii) 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.
- (iv) 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. Mobile ETP along with RO plant shall be installed to treat the waste water.
- (v) 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.
- (vi) 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.
- (vii) 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 G.S.R. 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.
- (viii) During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.
- (ix) The project proponent also to ensure trapping/storing of the CO<sub>2</sub> generated, if any, during the process and handling.
- (x) Approach road shall be made pucca to minimize generation of suspended dust.
- (xi) 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.
- (xii) Total fresh water requirement shall not exceed 20 cum/day. Prior permission shall be obtained from the concerned regulatory authority. Mobile ETP coupled with RO shall be installed to reuse the treated water in drilling system. Size of the waste shall be equal to the hole volume+ volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.
- (xiii) 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.
- (xiv) 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.

- (xv) 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.
- (xvi) 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.
- (xvii) 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.
- (xviii) 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.
- (xix) 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.
- (xx) Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- (xxi) On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- (xxii) 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.
- (xxiii) No lead acid batteries shall be utilized in the project/site.
- (xxiv) Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- (xxv) Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.

(xxvi) 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.

**DAY 3: 1<sup>st</sup> January 2020 (Wednesday)**

**15.5 Consideration of Environmental Clearance**

**Agenda No. 15.5.12**

**Expansion of Offshore and Onshore Oil and Gas Exploration, Development & Production in existing Ravva Field, PKGM-1 Block (of 331.26 km<sup>2</sup>) located near Surasniyanam Village (S. Yanam) in Krishna-Godavari Andhra Pradesh by M/s Vedanta Limited (Division Cairn Oil & Gas) –Reconsideration of Environmental & CRZ Clearance.**

[IA/AP/IND2/102271/2013, J-11011/81/2013-IA II(I)]

The Project Proponent and their accredited Consultant M/sERM India Private Limited made a detailed presentation on the salient features of the project.

**15.5.12.1** The proposal was earlier considered by the EAC in its meeting held during 28-29 August, 2019. The Committee, after deliberations, deferred the proposal for want of following additional information:-

S. No.	Information desired by the EAC	Reply by the PP	Remarks of the EAC
1	Project proponent to provide approval of DGH to the MoFCC for the five onshore drilling wells which are located outside the PKGM-1 Block and belong to ONGC.	Vedanta Limited (Cairn Oil & Gas) will extract hydrocarbon resources only from the allocated PKGM-1 Block (within the Block boundary). All the potential hydrocarbons bearing sands intersected from onshore well pads profile are located in shallow water depths within the block where rig mobilization offshore is difficult. Thus, it is proposed to carry out drilling from onshore engage through onshore drilling from adjacent land area, which falls outside the block. Before commencement of drilling, Vedanta Limited (Cairn Oil & Gas) will obtain due	Information provided is not addressing the concerns raised by the EAC. PP has failed to provide the information.  The Project proponent need to provide approval of DGH for the five onshore drilling wells which are

		approval from DGH and ONGC. This commitment was included in the affidavit submitted to MoEFCC with covering letter no. CIL/GGN/MOEF/19/9/01 dated 09 September 2019. Affidavit has been submitted through covering letter dated 09 September 2019	located outside the PKGM-1 Block and belong to ONGC.
2	The proposal requires CRZ approval from the MOEFCC as the onland wells are located between 200-500 meters from the Coastline. However the PP has approval of State authorities.	Vedanta Limited (Cairn Oil & Gas) is seeking Environmental and CRZ Clearances from MoEFCC for the proposed expansion Project. APCZMA has recommended the Project through their No Objection Certificate Letter no.138/APCZMA/CRZIIND/ 2019-91 dated 03-04-2019 received on 06-05 2019. Copy of the APZMA approval is submitted	The project proponent needs to submit the copy of NOC and communication addressed to the Ministry by the APCZMA. In addition, conditions imposed and plan for achieving the same shall be submitted. The Committee also suggested that the comments of CRZ Sector also needs to be obtained.
3	Copy of Coast Guard approved Oil Spill Contingency Plan with available trained man power and equipment shall be submitted to the ministry.	Oil Spill Contingency Response plan (OSRP) has been prepared as per the National Oil Spill Disaster Control Plan (NOSDCP) Guidelines issued by Indian Coast Guard (ICG). The Plan was reviewed by Indian Coast Guard and all the comments of the Indian Coast Guard (ICG) were incorporated in the revised OSRP and submitted back to ICG. The final approval is awaited. Copy of the acknowledgement letter dated 22 May 2019 for final approval of OSRP (submitted to the Assistant Commandant Indian Coast Guard , Kakinada), together with oil spill response equipment and trained man-power detail, is submitted	Copy of Oil Spill Contingency Plan which is submitted to Indian Coast Guard shall be submitted along with agreement of copy of International Oil Spill response Service Provider as desired by the EAC for perusal.
4	Chapter-9 Environment	Environmental Management Plan (EMP) is updated by including a column in Table	The project proponent shall

	Management Plan has no integration of data generated in Chapter-3 i.e. from baseline; 'Description of Environment', for decision making. This shall be revised based on studies conducted for the purpose.	9.1 on baseline covered under Chapter 3 (i.e. Description of Environment). The updated EMP also includes reference to public hearing issues raised and related response. Copy of the Updated EIA (Volume 1) including revised EMP is submitted	ensure complying with EMP. The Committee noted that the Consultant/PP needs to read the documents before uploading on the Parivesh Portal.
5	Treatment and disposal of Additional produced water generated not mentioned in EIA. Treatment and disposal do not depend on assumptions.	EIA report covers treatment of produced water in the existing Produced Water Re-injection (PWRI) Treatment system as described in Sections 2.4.1, 4.49 & 4.6.3. Schematic of produced water treatment is given in Figures 2.8 & 2.9 of Section 2.4.1 of the EIA report. Section 2.4.1.11 of the EIA describes existing API Separator and Effluent Treatment Plant (of 3,000 m <sup>3</sup> /day capacity). At higher water cut conditions also, the effluent generation will remain well within the existing ETP operating capacity of 3000 m <sup>3</sup> /day. The wastewater is treated and discharged into the sea through a submerged sub-sea pipeline and through a pipe diffuser system. The outfall is located 540 m from the shore at 5 m water depth. The treated produced water from PWRI Treatment system will continue to be injected into the confined hydrocarbon reservoir after comingling it with ground water to fill up the void created due to hydrocarbon extraction and maintain reservoir pressure. Refer to Section 24.1.11 of the Updated EIA (Volume 1) with additional information on produced water generation including revised EMP. Also, refer to Annexure 5 for standalone information on produced water generation and effluent treatment	Commitment towards ZLD needs to be submitted. Effluent treatment plan to be revised separately for onshore and offshore.
6	On page 229 of EIA the values	Sulphur content in HSD BS-IV grade is 50 ppm by wt. However, for air	The justifications found to be

	of S present in HSD has been reported 0.1%, need to be checked.	dispersion modelling the Sulphur content of 0.1% was considered, which is higher value than the actual Sulphur content present in the diesel. The ground level concentrations for emission of SO <sub>2</sub> with 0.1% Sulphur content in diesel remained well within the prescribed standards as against the HSD BS IV grade limit of 50 ppm (i.e. 0.005%) by wt	satisfactory.
7	Public hearing issues discussed by the EAC at length. Unless these serious issues are addressed by the project proponent, the EAC cannot recommend the project for grant of EC. There are serious allegations about the project proponent's functioning as per the recorded minutes of the PH meeting, for example non fulfillment of earlier commitment, pollution issues, drinking water, compensation, sludge and oily waste discharge into sea and reduction in yield of fishes, prawn including other sea food etc.	Issues raised during Public Hearing and related responses are given in Annexure 6. Vedanta Limited (Cairf1 Oil & Gas) will also submit six monthly compliance status of implementation of actions identified in response to issues raised during the public hearing. Vedanta Limited (Cairn Oil & Gas) has submitted an affidavit dated 25 October 2018 to the State Government of Andhra Pradesh acting through Joint Collector, East Godavari District (refer to Annexure 2), addressing key issues raised during the public hearing as well as commitment of annual contribution of INR 6.0 Crores towards CSR and CER initiatives. This amount will be annually deposited with office of District Collector, East Godavari District, Andhra Pradesh towards implementing community development works/projects. This fund will be utilized by district administration for improving livelihood of the people residing in S. Yanam and surrounding villages. The amount to be spent and need of each program will be decided by the district administration based on the needs of the local community	Public hearing issues, commitment, action plan alongwith budgetary provisions to be resubmitted incorporating the suggestions of the EAC.
8	Item wise details of the budget allocated for Corporate Environment Responsibility (CER) need to be submitted for next five years.	In compliance with the requirements included in the MoEFCC office memorandum dated 1 May 2018 on Corporate Environment Responsibility, Vedanta Limited (Cairn Oil & Gas) on behalf of Ravva Joint Venture is committed to contribute every year INR	As proposed in the meeting, CER plan to be revised with Rs. 20 crore budget allocation alongwith detailed activities

	<p>6.0 Crores towards implementing the CSR and CER projects as per affidavit dated 25 October 2018 submitted to the State Government of Andhra Pradesh acting through Joint Collector, East Godavari District (refer to Annexure 2). The amount of INR 6.0 Crores per annum (i.e. -INR 30 Crores in five years) works out to be more than INR 19.1 Crores i.e. 0.25% of the investment proposed (of INR 7,640 Crores). This amount will be annually deposited with office of District Collector, East Godavari District, Andhra Pradesh towards implementing community development works/projects. This fund will be utilized by district administration for improving livelihood of the people residing in S. Yanam and surrounding villages. The amount to be spent and need of each program will be decided by the district administration based on the needs of the local community. The fund will be utilized by the administration towards implementing the following programs/initiatives: a) Drinking water: Setting of potable water system b) Infrastructure: Construction of roads, bridges/culverts, developing the parks with walking tracks, installation of the solar lights etc. c) Health: Supporting district medical department for effective operation and maintenance of the public health centre d) Solid waste and Sanitation: Provision of supporting the "Swatch Bharat" initiative for the effective waste management. e) Education: Supporting the Government schools and Anganwadis towards improving the educational standards by supporting additional teachers, establishment of libraries, providing bus passes for the students, providing scholarships to the meritorious students</p>	<p>proposed to be carried out.</p>
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		<p>etc. f) Sports: Supporting physical education in schools and youth such as providing sports kits, creating play area for the basketball, volleyball and cricket.</p> <p>g) Skill development of the youth: By developing IT training centres in the villages by providing computers and organizing training programs</p> <p>h) Natural Resource Management (NRM): Development of NRM related projects in the villages through plantation of the native species for increasing the green cover, providing fruit bearing saplings to the local villagers etc.</p> <p>i) Financial support: Financial support shall be provided to the villagers such as pension for widows and physically disabled - persons. The amount to be paid will be decided by ROO</p> <p>j) Need based assessment study: Carry out a need based (social) assessment study in the S.Yanam and the surrounding villages through Smart Andhra Pradesh Foundation or through any reputed institutions. The outcome of the study will be discussed with the district administration and financial support will be focused on the study outcome related program. As guided in the OM on CER dated 1 May 2018, the District Collector may add or delete the activities as per the requirements of the district.</p>	
9	The project proponent is directed to submit an affidavit on each issue raised by the public and also on suggestions of ADM toward compliance of these issues with budget and time frame. The EMP which is given in EIA do not	Vedanta Limited has already submitted the following affidavits 1) Affidavit dated October 25, 2018 submitted to the State Government of Andhra Pradesh acting through Joint Collector, East Godavari District (refer to Annexure 2) addressing key issues raised during the public hearing as well as commitment of annual contribution of INR 6.0 Crores towards CSR and CER initiatives; and. 2) Affidavit with covering letter dated September 09,	Action plan for CER to be revised.

	<p>have mention of anything about compliances of the public hearing issues. Therefore, the proposal in present form shall not be recommended for EC and is deferred till submission of above.</p>	<p>2019 submitted to MoEFCC mentioning the commitment towards community initiative programs, no forestland involved for the Project, obtain of necessary approvals before start of any activity outside the block area, carry out of process safety and risk assessment study using 3D modelling and addressing the public hearing issues in consultation with the district administration (refer to Annexure 1) Item wise response to Public Hearing issues raised are included in the revised EMP (Section 9) of the Updated EIA as enclosed. Also refer to Annexure 6 for details</p>	
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**15.5.12.2** During deliberations, the EAC noted the following:

The proposal is for environmental and CRZ clearance to the project for Expansion of Offshore and Onshore Oil and Gas Exploration, Development & Production in existing Ravva Field, PKGM-1 Block (of 331.26 km<sup>2</sup>) located near Surasaniyanam Village (S. Yanam) in Krishna-Godavari Basin, East Godavari District, Andhra Pradesh by M/s. Vedanta Limited (Cairn Oil & Gas Division).

Standard Terms of References (ToRs) was issued as per letter by Ministry vide reference No. IA-J-11011/41/2018-IA-II(I); dated 24<sup>th</sup> March 2018 against application for ToR dated 24 January 2018.

All Offshore and onshore oil and gas exploration, development and production are listed at S.N. 1(b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

Ministry had issued EC earlier vide letter no. J-11011/80/2013-IA II (I); dated 23<sup>rd</sup> February, 2015 and CRZ Clearance vide letter no. F.No.11-20/2015-IA.III dated 25<sup>th</sup> May 2017 to the existing project for Oil & Gas Development in Existing Ravva Offshore Field, PKGM-1 Block located off Surasaniyanam (S. Yanam) in the Bay of Bengal, East Godavari District, Andhra Pradesh in favor of M/s. Vedanta Limited (Cairn Oil & Gas Division).

