

MINUTES OF THE 11th EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING HELD DURING 28-29 August, 2019

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

Time: 10:30 AM

11.1 Opening Remarks by the Chairman

11.2 Confirmation of the Minutes of the 10th Meeting of the EAC (Industry-2) held during 29-31 July, 2019 at Indira Paryavaran Bhawan, New Delhi.

The EAC, having taken note that no comments were offered on the minutes of its 10th meeting held during 29-31 July, 2019 at New Delhi, confirmed the same.

Day One - 28th August, 2019

11.3 Environmental Clearance

Agenda No.11.3.1

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

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

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

11.3.1.1 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	4750	3020	7770

	Monomer (VCM)			
	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 & 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 7th August 2017. Public hearing for the project has been exempted as per the provisions contained in para 7 (ii) of the EIA Notification, 2006.

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.

Total water after the proposed project will be 35,000 cum/day, which will be met from Vadodara Irrigation Division supply and GIDC supply.

Total effluent is envisaged to be 19800 cum/day, which will be treated in the existing ETP. Treated effluent will be discharged into the drainage channel of M/s VECL.

Power requirement after expansion will be 95 MW which will be met from existing Captive Power Plant. DG sets are kept as stand by during emergencies.

Emissions such as PM, SO₂, NO_x are expected from the proposed project and mitigation measures will be in place to minimize any potential adverse impacts such as provision of low NO_x burners in CFBC boilers, provision of continuous emissions monitoring systems for the stacks, LEL detectors, identified VOC sources will be connected to flare system.

All hazardous waste will be handled and disposed as per Hazardous and other waste (Management and Transboundary Movement) Rules, 2016.

Ambient air quality monitoring was carried out at 12 locations during December, 2016 to February, 2017 and the baseline data indicates the ranges of concentrations as: PM₁₀ (36-96 µg/m³), PM_{2.5} (10-68 µg/m³), SO₂ (4.9-18.4 µg/m³) and NO₂ (10.2-22.4 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.61 µg/m³, 3.24 µg/m³ and 12.6 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards.

Ministry has issued EC earlier vide letter no. J-11011/13/99-IAII(I) dated 27th September 1999 to the project for New Naphtha Cracker and LDPE project in Baroda Complex in favour of M/s Indian Petro-chemicals Corporation Ltd. The compliance status of environmental clearance conditions was forwarded by the Ministry's Regional Office Bhopal vide letter dated 14th September, 2018 (site visit conducted on 12th April, 2018).

11.3.1.2 The project to be set up in one of the critically polluted areas identified by CPCB, the EAC was informed about the NGT orders, presently in force, as under:-

(i) Order dated 10th July, 2019, passed by Hon'ble NGT, Principal Bench, New Delhi in OA No.1038 of 2018 in the matter of News item published in the Asian Age authored by Sanjay Kaw titled 'CPCB to rank industrial units on pollution levels'.

Para 28 of the said order quotes-

'No further industrial activities or expansion be allowed with regard to 'red' and 'orange' category units till the said areas are brought within the prescribed parameters or till carrying capacity of area is assessed and new units or expansion is found viable having regard to the carrying capacity of the area and environmental norms.'

(ii) On a Review Application No.44/2019 filed by MoEF&CC for review of the above order, and IA No.479/2019 filed by CPCB for clarification of the order, NGT has passed the order dated 23rd August, 2019. Para 10 of the same quotes-

'----- There is no absolute bar to such units being set up if they are found to be viable. This clarification should take care of any possible apprehension that the order of the Tribunal will obstruct any legitimate industrial activity. The MoEF&CC can forthwith devise an appropriate mechanism to ensure that new legitimate activity or expansion can take place after due precautions are taken in the areas in question by red and orange category of units.'

11.3.1.3 *In view of the above and the project site in Vadodara (having CEPI score 89.09) covered under the said orders of NGT, the Committee asked for clarification on ambient air quality data monitored for preparation of EIA/EMP report and presented during the meeting. Further, in view of the incremental values for core air pollutants on higher side, the Committee insisted for reassessment of the same, if so required.*

The Committee also opined that in case, such proposals are to be considered on merits, environmental conditions and other stringent measures would have to be looked into comprehensively in complete perspective.

In addition, the Committee desired for inputs/clarifications in respect of the following:-

- *Parawise compliance of the ToR dated 7th August 2017 which inter-alia include achieving ZLD in phases, increase in water consumption not to exceed 4000 cum/day, ESC/CER @2.5% as proposed earlier by the project proponent, etc.,*
- *Transfer of EC dated 27th September, 1999 in favour of M/s Reliance Industries Ltd,*
- *Consent to Operate for the present industrial operations vis-à-vis the environmental clearance granted,*
- *Existing production of different products in line with the existing EC dated 27th September, 1999,*
- *Hazard communication model,*
- *Health risk assessment for Vinyl Chloride Monomer (VCM), Benzene, Acrylonitrile and special test/investigation for the same.*

- Report on safety/ Risk analysis to be submitted using advanced models.
- As the unit will be discharged additional effluent through VECL(CETP), a permission letter is required from CETP whether CETP has adequate capacity to 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.

The proposal was deferred and the project proponent was asked to revise the proposal on the above lines.

Agenda No.11.3.2

Expansion of distillery capacity from 60 KLPD to 180 KLPD and 2 MW/HR captive steam-based power generation to 9 MW/HR cogeneration unit (Karnataka) by M/s Indian Cane Power Limited (Samsons Distilleries)- Environmental Clearance

[IA/KA/IND2/106218/2001, J-11011/83/2001-IA II (I)]

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

11.3.2.1 During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for expansion of distillery capacity from 60 KLPD to 180 KLPD by M/s Indian Cane Power Limited (Unit: Samsons Distilleries) in an area of 460 acres located at Village Duggavathi, Taluk Harapanahalli, District Bellary (Karnataka). The project also involves expansion of captive cogeneration power plant from 2 MW/Hr to 9MW/Hr.

The details of proposed products are as under:-

S. No.	Product	Existing Quantity	Proposed Quantity	Total Quantity
1	Distillery (Ethanol/RS/ENA)	60KLPD	120KLPD (Ethanol)	180KLPD
2	Power	2 MW/hr	7MW/Hr	9MW/Hr

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

Existing land area is 460 acres. No additional land is required for the proposed expansion. Industry has developed greenbelt in an area of 300 acres covering 65 % of the total project area. The estimated project cost is Rs.184.68 crores including existing investment of Rs 30 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.6.02 crores and the recurring cost (operation and maintenance) will be about Rs. 42 lakhs per year. The project will provide employment for 80 persons directly and 150 persons indirectly after expansion.

Renebennur Blackbuck sanctuary is at a distance of 6.8 km from the project site. Tungabhadra river flows at a distance of 3 km in E direction & Duggavattihalla flows at 3 Km in S direction.

Total water requirement is estimated to be 1596 cum/day, which includes fresh water requirement of 600 cum/day, proposed to be met from Tungabhadra river.

Effluent (Condensate, spentlees, boiler cooling tower blowdown, blow down, DM plant reject, and washing) of 1249 cum/day will be treated through CPU of capacity 1250 KLD. Spentwash will be concentrated and used as fuel in the incineration boiler. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement after expansion will be 5 MW/Hr and it will be met from KPTCL and inhouse power generation system. To cater to the proposed expansion, additional DG set of capacity 1 x 1000 KVA shall be kept as standby during power failure. Stack (height 30 m AGL) will be provided as per CPCB norms to the proposed DG set.

Spent wash/biogas / husk / coal fired boiler of capacity 45 TPH shall be installed in the project, with ESP and stack of height of 85m to control the particulate emissions within statutory limits.

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

S.No.	Solid waste	Total	Mode of disposal	Utilization/disposal
1	Boiler Ash	38.4 TPD	Mechanical conveyor into common silo for further disposal	Sent to bio-composting and brick manufacturing unit
2	Yeast sludge from fermenter and digester	12 TPD	Mechanical conveyor	Used in compost plant and used as bio manure
3	Sludge from CPU	0.03 TPD	Sludge drying bed	
4	Domestic solid waste	0.04 TPD	Segregated. Domestic organic solid waste will be composted, while the inorganic solid waste will be handed over to nearby authorised recyclers.	Nearby municipal agencies & recyclers.
Hazardous waste				
5	Used oil from DG sets	1000 L/annum	Stored in leak proof sealed barrels	Usually the oil is very less, Used as lubricants for Conveyor chains and sprockets within the industry to avoid use of fresh oil.

Ministry has issued EC earlier vide letter no. J- 11011/83/2001-IAII(I) dated 19th September, 2002 for 'expansion of distillery unit for production of rectified spirit from 30 to 60 KLPD and neutral spirit from 5 to 30KLD' in favour of M/s Samsons Distilleries Pvt Ltd. Thereafter, EC has been obtained vide letter no. J-11011/9/2007-IA II (I) dated 15th April, 2008 for expansion of distillery unit from 60 KLPD to 180 KLPD along with 16.5 MW/hr captive steam based power generation and, another EC has been obtained from the SEIAA vide letter dated 23rd May, 2011 for establishment of 29 KLD grain based distillery in favour of M/s Samsons Distilleries Pvt Ltd at the given location. Ministry vide letter dated 31st January, 2018 has transferred environmental clearance dated 19th September, 2002 from M/s Samsons Distilleries Pvt Ltd to M/s Indian Cane Power Limited.