Existing land area is about 235 acres, additional land of about 131 acres consisting of onshore well pads, pipeline corridor and connecting roads will be used for proposed expansion. Industry has already developed greenbelt in 35% i.e., 83 Acres of total area. The estimated project cost is Rs. 7,924 Crores (to be spent in 10 years) including existing cumulative investment of Rs. 10,460 crores. Total capital cost earmarked towards environmental pollution control measures is

approximately Rs. 400 Crores and the Recurring cost (operation and maintenance) will be about Rs. 3 Crores per annum. Total direct employment will be above 550 persons and indirect employment to ~150 after expansion. Industry propose to allocate Rs. 5.50 Crores per annum towards Corporate Social Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wild life Corridors etc. within 10 km distance from the project site. The PKGM-1 Block area lies mostly offshore from the Godavari Delta. Estuary of Vrudha Gautami River and Nilarevu River are located at ~17.3 km and ~20 km respectively northeast from the existing offshore RB Platform in PKGM-1 Block

Ambient air quality monitoring was carried out at 8 locations during January to March 2018 and the baseline data indicates the ranges of concentrations as:  $PM_{10}$  (43.6 to 56.3  $\mu\text{g}/\text{m}^3$ ),  $PM_{2.5}$  (18.4 to 25.7  $\mu\text{g}/\text{m}^3$ ),  $SO_2$  (8.7 to 14.8  $\mu\text{g}/\text{m}^3$ ) and  $NO_2$  (10.5 to 16.7  $\mu\text{g}/\text{m}^3$ ). AAQ modeling study for point source emissions from the Ravva Terminal and onshore drilling activity indicates that the maximum incremental GLCs from the proposed project would be 0.6  $\mu\text{g}/\text{m}^3$ , 1  $\mu\text{g}/\text{m}^3$  and 18.3  $\mu\text{g}/\text{m}^3$  with respect to  $PM_{10}$ ,  $SO_x$  and  $NO_x$ . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

AAQ modeling study for point source emissions from offshore drilling activity and flaring during well testing indicates that the maximum incremental GLCs after the proposed project would be  $PM_{10}$  (0.6  $\mu\text{g}/\text{m}^3$ ),  $SO_2$  (1.0  $\mu\text{g}/\text{m}^3$ ) and  $NO_2$  (18.3  $\mu\text{g}/\text{m}^3$ ) during onshore drilling of wells and  $PM_{10}$  (0.5  $\mu\text{g}/\text{m}^3$ ),  $SO_2$  (0.7  $\mu\text{g}/\text{m}^3$ ) and  $NO_2$  (11.7  $\mu\text{g}/\text{m}^3$ ) during Project operations. The resultant concentrations at nearby onshore locations are within the National Ambient Air Quality Standards (NAAQS).

The total water requirement is 18,285  $\text{m}^3/\text{day}$  (existing approved by APWALTA of saline groundwater from deep bore wells of 10,413  $\text{m}^3/\text{day}$  + proposed 7,872  $\text{m}^3/\text{day}$ ) of which no fresh water will be required. The entire water requirement will be sourced through ground water abstraction from the saline bore wells after obtaining necessary permission from APWALTA. However, during the drilling period, the average water requirement for onshore well drilling is expected to be 60  $\text{m}^3/\text{day}$  and for offshore drilling to be 85  $\text{m}^3/\text{day}$ .

For onshore drilling of a well, effluent of 5  $\text{m}^3/\text{day}/\text{well}$  and domestic wastewater of 4.5  $\text{m}^3/\text{day}$  will be treated in ETP and STP respectively. For offshore drilling, onboard domestic wastewater generation is expected to be 30  $\text{m}^3/\text{day}$ , which will be treated onboard STP and bilge and wash wastewater of 5  $\text{m}^3/\text{day}$  will be treated oil-in-water separator before offshore discharge complying with MARPOL 73/78 standards.

For drilling of onshore wells power requirement will be met through two nos. of 1,000 kVA capacity diesel generators and two diesel generators of 350 kVA capacity including one diesel generator of 350 kVA catering to the power requirement at the campsite. For the offshore drilling, power requirement will be met through diesel generators of 4 nos. of 2,000 kVA and one no of 500 kVA capacity installed onboard the rig. Existing power requirement at Ravva Terminal is 10 MW, which is met through 2.5 MW x 4 nos. gas turbines and no additional power is required.

From both onshore and offshore drilling, point source air emissions will be generated from diesel generators and flares. The emissions will be controlled through adequate stack height as per CPCB criteria.

Solid waste to be generated from onshore and offshore drilling activities will include hazardous and non-hazardous wastes, which are further classified as recyclable and non-recyclable waste. All the wastes will be segregated at the source of generation and disposed in the legally acceptable manner. All recyclable hazardous wastes such as used oil, waste oil, used containers etc., and recyclable non-hazardous waste such as metals and non-metals (paper, cardboard, wood, plastic etc.) will be disposed to the authorized recyclers. The major waste anticipated due to drilling of wells include spent drilling mud and drill cuttings. These wastes are stored, handled and disposed as per the requirements of the applicable Indian regulation, and APPCB. The domestic waste from onshore campsite will be composted in-house and will be used as manure.

PublicHearingforthe proposed project was conducted by the Andhra Pradesh Pollution Control Board on 11 October 2018. The main issues raised during the public hearing included Drinking Water Supply, Social Infrastructure Development, Greenbelt Development, Land Subsidence, Employment, CSR, and Pollution in the area. All the issues raised in the public hearing were addressed and submitted to the Joint Collector, East Godavari District and the same is mentioned in the EIA report.

Details of Certified compliance reports submitted by Environmental Engineer, Regional Office Kakinada, Andhra Pradesh Pollution Control Board. The site inspection by APPCB, Regional Office Kakinada was conducted on 28.12.2018 & 18.01.2019 and the report is attached as part of the EIA report. No litigation is pending against the proposal.

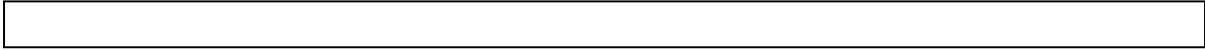
The details of products and capacity as under:

S. No.	Product	Existing Quantity	Approved Quantity	Proposed Quantity	Total Quantity
1	Crude oil in BOPD	50,000		-	50,000
2	Natural Gas in MMSCMD	2.32		-	2.32

Note 1: BOPD = barrels of oil per day; MMSCMD = million standard cubic meter per day

Note 2: As the production is declining due to aging and in order to maintain already approved above hydrocarbon production capacities, the Project proponent now proposes the following:

- 1) Drilling of 123 exploratory and development (production) wells.
- 2) Establishing of 7 nos. of onshore well pads with associated facilities and utilities for drilling of onshore exploratory and development wells and
- 3) Laying of ~15 km of pipelines corridor (comprising of three pipelines connecting onshore well pads to the existing onshore Ravva Terminal)



**15.5.12.3** The EAC, during deliberations noted that the project details mentioned in the Form2/EIA report were not consistent with that presented during the meeting. The project proponent has also desired to drop few wells which belong to ONGC onland area and PP do not have permission from DGH. The EAC, after detailed deliberations decided to **defer the proposal** for clarification/inputs, in respect of the following:-

- (i) Revised Form2 to be submitted vis-à-vis the updated EIA report.
- (ii) Details of project block, separately for onshore and offshore along with proposed drilling locations. Details of wells proposed to be dropped from the scope of the work.
- (iii) The Project proponent either need to provide an approval of DGH for the five onshore drilling wells which are located outside the PKGM-1 Block and belong to ONGC or surrender these wells by an undertaking.
- (iv) The project proponent needs to submit the copy of NOC and communication addressed to the Ministry by the APCZMA. In addition, conditions imposed and plan for achieving the same shall be submitted. The comments of CRZ needs to be obtained by the Sector.
- (v) Copy of marine EIA report, maps and other documents submitted for CRZ recommendation to be provided.
- (vi) Copy of Oil Spill Contingency Plan which is submitted to Indian Coast Guard shall be submitted along with agreement of copy of International Oil Spill response Service Provider as desired by the EAC for perusal.
- (vii) Commitment towards ZLD needs to be submitted. Effluent treatment plan to be revised separately for onshore and offshore.
- (viii) AAQ data and GLC due to the project needs to be revisited.
- (ix) Certified compliance report of the existing EC from the Regional Office of the Ministry/Communication, if any, from Regional Office regarding compliance.
- (x) Public hearing issues, commitment, action plan with time and budgetary provisions to be resubmitted incorporating the suggestions of the EAC.
- (xi) As proposed in the meeting, CER plan to be revised with Rs. 20 crore budget allocation.

The Committee noted that the Consultant/PP needs to read the documents before uploading on the Parivesh Portal. The Committee observed that PP/Consultant has not submitted the adequate information as sought by the earlier EAC meeting held in August 28-29, 2019. The Committee disappointed the response of PP/Consultant and the proposal was accordingly **deferred** for the needful on the above lines.

### **Agenda No. 15.5.13**

**Proposed Greenfield Ammonium Phosphate Fertilizer Complex at Village Biliya, Tehsil & District Chittorgarh (Rajasthan) by M/s HZL Fertilizer Project – Reconsideration of Environmental Clearance.**

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

**15.5.13.1** The proposal was earlier considered by the EAC in its meeting held during 23-25 October, 2019. The information desired by the Committee and reply submitted by the project proponent is as under:

Information desired by the EAC	Reply submitted by the PP								
<p>Detailed effluent treatment plan with Zero Liquid Discharge system. ETP shall be refined/modernized.</p>	<p>Salient features of the proposed Zero Liquid Discharge (ZLD) system are given below-</p> <ul style="list-style-type: none"> <li>• Effluent Treatment Plant followed by Reverse Osmosis Plant along with ZLD System (MEE/MVR) to ensure Zero Liquid Discharge from the proposed project.</li> <li>• Effluent of ~4220 m<sup>3</sup>/day quantity will be treated in proposed ETP of capacity 4800 m<sup>3</sup>/day.</li> <li>• Rainwater collected from the roof/terrace of plant buildings &amp; other areas will be diverted to storm water pond which is planned to be designed in around 4 Ha area.</li> <li>• Collected rainwater will be reused in process directly/after treatment in ETP or WTP as per its quality.</li> <li>• Sewage effluent will be treated in proposed sewage treatment plant (120 m<sup>3</sup>/day) and treated water will be reused within the plant.</li> </ul> <p>Detailed effluent treatment plan with Zero Liquid Discharge system and ETP are provided in Water Management document which is enclosed as Annexure 1.</p>								
<p>Revised water balance.</p>	<p>Fresh water requirement for proposed project in Phase I and Phase II is 10,100 M<sup>3</sup>/Day (5050 M<sup>3</sup>/Day in each phase), which will be sourced from Gosunda dam/STP Udaipur/ proposed STP at Chittorgarh town.</p> <p>Revised Water Balance is provided in Water Management Plan which is enclosed as Annexure 1.</p>								
<p>Speaker wise, point wise, response on the issues raised during the public consultation along with time bound action plan and budgetary provision.</p>	<p>Detailed Public Hearing Points, Action Plan and budgetary provision is enclosed as Annexure 2.</p> <p>Summary of the Public Hearing issues along with time bound action plan and budgetary provision are given below-</p> <table border="1" data-bbox="624 1890 1449 1960"> <thead> <tr> <th data-bbox="624 1890 719 1960">Cate gory</th> <th data-bbox="719 1890 895 1960">Issues Raised</th> <th data-bbox="895 1890 1134 1960">Response to the Public</th> <th data-bbox="1134 1890 1449 1960">Action Plan with Budget &amp;</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Cate gory	Issues Raised	Response to the Public	Action Plan with Budget &				
Cate gory	Issues Raised	Response to the Public	Action Plan with Budget &						

		Hearing	Timeframe
Soci al	Employment to the local youth	Preference will be given in Employment to the local youth based on their skills, eligibility, requirement, company policy, and in compliance with prevailing laws.	Skill development and employment generation for the local youth are part of CER plan.
Environment	Air Pollution, Water pollution, Soil Contamination	This is a Greenfield project. There is no pollution because of this proposed project at this location.	EMP with budgetary provision of Rs. 185 Cr. is in place. We assure that proposed plant will adhere to all the state/central pollution control boards standards and conditions stipulated by the Hon'ble EAC in the Environment Clearance of the project. Affidavit is provided for the same as Annexure 7.

	Social	Water supply, Health/Hygiene, Education, Skill Development, Income Generation activities, Sports, Basic Infrastructures of the villages	Corporate Environment Responsibility (CER) Plan is derived and designed to address these requirements which raised during Public consultation.	CER Provision of Rs. 25 Crores will be Spent within 3 Years from the date of project establishment. Affidavit is provided for the same as Annexure 7.
	Land	Demand of additional Compensation (Rs. 5 Cr/acre) for acquired Land / conversion	Land acquired as per prevailing DLC rate & additional compensation as agreed with Administration Application submitted in the Month of Dec '18 for conversion of land use.	On-ground project activities will be carried out after obtaining the required permissions Affidavit is provided for the same as Annexure 7.
Detailed mode transportation plan for raw materials & products.	<p>The Fertilizer complex will handle ~6.5 MMT of material (Raw Material, Products &amp; Waste) once it becomes fully operational. The location of the plant is well connected with the Road and Rail Network. Based on the 100% Road movement the traffic density has been assessed. As per the IRC Guidelines, the peak traffic level of existing &amp; after proposed project roads was found to be in the category of Excellent (A).</p> <p>Considering the traffic density, the plant will be designed with totals 150-160 truck/day parking facility. The capacity of the parking area is calculated based on the</p>			

	<p>tentative average Truck Turnaround Time (TAT). Hindustan Zinc will keep improving the rail component as a part of its continuous improvement plan and target to achieve 50% material movement over 10-12 years of plant operation.</p> <p>Detailed mode transportation plan for raw materials &amp; products is enclosed as Annexure 3.</p>
Commitment on the implementation of recommendations of 3D numerical modelling of the risk assessment.	We hereby committed that 3D numerical modelling of the risk assessment will be carried out during detailed Engineering of the project and recommendations will be implemented. Affidavit is provided for the same as Annexure 7.
Revised layout plan with 10 m wide green belt along the plant periphery covering 33% of the project area, with specific demarcation of parking area.	Revised Layout plan with 10 m wide green belt along the plant periphery covering 33% of the project area, with specific demarcation of parking area is enclosed as Annexure 4.
CER plan with a fund provision of Rs. 25 Crores envisaging the proposed activities to address the issues raised in the public consultation and need based assessment inter alia including time bound action plan and fund provision for each component	CER plan with a fund provision of Rs. 25 Crores envisaging the proposed activities to address the issues raised in the public consultation and need based assessment inter alia including time bound action plan and fund provision for each component is enclosed as Annexure 5.
GLC data to be checked and be presented with original inputs and calculation	<p>For verification of the GLC data remodeling for the proposed projects was carried out. Salient features are given below:</p> <ul style="list-style-type: none"> <li>• Based on the identified sources of emission during operation phase, PM<sub>10</sub>, PM<sub>2.5</sub>, Fluorides (F) and Ammonia (NH<sub>3</sub>) are expected significant pollutants.</li> <li>• Software used for the current study is AERMOD VIEW. AERMET as a pre-processor was used to processes meteorological data and estimates the necessary boundary layer parameters for dispersion calculations.</li> <li>• Output file obtained from AERMET is a file of hourly boundary layer parameter estimates, and a file of multiple-level observations of wind speed and direction, temperature, and standard deviation of the fluctuating components of the wind.</li> <li>• GLCs are obtained in µg/m<sup>3</sup> for pollutants.</li> <li>• Output of modeling gives concentration at uniform</li> </ul>

	<p>Cartesian receptors to get the resultant concentration with reference to baseline data.</p> <ul style="list-style-type: none"> <li>Max GLC observed for the proposed project after remodelling remains same as previous predicted value and found within permissible norms.</li> </ul> <p>GLC data with original inputs and calculation along with Baseline Monitoring Reports are enclosed as Annexure 6.</p>
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**15.5.13.2** During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for setting up Ammonium Phosphate Fertilizer Complex of 1.02 MTPA (2 x 0.51 MTPA) Plant by M/s Hindustan Zinc Limited in an area of 101.45 ha located at Village Biliya, Tehsil & District Chittorgarh, Rajasthan.

The details of products and capacity are as under:

S. No.	Product	Capacity(TPA) Phase I	Capacity(TPA) Phase II	Total (TPA)
1	Di-Ammonium Phosphate (DAP)	5,10,000	5,10,000	1.02 MTPA
2	Nitrogen Phosphorous Potash			
3	Ammonium Phosphotic Sulphate			
4	Phosphoric acid (100% P <sub>2</sub> O <sub>5</sub> basis)	2,40,000	2,40,000	4,80,000
5	Aluminium Fluoride	9,000	9,000	18,000
By products				
1	Hydro Fluosilicic Acid	10,500	10,500	21,000
2	Phosphogypsum	13,50,000	13,50,000	27,00,000

The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 17<sup>th</sup> and 18<sup>th</sup> meeting held during 26<sup>th</sup>-29<sup>th</sup> December 2016 and 23<sup>rd</sup> -25<sup>th</sup> January 2017 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter dated 29<sup>th</sup> May 2017.

The project/activities are covered under category A of item 5(a) 'Chemical fertilizers' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The project shall be installed in two phases in an area of 10,14,500 m<sup>2</sup> (101.45 Ha). Industry has developed greenbelt in an area of 4,93,100 m<sup>2</sup> (49.31 Ha) covering 48.60 of total project area. The estimated project cost is Rs 2700 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 185 crores and the recurring cost (operation and maintenance of environmental pollution control equipment) will be about Rs 37 crores per annum. The project will provide employment for 250 persons directly and indirectly. Industry proposes to allocate Rs. 25 crores cost towards Corporate Environmental Responsibility (CER) over 3 years period.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant

Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Seasonal river called Berach is passing about 680 m South-east of the project site. Seasonal Putholinalla is passing about 250 m south of the project site. Seasonal Gambhiri River is located 5.5 km south of the project site.

Ambient air quality monitoring was carried out at 8 locations during 1<sup>st</sup>December 2016 to 28<sup>th</sup>Feb 2017 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (40-96 µg/m<sup>3</sup>), PM<sub>2.5</sub> (20-57 µg/m<sup>3</sup>), SO<sub>2</sub> (6.8-21.5µg/m<sup>3</sup>) and NO<sub>2</sub> 8.6-31.6 µg/m<sup>3</sup>), NH<sub>3</sub> (8-28 µg/m<sup>3</sup>.), CO (0.18-1.26 mg/m<sup>3</sup>). HC (<0.1 – 1.6 ppm). AAQ modeling study for point source emissions indicates that the incremental GLCs after the proposed project in the study area at monitoring location would be 3.05 µg/m<sup>3</sup> (corresponding to the maximum PM<sub>10</sub> baseline value location), 0.69 µg/m<sup>3</sup> (corresponding to the maximum PM<sub>2.5</sub> baseline value location), 0.37 µg/m<sup>3</sup> (corresponding to the maximum NH<sub>3</sub> baseline value location), 0.4 µg/m<sup>3</sup> (corresponding to the maximum F baseline value location), with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, NH<sub>3</sub> and F. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is estimated to be 14,100 cum/day, which includes fresh water requirement of 10100 cum/day (5050 cum/day in each phase), proposed to be met from Gosunda dam/STP Udaipur/ proposed STP at Chittorgarh town. Fresh water requirement is proposed to be reduced to 9600 cum/day by adopting industrial best practices.

Effluent of 4220 cum/day quantity will be treated in ETP of capacity 4800 m<sup>3</sup>/day and recycled back in the system. Domestic Sewage water will be treated in sewage treatment plant (120 cum/day) and treated water will be utilized for plantation purpose and other uses. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement will be 35MW and will be met from State grid/ existing CPP of Chanderia Zinc Lead smelter. Unit proposes Four nos of DG sets of 2500 KVA capacity each (2 DGs in each phase), as standby during power failure. Stack (height 10m above building height) will be provided as per CPCB norms to the proposed DG sets.

Phosphoric acid (100% P2O5 basis) & Hydro Fluosilicic Acid will be consumed within the process and surplus quantity shall be sold. Phosphogypsum will be utilized for cement manufacturing.

Details of Process emissions generation and its management is as mentioned below

Area	Stack Height	Stack Dia	Stack Exit Temperature	Flow Rate	Emission Parameters		Control Measures	Control Efficiency
	in M	in M	Deg K	NM <sup>3</sup> /Hr	Parameter	Value		
PAP - Fluorine	60	1.80	328	189000	F	≤ 15 mg /	2 Venturi + 3 water	99.95%

Scrubber Stack						NM <sup>3</sup>	scrubbing	
					PM	≤ 30 mg / NM <sup>3</sup>		
DAP /NPK / NPS Plant Scrubber Stack	50	3.10	341	344000	Ammonia	≤ 25 mg / NM <sup>3</sup>	1 Pre-scrubber venturi followed by another scrubber venturi followed by water scrubber	99.95%
					F	≤ 15 mg / NM <sup>3</sup>		
					PM	≤ 50 mg / NM <sup>3</sup>		
AlF <sub>3</sub> - Fluorine Scrubber Stack	30	0.55	348	9000	F	≤ 15 mg / NM <sup>3</sup>	2 stage condenser, one stage packed bed sulphuric acid absorption column	99.99%
					PM	≤ 30 mg / NM <sup>3</sup>		
PAP Crusher Stack	30	0.80	300	12000	F	≤ 15 mg / NM <sup>3</sup>		
					PM	≤ 50 mg / NM <sup>3</sup>		

Details of solid waste/hazardous waste generation and its management is as mentioned below

Expected Solid/Hazardous waste	Annual Quantity (Approx.) Phase I	Annual Quantity (Approx.) Phase II	Proposed Disposal Mode
ETP Sludge (dry basis)	~3000 TPA	~3000 TPA	Secured Land Fill at the site
Phosphogypsum (solid waste)	13,50,000 TPA	13,50,000 TPA	Will be Sold to cement industries
Used Oil/waste oil	150 TPA	150 TPA	Sold to authorized recyclers
Discarded Containers	1000/year	1000/year	Sold to authorized recyclers

Board on 12<sup>th</sup> February, 2019 under the Chairmanship of Additional District Magistrate. The main issues raised during the public hearing are related to employment to local, pollution, land conversion from greenbelt to industrial use etc. The Committee deliberated the issues raised during the PH. The Committee has noted that the action plan submitted by the project proponent with budgetary provision is properly addressing the concerns raised during the public hearing/consultation. No litigation is also pending against the proposal.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that 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 properly addressed in the EIA/EMP report. Additional information submitted by the project has been found to be in order. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) 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.
- (ii) PP shall start Project/activities after obtaining necessary clearances from the various authorities of Central Government and State Government.
- (iii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iv) 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.
- (v) The gaseous emissions (SO<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub> and HC) and particulate matter from various process units shall conform to the norms prescribed by the CPCB/SPCB from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the

event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.

- (vi) 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.
- (vii) Total fresh water requirement shall not exceed 9600 cum/day, proposed to be met from Gosunda dam/STP Udaipur/ STP Chittorgarh. Prior permission in this regard shall be obtained from the concerned regulatory authority, and shall be renewed time to time.
- (viii) 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.
- (ix) 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.
- (x) 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.
- (xi) Fly ash, if any, 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.
- (xii) 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.
- (xiii) The green belt of at least 5-10 m width shall be retained in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc.
- (xiv) PP shall plant 1 Lakhs trees around the transportation route in one year. These plantations shall be other than green belt development. The implementation report shall be submitted to the RO of MoEFCC.
- (xv) Rain water harvesting system shall be developed inside the complex and fresh water requirement shall be reduced by utilizing the collected water.
- (xvi) All commitments made during public hearing/consultation shall be satisfactorily implemented. Preference shall be provided to local people for employment in the unit.
- (xvii) As committed, Rs. 25 Crores shall be allocated towards Corporate Environment Responsibility (CER). The project proponent shall utilize the amount mainly for addressing the issues raised during the public hearing, including education, drinking

water facility for villages, skill development, community infrastructure, solar light etc., within a span of three years.

- (xviii) Safety and visual reality training shall be provided to employees.
- (xix) 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.
- (xx) 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.
- (xxi) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxii) 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.
- (xxiii) Transportation of raw material/product shall be in GPS enabled trucks/authorize source only. Parking facility shall be provided inside the complex and no vehicles bound for industry shall be parked outside the complex.
- (xxiv) Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.

#### **Agenda No. 15.5.14**

#### **Manufacturing of Pharma & intermediate products capacity of 193 MT/Month at Survey No.310/1/2/3, Madhas, Tal. Kalol, Dist. Panchmahal (Gujarat) by M/s IshangaLifescience Pvt Ltd – Reconsideration of Environmental Clearance.**

#### **[IA/GJ/IND2/82494/2018, IA-J-11011/320/2018-IA-II(I)]**

The project proponent and their consultant M/s Jyoti Om Chemical Research Centre Pvt Ltd (High Court Stay), made a detailed presentation on the salient features of the project.

**15.5.14.1** The proposal was earlier considered by the EAC in its meeting held during 26-27 September, 2019, wherein *the Committee desired certain additional information.*

In response of the same the project proponent has submitted point wise reply as under:

S. No.	Clarifications and inputs sought by the EAC	Reply submitted by the project proponent	Remark of the EAC
1.	Revised water balance to be submitted with 10% fresh water reduction	Revised water balance has been submitted and reduced the fresh water requirement from 77	The EAC has deliberated the information

		cum/day to 63 cum/day	submitted by PP
2.	<i>Revise Green belt plan @ 35 % consisting 10 m green belt around the periphery of the plant as committed.</i>	Revised Green Belt plan @ 38 % consisting green belt around the periphery of the plant has been submitted	The EAC has deliberated the information submitted by PP
3.	<i>The project proponent is requested to obtain concurrence of the Ozone cell of the Ministry in respect of Ozone Depleting Substance.</i>	The project proponent has confirmed that they will not use Ozone Depleting Substance (Chloroform) as raw material. We will use Methylene Di Chloride as raw material instead of chloroform	The EAC has deliberated the information submitted by PP
4.	<i>The project proponent is requested to obtain concurrence Narcotic department</i>	Unit will get the concurrence certificate from Narcotic department after establishing the industry. Unit will not use Acetic Anhydride without permission certificate from Narcotic department.	The EAC has deliberated the information submitted by PP
5.	<i>CER plan @ 55 lacs for 5 years to be submitted</i>	Revised CER plan @55 Lacs for 5 year has been submitted	The EAC has deliberated the information submitted by PP

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

The proposal is for environmental clearance to the project for Setting up of Pharma & Intermediates manufacturing unit of capacity 193 TPM by M/s IshangaLifescience Pvt Ltd in an area of 6378 sqm at Survey No.310/1/2/3, Village Madhvas, Taluka Kalol, District Panchmahal (Gujarat)

Standard ToR for the Project was granted on dated: 14<sup>th</sup> December, 2018. The ToR has been issued by Ministry vide letter No. IA-J-11011/320/2018-IA-II(I); dated 14<sup>th</sup> December, 2018.

The details of products and capacity asunder:

S. No.	Name of Products	Quantity (TPM)
1	5-Nitrofurfural diacetate	3
2	1 amino hydantoin	3
3	Phosphoryl choline chloride, calcium salt	7
4	Citicoline (CTS) tech	5
5	2-(4-Aminopentyl (ethyl) amino) ethanol	10
6	3-Quinuclidinone	10

7	1-Ethyl-3-(3-Dimethylaminopropyl) Carbodimide Hydrochloride	15
8	3-(1-Cyanoethyl) Benzoic Acid	15
9	1-(p-methoxy benzyl)-1,2,3,4,5,6,7,8,Octahydro isoquinoline- S-octa base	8
10	Dextrometharphin free base	8
11	Cis-2-(2,4-Dichloro phenyl)-2-(1H-1,2,4-triazol-1-yl-methyl)-1,3- dioxolan-4-yl methyl methane sulfonate Crude	10
12	cis-2-(2,4-Dichloro phenyl)-2-(1H-1,2,4-triazol-1-yl-methyl)-1,3-dioxolan-4-yl methyl methane sulfonate - Pure	8
13	Phenyl (1h pyrrole-2-yl) methanone - tricarboxylate	10
14	(-)-1-[(4-Chlorophenyl)phenyl methyl]-4-[(4-methylphenyl) sulfonyl] piperazine	6
15	p-Chloro benzhydrylpiperazine	6
16	2,3 pyrridineBenzyle carboxylate Hydrate Chloro compound	5
17	3,4-dimethoxy-2-chloro methyl pyridine	10
18	pentaprozolesulphide	10
19	Pregabalin (Racemic)	8
20	11-Piperaziny-dibenzo(b,f) (1,4)-thiazepine hydrochloride	8
21	11-[4-[2-(2-Hydroxy ethoxy) ethyl]-1-piperaziny] dibenzo (b, f) (1, 4) thiazepinehemifumarate	8
22	2-[(4-(3-methoxypropoxy)-3-methyl-2-pyridinyl) methyl] thio]-1H-benzimidazole- Crude	10
23	2-[4-(3-methoxypropoxy)-3-methyl-2-pyridinyl] methyl]sulfinyl]-1H-benzimidazole - Pure	10
	Total	193

The project/activity is covered under category A of item 5(f) 'Synthetic Organic Chemicals' of schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at Central level in the Ministry.