Monitoring report on compliance status of the existing EC conditions have been forwarded by the Ministry's Regional Office Bangalore after conducting site visit on 2nd January, 2019. It was informed that the EC dated 15th April, 2008 and 23rd May, 2011 has not been operationalized due to financial constraints and the same has been reported in the compliance report issued by the Ministry's Regional Office. As per the Ethanol Blended with Petrol programme of Government of India, the project proponent plans to expand the production from 60 KLPD to 180 KLPD and to revive the plant. It was observed that the Ministry has issued EC for the same production capacity, after conducting public hearing on 3rd October, 2007.

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

Consent to Operate for the present industrial operations has been obtained from Karnataka State Pollution Control Board vide letter dated 30th December, 2016 which is presently valid upto 30th June, 2021.

11.3.2.2 *The EAC, after detailed deliberations, recommended the project for grant of environmental clearance, as per the provisions contained in para 7(ii) of the EIA Notification, 2006, exempting ToR, fresh EIA and public hearing, and subject to compliance of terms and conditions as under:-*

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. The reuse of treated effluent in gardening/ horticulture shall not be considered as ZLD .*
- *Concentrated spent wash shall be incinerated and not to be released in open space.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Odour shall be prevented at the source and effective odour management scheme shall be implemented.*
- *Total fresh water requirement shall not exceed 600 cum/day, proposed to met from Tungabhadra river. Prior permission shall be obtained from the concerned regulatory authority.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
 - (i) Metering and control of quantities of active ingredients to minimize waste.*
 - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
 - (iii) Use of automated filling to minimize spillage.*
 - (iv) Use of Close Feed system into batch reactors.*

- (v) Venting equipment through vapour recovery system.
- (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- At least 2.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Priority shall be given for construction/repair of the village roads.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.
- Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For 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.
- CO₂ generated from the process shall be bottled/made solid ice and sold to authorized vendors.

Agenda No.11.3.3

Augmentation of Acid slurry (LABSA) from 10 TPD to 160 TPD and Spent Sulphuric Acid (Weak Sulphuric Acid) Production capacity from 10 TPD to 110 TPD at Puducherry by M/s New India Associates-Environmental Clearance

[IA/PY/IND2/95298/2019, IA-J-11011/260/2019-IA-II(I)]

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

11.3.3.1 During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for augmentation of acid slurry (LABSA) from 10 TPD to 160 TPD and spent sulphuric acid (weak sulphuric acid) from 10 TPD to 110 TPD by M/s New India Associates in an area of 4573 sqm located at R.S. No 63/3, Village Mangalam, Taluka Villianur (Pondicherry).

The details of proposed products are as under:-

Product	Existing (TPD)	Proposed (TPD)	Total (TPD)
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Acid Slurry (LABSA)	10	150	160
Spent Sulphuric Acid	10	100	110

The project/activity is covered under category B2 of item 5(f) 'Synthetic Organic Chemicals' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at State level by the concerned SEAC/SEIAA. Due to applicability of general condition (Wildlife sanctuary within 5 km, TamilNadu State located within 1 km), the proposal requires appraisal at central level by the sectoral EAC in the Ministry.

Oussudu Bird Sanctuary is located at 4.95 km (NNE) from the project site. Application for recommendation from SC NBWL has been submitted. Bahoorlake (7.88 km, S), Lake near NavamalMaruthur (6.04km, W), Lake Near Veeranam (9.58 km, SW), Kanagan Lake (7.66 km, NE) and Gingeeriver (8.2 km, S) are located within 10 km of the project site.

Existing land area is 4573 sqm (1.13 Acres). No additional would be required for the proposed expansion. Industry has developed greenbelt in an area of 1510 sqm (0.372 acres) covering 33.01% of total project area. The estimated project cost is Rs.1 crore. Total capital cost earmarked towards environmental pollution control measures is Rs.5.48 lakhs and the recurring cost (operation and maintenance) will be about Rs.1.65 lakhs per annum. The project will provide employment for 28 persons directly and 30 persons indirectly after the proposed expansion.

Total water requirement is estimated to be 19.5 cum/day, proposed to be met from ground water source.

Effluent of 0.2 cum/day will be treated through existing ETP. The Treated water is reused for cooling water makeup. 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 120.53 kVA, which will be met through Pondicherry Electricity Department. Unit have one DG set of capacity 82.5 KVA, which would cater to the proposed expansion.

There shall be no gaseous and fugitive emission from the process. D.G. set will be used during power failure and HSD will be used as fuel. No boilers/heaters required at present and also after the proposed expansion, no green house generation. Stacks (height 5 m AGL) are provided as per CPCB norms. Gas emission from four reactors is connected to common single wet scrubber with roof vent of 9m AGL.

11.3.3.2 *The EAC, after detailed deliberations and in view of the OMs/clarifications issued by the Ministry regarding categorization of LABSA manufacturing units, opined that the project/activity not included in the Synthetic Organic Chemicals, may not be covered under the ambit of the EIA Notification, 2006 and thus not requiring prior environmental clearance.*

The Committee desired that the Ministry may take a consistent and firm stand, and issue an appropriate clarification in this regard, so that the same could be made applicable to similarly placed proposals.

In view of the above, the proposal was not taken forward for want of appropriate clarification by the Ministry on the subject matter. The project proponent may be informed accordingly.

Agenda No.11.3.4

Expansion of Existing Inorganic and Synthetic Organic Chemicals and Proposed Pesticides Manufacturing Unit at Thane, Maharashtra by M/s Universal Chemicals and Industries Pvt Ltd - Environmental Clearance [IA/MH/IND2/82279/2018, IA-J-11011/317/2018-IA-II(I)]

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

11.3.4.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up pesticides manufacturing unit of capacity 40 TPM, product mix change in synthetic organic chemicals with reduction in production capacity from 166 TPM to 90 TPM by M/s Universal Chemicals and Industries Pvt Ltd in an area of 21691 sqmat MIDC Ambarnath, District Thane (Maharashtra).The project also involves expansion of inorganic chemicals manufacturing from 150 TPM to 240 TPM.

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

S. No	Product	Existing (MT/M)	Proposed (MT/M)	Total (MT/M)
Synthetic Organic Chemicals				
1.	Para cresyl Methyl Ether	10	-10	0
2.	Para anisic alcohol	18	-18	0
3.	Para anisic aldehyde	60	-60	0
4.	Anisole	10	-10	0
5.	Beta Naphthyl Ketone	15	-15	0
6.	Ionone (Alpha, N-Methyl, Gamma Methyl)	18	-18	0
7.	3,4-DichloroBromo Benzene	5	-5	0
8.	Potassium salt parasulfo benzoic acid	10	-10	0
9.	4-Sulfamido Benzoic Acid	10	20	30
10.	Sarcosine -N-Methyl Amide	10	0	10
11.	Saccharine	0	20	20
12.	3-Chloro 2,6-Diethyl Aniline	0	10	10
13.	Meta Chloro Benzyl Chloride	0	10	10
14.	Ortho Chloro Benzyl Chloride	0	10	10
	Total	166	-76	90
Pesticide and Pesticide specific intermediates				
15.	Tolpyralate	0	10	10
16.	2, 4 – Dichlorophenoxy acetic acid dimethyl amine	0	10	10
17.	Para Chloro Benzyl Chloride	0	10	10
18.	Ortho Methyl Benzyl Chloride	0	10	10
	Total	0	40	40
Inorganic Chemicals*				
19.	Potassium Permanganate	150	50	200
20.	Sodium Permanganate	0	40	40
	Total	150	90	240

**Prior EC is not required for operation*

Sr. No	By products	Quantity MT/M or KL/M		
		Existing	Proposed	Total
1	Manganese Sulphate Solution	530 KL/M	-530 KL/M	0 KL/M
2	Ortho Phosphoric Acid Solution	10 KL/M	-10 KL/M	0 KL/M
3	Hbr Solution	15 KL/M	-15 KL/M	0 KL/M
4	Sodium Sulphate Solution	135 KL/M	-70 KL/M	65 KL/M
5	Weak Mono Methyl Amine Solution	10 KL/M	0 KL/M	10 KL/M
6	Precipitated Manganese Dioxide (Reclaimed MnO ₂)	20 MT/M	80 MT/M	100 MT/M
7	Sodium Bisulphide	0 MT/M	2 MT/M	2 MT/M
8	HCL Solution	0 MT/M	10 MT/M	10 MT/M
9	Potassium Silicofluoride	0 MT/M	20 MT/M	20 MT/M
10	Wet Soil Containing 2-5% Manganese Dioxide	45 MT/M	105 MT/M	150 MT/M
11	Aqueous DMA Solution	0 KL/M	0.5 KL/M	0.5 KL/M
12	Salts Of Sodium/Potassium	0 MT/M	150 MT/M	150 MT/M
13	Hypochlorite	0 MT/M	6 MT/M	6 MT/M
14	Ammonium Sulphate	0 MT/M	6 MT/M	6 MT/M
	Total	700 KL/M & 65MT/M	-624.5 KL/M & 379 MT/M	75.5 KL/M & 444 MT/M

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

Standard ToR for the project was granted on 18th December, 2018. Public hearing is exempted as the project is located in the notified Industrial area.

Existing land area is 21691 sqm. No additional land would be required for proposed expansion. Industry will develop green belt in an area of 7438.55 sqm covering 33% of total project area. The estimated project cost is Rs. 14 crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 2.88 crores and the recurring cost (operation and maintenance) will be about Rs. 73.5 lakhs per annum. The project will provide employment for 200 persons directly and indirectly after expansion.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild life Corridors etc. within 10 km from the project site. Ulhas river flows at a distance of 4.2 km in North direction.