Total land area is 6378.0 m<sup>2</sup> will be used for proposed new project. Industry will develop greenbelt in an area of 33 % i.e., 2110 m<sup>2</sup> out of total area of the project.

The estimated project cost is Rs. 11.65 crores. Total capital cost earmarked towards Minutes of EAC (Industry 2 Sector) held during December 30-31, 2019 & January 01, 2020

environmental pollution control measures is Rs 2.20 crores and the recurring cost (operation and maintenance) will be about Rs 8.07 crores per annum. Total Employment will be 102 persons as direct. Industry proposes to allocate Rs 26 lacs@ of 2.23 % towards Corporate Environment Responsibility.

There are nonnational parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. The Gomariver is flowing at a distance of 1.0 km in North- East direction.

Ambientairqualitymonitoringwascarriedoutat9locationsduringOctober 2018 to January 2019 and the baseline data indicates the ranges of concentrations as: PM10 (69.0-82.0 µg/m3), PM2.5 (39.0-49.0µg/m3), SO<sub>2</sub> (10.0 - 28.0µg/m3) and NO<sub>2</sub>(10.0 – 20.0µg/m3). AAQ modeling study for point source emissions indicates that the maximumincrementalGLCSaftertheproposedprojectwouldbe1.82 µg/m<sup>3</sup>, 1.411 µg/m<sup>3</sup> and 1.243 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).

Total water requirement is 222 m3/day of which fresh water requirement of 63 m3/day will be met from Ground water. Effluent of 162.0 m3/day quantity will be treated through ETP, RO and MEE and recycle back in the unit. The plant will be based on Zero Liquid discharge system.

Power requirement will be 500 KVA and will be met from Madhya Gujarat Vij Company Limited (MGVCL). Unit will install DG sets as standby having capacity 600 KVA for using during power failure. Stack (height 9.0 m) will be provided as per CPCB norms to the proposed DG sets.

The unit will install3 TPH Boiler. Multi cyclone separator &bag filter with a stack height of 11.0 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup>.

Details of Solid/ hazardous waste generation and its management is as under:-

S. No.	Wastes	Category	Source of Generation	Quantity MTA	Mode of disposal
1	ETP Sludge	34.3	Effluent Treatment	7115	Collection, Storage within premises, Transportation and Disposal at TSDF site.
2	Used Oil	5.1	Maintenance & used lubricant oil generated from maintenance activities	0.400	Collection and Storage within premises & Disposal by selling to registered re-processor.

S. No.	Wastes	Category	Source of Generation	Quantity MTA	Mode of disposal
3	Discarded Containers/ Bags/Liners	33.3	Packing Materials	240	Collection, Storage and Decontamination within premises & Disposal by selling to authorized recycler.
4	Process Residue	28.1	Mfg. Product from-sr. no. 6, 15, 16, 17, 18, 20, 21, 22, 23	8415	Collection, Storage, Transportation and Selling to authorize recycler/ co-processing /Cement Industries.
5	Spent Carbon	28.3	Mfg. Product from-sr. no. 4, 11, 12, 13, 14, 15, 22, 23	25	Collection, Storage, transportation and send for co-processing /Cement Industries.
			ETP	24	
6	Spent catalyst	28.2	Mfg. Product from-sr. no. 4, 11, 12, 13, 14, 15, 22, 23	1650	Collection, Storage within premises, Transportation for regeneration to authorized units/ co-processing.
7	Scrubber solution	---	Mfg. Process to Scrubbers	3000	Collection, Storage and send to in house ETP for treatment.
8.	Stripper solvent	28.6	Effluent Treatment	2520	Collection, storage and send to co-processing for solvent recovery having under Rule: 9 permission.
9	MEE Salt	37.3	MEE	3600	Collection, Storage within premises, Transportation and Disposal at TSDF site.
10	Membranes	---	RO Plant	2	Collection, Storage, transportation and send for co-processing / TSDF site.
<b>NON-HAZARDOUS WASTE</b>					
11	Fly ash	--	From boiler fuel	90	Collection, Storage, transportation and send to Bricks/ Tiles/ Blocks manufacturer. MOU with Bricks manufacturer is attached

S. No.	Wastes	Category	Source of Generation	Quantity MTA	Mode of disposal
					as annexure-X.

Public Hearing for the proposed project has been conducted by the State Pollution Control Board on dated 4<sup>th</sup> June, 2019 under the Chairmanship of Additional District Magistrate. The main issues raised during the public hearing are related to employment to local people and affects on agricultural land. The Committee found the action plan submitted by the project proponent and budgetary provisions satisfactory and addressing the concerns raised during public consultation/hearing.

No litigation pending against the proposal.

The expenditure towards CER for the project would be Rs.55 Lacs for 5 years committed by the project proponent.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that 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 properly addressed in the EIA/EMP report. The EAC found the additional information submitted by the project proponent to be satisfactory.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) 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.
- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iii) 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.
- (iv) National Emission Standards for Pharmaceuticals Industry (Bulk Drugs) issued by the Ministry vide G.S.R.149(E) dated 4<sup>th</sup> March, 2009 and amended from time to time shall be followed. Fugitive emissions shall be controlled at 99.98% with effective chillers.
- (v) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vi) 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.
- (vii) 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.
- (viii) Total fresh water requirement shall not exceed 63 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/ CGWA.
- (ix) 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.

(x) 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.

(xi) 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.

(xii) 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.

(xiii) 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 and dust should be avoided.

(xxi) 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.

(xxii) 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.

(xxiii) As proposed Rs. 55 lacs shall be allocated for Corporate Environment Responsibility (CER). The CER funds shall be utilized as per the plan submitted and per the commitment made during public hearing. The CER plan shall be completed within a period of five years or before commissioning of the project.

(xxiv) 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.

(xxv) 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.

(xxvi) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

(xxvii) 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.15.5.15**

**Expansion of existing bulk drug intermediates, pesticide specific intermediates & specialty chemicals manufacturing unit of at plot No.127/1, GIDC Estate, Ankleshwar District Bharuch (Gujarat) by M/s Gujarat Organics Ltd. (Unit-1)- Environmental Clearance.**

**[IA/GJ/IND2/73407/2018 , IA-J-11011/97/2018-IA-II(I)]**

The project proponent and their consultant M/s Aqua-Air Environmental Engineers Pvt. Ltd (High Court Stay), made a detailed presentation on the salient features of the project.

**15.5.15.1** The proposal was earlier considered by the EAC in its meeting held during 29-31 July, 2019, wherein *the proposal was not taken forward due to project site was located inside Critically polluted area.*

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

The proposal is for environmental clearance to the project for expansion of bulk drug intermediates, pesticide specific intermediates & specialty chemicals manufacturing unit from 94.5 TPM to 175 TPM by M/s Gujarat Organics Ltd (Unit-1) in an area of 10,468.88 sqm located at Plot No.127/1, GIDC Estate, Ankleshwar, District Bharuch (Gujarat).

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

<b>S. No.</b>	<b>Product</b>	<b>CAS No.</b>	<b>LD<sub>50</sub></b>	<b>Category</b>	<b>Existing (TPM)</b>	<b>Proposed (TPM)</b>
1.	Salicylic Acid	69-72-7	500 mg/Kg	5 (b)	<b>94.5</b>	<b>175</b>
2.	Zinc Salicylate	16283-36-6	300 mg/Kg	5 (f)		
3-a.	2-Hydroxy Benzonitrile - 60% of 94.5	611-20-1	410 mg/kg	5 (b)		
3-b.	Sodium Formate (S)/ Sodium Formate (Aq.60-70 %) - 40% of 94.5 (Byproduct)	141-53-7	11200 mg/Kg	5 (f)		

4.	2- Hydroxy Phenyl Acetic Acid	614-75-5	3600 mg/kg	5 (b)		
5.	2-Hydroxy Phenyl Acetic Acid Methyl Ester	22446-37-3	3380 mg/kg	5 (f)		
6.	6 Hydroxy-2-Naphthoic Acid	16712-64-4	3080 mg/Kg	5 (f)		
7.	6 Hydroxy-2-Naphthoic Acid Methyl Ester	17295-11-3	3480 mg/kg	5 (f)		
8.	P-Hydroxy Benzoic Acid	99-96-7	2200 mg/Kg	5 (b)		
9.	O-Cresotic Acid	83-40-9	445 mg/Kg	5 (f)		
10-a.	4- Hydroxy Benzonitrile – 60% of 94.5	767-00-0	450 mg/Kg	5 (f)		
10-b.	Ammonium Sulfate (S)/Ammonium Sulfate (Aq.60-70 %) - 40% of 94.5 (Byproduct)	7783-20-2	3000 mg/Kg	5 (f)		
•	4- Hydroxy Phenyl Acetic Acid	156-38-7	3500 mg/Kg	5 (f)		
•	4- Hydroxy Phenyl Acetic Acid Methyl Ester	14199-15-6	3800 mg/kg	5 (f)		
•	3-Methyl Salicylic Acid	83-40-9	445 mg/Kg	5 (f)		
•	4-Methyl Salicylic Acid	50-85-1	1800 mg/Kg	5 (f)		
•	5-Methyl Salicylic Acid	89-56-5	1000 mg/Kg	5 (f)		
•	3-Hydroxy Benzoic Acid Methyl Ester	19438-10-9	2000 mg/kg	5 (f)		
•	2,4-Dihydroxy Benzoic Acid	89-86-1	800 mg/Kg	5 (f)		
•	2,6-Dihydroxy Benzoic Acid	303-07-1	>4000 mg/Kg	5 (f)		
19-a.	p-Phenol Sulfonic acid – 60% of 94.5	98-67-9	6400 mg/Kg	5 (f)		
19-b.	Ammonium Sulfate (S)/Ammonium	7783-20-2	3000 mg/Kg	5 (f)		

	Sulfate (Aq.60-70 %) - 40% of 94.5 (Byproduct)					
20.	6 Methoxy -2-Naphthoic Acid	2471-70-7	830 mg/kg	5 (f)	<b>94.5</b>	
21.	6 Methoxy -2-Naphthoic Acid Methyl Ester	5043-02-7	1040 mg/kg	5 (f)		
22.	6-Methoxy-2-Naphthaldehyde	3453-33-6	14,500 mg/Kg	5 (f)		
23.	3- Chloro Salicylic Acid	1829-32-9	350 mg/kg	5 (f)	<b>94.5</b>	
24.	3- Chloro Salicylic Acid Methyl Ester	52159-67-8	400 mg/kg	5 (f)		
25.	3-Chloro -2-Methoxy Benzoic Acid	3260-93-3	350 mg/kg	5 (f)		
26.	3-Chloro -2-Methoxy Benzoic Acid Methyl Ester	N/A	400 mg/kg	5 (f)		
27.	3-Chloro -2-Ethoxy Benzoic Acid	N/A	350 mg/kg	5 (f)		
28.	3-Chloro -2-Ethoxy Benzoic Acid Methyl Ester	N/A	400 mg/kg	5 (f)		
29.	4-Chloro Salicylic Acid	5106-98-9	490 mg/Kg	5 (f)		
30.	4-Chloro Salicylic Acid Methyl Ester	78955-90-5	540 mg/kg	5 (f)		
31.	4-Chloro -2-Methoxy Benzoic Acid	57479-70-6	360 mg/kg	5 (f)		
32.	4-Chloro -2-Methoxy Benzoic Acid Methyl Ester	N/A	410 mg/kg	5 (f)		
33.	4-Chloro -2-Ethoxy Benzoic Acid	N/A	360 mg/kg	5 (f)		
34.	4-Chloro -2-Ethoxy Benzoic Acid Methyl Ester	N/A	410 mg/kg	5 (f)		
35.	5-Chloro Salicylic Acid	321-14-2	250 mg/Kg	5 (f)		
36.	5-Chloro Salicylic Acid Methyl Ester	4068-78-4	300 mg/kg	5 (f)		
37.	5- Chloro-2-	3438-16-	350	5 (f)		

	MethoxyBenzoic Acid	2	mg/kg			
38.	5- Chloro-2-Methoxy Benzoic Acid Methyl Ester	33924-48-0	400 mg/kg	5 (f)		
39.	5-Chloro -2-Ethoxy Benzoic Acid	N/A	340 mg/kg	5 (f)		
40.	5-Chloro -2-Ehoxy Benzoic Acid Methyl Ester	N/A	400 mg/kg	5 (f)		
41.	Methyl Salicylate	119-36-8	887 mg/Kg	5 (f)	<b>94.5 MT/Month</b>	
42.	Ethyl Salicylate	118-61-6	1320 mg/Kg	5 (f)		
43.	Phenyl Salicylate	118-55-8	3000mg/ Kg	5 (f)		
44.	Methyl- 3-Methyl Salicylate	23287-26-5	900 mg/kg	5 (f)		
45.	Methyl- 4-Methyl Salicylate	4670-56-8	900 mg/kg	5 (f)		
46.	Methyl- 5-Methyl Salicylate	22717-57-3	900 mg/kg	5 (f)		
47.	Benzyl Benzoate	120-51-4	4000 mg/kg	5 (f)		
48-a.	4-Cyano Phenyl Acetate - 60% of 94.5	13031-41-9	400 mg/kg	5 (f)		
48-b.	Sodium Acetate - 40% of 94.5 (Byproduct)	127-09-3	25956 mg/kg	5 (f)		
49.	Methyl Paraben	99-76-3	2,100 mg/kg	5 (f)	<b>94.5 MT/Month</b>	
50.	Ethyl Paraben	120-47-8	3000 mg/kg	5 (f)		
51.	Propyl Paraben	94-13-3	7500 mg/kg	5 (f)		
52.	Butyl Paraben	94-26-8	5000 mg/kg	5 (f)		
53.	Iso Propyl Paraben	4191-73-5	1,900 mg/kg	5 (f)		
54.	Iso Butyl Paraben	4247-02-3	2,600 mg/kg	5 (f)		
55.	Benzyl Paraben	94-18-8	2,600 mg/kg	5 (f)		

56.	Sodium Benzyl Paraben	94-19-8	2200 mg/kg	5 (f)		
57.	Sodium Methyl Paraben	5026-62-0	7500 mg/kg	5 (f)		
58.	Sodium Ethyl Paraben	35285-68-8	2200 mg/kg	5 (f)		
59.	Sodium Propyl Paraben	35285-69-9	3,700 mg/kg	5 (f)		
60.	Sodium Butyl Paraben	36457-20-2	4600 mg/kg	5 (f)		
61.	Sodium Iso Propyl Paraben	36457-21-3	1700 mg/kg	5 (f)		
62.	Sodium Iso Butyl Paraben	84930-15-4	2400 mg/Kg	5 (f)		
63.	Gujsol - 1	[2-Phenoxy Ethanol( CAS No. 122-99-6), MethylParaben (CAS No. 99-76-3), EthylParaben (CAS No. 120-47-8), PropylParaben (CAS No. 94-13-3), ButylParaben (CAS No. 94-26-8)]	200 mg/kg	5 (f)		
64.	Gujsol - 2	[2-Phenoxy Ethanol( CAS No. 122-99-6), Methyl Paraben	200 mg/kg	5 (f)		

		(CAS No. 99-76-3), Ethyl Paraben (CAS No. 120-47-8), Propyl Paraben (CAS No. 94-13-3), Butyl Paraben (CAS No. 94-26-8), Iso Butyl Paraben (CAS No. 4247-02-3)]				
65.	Gujsol - 3	[2-Phenoxy Ethanol( CAS No. 122-99-6), MethylParaben (CAS No. 99-76-3), EthylParaben (CAS No. 120-47-8), PropylParaben (CAS No. 94-13-3)]	200 mg/kg	5 (f)		
66.	Gujsept	[MethylParaben (CAS No. 99-76-3), EthylPara	200 mg/kg	5 (f)		

		ben (CAS No. 120-47-8), PropylParaben (CAS No. 94-13-3)]				
67.	Gujsept Sodium	[Methyl Paraben Sodium (CAS No. 5026-62-0), Ethyl Paraben Sodium (CAS No. 35285-68-8), Propyl Paraben Sodium (CAS No. 35285-69-9)]	200 mg/kg	5 (f)		
68.	Gujstat	[MethylParaben (CAS No. 99-76-3), EthylParaben (CAS No. 120-47-8), PropylParaben (CAS No. 94-13-3), ButylParaben (CAS No. 94-26-8)]	200 mg/kg	5 (f)		
69.	2- Ethoxy Benzoic Acid	134-11-2	800 mg/kg	5 (f)		
70.	2- Ethoxy Benzoic	3686-55-	1000	5 (f)		

	Acid Methyl Ester	3	mg/kg		<b>94.5</b>
71.	2- Ethoxy Benzoic Acid Ethyl Ester	6290-24-0	1000 mg/kg	5 (f)	
72.	4- Ethoxy Benzoic Acid	619-86-3	800 mg/kg	5 (f)	
73.	4- Ethoxy Benzoic Acid Methyl Ester	23676-08-6	1000 mg/kg	5 (f)	
74.	4- Ethoxy Benzoic Acid Ethyl Ester	23676-09-7	1000 mg/kg	5 (f)	
75.	P-Iso Propoxy Benzoic Acid	13205-46-4	800 mg/kg	5 (f)	
76.	P-Iso Propoxy Benzoic Acid Methyl Ester	35826-59-6	1000 mg/kg	5 (f)	
77.	P-Iso Propoxy Benzoic Acid Ethyl Ester	122488-52-2	1000 mg/kg	5 (f)	
78.	P – Anisic Acid	100-09-4	400 mg/kg	5 (b)	
79.	P – Anisic Acid Methyl Ester	121-98-2	5000 mg/kg	5 (f)	
80.	P – Anisic Acid Ethyl Ester	94-30-4	2040 mg/kg	5 (f)	
81.	O-Anisic Acid	579-75-9	300 mg/kg	5 (b)	
82.	O– Anisic Acid Methyl Ester	606-45-1	5000 mg/kg	5 (f)	
83.	O– Anisic Acid Ethyl Ester	7335-26-4	300 mg/kg	5 (f)	
84.	O - Anisic Acid Phenyl Ester	N/A	300 mg/kg	5 (f)	
85.	m-Anisic Acid	586-38-9	400 mg/kg	5 (f)	
86.	2-Ethoxy Benzamide	938-73-8	700 mg/kg	5 (f)	
87.	Ethyl Benzoate	93-89-0	2100 mg/kg	5 (f)	
88.	3-Methoxy Phenol	150-19-6	682 mg/Kg	5 (f)	
89.	2-Ethoxy Phenol	94-71-3	682 mg/Kg	5 (f)	
90.	2,6-Dimethoxy Benzoic Acid	1466-76-8	> 500 mg/kg	5 (b)	
91.	4-[N-(2-Methoxy Benzoyl)Sulfomoyl]Be	816431-72-8	200 mg/kg	5 (b)	

	nzoyl Chloride					
92.	2,4-Dihydroxy Benzoic Acid Methyl Ester	2150-47-2	600 mg/kg	5 (f)		
93.	2,6-Dihydroxy Benzoic Acid Methyl Ester	2150-45-0	600 mg/kg	5 (f)		
94.	1-Hydroxy -2 - Naphthoic Acid	86-48-6	800 mg/kg	5 (f)	<b>25.0 MT/Month</b>	
95.	1-Hydroxy -2 - Naphthoic Acid Phenyl Ester	132-54-7	820 mg/kg	5 (f)		
96.	1-Methoxy-2-Naphthoic Acid	883-62-5	830 mg/kg	5 (f)		
97.	1-Methoxy-2-Naphthoic Acid Methyl Ester	N/A	1040 mg/kg	5 (f)		
98.	1-Ethoxy-2-Naphthoic Acid	N/A	800 mg/kg	5 (f)		
99.	1-Ethoxy-2-Naphthoic Acid Methyl Ester	N/A	1020 mg/kg	5 (f)		
100	4-Cyano -2-Nitro Phenol	3272-08-0	437 mg/kg	5 (f)		
101 -a.	Cyanuric Acid - 60% of 25	108-80-5	> 5,000 mg/kg	5 (f)		
101 -b.	Ammonium Sulfate (S)/Ammonium Sulfate (Aq.60-70 %) - 40% 25 (Byproduct)	7783-20-2	2840 mg/kg	5 (f)		
102	3-Amino Salicylic Acid	570-23-0	4000 mg/kg	5 (f)		<b>10.0 MT/Month</b>
103	3-Amino Salicylic Acid Methyl Ester	35748-34-6	878 mg/kg	5 (f)		
104	4-Amino Salicylic Acid	65-49-6	4000 mg/kg	5 (f)		
105	4-Amino Salicylic Acid Methyl Ester	4136-97-4	880 mg/kg	5 (f)		
106	5-Amino Salicylic Acid	89-57-6	4000 mg/kg	5 (f)		
107	5-Amino Salicylic Acid Methyl Ester	42753-75-3	887 mg/kg	5 (f)		

	<b>Total</b>				<b>94.5 MT/Mont h (Any one or Cumulati ve)</b>	<b>175 MT/Mont h</b>
	<b>By Products</b>					
1.	Sodium Sulfate	7757-82-6	5989 mg/kg	-	100	185.18
2.	Potassium Sulfate	7778-80-5	6600 mg/kg	-	100	185.18
3.	Sodium Bromide	7647-15-6	3500 mg/kg	-	60	111.11
	<b>Total</b>				<b>260</b>	<b>481.47</b>

Synthetic organic chemicals industry located in notified industrial area is covered under category B of item 5(f) of the schedule to the EIA Notification, 2006 and requires appraisal at State level. However, in case of pesticides, units producing technical grade pesticides, are covered under category A of item 5(b). Pesticide specific intermediates, which are essentially synthetic organic chemicals, are not specifically mentioned either under category A or B of the items 5(f) & 5(b), and needs to be looked into on case to case basis depending upon their proportion.

Terms of Reference for the project was granted on 14<sup>th</sup> April, 2018. Public hearing is exempted as the project site is located inside the notified industrial area.

Existing land area is 10,468.88 sqm. No additional land required for expansion. Greenbelt will be developed in an area of 1,294 sqm out of 10,468.88 sqm total area of the project. The estimated project cost for proposed expansion is Rs. 45 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 12.04 crores and the Recurring cost (operation and maintenance) will be about Rs 15.93 crores Per annum.

The project proponent has committed that they will develop the remaining 21% green belt within 5 km. The committee noted that as the project is located inside the CPA, it is suggested to develop 45 % green belt inside the plant premises. The project proponent was agreed with it.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc within 10 km distance from the project site. ChinnaMusli River flows at 5.8 km in North West.

Total water requirement is estimated to be 276m<sup>3</sup>/day including fresh water requirement of 189 m<sup>3</sup>/day proposed to be met from GIDC Water Supply.

Industrial wastewater (88 KL/day) is discharged in to NCT pipeline after treatment for deep sea disposal via FETP. Domestic wastewater (10 KL/day) is disposed in septic tank and soak pit. The committee suggested the project proponent to adopt the ZLD. The project proponent has confirmed that within 4 years they will achieve the ZLD.

Power requirement for proposed project will be 2500 KVA including existing 750 KVA and will be met from DGVCL. State power distribution corporation limited (SPDCL). 1 No. DG sets of 320 KVA\*1 capacity shall be used as standby during power failure. Stack (height 15 m) will be provided as per CPCB norms to the proposed DG sets of 320 KVA\*1 which will be used as standby during power failure.

Unit shall have 3 Nos. of 1 TPH, 3 TPH & 4TPH Natural Gas/Furnace Oil fired boiler & 5 Nos. of 2 Lakh Kcal/Hr, 4 Lakh Kcal/Hr & 6 Lakh Kcal/Hr Thermic Fluid Heaters will be installed. Multi cyclone separator/ bag filter/ESP with a stack of height of 30 m will be installed for controlling the Particulate emissions (within statutory limit of 150 mg/Nm<sup>3</sup>) respectively.

Ambient air quality monitoring was carried out at 9 locations during March to May, 2017 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (72.04-95.94 µg/m<sup>3</sup>), PM<sub>2.5</sub>(42.46-57.51µg/m<sup>3</sup>), SO<sub>2</sub> (16.42-26.72 µg/m<sup>3</sup>) &NO<sub>x</sub> (18.16-28.53 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 1.01 µg/m<sup>3</sup>, 1.77 µg/m<sup>3</sup> and 0.635 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub>&NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Existing unit was established before the EIA Notification, 2006 and prior EC was not required at that time.

The expenditure towards CER for the project would be 3 % 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. Additional information submitted by the project proponent found to be addressing the concerns raised by the Committee.

The Ministry vide letter no. Q-16017/38/2018-CPA dated 24<sup>th</sup> October, 2019 has communicated to the CPCB the mechanism evolved for consideration of new/expansion projects in the CPA/SPA. The Committee deliberated the mechanism as per the OM dated 31.10.2019 and found accordingly suggested the specific conditions.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that 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. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i). CTE/CTO for the project shall be obtained from the SPCB as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, and the SPCB shall follow the mechanism/protocol issued by the Ministry vide letter no. Q-16017/38/2018-CPA dated 24th October, 2019 while issuing the CTE/CTO for the project, for improvement of environmental quality in the area.
- (ii). Treated effluent of 88 cum/day shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, for discharge to the NCT pipeline for deep sea disposal via Final Effluent Treatment Plant (FETP)/CETP.
- (iii). The project proponent shall achieve zero liquid discharge within four years of commissioning of expansion project.
- (iv). 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.
- (v). 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.

- (vi). No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having  $LD_{50} < 100$  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.
- (vii). 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. Fugitive emissions shall be controlled at 99.98% with effective chillers.
- (viii). No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (ix). 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.
- (x). 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.
- (xi). Total fresh water requirement shall not exceed 189 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (xii). 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.
- (xiii). In case, domestic waste water generation is more than 10 cum/day, the industry may install Sewage Treatment Plant.
- (xiv). 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.

- (xv). 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.
- (xvi). 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.
- (xvii). 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.
- (xviii). The green belt of at least 5-10 m width shall be developed in nearly 45% 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.
- (xix). In addition, the project proponent shall develop greenbelt outside the plant premises such as avenue plantation, plantation in vacant areas, social forestry etc.
- (xx). As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 3% 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.
- (xxi). Safety and visual reality training shall be provided to employees.
- (xxii). 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.
- (xxiii). 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.
- (xxiv). Occupational health surveillance and urological assessment of the workers shall be done on a regular basis and records maintained as per the Factories Act.

- (xxv). 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.
- (xxvi). Mitigating measures suggested during process safety and risk assessment studies shall be carried out.

### **Agenda No. 15.5.16**

**Expansion of distillery unit from 320 KLPD to 400 KLPD by M/s Godavari Biorefineries Ltd (Distillery Division) at Sy. No. 16 & 17 of Saidapur Village, Sy. No. 45, 46, of Handigund Village, Sy. No. 74 & 75 of Madbhavi Village Sameerwadi Village, Tehsil Mudhol, District Bagalkot (Karnataka) - Consideration of Environmental Clearance.**

**[IA/KA/IND2/127285/2019, J-11011/191/2007-IA-II(I)]**

**15.5.16.1** The project proponent and their accredited consultant made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for expansion of distillery unit from 320 KLPD to 400 KLPD by M/s Godavari Biorefineries Ltd (Distillery Division) at Sy. No. 16 & 17 of Saidapur Village, Sy. No. 45, 46, of Handigund Village, Sy. No. 74 & 75 of Madbhavi Village Sameerwadi Village, Tehsil Mudhol, District Bagalkot (Karnataka). This expansion will be achieved by the use of B-heavy molasses/sugar cane juice without any increase in the total pollution load and without any additional plant and machinery.