Total water requirement is estimated to be 470 cum/day, which includes fresh water requirement of 213.4 cum/day, proposed to be met from MIDC water supply.

Effluent of 64.6 cum/day will be treated through ETP, MEE & RO and treated water shall be reused for plant requirements. 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 2000 KVA, proposed to met from Maharashtra State Electricity Distribution corporation limited (MSEDCL). Existing unit has one DG set of 125 KVA capacity, additionally 1 DG set of 500 KVA are used as standby during power failure. Stack (height 5.0 m) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 5TPH Coal fired boiler. Additionally, 3 TPH Coal fired boiler will be installed. Multi cyclone separator with bag filter with a stack of height of 30 m will be installed to control particulate emissions within the statutory limits.

Gases and vapors from manufacturing process are identified source of emission, which will be passed through existing scrubber. Additional 4 scrubbers will be installed to mitigate the process emissions from expansion activity. The scrubbed gases from manufacturing process will be released through 5 stacks each with a height of 5 meter.

Details of Solid waste/ Hazardous waste generation and its management are as under:

S. No.	Hazardous Waste	Cat of waste	Existing	Proposed	Total	Disposal
1	Used/spent oil	5.1	--	50 kg/A	50 kg/A	Sale to Authorized reprocessor/ CHWTSDF
2	Process waste & residue	29.1	--	700 kg/d	700 kg/d	Co-processing/ CHWTSDF
3	Spent solvent	29.4	--	140 KL/m	140 KL/m	Recycle within process / Sale to Authorized reprocessor/ CHWTSDF
4	Spent carbon	36.2	--	170 kg/m	170 kg/m	Co-processing/ CHWTSDF
5	Spent Solvents	20.2	1 T/D	1 T/D	2 T/D	Recycled within the process/ Sold to Authorized vendor
6	Distillation residue	20.3		0.2 T/D	0.2 T/D	Co-processing/ CHWTSDF/ Sold to Authorized vendor
7	Residue & waste (Inorganic)	38.1	1.5 T/D	3.5 T/D	5 T/D	Sale to authorized recycler/ co-processing/ CHWTSDF
8	ETP Sludge	35.3	40 kg/d	10 kg/d	50 kg/d	CHWTSDF
9	MEE Residue	37.3	--	5 T/D	5 T/D	Co-processing/ CHWTSDF/ sale to authorized recycler
10	Spent ion exchange resin containing toxic Metals	35.2	--	50 kg/m	50 kg/m	CHWTSDF/ Sale to authorized recycler

Ambient air quality monitoring was carried out at 8 locations during October- December 2018 and the baseline data indicates the ranges of concentrations as: PM₁₀ (64.4 – 86.3 µg/m³), PM_{2.5} (22.8-51 µg/m³), SO₂ (19.7– 44.3 µg/m³) and NO₂ (27.4– 52.1 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLC after the proposed project would be 1 µg/m³, 0.126 µg/m³ and 2.18 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards.

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

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

Consent to Operate for the present industrial operations, has been obtained from the Maharashtra SPCB vide letter dated 13th April, 2016.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *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.*
- *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.*
- *Coal having sulphur content <0.5% shall be used as fuel in the boiler.*
- *National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13th June, 2011, as amended from time to time, shall be followed.*
- *No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD₅₀<100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
 - (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 213.4 cum/day, to be met from MIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*

- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.*
- *The company shall undertake waste minimization measures as below:-*
 - (i) Metering and control of quantities of active ingredients to minimize waste.*
 - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
 - (iii) Use of automated filling to minimize spillage.*
 - (iv) Use of Close Feed system into batch reactors.*
 - (v) Venting equipment through vapour recovery system.*
 - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 2.5% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *Safety and visual reality training shall be provided to employees.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*
- *Process safety and risk assessment studies shall be carried within six months using advanced models, and the mitigating measures shall be undertaken accordingly.*

Agenda No.11.3.5

Offshore Oil and Gas Development and Production from Discovered Small Field of B-9 Cluster fields at Mumbai Offshore Basin at Mumbai (Maharashtra) by M/s Adani Welspun Exploration Limited- Environmental Clearance [IA/MH/IND2/82182/2017, J-11011/565/2017-IA II (I)]

The project proponent and their consultant M/s Asian Consulting Engineers Pvt Ltd made a detailed presentation on the salient features of the project.

11.3.5.1 The proposal was earlier considered by the EAC in its meeting held during 8-9 April 2019. Additional information sought by the EAC and reply submitted by the project proponent is as under:

S. No.	Addition details sought by the EAC	Reply submitted by the PP
1.	Baseline air quality of the areas immediately affected by the development drilling, particularly with reference to Hydrogen Sulphide, Sulphur Dioxide, NO _x and background levels of Hydrocarbons and VOCs.	The project site is about 72 km from Diu coast in the sea. There are no developmental activities at site (platform, well head, etc.). There is no human habitation at site or within 10 km from the development drilling locations. The nearest developmental activity is at B-12 development area of ONGC at about 50 km away from the project location. Please refer Point No.1, Page No. 2, of EIA Addendum Report. However, the emissions from the proposed developmental drilling are calculated and presented in Table 2.1 & 2.2 of the EIA Addendum Report.
2.	Details on estimation and computation of air emissions (such as Nitrogen Oxides, Sulphur Oxides, Carbon Monoxide, Hydrocarbons, VOCs, etc.) resulting from flaring, DG sets, combustion, etc. in all project phases.	The estimation and computation of air emissions from DG set and Flare has been modelled using SCREEN view (USEPA approved software). From the estimations, it can be concluded that no adverse impact is envisaged. The detailed description and modelling outputs for DG sets & flaring are given under Point No. 2 Page No. 2-10 and Page 10-13 respectively of EIA Addendum Report.
3.	Baseline data collection within 1km of each development well, in respect of oil/metal/hydrocarbon content in the surface water and sediments.	Water and sediment quality monitoring were carried out in B-9, B-7 and BRC blocks of the cluster offshore fields in the Mumbai Offshore Basin. The sampling locations selected are within the 1km of the well head platform (<i>the exact well location is not known but it will be within the well head platform, accordingly the sampling locations are selected</i>). The detailed description, methodology and analytical results are discussed given under Point No.-3 Page No. 14-33, of EIA Addendum Report.
4.	Details of DG Sets and other utilities.	The DG Sets and Other Utilities on typical offshore Jack up Rig are given under Point No.4 Table 4.1., Page No-34, of EIA Addendum Report. Details of the typical minimum requirement that is expected are given in the above referred section. However, the exact

		specifics would vary marginally depending on the actual rig that will be contracted.
5.	Prediction of various parameters vis-à-vis estimated gas production.	The quantity of estimated proposed product along with its compositions and properties are described under Point No.-5, Table No. 5.1 and succeeding two tables Page No. 34-36 of EIA Addendum Report.
6.	Source of fresh water, water balance and effluent treatment mechanism.	The detailed water balance diagram is given under Point no 6, Figure No. 6.1, Page No. 37, of EIA Addendum Report. The water required for the proposed drilling is 45–55 KL per day per well.
7.	Procedure for handling oily water discharges from deck washing, drainage systems, bilges, preventing spills and spill contingency plans, treatment and disposal of produced water.	The Management Plan/ Procedure for handling oily water discharges, oil spill contingency plans, treatment and disposal of produced water are described under Point No. 7, Table 7.1 and the succeeding write-up , Page no. 37-39, of EIA Addendum Report.
8.	Details of blowout preventer installation.	The details of blowout preventors to be installed on the drilling rig, are given under Point No. 8, Table no. 8.1, Page No. 39, of EIA Addendum Report.
9.	Risk assessment and mitigation measures including independent reviews of well design, drilling and proper cementing and casing practices.	Independent review of well design, drilling, cementing & casing has been done as a part of Field Development Plan (FDP) to DGH. Detailed design parameters shall be re-evaluated at the time of drilling the wells, as a part of the Detailed Well Engineering exercise. Risk assessment and mitigation measures during the drilling, cementing & casing phases of the well are captured in the Drilling Programme Risk Register given in Page No. 63-71 of EIA Addendum Report Risk assessment has been done for the production phase using a quantitative risk assessment technique, using DNV PHAST. Consequence modelling has been carried out for the identified hazard scenarios, including release rates, thermal radiation extent, dispersion and explosion overpressure distance. The study is carried out in line with the CPR 18E (Guidelines for Quantitative Risk Assessments) & Indian standard IS 15656 (Hazard Identification & Risk Analysis - code of practice). Details are covered in Section 9.2 Page 40-62 of EIA Addendum Report.
10.	Details of all environment and safety related documentation within the company (regarding Life of pipeline, Corrosion prevention method,	The environment and safety related documentations; Pipeline Integrity Management System (PIMS) is enclosed as Annexure-II (<i>with the EIA Addendum</i>

	inspection etc.)in the form of guidelines, manuals, monitoring programmes including Occupational Health Surveillance Programme etc.	Report). The Occupational Health surveillance programme shall be in line with- <ul style="list-style-type: none"> • API RP-54_ - Occupational Safety & Health for Oil and Gas well drilling and servicing • Occupational Health Monitoring OISD Std-166. The requirement will be finalized during the design & engineering stage of the development. Details are discussed under Point No. 10, Page No. 72-77, of EIA Addendum Report.
11.	Applicability of OISD Standards.	The equipments and utilities to be involved in the overall drilling tasks along with the applicable OISD Standards are given under the section titled "Other applicable OISD Standards" Page No. 76-77, of EIA Addendum Report.

11.3.5.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for offshore oil & gas development & production from B-9 Cluster Fields in Mumbai Offshore Basin by M/s Adani Welspun Exploration Limited (AWEL). The said Cluster comprises of three deep offshore fields namely B-9, B-7 and BRC, located beyond 12 nautical miles (nearest landfall point is Diu at 72 km approx). The field was originally discovered by M/s ONGC Ltd, and was subsequently awarded to M/s AWEL under Discovered Small Fields (DSF) bidding round-2016.

The project involves drilling of 12 wells in the Cluster (7 wells in B-9 field, 3 wells in B-7 field & 2 wells in BRC field), installation of 4 wellhead platforms and laying of subsea pipelines 130 km long).

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 (EAC) in the Ministry.

Terms of reference for the project was issued on 13th March 2018. Public hearing for the proposed project has been exempted as the project site is located in the offshore.

Existing area of the Cluster is 183.23 sq km (B-9: gas field: 138.5 sqkm, B-7: gas field: 22.7 sqkm, BRC: oil field: 22.03 sqkm). The estimated project cost is Rs.825 Crores (as per current project estimation). Total capital cost earmarked towards environmental pollution control measures is Rs 1.5 crores and the recurring cost (operation and maintenance) will be about Rs. 38 lakhs per annum. The project will provide employment for 120 persons directly and 25 persons during operations (installation of surface facilities).

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site.

Total water requirement is estimated to be 55 cum/day. Effluent will be treated through on board STPs available on rig and Derrick and/or Lay Barges (DLB) as per MARPOL and marine practices for treatment and disposal of waste water.

DG set and Flare emissions will be generated during the drilling process. Details of emission and management measures are given below:

DG Sets Emissions

S. No.	DG set Capacity	Stack height (m)	Emission Rate (g/s)					Gas Exit Temp (°C)	Stack Dia. (mm)	Gas Exit Flow rate (m ³ /min)
			PM ₁₀	SO ₂	NO _x	VOC	CO			
1.	2500 KVA (1865 HP)	9.4	0.16	0.094	4.69	0.16	1.29	517	203	339.4
2.	2250 KVA (1600 HP)	6.3	0.14	0.08	4.03	0.16	1.10	511.4	203	170.3
3.	1000 KVA (750 HP)	10	0.066	0.037	1.88	0.066	0.52	465.8	203	444.2
4.	550 KVA (410 HP)	4.7	0.11	0.10	1.55	0.13	0.35	543.1	203	83.5

Flare Emissions

S. No	Components	Emission Rate (g/s)
1.	Total hydrocarbons (THC)	22.15
2.	Carbon monoxide (CO)	24.48
3.	Volatile organic compounds	43.65
4.	Nitrogen oxides (Nox)	4.49

Management Measures

Component	Management Measures
Air Emissions	<ul style="list-style-type: none"> All equipment's will be operated within specified design parameters. High efficiency generator sets will be provided with adequate stack height and modern emission control equipment's. Emission can be minimized further by use of low sulphur diesel (i.e. present sulphur content of HSD utilized is 50 ppm). Regular maintenance of the transportation vessels to be ensured to minimize level of emission in the environment. Measures will be taken to minimize emissions during gas flaring. Follow up of preventive and scheduled maintenance of all the equipments as per the procedures given by OEM will be ensured.

Component	Management Measures
	<ul style="list-style-type: none"> • It will be ensured that stacks/vents height will be provided as per CPCB/SPCB norms. • Efficient flare system designs will be ensured.

Ambient air quality monitoring was not carried out as there are no receptors. The air quality within 10 km from the project site is pristine as there is neither any human habitation nor any anthropogenic activity in the area. AAQ modeling study for point source emissions (DG Sets) indicates that the emissions would be 3.01- 20 µg/m³ , 85.67-280 µg/m³ (high, but max concentration is predicted within 1km only, beyond 1km it is safe) and 1.66-18 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The project proponent has confirmed the expenditure towards CER @ 2% of the total project cost.

11.3.5.3 *The Member Secretary has informed the EAC regarding no requirement of environmental clearance to such projects in terms of the extant provisions of the EIA Notification, 2006. The EIA Notification, 2006 imposes certain restrictions and prohibitions to drilling activities listed in the schedule to the Notification, under taken only in territorial waters of India. The present project being located at a distance of 72 km from the nearest landfall point in Diu, may not attracts the provisions of the said notification.*

It was informed by the project proponent that as per the production contracts, it is required to prepare the EIA report for the purpose and get approved by the concerned authority. Accordingly, the Ministry being the competent authority for the same, the proposal has been submitted.

11.3.5.4 *However, the Committee after detailed deliberation recommended the project for grant of environmental clearance subject to compliance of standard conditions as applicable for such project.*

Agenda No.11.3.6

Establishment of Molasses/Grain based distillery of capacity 120KLD along with 4MW at village Fatehpur Roshnai, Rania, Tehsil Akbarpur, District Kanpur Dehat (UP) by M/s Orange Distillery and Beverages Pvt Ltd- For Environmental Clearance [IA/UP/IND2/75365/2018, IA-J-11011/195/2018-IA-II(I)]

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

11.3.6.1 During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for setting up molasses/grainbased distillery of capacity120 KLD M/s Orange Distillery and Beverages Pvt Limited in an area of 47298 sqm located atKhasra Nos.490, 491, 496, 497, 531, 533, Village FatehpurRoshnai, Tehsil Akbarpur, District Kanpur Dehat (UP). The project also involves installation of 4 MW Co Generation Power Plant.

The details of proposed products are as under:-

Product	Quantity
Distillery (ENA/AA)	120 KLD
Co-generation plant	4 MW

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

Standard Terms of Reference for the project was issued on 13th July, 2018. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 25th March, 2019. The main issues raised during the public hearing are related to air pollution, water pollution and employment in the local area.

Land area available for the project is 47298 sqm. Industry will develop greenbelt in an area of 15608 sqm covering 33% of total project area. The estimated project cost is Rs.170.58 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.34.70 crores and the recurring cost (operation and maintenance) will be about Rs.3.10 crores per annum. The project will provide employment for 135 persons directly & 150 persons indirectly.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. Rind river flows at a distance of 2.14 km in east direction.

Total water requirement during molasses based operation is estimated to be 2739 cum/day, which includes fresh water requirement of 720 cum/day (6KL/KL of alcohol), proposed to be met from ground water. During grain based operation, total water requirement is estimated to be 2434 cum/day, which includes fresh water requirement of 600 cum/day (5KL/KL of alcohol).

During molasses based operation spent wash of 864 KLD will be treated through Concentration in MEE then concentrate from MEE will be incinerated in Slop fired boiler. During grain based operation, spent wash of 720 KLD will be first centrifuged for solid separation, supernatant will be concentrate in MEE and concentrate from MEE, will be mixed with the Wet cake. Other effluents like MEE condensate, cooling tower and boiler blow down, floor washing etc will be treated in laundry. Treated water will be reused for various processes in the plant. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement for establishment of distillery will be 2265 KW. Two number of DG sets of capacity: 1000.0 KVA (01) & 500.0 KVA (01) are used as standby during power failure. Stack (height 6.0 above roof top) will be provided as per CPCB norms to the proposed DG sets.

Slop fired boiler of 35 TPH (01 No) will be installed. Bag filter with a stack of height of 65 m will be installed for controlling the particulate emissions within the statutory limit of 50.0 mg/Nm³ for the proposed boilers.

From Process Carbon Di Oxide will be generated. Approx.: 90 TPD Carbon di oxide would be recovered from the process which will be sold in the market. Ash (During molasses based operation): 51.3 MT/Day, it would be mixed with fermenter sludge and utilized as manure due to its high potash content. Fly Ash (During grain based operation): 9.45 MT/Day it will be provided to brick manufacturer. Grain residue (During grain based operation): 54 MT/Day, It will be used in manufacturing of cattle feed.

Ambient air quality monitoring was carried out at Eight (08) locations during 1st October 2018 to 31st December 2018 and the baseline data indicates the ranges of concentrations as: PM10 (71.3 – 95.0 µg/m³), PM2.5 (41.7 – 56.3 µg/m³), SO₂ (11 – 21.9 µg/m³) and NO₂ (14 – 27.3 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.78 µg/m³, 0.41 µg/m³, 1.53 µg/m³ and 0.67 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

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. Issues raised during public hearing have been properly addressed by the project proponent.

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

- *Grain unfit for human consumption shall only be used for grain based distillery operations.*
- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Concentrated spent wash shall be incinerated and not to be released in open space.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Odour shall be prevented at the source and effective odour management scheme shall be implemented.*
- *Total fresh water requirement during molasses based operation shall not exceed 720cum/day, and grain based operation shall not exceed 600 cum/day, proposed to be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.*
- *Rainwater harvesting system shall be setup in the unit and the water shall be used for process requirements, to reduce fresh water requirements.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
 - (j) 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.*

- (w) Venting equipment through vapour recovery system.
- (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
 - All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.
 - At least 3% 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. Priority shall be given for construction/repair of the village roads.
 - For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
 - The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
 - Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
 - There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.
 - Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
 - Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
 - CO₂ generated from the process shall be bottled/made solid ice and sold to authorized vendors.
 - Grain shall be tested for micro-toxins in Government laboratory and awareness provided to workers related to grain dust. Regular medical checkup campaign shall be carried out for the same. Mask and gloves shall be provided to the workers.