The project/activity is covered under category A of item 5 (g) 'Distilleries' of the schedule to the EIA Notification, 2006 and requires appraisal/approval at central level in the Ministry.

Ministry had issued EC earlier on 20<sup>th</sup> March, 2008 to the project for expansion of cane juice based distillery unit from 60 to 200 KLPD at Village Saamazwadi, Bagalkot (Karnataka) in favour of M/s Somaiya Organo-Chemicals Limited. Further, the Ministry vide letter dated 7<sup>th</sup> July, 2009 has granted expansion of distillery from 200 to 320 KLPD and 40 KLPD ENA to 260 KLPD ENA at Sameerwadi, District Bagalkot (Karnataka) in favour of M/s Godavari Biorefineries Ltd.

The details of products and capacity as under:

S. No	Product	Exiting (KLD)	Proposed (KLD)	Total (KLD)

1	Rectified spirit	320	80	400
2	Ethanol	293.5	86.5	380
3	ENA	260	-	260

Existing land area is 4,84,000 sqm(48.4 ha) no additional land will be required for proposed expansion. Industry has already developed greenbelt in an area of 33 % i.e.1,60,000 m<sup>2</sup>(16 ha) out of total area of the project. The existing investment of Rs. 133.2 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 79.35 crores and the recurring cost (operation and maintenance) will be about Rs. 2.14 crores per annum. Total employment will be 150 persons as direct & 30 persons indirect 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. Ghataprabha river flowing at a distance of 6.5 km in southern direction.

Total existing fresh water requirement is 819 m<sup>3</sup>/day. Fresh water requirement while using B-heavy molasses and Sugar Cane Syrup will be 860 cum/day and 591 cum/day respectively.

The Spent wash will be concentrated in MEE and the concentrate will be incinerated. The MEE condensate along with process condensate and spent lees treated in Biological Treatment Plant (BTP).The proposed plant will be based on Zero Liquid Discharge (ZLD) system. All the liquid effluents generated in the system are recycled in the process.

Existing power requirement is 5.5 MW proposed to be met from captive generation. No additional power will be required. Existing unit has one DG set of 320 kVA capacity.

Existing unit has three boilers of 40 TPH (incineration boiler), 4 TPH and 10 TPH coal fired boiler. No additional boiler shall be required for proposed expansion.

**15.5.16.1:** The EAC, after detailed deliberations decided to **defer the proposal** and has asked for clarification/inputs, in respect of the following:-

- (a) This is an expansion case/modernization proposal. The project proponent has not submitted the latest certified compliance report of existing EC dated 20th March, 2008 and 7th July, 2009. PP needs to submit the certified compliance report of RO MoEFCC to verify the compliances.
- (b) PP needs to submit the operational status/CTO for the existing distilleries unit of 320 KLPD for which EC has been granted by the Ministry.
- (c) PP has not uploaded the updated Form 1 on Parivesh Portal in S.No. 39(f).
- (d) PP has to revise the PFR (s.no. 39 (e) as it is not legible on the Parivesh Portal.

### **Agenda No. 15.5.17**

**Expansion of Refinery from 20 MMTPA to 46 MMTPA and Petrochemical Complex at Khambhalia, District Devbhumi Dwarka (Gujarat) by M/s Nayara Energy Limited - Consideration of Environmental Clearance.**

**[J-11011/320/2006-IA-II(I); IA/GJ/IND2/119511/2018]**

**15.5.17.1** The project proponent vide email dated 23<sup>rd</sup> December, 2019 has requested to postpone their proposal as due to unavailability of technical person they will not attend the meeting. The Committee **defer** the proposal.

### **Any Other item with the permission of the Chairman**

### **Agenda No. 15.5.18**

**Expansion of grain based distillery unit from 60 to 200 KLPD at Tepuliamorh, Po Dhubi, Nirsa, Dhanbad (Jharkhand) by M/s Ankur Biochem Pvt Ltd - Consideration of Environmental Clearance.**

**[IA/JH/IND2/29138/2015, J-11011/205/2015-IA II (I)]**

**15.5.18.1** The proposal was earlier considered by the sectoral EAC in its meeting held during July 5<sup>th</sup>-7<sup>th</sup> July, 2017, wherein the Committee **recommended** the project for grant of environmental clearance. However, during processing the case, it was desired by the Ministry vide online ADS dated 21<sup>st</sup> September, 2017 and letter dated 23<sup>rd</sup> March, 2018 to submit the action taken report on each of the observations of the Regional Office MoEFCC, especially partially and non-complied conditions of the EC. However, due to non submission of requisite information w.r.t. Action taken Report on each of the observations of the RO, especially partially and non complied conditions of the EC, the proposal was delisted on 30<sup>th</sup> October, 2018. Now based on request of PP the proposal was relisted on 26<sup>th</sup> December, 2019 and as per the decision taken in the Ministry the proposal has been placed before the EAC for consideration.

**15.5.18.2** The Regional office, MoEFCC Ranchi vide letter dated 26<sup>th</sup> November, 2018 has submitted their remarks on action plan submitted by the project proponent for non/partial complied points. The project proponent has submitted the action taken report to the partial complied points raised by the Regional office at Ranchi.

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

The proposal is for environmental clearance to the project for expansion of grain based Distillery from 60 KLPD to 200 KLPD by M/s Ankur Biochem Pvt. Ltd in an area of 28.11 acre, located at Tepuliamorh, Po Dhubi, Nirsa,, Dhanbad (Jharkhand).

The details of products and capacity are as under:

<b>Existing product list</b>		
<b>SI. No</b>	<b>Products</b>	<b>Quantity(KLPD)</b>
1.	ENA	56
2.	Impure Spirit	04
3.	DDGS (TPD)	36
<b>Proposed products and their capacities for expansion</b>		
<b>SI. No</b>	<b>Products</b>	<b>Quantity(KLPD)</b>
1.	ENA or RS Ethanol	190
2.	Impure Spirit	10
3.	DDGS (TPD)	115

The project/activity is covered under category B of item 5 (g) 'Distilleries' of the Schedule to the EIA Notification, 2006, and requires appraisal at State level by the sectoral EAC in the Ministry. However, as the project was first appraised here at Central level in the Ministry, the project appraised by the EAC.

Standard Terms of Reference (ToR) for the project was granted on 7<sup>th</sup> September, 2015. Public hearing was conducted by the State Pollution Control Board on 28<sup>th</sup> May, 2016.

Existing land available with the proponent is 28.11 acre. Out of which, 2.5 acre of land will be used for proposed expansion. Industry has developed Greenbelt in an area of 33% i.e., 6.3 acre. The total estimated cost of the project is 11,900 Lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs. 1874.0 Lakhs and the Recurring cost (operation and maintenance) will be Rs. 203.50 Lakhs per annum. Total Employment will be ~ 80 Persons for Distillery & 150 – 200 contract persons for Bottling operations after expansion. Industry proposes to allocate Rs. 331.0 Lakhs towards Corporate Social Responsibility.

There are no national parks, wildlife sanctuaries, biosphere reserves, Tiger/Elephant reserves, Wildlife corridors etc. within 10 km from the project site. Khudia River is flowing at a distance of ~ 0.8 km towards south.

Total water requirement is 1119 m<sup>3</sup>/day and will be met from Groundwater, Maithan Reservoir and from Khudia River. Treated effluent of 270m<sup>3</sup>/day will be treated through Effluent Treatment Plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 4.0 MW including existing 2.50 MW and will be met from own existing cogeneration unit. DG sets will be used as standby during power failure with adequate Stack height(3m)as per CPCB norms.

Existing unit has a boiler of 25 TPH & one new boiler of 35 TPH will be installed. Bag Filter for existing boiler is installed & Electrostatic Precipitator (ESP) with a stack of height of 45.0 m 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 at 09 locations during Mid of Oct. 2015 to Mid of Jan. 2016 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (32 – 62.5µg/m<sup>3</sup>), PM<sub>2.5</sub> (16 – 33µg/m<sup>3</sup>), SO<sub>2</sub> (2 – 16µg/m<sup>3</sup>) and NO<sub>2</sub> (13– 26.3 µg/m<sup>3</sup>) CO (0.3 – 1.48 mg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.60 µg/m<sup>3</sup> and 0.70 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The Ministry has issued EC earlier vide letter dated 1<sup>st</sup> June 2010 for 60 KLPD Distillery Unit to M/s. Ankur Biochem Private Limited. Certified copy of the latest monitoring report of the Regional Office of MoEFCC, Ranchi has been obtained vide letter no. 103-278/10/EPE/2741 dated 26<sup>th</sup> November, 2018 and date of site visit was 21<sup>st</sup> April, 2018 and reply of partial non-compliances mentioned in Certified EC compliance report have been submitted to RO, MoEFCC, Ranchi. The Committee found the compliance report to be satisfactory.

The Committee also noted that in the compliance report inter-alia mentioned that the production has exceeded than the EC stipulations in the year 2014-2015, 2015-16 & 2016-2017. In this regard the project proponent has clarified that the production during 2014-15 to 2016-17 was only slightly higher due to higher starch in available broken rice for the mentioned period. Generally, higher starch in grains is responsible for ~ 4% to ~ 8% incremental yields. However, all environmental norms including ZLD have been maintained. The project proponent also confirmed that the higher production (annually) is due to more number of days of production (335 Days in 2014-15); 323 Days in 2015-16 and 345 Days in year 2016-17 but the unit was maintained Zero Liquid Discharge Norms. The EAC has deliberated on the issues and is satisfied with the justification made by the project proponent.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/misleading at any

stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that 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 properly addressed in the EIA/EMP report. Additional information submitted by the project has been found to be in order. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**15.5.18.4** *The Committee, after deliberations, reiterated its earlier **recommendations** for grant of environmental clearance to the project during its meeting held on 5-7 July, 2017, subject to compliance of same set of conditions with minor changes therein as under:-*

- (i) Concentrated spent wash shall be incinerated and not to be released in open space. The existing unit shall install incineration boiler within one year to ensure complete incineration in place of bio-composting.
- (ii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (iii) 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.
- (iv) Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (v) 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 ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises. For continuous discharge the unit shall install pH, TSS, BOD, COD and flow meter at the ETP outlet.
- (vi) CO<sub>2</sub> generated from the process shall be bottled/made solid ice and sold to authorized vendors.

#### **Agenda No.15.5.19**

**Installation of Polypropylene unit at Rasayani, Khalapur Taluka, Raigad district, Maharashtra and interconnecting pipelines from M/s BPCL Mumbai Refinery to Rasayani – Environmental & CRZ Clearance - reg.**

**[Proposal No: IA/MH/IND2/74952/2018, File No: IA-J-11011/168/2018-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s Engineers India Limited made a detailed presentation on the salient features of the project.

**15.5.19.1** The proposal was earlier considered by the EAC in its meeting held during 20-22 November, 2019. The Committee, after detailed deliberations, desired for requisite information/inputs in respect of the following, and the reply submitted by the project proponent is as under:

S.No	Information sought by the EAC	Response from the PP
1	<p>Details of protected area/ESA/ESZ within 10 km of the project area/pipeline route. Details of NBWL clearance and its updated status.</p>	<p>The pipeline route is falling within the deemed ESZ area of Thane Creek Flamingo Sanctuary and it is located at a distance of 5.5km from Protected Area of Thane Creek Flamingo Sanctuary. The pipeline route is falling outside of ESZ of Karnala Bird Sanctuary and the nearest distance is 1 km from ESZ boundary.</p> <p>Draft Notification for Thane Creek Flamingo Sanctuary ESZ areas has been published by MoEFCC on 06/11/2019. Online application was submitted on Parivesh Portal for Wildlife Clearance for the pipelines passing through Thane Creek Flamingo Sanctuary on 09/08/2019. Wildlife Clearance is not required for Karnala Bird Sanctuary as the pipelines falls outside of the ESZ areas. The Wildlife proposal has been forwarded by DFO, Wildlife (Kurla) on 06/12/2019 to APCCF (Mangrove Cell), Mumbai for onward processing. Copy of the same is attached for reference.</p>
2	<p>Details of pipeline route passing through mangrove area, details of area to be diverted and conservation plan.</p>	<p>The proposed pipeline is passing through mangroves of 7.8012 Ha (5.3200 Ha Mangrove Forest (not Notified) &amp; 2.14812 Ha – u/s 4 of IFA 1927) in Mahul region. The pipeline is also passing through 14.4658 Ha mangrove areas in Alibaug region. Divisional Forest Officer, Mumbai Mangrove Conservation Unit has recommended the proposal for further approval. Letter from Additional Principal Chief Conservator of Forests, Mangrove Cell, Mumbai is attached for reference.</p> <p>The pipeline is passing through CRZ-IA (Mangroves) for a length of 2644.93 m as per CRZ Report prepared by M/s Institute of Remote Sensing, Anna University, Chennai. A detailed mangrove conservation plan is attached.</p>