Agenda No.11.3.7

Manufacture of Pesticides (Aluminium Phosphide, Zinc Phosphide, Magnesium Phosphide Technical & Formulation) at Plot No. 4924, Notified Industrial Area, GIDC Sarigam, District Valsad (Gujarat) by M/s Integrated Chemisol Pvt Ltd-Environmental Clearance

[IA/GJ/IND2/91857/2018, IA-J-11011/201/2018-IA-II(I)]

The project proponent and their consultant M/s Eco Chem Sales and Services, made a detailed presentation on the salient features of the project.

11.3.7.1 The proposal was earlier considered by the EAC in its meeting held during 6-8 May, 2019. Additional details sought by the Committee and reply submitted by the project proponent are as under:

Additional Details sought by the EAC	Reply submitted by the PP
The Committee after deliberations and view of highly hazardous nature of the products insisted for process safety and risk assessment studies using advanced models, and mitigating measures to be suggested accordingly. The committee also desired for details regarding chemicals proposed as raw materials, risks involved, precautionary measures for occupational health, and the proposal for monitoring of Phosphine (PH ₃) emissions	Process safety and risk assessment studies using advanced model namely 3D-CFD Technology has been carried out along with mitigating measures by GEXCON. Details regarding chemicals proposed as raw materials, risks involved precautionary measures for occupational health, and the proposal for monitoring of Phosphine (PH ₃) emissions have been incorporated in the report.

11.3.7.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up pesticides and pesticides specific intermediates manufacturing unit of capacity 500 TPM by M/s Integrated Chemisol Pvt Ltd in an area of 801 sqm located at Plot No.4924, GIDC Industrial Area, Sarigam, District Valsad(Gujarat).

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

S.No.	Product	Quantity
1	Aluminium Phosphide / Zinc Phosphide /Magnesium Phosphide Technical	500 TPM

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

ToR for the project was granted on 22nd July, 2018. Public hearing is exempted as the project site is located inside the notified industrial area.

Land area available for the project is 2351.25 sqm. Industry will develop greenbelt in an area of 801.25 sqm covering 34% of total project area. The estimated project cost is Rs. 6 crore. Total capital cost earmarked towards environmental pollution control measures is Rs.10 lakh and the recurring cost (operation and maintenance) will be about Rs.5 lakh per annum. Employment opportunity will be for 45 persons directly & 30 persons indirectly.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc within 10 km distance from the project site. Darotha river is flowing at a distance of 9.1 Km in NE direction.

Total water requirement is estimated to be 9.3 cum/day, which includes fresh water requirement of 6.3 cum/day, proposed to be met from GIDC Sarigam water supply.

Industrial effluent of 2.8 cum/day will be treated through ETP. Treated water will be utilized for scrubber. Domestic effluent 0.8 cum/day was now proposed to treat through STP in place of dispose through septic tank. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement is estimated to be 125 kVA, proposed to be met from Dakshin Gujarat Vij Company Limited (DGVCL). DG set of 100 kVA shall be used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG set. Natural gas fired steam boiler of 0.2 TPH shall be installed with a stack of height of 11 m.

Ambient air quality monitoring was carried out at 8 locations during October to December 2018 and the baseline data indicates the ranges of concentrations as: PM₁₀ (61.9-86.1 µg/m³), PM_{2.5} (32-47.1 µg/m³), SO₂ (9.4 -17.6 µg/m³) and NO₂ (16.2- 23.0 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.91 µg/m³, 0.0088 µg/m³, 0.0050 µg/m³ and 0.0046 µg/m³ with respect to NO_x, P₂O₅, PM and SO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

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

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Additional information submitted by the project proponent found to be satisfactory, and addressing the concerns raised by the Committee.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *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.*
- *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.*
- *National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13th June, 2011, as amended from time to time, shall be followed.*
- *No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD₅₀<100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
 - (h) Reactor shall be connected to chilled brine condenser system.*
 - (i) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
 - (j) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
 - (k) Solvents shall be stored in a separate space specified with all safety measures.*
 - (l) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
 - (m) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
 - (n) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*

- *Total fresh water requirement shall not exceed 6.3 cum/day, proposed to be met from GIDC Sarigam water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.*
- *The company shall undertake waste minimization measures as below:-*
 - (i) Metering and control of quantities of active ingredients to minimize waste.*
 - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
 - (iii) Use of automated filling to minimize spillage.*
 - (iv) Use of Close Feed system into batch reactors.*
 - (v) Venting equipment through vapour recovery system.*
 - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 2.5% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *Safety and visual reality training shall be provided to employees.*
- *Health hazard cell shall be set up in the unit.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*
- *Mitigating measures suggested during the process safety and risk assessment studies shall be undertaken accordingly.*
- *The unit shall have a tie up with the nearby hospital for any emergency due to phosphine emissions, and shall have advance first aid system in the plant.*

Agenda No.11.3.8

Organic and speciality chemicals manufacturing unit at Plot No.F-104,Chincholi MIDC, Taluka Mohol District Solapur (Maharashtra) by M/s Balaji Amines Ltd(Unit-IV) - Environmental Clearance

[IA/MH/IND2/75223/2018, IA-J-11011/189/2018-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.

11.3.8.1 The proposal was earlier considered by the EAC in its meeting held during 29-31 January, 2019 and 26-28 June, 2019. Additional information desired by the EAC in the last meeting and reply submitted by the project proponent is as under:-

S.No	Additional information sought by the EAC	Reply submitted by the PP
1	Revised modeling of the environmental parameters and analysis of incremental GLCs due to the project	<p>The GLCs for different air pollutants viz. PM₁₀, PM_{2.5}& SO₂ for locations in the Study Area were shown during presentation of 9th EAC. (The same are presented in the EIA report Pg. No.110-116). The details of GLC concentrations at locations in the study area were submitted in plain colored format as the USEPA AERMOD software outputs. However, during presentation; the committee insisted for the GLCs to be superimposed on satellite Image of study area. Also, additionally NO_x GLC was desired.</p> <p>Accordingly, at Annexure-I, we are now submitting GLCs of PM₁₀, PM_{2.5}, SO₂ and NO_x duly superimposed on Satellite Image (Google Earth) of study region. Moreover, "Windrose Diagram" has also been superimposed on the satellite image to have precise idea of wind directions w.r.t. the project site and locations of upwind and downwind villages.</p> <p>In addition to the BAL's proposed industry specific GLCs; we have also provided cumulative GLCs due to operations of nearby proposed fuel burning boilers in the new as well as expansion projects adjacent to BAL's plot in the Chincholi MIDC. A comprehensive data has been collected w.r.t. existing & proposed industries, their boiler capacities, type of fuels and their sulphur as well as ash contents, emission rates, stack heights and meteorological data. Subsequently, a cumulative effect of pollutants on environment was studied through GLCs obtained after making input in the AERMOD software for multiple emission sources. This was done especially in light of nearness of the GIB sanctuary to the MIDC and to understand concentrations of the pollutants at villages in the sanctuary covered in the study area. Eventually in the Annexure-I, interpretation and analysis of incremental GLCs due to the BAL's project as well as that of the cumulative effect due to similar other industries is presented</p>
2	Revised layout plan	In light of directions by EAC; the plot layout has been duly

	with details of greenbelt development all along the periphery	revised by inserting details w.r.t. development of 10 M wide green belt all along entire periphery of the plot in addition to mass and avenue plantation. The same is presented at Annexure - II. Therein, also design details of green belt plan with distances, number of trees, plant species etc. are given.
3	Plan for Corporate Environmental Responsibility; and Environmental and Social Plan	During primary data collection for EIA study; a comprehensive assignment was undertaken in May 2018 towards socio-economic (SE) survey of the study area. The exercise was conducted by QCI - NABET approved SE experts of Equinox Environments India Pvt. Ltd. The data generated from SE assignment was compiled, processed and interpreted so as to extract certain out puts that led to important conclusions in respect of socio economic impacts of the proposed project activities. Accordingly, a need based Environmental & Social plan is prepared and presented at Annexure -III. From this; a CER plan has been designed for a cost of Rs. 12 Cr. (3% of capital investment of Rs.400 Cr.). This is in accordance with directions given during 9 th EAC meeting. Earlier, in the EIA Report; a CER was presented for Rs. 6.88 Cr. (1.5% of Capital Investment of Rs. 400 Cr. as per the OM No. F No. 22-65/2017-IA.III dated 1 st May 2018).

11.3.8.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up organic and specialty chemicals manufacturing unit of capacity 874.2 TPD by M/s Balaji Amines Ltd (Unit IV) in an area of 36 ha located at Plot No. F-104, Chincholi MIDC, Taluka Mohol, District Solapur (Maharashtra). The project also involves installation of Captive Power Plant of total capacity 10 MWH.

The details of products and by-products are as under:

No	Product/ By-product	Quantity (TPD)
1.	Mono Iso Propyl Amine (MIPA)	50
2.	MIBK	100
3.	Di Phynel Amine (DPA)	35
4.	N Butyl ThiophosphoricTriamide NBPT	10
5.	Iso Propyl Alcohol (IPA)	165.6
6.	Di-isopropyl ether	6.6
7.	Propane	32.2
8.	Di Methyl Carbonate (DMC)	55.2
9.	Propylene Carbonate	14.4
10.	Propylene Glycol	55.2
11.	Methyl Amines	120
12.	Choline Chloride 75 %	70
13.	Choline Chloride 60%	50
14.	Choline Chloride 98%	10
15.	Ethyl Amines	100
	Total	874.2

16.	Captive Power Plant (CPP) 5 MWH X 2	10 MWH
	By Products	
1	Hydrogen	15
2	Hydrochloric acid	6.37
3	Spent Caustic Solution (20%) (SCS)	2.4
4	2,6 Dimethyl-4-Hptanone	1.2
5	Higher Boiler.	1.5
	Total	26.47

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. Due to applicability of general condition (location of Great Indian Bustard Sanctuary within 5 km), project requires appraisal at central level by sectoral EAC in the Ministry.