3	Details of raw material/product taken through pipeline with quantity	<p>The proposed Rasayani Polypropylene complex project also envisages feed material pipelines from BPCL-Mumbai Refinery to Rasayani plant. To feed the petrochemical plant BPCL envisages laying following pipelines to Rasayani (District Raigad) Maharashtra. The details of pipelines are as below:</p> <table border="1" data-bbox="679 479 1458 831"> <thead> <tr> <th>Pipelines From BPCL-MR to Rasayani Plant</th> <th>Diameter</th> <th>Capacity</th> </tr> </thead> <tbody> <tr> <td>Propylene Pipeline</td> <td>8"</td> <td>0.45 MMTPA</td> </tr> <tr> <td>Multi product Pipeline (MS/ HSD/ SKO/ATF/Naphtha)</td> <td>18"</td> <td>6.4 MMTPA</td> </tr> <tr> <td>Lube Oil Pipeline</td> <td>10"</td> <td>0.45 MMTPA</td> </tr> <tr> <td>Unconverted Oil (UCO)/ Light Gas Oil (LGO) Pipeline</td> <td>10"</td> <td>1 MMTPA</td> </tr> </tbody> </table>	Pipelines From BPCL-MR to Rasayani Plant	Diameter	Capacity	Propylene Pipeline	8"	0.45 MMTPA	Multi product Pipeline (MS/ HSD/ SKO/ATF/Naphtha)	18"	6.4 MMTPA	Lube Oil Pipeline	10"	0.45 MMTPA	Unconverted Oil (UCO)/ Light Gas Oil (LGO) Pipeline	10"	1 MMTPA
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Unconverted Oil (UCO)/ Light Gas Oil (LGO) Pipeline	10"	1 MMTPA															
4	Action plan vis-à-vis CRZ recommendations/conditions from the SCZMA needs to be submitted.	<p>The proposed pipelines, which are feed to proposed PP Plant at Rasayani are passing through coastal area and marine spread and hence as per TOR we had conducted CRZ Study through Anna University and Marine EIA Study from NIO. Subsequently after conducting EIA &amp; RRA for entire project, BPCL applied to MCZMA, Mumbai on 18.07.2019 for CRZ clearance. MCZMA discussed our proposal vide their 138th Meeting held on 10.10.2019 had approved the project under CRZ Notification'2011. MCZMA recommended the proposal vide letter no. CRZ 2019/CR 153/TC 4 dated 19/11/2019. The action plan to the recommendations from the MCZMA is provided below.</p> <p>BPCL undertake the responsibility for fulfilment of all 10 conditions mentioned in MOM and they are mentioned below in seriatim</p> <ol style="list-style-type: none"> <li>1. BPCL undertakes the responsibility that it shall be carrying out pipeline laying works strictly as per the provisions of CRZ Notification '2011 (as amended from time to time) and guidelines/clarifications given by MoEF from time to time.</li> <li>2. BPCL undertakes the responsibility that it shall be obtaining prior Hon. High Court of Bombay permission before commencement of pipeline laying activities, as the project involves removal of mangroves. We wish to inform that we had already applied to Forest Clearance</li> </ol>															

		<p>(involving mangroves) on 31.03.2019 vide our application ref. FP/MH/Pipeline/39455/2019 and after obtaining approval from MoEFCC, we shall be applying to Hon. High Court for permission to disturb mangroves as per the laid down procedure by Hon High Court of Bombay.</p> <ol style="list-style-type: none"> <li>3. BPCL undertakes the responsibility to obtain NOC from Mangrove Cell and shall be doing compensatory mangrove afforestation as advised by MoEFCC or / and Mangrove Cell, Mumbai. We wish to inform that while processing Forest Clearance for the project Mangrove Cell has already recommended BPCL proposal and forwarded proposal to DCF, Alibag for onward processing. Copy of same is enclosed herewith.</li> <li>4. BPCL undertakes the responsibility to obtain Forest Clearance, under Forest Conservation Act, 1980. An application in this regard is already filed to Forest Department vide application ref. FP/MH/Pipeline/39455/2019 on 31.03.2019.</li> <li>5. BPCL undertakes the responsibility to carry out site preparation, installation of pipeline and site restoration without damaging the coastal-geomorphological features, mangrove vegetation present in CRZ area.</li> <li>6. BPCL confirms that the two end points of pipelines across coastal water body are in Non CRZ area.</li> <li>7. BPCL undertakes the responsibility that the pipelines shall be laid at a depth of 2.5 m (approx. 10 feet), wherever mangroves are present / in intertidal area.</li> <li>8. BPCL undertakes the responsibility that natural course of coastal water bodies should not be hampered due to proposed activities and BPCL shall undertake proper measures to avoid contamination of creek water.</li> <li>9. BPCL undertakes the responsibility to</li> </ol>
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		<p>implement all safety measures during construction and operation phase of project.</p> <p>10. BPCL undertakes the responsibility to obtain all other required permissions from various statutory authorities, as applicable prior to commencement of work.</p> <p>MCZMA recommended letter dated 19/11/2019 with Specific and General Condition is attached in Annexure V</p>
5	The Committee noted that the project involve forest land. However PP is unable to explain to provide the details of status of forest clearance and accordingly PP needs to be submitted the details of FC proposal and its status	<p>The pipeline is passing through 26.0494 Ha forest areas of Mumbai Sub-urban district (7.8012 Ha) and Raigad (18.2482 Ha) district of Maharashtra. Out of which, 7.8012 Ha mangrove area falls in mahul division and 14.4658 Ha in Alibag division. A total of 3.7824 Ha of other forest areas also falls in Alibag division.</p> <p>Online application was submitted on 31/03/2019 (Parivesh Portal) for Forest Clearance the pipelines passing through forest areas. The submitted Form A for Forest Clearance is attached in Annexure VI. The Forest proposal for Mahul areas mangroves (7.8012 Ha) has been recommended by APPCF (Mangroves), Mumbai on 08/11/2019. Joint Field Survey by Divisional Forest Office, Alibag is under progress for Alibag forest area</p>
6	Details of rivers in the vicinity of the project site and details of mitigation measures to avoid pollution of rivers	<p>Patalganga river is 800 m from the proposed project site at Rasayani. The pipeline is crossing the Ulwe and Kirki rivers on the way to Rasayani. This will be a Zero-Liquid Discharge (ZLD) plant. The treated water will be reused as cooling tower make up. So, it can be noted that there is no impact on account of the waste water generation on the nearby Patalganga river.</p> <p>The pipeline is crossing the rivers through Continuous Concrete Weight Coating (CCWC) method. There is no process emission from pipelines. Hence, there will be no impact on the rivers on which the pipelines are crossing.</p>
7	Details of map as per requirements under CRZ Notification needs to be submitted	The CRZ mapping is carried out by M/s Institute of Remote Sensing, Anna University, Chennai. The CRZ report and maps are attached Annexure VII.

8	Onsite emergency plan as per MSIHC Rules	<p>BPCL has developed a comprehensive Emergency Response and Disaster Management Plan (ERDMP) for their Mumbai Refinery. The document is prepared in line with the Petroleum and Natural Gas Regulatory Board (PNGRB) guidelines which defines and specifies roles and responsibilities, classification of emergencies, coordination within and outside agencies etc. The document is strictly in compliance with the PNGRB guidelines and no deviation from the guidelines. ERDMP for proposed Rasayani project shall also be developed in line with the existing ERDMP for BPCL Mumbai Refinery and as per MSIHC Rules. For proposed Rasayani Polypropylene project the emergency response plan guidelines are discussed below.</p> <p>The project manager shall ensure that suitable instructions are issued to both BPCL and contractors personnel, identifying the action to be taken by each one in an emergency. This shall be achieved by display of organization chart/posters not only for firefighting but also other emergencies of large magnitude. A detailed Emergency/Disaster response plan (or DMP) will be drawn out in co-ordination with police authorities, fire brigade, hospitals, and neighboring industries. The plan considers organization set up, communication cell for information exchange, availability and mobilization procedure of resources for emergency situation and provision of mutual aid.</p> <p>The best way to manage any emergency is to prevent it. The guidelines to be ensured for emergency prevention shall be as follows:</p> <p>Sound engineering practice in the design fabrication, installation and maintenance of facilities:</p> <ul style="list-style-type: none"> <li>• Careful selection and correct use of equipment</li> <li>• Observance of safety and security requirement</li> <li>• Proper and constant training and guidance to all personnel working in the plant, with particular reference to product knowledge and maintenance practices</li> <li>• Good house keeping</li> <li>• Constant supervision</li> </ul> <p>BPCL will develop integration of existing on-site</p>
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Emergency Response Plans (ERPs) with the proposed facilities to enable it to respond effectively to an emergency. These plans will address the following issues:

- Emergency Response Organization
- Alarm and Communication Rules
- Contingency Plans for dealing with the emergency
- Co-ordination between the various emergency response teams, both within the complex as well as emergency response teams from outside the Complex
- Incident notification procedures
- Community notification and Evacuation

Existing Emergency Control Centre (ECC) shall be the focal point to co-ordinate emergency response activities. An alternative control centre will also be selected if it is anticipated that the ECC is likely to be affected by heat wave radiation of other hazards from the proposed facilities. Adequate personal protective/safety equipments will be provided at the ECC. Emergency procedures shall be displayed along with the telephone numbers at appropriate locations in the proposed facilities.

#### On-site Emergency Response Plan

The on-site Emergency Response Plan (ERP) shall be prepared for the proposed facilities at Rasayani Complex. This shall deal with steps the complex staff will take to control an emergency within the proposed facilities. It has been developed in accordance with BPCL principles and local regulations, and shall include information on the following:

- The emergency response training and drill programs required to maintain emergency response preparedness
- The company's emergency response organization, including a description of the make up, function and purpose of the emergency response teams. Alternates will be identified to assume responsibilities in case disaster occurs in the absence of principal coordinators.
- Checklists will be developed for each member on the emergency response teams, which include a written description of the duties,

		<p>responsibilities and authorities for each designated employee</p> <ul style="list-style-type: none"> <li>• Role of local authority when responding to emergencies</li> <li>• Alarm and communication system, including procedures for ongoing emergency communications</li> <li>• Detailed contingency plans for dealing with the most likely types of emergencies that can occur. These will include emergency procedures for safely shutting down operations</li> <li>• Procedure for reporting incidents to the appropriate authorities</li> <li>• Plan appraisal and updating</li> </ul>
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9	Plan for Corporate Environmental Responsibility with activities and timelines	<p>BPCL is committed to undertake Corporate Environment Responsibility (CER) initiatives at Rasayani under the following thrust areas adopted by BPCL management:</p> <ul style="list-style-type: none"> <li>➤ Quality Education</li> <li>➤ Water conservation</li> <li>➤ Skill Development</li> <li>➤ Health &amp; Hygiene including Swatcha Bharat Initiatives</li> <li>➤ Community development</li> </ul> <p>Corporate Environment Responsibility (CER) is planned for next 5 years and around 40 crores will be spent for the development of surrounding areas &amp; betterment of people.</p> <p>Presently, BPCL has carried out Refurbishment of nearby ITI at Panvel for benefit of the students at an expenditure of Rs. 68 Lakhs. Also, BPCL will be carrying out plantation of trees in nearby 17 acres plot of forest land. Around 5000 trees will be planted at an expenditure of about Rs. 1 Cr.</p> <p>In order to assess and identify the needs of the local community village wise at Rasayani, we have commissioned Tata Institute of Social Sciences (TISS) to carry out a survey and submit a need assessment report. The study was conducted with mixed method design. Socio-economic profile, aspects of quality of life and livelihood are assessed through quantitative methods, while qualitative methods have been applied to go in-depth about the needs of the community.</p> <p>Broad areas for intervention have been identified are listed below. Short term measures are within 1-2 years and long term measures are 3-5 years.</p> <ul style="list-style-type: none"> <li>➤ Living Environment and Housing Condition</li> </ul> <p>Short-Term Measures –</p> <ul style="list-style-type: none"> <li>• BPCL will mark and provide a proper place for waste disposal. They may do the provision of garbage bin in the area.</li> <li>• BPCL will help the Gram Panchayat to regularize the circulation of Ghanta-Gadi. It may help the Panchayat to clean all the filths in and around the villages.</li> </ul>
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		<ul style="list-style-type: none"> <li>• BPCL will upgrade the community toilets in the area.</li> <li>• BPCL will get the help of community volunteers to run the cleanliness campaign in their area and make the people aware about it.</li> </ul> <p>Long-Term Measures –</p> <ul style="list-style-type: none"> <li>• BPCL will do the beautification and install adequate street lights.</li> <li>• BPCL will do the beautification of the community spaces.</li> <li>• BPCL will create some public utilities in the villages.</li> <li>• With the help of panchayats, they may do the enlisting of public utilities in the area and its condition.</li> </ul> <p>➤ Drinking Water</p> <p>Short Term Measures –</p> <ul style="list-style-type: none"> <li>➤ Channels of water supply should be maintained properly by MIDC, the CSR wing of BPCL will mediate the process between the community and MIDC.</li> <li>➤ Every village shall get connected to the supply line of water.</li> <li>➤ Cleanliness around public tap should be maintained in villages and wadis where poor and SC/ST/OBC and migrant population are concentrated.</li> <li>➤ The small water reservoirs and well shall be cleaned.</li> </ul> <p>Long-Term Measures-</p> <ul style="list-style-type: none"> <li>➤ BPCL will find the scope of rain water harvesting in the area. The villages which have enough agricultural land shall get preference for it.</li> <li>➤ BPCL will try to upgrade the existing reservoir with the collaboration of stakeholders.</li> <li>➤ BPCL will try to develop the watershed and eco-system of the area with the collaboration of stakeholders.</li> <li>➤ Human resources, employment and skill development</li> </ul> <p>Short-Term Measures-</p>
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		<p>BPCL will collaborate with an existing skill development center (Vocational Training Provider) in local area -</p> <p>It will provide soft skills, important industrial skills, basic IT skills, English coaching and career counselling to the local youths. It will get accreditation from NSDC. Skilled youth of the local area who do not have any formal certification of their skills will be connected to it to get a formal certification. The center will also register the educated but unemployed youth with them. The selection of courses in skill development center shall be based on demand driven, which can be identified through industrial survey. This skill development center will also work as library and computer center for the local youths. They can culture and discipline themselves at there and learn professional mannerism. Youths will also get a basic business skill to try their future in self-employment.</p> <p>BPCL will also facilitate some scholarship program in the local area. It will also facilitate the local talents who have done excellent in their profession.</p> <p>Long-Term Measures-</p> <ul style="list-style-type: none"> <li>➤ BPCL will try to organize youths by creating facilities like gym, facilities of indoor games, cricket or football clubs and forming organizations for youths and try to win their participations through it.</li> <li>➤ Youth shall be made aware and competent enough to grab the opportunities outside the area, they shall be encouraged to migrate for it.</li> <li>➤ BPCL will play the role of mentor for all round development of youths in the area.</li> </ul> <p>Morbidity and Health services</p> <p>Short-Term Measures-</p> <ul style="list-style-type: none"> <li>➤ BPCL will provide PHC in the area and health activities shall be done in a coordinated manner.</li> <li>➤ BPCL will take initiative through mobile medical van to provide some basic health check-ups like blood test, sugar and BP test etc. Record of each of the patients shall be kept with their background information.</li> <li>➤ It will help the community to get the medicine prescribed by the doctor.</li> </ul>
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		<ul style="list-style-type: none"> <li>➤ A small team of community volunteers consisted by educated local youths shall be built to give the people basic awareness about health, preventive measures and provide counselling to the individuals and access to doctors. They will work as goodwill ambassador within the community.</li> <li>➤ The maternity care especially in areas dominated by poor and SC/ST/VJNT and OBC population shall be strengthened. Medicine kits and nutrition supplements shall be made available to them.</li> <li>➤ BPCL community volunteers will help the people to avail the insurance services and other health related schemes in the area.</li> </ul> <p>Long-Term Measures-</p> <ul style="list-style-type: none"> <li>➤ An ambulance will be provided for referral services and emergency hospital admission.</li> <li>➤ BPCL will facilitate health services through the specialist doctors.</li> </ul> <p>Agriculture and common property resources</p> <p>Short-term Measures-</p> <ul style="list-style-type: none"> <li>➤ Water bodies and common property resources in the area will be improved.</li> </ul> <p>Long-Term Measures-</p> <ul style="list-style-type: none"> <li>➤ Farmers shall be encouraged for horticulture, in which less land is required but its yields more and it is more commercial in nature.</li> <li>➤ Watershed of this area will be developed and bio-diversity will be enriched.</li> </ul> <p>Social asset and entrepreneurship</p> <p>Short-Term Measures-</p> <ul style="list-style-type: none"> <li>➤ The youth of this area shall be provided basic training of entrepreneurship aptitude and accounting.</li> <li>➤ Youths should be encouraged to start venture in group.</li> <li>➤ Existing SHG shall be facilitated further.</li> <li>➤ Demands in local market will be identified to give training and suggestions for youths and SHG women.</li> <li>➤ Women empowerment initiatives for developing sense of commitment among women for</li> </ul>
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doing business.