The Terms of Reference (ToR) for the project was granted on 09th August 2018. Public hearing is exempted as the project site is located in the notified Industrial area/estate.

Land area available for the project is 36 ha. Industry will develop greenbelt in an area of 11.87 ha covering 33 % of total project area. The estimated project cost is Rs.400 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.54.70 crores and the recurring cost (operation and maintenance) will be about Rs. 7.0 crores per annum. Employment opportunity is for 700 persons.

Great Indian Bustard (GIB) Sanctuary is located within 5 km distance. River Sina is flowing at a distance of 6 Km in south direction from the project site.

Total water requirement was estimated to be 5076.18 cum/day. Out of this, 4986.18 cum/day will be for industrial purpose, 50 cum/day for domestic purpose and 40 cum/day of gardening. It has been informed that based on revised water scheme, installation of rain water harvesting system and use of air cooled condensers, the water requirement shall be reduced considerably. Now the total water requirement is estimated to be 2973 cum/day, which includes fresh water requirement of 1973 cum/day for industrial purpose and 40 cum/day for gardening. Fresh water requirement shall be met from MIDC water supply.

Effluent of 960 cum/day shall be treated in ETP/RO and treated water shall be reused for plant requirement. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement of 10 MW will be met from MSEB grid. Five DG sets of capacity 200 KVA will be installed to be used as standby during power failure.

Three coal fired boilers of capacity 60 TPH each will be installed in the project. Electrostatic Precipitator (ESP) along with stack of 50 M height each will be installed to control the particulate emissions. Two TFH of 30 Lakhs Kcal/Hr capacity each will be installed, with a stack of 35 M along with MDC as APC.

Ambient air quality monitoring was carried out at 8 locations during February-April 2018 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (48.38-73.15 µg/m³), PM_{2.5} (12.22-22.78 µg/m³), SO₂ (16.48-29.54 µg/m³) and NO₂ (21.39-39.52 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.98 µg /m³, 0.99 µg /m³, and 31.74 µg /m³, with respect to

PM₁₀, PM_{2.5} and SO₂ respectively. The resultant concentrations are within the National Ambient Air Quality Standards.

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 satisfactory, and addressing the concerns raised by the Committee.

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *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.*
- *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.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21st July, 2010 and amended from time to time shall be followed. No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines. Fugitive emissions shall be controlled at 99.98% with effective chillers.*
- *Solvent management shall be carried out as follows:*
 - (o) *Reactor shall be connected to chilled brine condenser system.*
 - (p) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
 - (q) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
 - (r) *Solvents shall be stored in a separate space specified with all safety measures.*
 - (s) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
 - (t) *Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
 - (u) *All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 2013 cum/day to be met from MIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Rain water harvesting system shall be set up in the plant premises.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*

- The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.
- The company shall undertake waste minimization measures as below:-
 - (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 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.
- Safety and visual reality training shall be provided to employees.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For 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.11.3.9

Expansion of Agrochemicals and their intermediates at Existing unit at Plot No. 241, 242/2, 241/P, Notified GIDC Industrial Estate, Panoli, Ankleshwar District Bharuch (Gujarat) by M/s Cheminova India Limited (Technical Division) - Environmental Clearance

[IA/GJ/IND2/89462/1997, J-11011/85/2018-IA-II(I)]

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

11.3.9.1 The proposal was earlier considered by the EAC in its meeting held during 26-28 June, 2019. Additional information sought by the EAC and reply submitted by the project proponent are as under:-

S. No	Additional information sought by the EAC	Information submitted by the PP
1.	Earlier NOC was obtained on 11 th	• Plot no. 242/P was purchased by Lupin Agrochemicals (India) Pvt. Ltd. and first permission taken from board for

	<p>September, 1986 to M/s Lupin Agrochemicals (India) Pvt. Ltd. for manufacturing agrochemicals at Plot No.242/P. Whereas, the plot nos. mentioned in the present proposal are 241, 242/2 & 241/P. The said discrepancy needs adequate clarification along with supporting documents.</p>	<p>manufacturing formulation products in 1986.</p> <ul style="list-style-type: none"> • Subsequently unit purchased plot no. 241, 242/2 & 241/P in 1992 and taken prior permission from board for manufacturing technical products. • As from that time unit has dedicated plot no. 242/P for manufacturing of formulation products only and plot no. 241, 242/2 & 241/P is dedicated for manufacturing of technical products only. • Supporting documents attached as Annexure-1.
2.	<p>There was no consistency in the products details, as mentioned in the Consent to Operate granted and/or the change of product mix allowed by the State Pollution Control Board.</p>	<ul style="list-style-type: none"> • During the ToR application and EC appraisal, the sequence of products was changed to bifurcate the new products verses the existing. • There was no change either in the products or in the quantities applied in the ToR. • This was related to change in sequence of the products to bifurcate the new verses existing. • The product list as per the Standard ToR approved dated 8th April 2018 is annexed as Annexure-2. • The unit has valid consent to operate issued by the Gujarat State Pollution Control board. The site had taken change in products in 2014 under the permitted product mix route. Taking Environmental Clearance was not applicable as no changes were made in the quantities of the products or in the category within the previously granted overall total limits.
3.	<p>The project proponent needs to establish that the unit is engaged in production of pesticides and pesticides specific intermediates @3533 TPA, only after obtaining prior environmental clearance as mandated under the EIA Notification, 2006 and thus ensuring no violation of the said Notification.</p>	<ul style="list-style-type: none"> • Ministry of Environment, Forest and Climate Change had issued Circular regarding the Change in Product Mix vide F. No. J-11013/41/2006-IA-II (I) dated 14/12/2006 and in that circular as per Point no. 1 wherein it is mentioned that in cases of change in Product –Mix, changes in the quantities or numbers of products may be allowed without prior Environmental Clearance by the concerned SPCB provided such changes in the quantities of products are in the same category and are within the previously granted overall total limits, Unit had applied for CTE-Change in Product Mix which, after passing through a detailed scrutiny by Regional Officer, HO staff as well as Member Secretary of the SPCB, has been granted by the SPCB Chairman in the Technical Committee Meeting in presence of the Technical Committee members and Member Secretary of the SPCB. • In accordance to the Circular, the product mix application made by the site was approved as no changes were made in the quantities of the products or in the category within the previously granted overall total limits and after verification by the SPCB, all the details regarding the project have been approved and accordingly the unit has been granted consent to operate by the Gujarat State Pollution Control board having CTO no. AWH- 72807 issued vide letter no.

		GPCB/ANK/CCA-138(10)/ID-15015/328925 dated 03/10/2015.
4.	There being no EC for the existing operations and thus no compliance status available, confirmation for compliance of environmental conditions/norms stipulated by the State Pollution Control Board while issuing consent to operate under the Air/Water Act, from time to time.	As per the visits done by State Pollution Control Board time to time, visit instructions given by the board which are being complied by the unit strictly.
5.	Revised water balance with plan for Zero Liquid Discharge to be submitted.	Revised water balance with ZLD plan is annexed as Annexure - 3.

11.3.9.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of agrochemicals and their intermediates from 3533 TPA to 15583 TPA by M/s Cheminova India Limited (Technical Division) at Plot Nos. 241, 242/2, 241/P, GIDC Industrial Estate, Panoli, Ankleshwar, District Bharuch (Gujarat).

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

S r. N o .	Name of Product*	CAS No.	Existin g (TPA)	Prop osed (TPA)	Total (TPA)	End Use	LD50 oral (mg/kg)	Remar ks
1.	NATURAL GAS BASED CAPTIVE POWER PLANT	---	2.04 Mega Watt hour	---	2.04 Mega Watt hour	---	---	No chang e
2.	ORGANO PHOSPHATE: - ACEPHATE TECH. (I), DICHLORVOS (I), CHLORPYRIFOS (I), QUINALPHOS (I), TRIAZOPHOS(I), PHOSALONE (I), OMETHOATE (I), PROTHIOFOS (I), TEMEFOS (I), PROFENOFOS (I), ETHION (I), ETHWEPHON (PGR),	0030560-19-1 / 0000062-73-7 / 0002921-88-2 / 0013593-03-8 / 0024017-47-8 / 0002310-17-0 / 0001113-02-6 /	Either individual or total production of this group shall not exceed 800 TPA	---	Either individual or total production of this group shall not exceed 800 TPA	I - Insecticide H- Herbicide F- Fungicide Int- Intermediate	---	No chang e