As per suggested methodology by the EAC committee during 14th EAC meeting dated 22nd Nov 2019, the revised CER budget is as follows:

S. NO	Capital Cost (Crores)	Amount Applicable	Percentage for Green Field Project	Amount (Crores)
1	Less than 100	100	2.0	2.0
2	100-500	400	1.5	6.0
3	500-1000	500	1.0	5.0
4	1000-10000	5432	0.5	27.16
	Total Amount			40.16

Total budget for CER activities will be around Rs 40 Crores and the amount will be spent in 5 years. Budget with CER activities is provided below.

S No	Activity	Amount (Crore)
1	Living Environment and Housing Condition (Short & long term measures)	4
2	Drinking Water (Short & long term measures)	12
3	Human resources, employment and skill development (Short & long term measures)	6
4	Morbidity and Health services (Short & long term measures)	10
5	Agriculture and common property resources (Short & long term measures)	5
6	Social asset and entrepreneurship (Short term measures)	3

10 The Committee noted that there are Schedule I species in the study area. PP needs to prepare the species specific conservation plan

Two schedule I species i.e. Indian Python and Monitor Lizard are found in the 10 km surrounding of the Rasayani site. They are not found in the project site. BPCL shall consult with the Forest and Wildlife Department of Government of Maharashtra and formulate a plan for

	along with budgetary allocation and PP to take approval for the Wildlife conservation and management plan from CWLW State Government	conservation of the species. An amount of Rs. 50 lakhs will be spent to conserve the species. The broad procedure for conservation of species is as follows. <ul style="list-style-type: none"> <li>➤ A thorough site survey will be carried out by fauna specialist to enumerate the number of species.</li> <li>➤ Special cage will be prepared to conserve the Indian Python snake with help from local Forest Department.</li> </ul> Habitat will be developed for the schedule I species
11	Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation needs to be submitted. All Annexures of Public hearing proceedings needs to be submitted	In all, 505 written queries & questions were received during the Public hearing on 24th Sept 2019 about BPCL's Polypropylene and interconnecting Pipeline project. However, on close scrutiny of the letters it is noticed that most of the letters are having same content and are identical copies with different signatories. Hence these letters were clubbed and consolidated replies are given
12	The Committee also noted that the project involves CRZ issues and accordingly the comments from CRZ sector also needs to be obtained by the Sector before placing the project in the EAC	All the requisite documents are submitted. The CRZ sector has provided the comments.

**15.5.19.2** During deliberation, the EAC noted the following:

The proposal is for environmental and CRZ clearance to the project of Installation of Polypropylene unit of capacity 450 KTPA at Rasayani, Khalapur Taluka, Raigad District, Maharashtra and interconnecting pipelines from BPCL Mumbai Refinery to Rasayaniby M/s Bharat Petroleum Corporation Limited.

The project/activity is covered under category A of items 5(c) "Petro-chemical complexes" of the Schedule to the Environment Impact Assessment (EIA) Notification 2006 and requires appraised at Central Level by Expert Appraisal Committee (EAC).

Standard ToR was issued vide letter no. IA-J-11011/168/2018-IA-II (I) dated 17<sup>th</sup> June, 2018 for the proposed project. Public Hearing for the proposed project has been conducted by the Maharashtra State Pollution Control Board on 24.09.2019 presided over by the Additional District Magistrate, Raigad. The main issues raised during the public hearing were related to employment, compensation, local developmental activates, EIA studies etc. The Committee noted that the action plan submitted by the project proponent with budgetary provisions

found to be satisfactory and addressing the concerns raised during the public hearing/consultation.

Land area available for the project is 334 acres. Proponent will develop greenbelt in an area of 33 % i.e. 110.7 acres out of 334 acres of the total complex area. The estimated project cost is Rs. 6431 Crores (Rs. 3826 Crores for Rasayani complex & Rs. 2605 Crores for Pipelines from BPCL-MR to Rasayani). Total capital cost earmarked towards environmental pollution control measures is Rs 104.95 crores and the recurring cost (operation and maintenance) will be about Rs 2.10 crores per annum. Direct employment will be 120 persons during operation & indirect employment for 2000 persons during construction phase (peak).

Thane Creek Flamingo Sanctuary falls within the deemed ESZ area and 5.5km distance from the pipeline route. Karnala Bird Sanctuary ESZ falls within 1km distance from pipeline and 2 kms from the project site. Arabian sea is 20 km (south-west) and Patalganga river 1.2 km (south-east) from the project site.

Ambient air quality monitoring was carried out at 8 locations during December 2018 to February 2019 and the baseline data indicates the ranges of concentrations as PM10 (62.4 - 93.6- $\mu\text{g}/\text{m}^3$ ), PM2.5 (24.7-54.2  $\mu\text{g}/\text{m}^3$ ), SO<sub>2</sub> (6.2-16.3  $\mu\text{g}/\text{m}^3$ ) and NO<sub>2</sub> (30.3-46.8  $\mu\text{g}/\text{m}^3$ ) respectively. Air quality modeling was carried out for the proposed project. 24 hourly maximum GLC for SO<sub>2</sub> and NO<sub>x</sub> are predicted as 0.32  $\mu\text{g}/\text{m}^3$  and 0.44  $\mu\text{g}/\text{m}^3$ .

Total fresh water requirement will be 375 m<sup>3</sup>/hr which will be met from supply of Maharashtra Industrial Development Corporation (MIDC). There shall be 160 m<sup>3</sup>/hr of liquid effluent generation out of which 132 m<sup>3</sup>/hr will be from cooling tower blowdown. The process effluent generated will be treated in new Effluent Treatment Plant. Treated waste water will be recycled through Zero Liquid Discharge (ZLD) plant. Power requirement for the proposed project will be 42.9 MW and sourced from state electricity grid. Gas fired boiler with a capacity of 50 TPH (1+1) will be installed.

Total SO<sub>x</sub> emission from the proposed project shall be 0.05 kg/h. Most of the process units will run on Natural Gas. Spent Catalyst will be generated (once in 4 years) during operation phase and other solid waste like spent Filter Elements, Spent Bag Filter, absorbent etc. will be sold to Catalyst processor for metals reclamation or disposed off to TSDF. An agreement with locally approved TSDF agency will also be put in place. The solid & hazardous waste will be managed as per CPCB guidelines.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that recommendations for State Coastal Zone Management Authority has been obtained on 19<sup>th</sup> November, 2019 and subsequently comments of CRZ section of the Ministry

has also been obtained on the proposal. The Committee has suggested to the grant of EC& CRZ shall be subject to terms and conditions stipulated by the SCZMA and other conditions, if any, stipulated by CRZ section. The Committee also noted that part of the proposal i.e. laying of pipelines involves diversion of forest land, and necessary permission in this regard is yet to be obtained.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that 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 properly addressed in the EIA/EMP report. Additional information submitted by the project has been found to be in order.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**15.5.19.3** The EAC, after deliberations, **recommended** the project for grant of environmental & CRZ clearance **subject to submission of 'Stage-1 forest clearance** as per the provisions of the Forest (Conservation) Act, 1980. The Committee also **recommended** the following specific terms and conditions as under:-

- 'Stage-1 forest clearance shall be submitted for the forest area/mangrove area involved under the project as per the provisions of the Forest (Conservation) Act, 1980. No installation of pipeline/associated facilities shall be carried out in forest areas without prior permission from the concerned regulatory authority.
- The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, as applicable, as per Ministry's OM dated 8<sup>th</sup> August, 2019 in this regard. Grant of environmental clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposal for Wildlife Clearance will be considered by the respective authorities on its merit and decision taken.
- All the conditions stipulated by the State Coastal Zone Management Authority while issuing NOC/recommendations shall be strictly implemented.

- 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.
- 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 375 cum/hr proposed to be met from Maharashtra Industrial Development Corporation 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.
- 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:-
  - (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.
  - As proposed, Rs. 40 crores shall be allocated for Corporate Environment Responsibility (CER). The activities shall include providing Educational infrastructure, Waterconservation, SkillDevelopment, Health&Hygieneand other issues raised during public hearing/consultation.
  - All commitments made during public hearing shall be satisfactorily implemented.
  - 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 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.
  - The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
  - The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
  - A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
  - Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.

*The meeting ended with vote of thanks to the Chair*

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**All the project recommended for grant of environmental clearance by the Committee shall also comply with the following general conditions**

**General Conditions**

- (i) The Project Proponent shall obtain all other statutory/necessary permissions/recommendations/NOCs prior to start of construction/operation of the project, which *inter alia* include, permission/approvals under the Forest (Conservation) Act, 1980; the Wildlife (Protection) Act, 1972; the Coastal Regulation Zone Notification, 2019, as amended from time to time, and other Office Memoranda/Circular issued by the Ministry of Environment, Forest and Climate Change from time to time, as applicable to the project.
- (ii) The project proponent shall ensure compliance of 'National Emission Standards', as applicable to the project, issued by the Ministry from time to time. The project proponent shall also abide by the rules/regulations issued by the CPCB/SPCB for control/abatement of pollution.
- (iii) The project authorities shall adhere to the stipulations made by the State Pollution Control Board/Committee, Central Pollution Control Board, State Government and any other statutory authority.
- (iv) The project proponent shall prepare a site specific conservation plan and wildlife management plan in case of the presence of Schedule-1 species in the study area, as applicable to the project, and submit to Chief Wildlife Warden for approval. The recommendations shall be implemented in consultation with the State Forest/Wildlife Department in a time bound manner.
- (v) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (vi) The energy source for lighting purpose shall be preferably LED based, or advance having preference in energy conservation and environment betterment.
- (vii) The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- (viii) The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be followed.
- (ix) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- (x) The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and to utilize the same for process requirements.

- (xi) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- (xii) The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (xiii) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented.
- (xiv) The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- (xv) A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- (xvi) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- (xvii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (xviii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- (xix) The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
- (xx) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at **<https://parivesh.nic.in/>**. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.

- (xxi) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- (xxii) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

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## **List of the Expert Appraisal Committee (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.	Shri R K Singh	Member
3.	Dr. Y.V. Rami Reddy	Member
4.	Dr. TudiIndrasen Reddy	Member
5.	Dr. J S Sharma	Member
6.	Shri Dinabandhu Gouda	Member
7.	Dr. T K Joshi	Member
8.	Shri S.C. Mann	Member
9.	Ms. Saloni Goel	Member
10.	Dr. Uma Kapoor	Member
11.	Shri Ashok Agarwal	Member
12.	Dr. Sanjay Bist	Member
13.	Dr. R. B. Lal, Scientist 'E'	Member Secretary
<b>MoEFCC</b>		
14.	Dr Saurabh Upadhyay	Scientist 'B'
15.	Dr. E.P. Nobi	Research Officer

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Revised Minutes of the EAC meeting held during 30-31 December, 2019 and 1st January, 2020-Version 14.01.2020

5 messages

From: [jpglobalconsultinggroup@gmail.com](mailto:jpglobalconsultinggroup@gmail.com)  
To: Additional Director MoEFCC Dr R B LAL

January 15, 2020 12:28 PM

Dear Dr. R.B. Lal,

Further to my revised draft minutes, submitted to you with approval, you have resubmitted for my consideration the proposal of M/s Reliance Industries. In this connection, I have following comments to incorporate;

1. I am in complete agreement on the comments, on the proposal of Reliance, by Dr. J.S. Sharma for his recommendations on the grant of EC.
2. To maintain consistency in the EC approvals, EC has given four to seven years in the earlier cases to achieve ZLD. In view of this, we should maintain minimum period of four years instead of three years, as mentioned in the proposal of Reliance.
3. All documents desired by you from Reliance, need no review. We should avoid 2<sup>nd</sup> time deferment of the case.

Therefore, it is recommended for the grant of EC.

This also takes care of the comments of Dr. J.S. Sharma on the proposal.

The minutes after incorporating above comments stand approved.

With Kindest Regards,

Dr. J.P. Gupta  
Chairman, EAC (Industry-II)  
MoEF&CC, Govt. of India  
New Delhi