	GLYPHOSATE (H), etc.	0034643-46-4 / 0003383-96-8 / 0041198-08-7 / 0000563-12-2 / 0016672-87-0 / 0001071-83-6						
3.	STROBILURIN: - AZOXYSTROBIN TECH. (F), DES- METHOXYAZOXY (DMA) (INT.) KRESOXIM METHYL (F), FLOUXASTROBIN (F), PYRACLOSTROBIN (F) etc.	0131860-33-8 / 0478413-45-5 / 0143390-89-0 / 0361377-29-9 / 0175013-18-0	Either individual or total production of this group shall not exceed 1200 TPA	---	Either individual or total production of this group shall not exceed 1200 TPA	I - Insecticide H- Herbicide F- Fungicide Int- Intermediate	---	No change
4.	NEONICOTINOID/AMIDE: - IMIDACLOPRID TECH (I), THIACLOPRID (I), ACETAMIPRID (I), BEFLUBUTAMIDE TECH (H), FLUBENDAMIDE (I), CHLORANTRANILIPROLE (I), RYNEXAPYR (I), CYMOXANIL (F), THIFLUZAMIDE (F), CARBOXIN (F), CAPTAN (F), PRETILACHLOR (H), PROPYZAMIDE (H), PETHOXAMIDE (H), SNA(INT.), (2-AMINOSULFONYL-N,N-DIMETHYLNICOTINAMIDE), MST (INT.), (2-METHOXYCARBONYL) THIOPHENE-3-SULFONAMIDE), FLUFENACET (H), BOSCALID (F) etc.	0138261-41-3 / 0111988-49-9 / 0160430-64-8 / 113614-08-7/ 0272451-65-7 / 0500008-45-7 / 0500008-45-7 / 0057966-95-7 / 0130000-40-7 / 0017757-70-9 / 0000133-06-2 / 0051218-49-6 / 0023950-58-5 / 0106700-29-2 /	Either individual or total production of this group shall not exceed 225 TPA	---	Either individual or total production of this group shall not exceed 225 TPA	I - Insecticide H- Herbicide F- Fungicide Int- Intermediate	---	No change

		0112006-75-4 / 0059337-93-8 / 0142459-58-3 / 0188425-85-6						
5.	KETONE: - DIMETHOMORPH TECH. (F), CLETHODIM (H), BUTROXYDIM (H), SPIROMESIFEN (I), MESOTRIONE (H), SULCOTRIONE (H), IBP (INT.), (ISOBUTYROPHENON E), PYMETROZINE (I) etc.	0110488-70-5 / 0099129-21-2 / 0138164-12-2 / 0283594-90-1 / 0104206-82-8 / 0099105-77-8 / 0000611-70-1 / 0123312-89-0	Either individual or total production of this group shall not exceed 60 TPA	---	Either individual or total production of this group shall not exceed 60 TPA	I - Insecticide H- Herbicide F- Fungicide Int- Intermediate	---	No change
6.	ETHER: - PROPARGITE TECH. (I), OXYFLUORFEN (H), ETOXAZOLE (I), EEA (INT.)-(2-ETHOXY ETHYL AMINE), S-CYNO-MPB (INT.) etc.	0002312-35-8 / 0042874-03-3 / 0153233-91-1 / 0000109-85-3 / 0000067-63-0	Either individual or total production of this group shall not exceed 60 TPA	---	Either individual or total production of this group shall not exceed 60 TPA	I - Insecticide H- Herbicide F- Fungicide Int- Intermediate	---	No change
7.	ANILINE: - PENDIMETHALIN TECH. (H), METALAXYL (F), FAMOXADONE (F), TRIFLURALIN (H), FIPA-OH (INT.) etc.	0040487-42-1 / 0057837-19-1 / 0131807-57-3 / 0001582-09-8 / 0010108-64-2	Either individual or total production of this group shall not exceed 60 TPA	---	Either individual or total production of this group shall not exceed 60 TPA	I - Insecticide H- Herbicide F- Fungicide Int- Intermediate	---	No change
8.	ESTER/PYRETHROID: - FENOXAPROP-P-ETHYL TECH. (H), BIFENAZATE (I), QUIZALOFOP-P-ET	0071283-80-2 / 0149877-41-8 / 0100646-	Either individual or total production	---	Either individual or total production of	I - Insecticide H- Herbicide	---	No change

	(H), CLODINAFOP-PPG (H), ACRINATHRIN (I), BIFENTHRIN (I), CYHALOTHRIN (I), GAMMA- CYHALOTHRIN (I), LAMDA- CYHALOTHRIN (I), CYPERMETHRIN (I), AND ITS ANALOGS, DELTA-METHRIN (I), --- CYFLUTHRIN (I) AND ITS ANALOGS, PERMETHRIN (I), BIOALLETHRIN (I), FENVALERATE (I), IMIPROTHRIN (I) etc.	51-3 / 0105512- 06-9 / 0101007- 06-1 / 0082657- 04-3 / 0068085- 85-8 / 0076703- 62-3 / 0091465- 08-6 / 0052315- 07-8 / 0052918- 63-5 / 0052645- 53-1 / 0260359- 57-5 / 0072963- 72-5	on of this group shall not exceed 150 TPA		this group shall not exceed 150 TPA	cide F- Fungi cide Int- Interm ediate		
9.	CARBAMATE & THIO BASED PRODUCTS: - CARTAP.HCL TECH. (I), THIODICARB (I), THIOPHANATE-ME (F), PROPINEB (F), METIRAM (F), THIRAM (F), ISOPROTHIOLANE TECH (I), THIOCYCLAM (I), PROTHIOCARB (F), FLUTIANIL (F) etc.	0015263- 52-2 /0059669 -26-0 / 0023564- 05-8 / 0012071- 83-9 / 0009006- 42-2 / 0000137- 26-8 / 0050512- 35-1 / 0031895- 21-3 / 0012125- 01-8 / 0958647- 10-4	Either individu al or total producti on of this group shall not exceed 100 TPA	---	Either individua l or total producti on of this group shall not exceed 100 TPA	I - Insect icide H- Herbi cide F- Fungi cide Int- Interm ediate	---	No chang e
10	QUATERNARY SALT AND OTHER SALTS, ACID BASED PRODUCTS: - MEPIQUAT CHLORIDE TECH. (I), CHLORMEQUAT CHLORIDE (I), OTHER SALTS: COPPER HYDROXIDE	0024307- 26-4 / 0000999- 81-5 / 0020427- 59-2 / 0007758- 99-8 / 0011115- 82-5 /	Either individu al or total producti on of this group shall not	---	Either individua l or total producti on of this group shall not exceed 68 TPA	I - Insect icide H- Herbi cide F- Fungi cide Int-	---	No chang e

	(BACTERICIDE,F), COPPER SULPHATE (ALGICIDE,F), etc., FLUPROPANATE-NA TECH (H) + HPA (INT.)-(2- HYDROXYPHENYLAC ETIC ACID), BBA (INT.)- (BROMOBUTYRICACID) , HPPA-INT.(2-(4- HYDROXYPHENOXY)P ROPANATE), PICLORAM (H), DICAMBA (H), 2- CYANOPHENOL (INT.) etc.	0002623- 87-2 / 0065343- 67-1 / 0001918- 02-1 / 0001918- 00-9 / 0000611- 20-1	exceed 68 TPA			Interm ediate		
11	TRIAZOLS: - 2,6 DICHLOROBENZOXAZ OLE (INT.), ISOXAFLUTOLE (H), FLURASULAM (H), TDA (INT.) (TRIFLUOROMETHYL HIADIAZOLE), FLUTRIAFOL TECH (F), PROTHICONAZOLE (F), SULFENTRAZONE (H), CARFENTRAZONE-ET (H) etc.	0003621- 82-7 / 0141112- 29-0 / 0145701- 23-1 / 0010444- 89-0 / 0076674- 21-0 / 0178928- 70-6 / 0122836- 35-5 / 128639- 2-1	Either individu al or total producti on of this group Sr. No. 11 & 12 shall not exceed 400 TPA	---	Either individua l or total producti on of this group Sr. No. 11 & 12 shall not exceed 400 TPA	I - Insect icide H- Herbi cide F- Fungi cide Int- Interm ediate	---	No chang e
12	TRIAZOLS: - FIPRONIL TECH (I), PROPICONAZOLE (F), EPOXYCONAZOLE (F), TEBUCONAZOLE (F), DIFENOCONAZOLE (F), HEXACONAZOLE (F), TRICYCLAZOLE (F), MYCLOBUTANIL (F), FLUSILAZOLE (F), PACLOBUTRAZOLE (PGR), THIAMETHOXAM (I), CHLOROTHALONIL (F), TRIADIMEFON (F), ISOXADIFEN-ET (SF)	0120068- 37-3 / 0060207- 90-1 / 133855- 98-8 / 0107534- 96-3 / 0119446- 68-3 / 0079983- 71-4 / 0041814- 78-2 / 0088671- 89-0 / 0085509- 19-9 / 0076738- 62-0 /		---		I - Insect icide H- Herbi cide F- Fungi cide Int- Interm ediate	---	No chang e

		0153719-23-4 / 0001897-45-6 / 0043121-43-3 / 0163520-33-0						
13	HETROCYCLIC (PYRIMIDINE/PYRIDINE/TRIAZINE): - BISPYRIBAC-NA TECH. (H), PIRIMICARB (I), PYRITHIOBAC-NA (H), FLUMETSULAM (H), CYPRODINIL (F), FLORASULAM (H), PENOX SULAM (H), DCP (INT.)-(4,6-DICHLOROPYRIMIDINE), ACMP (INT.)-(2-AMINO-4-CHLORO-6-METHOXYPYRIMIDINE), IMAZETHAPYR TECH. (H), PYRIDALYL TECH (I), DIFLUFENICAN (H), CLOQUINTOCET-MEXYL(SF)	0125401-92-5 / 0023103-98-2 / 0123343-16-8 / 0098967-40-9 / 0021552-61-2 / 0145701-23-1 / 0219714-96-2 / 0005413-85-4 / 0005600-21-5 / 0081335-77-5 / 0179101-81-6 / 0083164-33-4 / 0099607-70-2	Either individual or total production of this group Sr. No. 13 & 14 shall not exceed 185 TPA	---	Either individual or total production of this group Sr. No. 13 & 14 shall not exceed 185 TPA	I – Insecticide H- Herbicide F- Fungicide Int- Intermediate	---	No change
14	HETROCYCLIC (PYRIMIDINE/PYRIDINE/TRIAZINE): - FLUAZINAM (F), FENPYROXIMATE TECH. (I), METRIBUZIN (H), AMITRAZ (I), CLOFENTEZINE (I), MMMT (INT.)-(2-METHOXY-4-METHYL-6-METHYLAMINO-1,3,5-TRIAZINE, METOXYFENOZIDE (I), FENCHLORIM (SF), 2-HYDROXY-3,5,6-TRYCHLOROPYRIDINE & ITS SODIUM SALT (INT. OF CHLORPYRIPHOS) etc.	0079622-59-6 / 0134098-61-6 / 0021087-64-9 / 0033089-61-1 / 0074115-24-5 / 0005248-39-5 / 0161050-58-4 / 0003740-92-9 / 0006515-38-4 /		---			---	No change

15	UREA/SULPHONYL UREA: - CHLORIMURON-ETECH. (H), BUPROFEZIN TECH. (I), INDOXACARB (I), NOVALURON (I), LUFENURON (I), DIAFENTHIURON (I), AMICARBAZONE (H), FLUCARBAZONE (H), THIADIAZURON (PGR), HEXYTHIAZOX (I), LINURON (H), DIURON (H), TEFLUTHRIN (I), METSULFURON-METHYL (H)	0090982-32-4 / 0069327-76-0 / 0144171-61-9 / 0116714-46-6 / 0103055-07-8 / 0080060-09-9 / 0129909-90-6 / 0145026-88-6 / 0051707-55-2 / 0078587-05-0 / 0000330-55-2 / 0000330-54-1 / 0079538-32-2 / 0074223-64-6	Either individual or total production of this group shall not exceed 225 TPA	---	Either individual or total production of this group shall not exceed 225 TPA	I - Insecticide H- Herbicide F- Fungicide Int- Intermediate	---	No change
16	UREA/SULPHONYL UREA: - THIFENSULFURON-METHYL (H), TRIBURON-METHYL (H), RIMSULFURON (H), IODOSULFURON (H), DIAMURON (H), CHLORSULFURON (H), PYRAZOLESULFURON (H), PYRAZOLESULFURON-ETHYL (H) etc.	0079277-27-3 / 0101200-48-0 / 0122931-48-0 / 0144550-36-7 / 0042609-52-9 / 0064902-72-3 / 0098389-04-9 / 0093697-74-6		---			---	No change
17	4S Zeta cypermethrin	52315-07-8	---	200	200	Insecticide	>200	New Product
18	F-2700 Zeta cypermethrin	52315-07-8	---	1000	1000	Insecticide	>200	New Product
19	Ryanxypyr	500008-45-7	---	3000	3000	Insecticide	>1000	New Product

20	Cyazypyr	736994-63-1	---	1000	1000	Insecticide	>1000	New Product
21	DBC80 / (3-Bromo-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-Carboxylic acid)	500011-86-9	---	1950	1950	Intermediate for Rynaxypyr	>1000	New Product
22	Indanamine	1383809-95-7	---	800	800	RM for F9990	>100	New Product
23	FMC-57091 / Isoxazolidinone	81778-07-6	---	2600	2600	Intermediate for F9600 & Clomazone	>1000	New Product
24	Sulfentrazone 2,4-Dichloro / 2,4-dichlorophenyl-4-(difloromethyl)triazolone	111992-16-6	---	1500	1500	Intermediate for Sulfentrazone	>500	New Product
GRAND TOTAL			3533	12050	15583			
<i>*No banned pesticides shall be manufactured in the unit</i>								
	Natural gas based captive power plant	---	2.04 Mega Watt hour	---	2.04 Mega Watt hour	---	---	No change

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

Standard ToR for the project was granted on 8th April, 2018. Public hearing is exempted as the project is located in the notified Industrial area.

Existing land area is 40476.94 sqm. No additional land area will be required. Industry will enhance existing Greenbelt in an area of ~33.23% i.e 13450 sq. m out of total area of the project. The estimated project cost for expansion is Rs. 365.92 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 17.15 crores and the Recurring cost (operation and maintenance) will be about Rs 68.15 crores per annum. Total Employment will be for 200 persons directly and 500persons indirectly after expansion.

There are no National parks, Wildlife sanctuaries, Biosphere, Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. Ukaicanal is flowing at a distance of 0.28 km in west direction.

Total water requirement is estimated to be 898 cum/day, which includes fresh water requirement of 261cum/day, proposed to be met from GIDC supply.

Industrial Effluent of 670cum/day will be treated through Effluent Treatment Plant (ETP) having Primary, Secondary & Tertiary Treatments, MEE and RO & shall be recycled back to process. Domestic effluent will be treated through STP after expansion. 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 3500 KVA including existing 2200 KVA and will be met from M/sDakshin Gujarat Vij Company Limited (DGVCL). Existing unit has one DG set of 1250 KVA capacity, additionally 1 no. DG set of 1500 KVA will be used as standby during power failure for proposed expansion.

Existing unit has natural gas based WHRB- Captive power plant, 2 nos. of natural gas based boilers of 10 TPH and 5 TPH capacity and one natural gas based thermic fluid heater of 10 lakh Kcal/h will be installed additionally for proposed expansion. After proposed expansion, the process emissions from the manufacturing processes shall be HCl, Chlorine & CO from the manufacturing processes. Water scrubbers and alkali scrubbers shall be installed as per requirement.

Ambient air quality monitoring was carried out at 9 (including project site) locations during February 2017 to April 2017 and the baseline data indicates that ranges of concentrations of PM10 (74-91 $\mu\text{g}/\text{m}^3$), PM2.5 (19-33 $\mu\text{g}/\text{m}^3$), SO₂ (19-26 $\mu\text{g}/\text{m}^3$) and NO_x (21-32 $\mu\text{g}/\text{m}^3$) (98th percentile values) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.188 $\mu\text{g}/\text{m}^3$, 2.153 $\mu\text{g}/\text{m}^3$ and 1.025 $\mu\text{g}/\text{m}^3$ with respect to PM10, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The unit has been operational since the year 1992 with CTE/CTO from Gujarat Pollution Control Board and hence EC is not made available for the existing operations. The project proponent has informed that the exiting activities are being undertaken in the unit with the consent from the SPCB and the unit has not done any violation of the EIA Notification, 1994 & 2006. Product mix change has been obtained from the GPCB without any increase in overall total production limits, in line with the Ministry's circular dated 14th December, 2006.

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

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Additional information submitted by the project proponent found to be satisfactory, and addressing the concerns raised by the Committee.

Consent to Operate for the present industrial operations, issued by Gujarat PCB vide letter dated 25th July 2017, which is presently valid upto 16th April, 2022.

11.3.9.3 The project to be set up in one of the critically polluted areas identified by CPCB, the EAC was informed about the NGT orders, presently in force, as under:-

(i) Order dated 10th July, 2019, passed by Hon'ble NGT, Principal Bench, New Delhi in OA No.1038 of 2018 in the matter of News item published in the Asian Age authored by Sanjay Kaw titled 'CPCB to rank industrial units on pollution levels'.

Para 28 of the said order quotes-

'No further industrial activities or expansion be allowed with regard to 'red' and 'orange' category units till the said areas are brought within the prescribed parameters or till carrying capacity of area is assessed and new units or expansion is found viable having regard to the carrying capacity of the area and environmental norms.'

(ii) On a Review Application No.44/2019 filed by MoEF&CC for review of the above order, and IA No.479/2019 filed by CPCB for clarification of the order, NGT has passed the order dated 23rd August, 2019. Para 10 of the same quotes-

'----- There is no absolute bar to such units being set up if they are found to be viable. This clarification should take care of any possible apprehension that the order of the Tribunal will obstruct any legitimate industrial activity. The MoEF&CC can forthwith devise an appropriate mechanism to ensure that new legitimate activity or expansion can take place after due precautions are taken in the areas in question by red and orange category of units.'

11.3.9.4 *In view of the above and the project site in Ankleshwar (having CEPI score 80.21) covered under the said orders of NGT, the Committee opined that in case, such proposals are to be considered on merits, environmental conditions and other stringent measures would have to be looked into comprehensively in complete perspective.*

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *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.*
- *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.*
- *National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13th June, 2011, as amended from time to time, shall be followed.*
- *No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD₅₀<100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
 - (i) *Reactor shall be connected to chilled brine condenser system.*
 - (ii) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
 - (iii) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
 - (iv) *Solvents shall be stored in a separate space specified with all safety measures.*
 - (v) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
 - (vi) *Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
 - (vii) *All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*

- *Total fresh water requirement shall not exceed 261 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.*
- *The company shall undertake waste minimization measures as below:-*
 - (vii) Metering and control of quantities of active ingredients to minimize waste.*
 - (viii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
 - (ix) Use of automated filling to minimize spillage.*
 - (x) Use of Close Feed system into batch reactors.*
 - (xi) Venting equipment through vapour recovery system.*
 - (xii) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 5% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *Safety and visual reality training shall be provided to employees.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*
- *Mitigation measures suggested during process safety and risk assessment studies shall be undertaken accordingly.*

11.4 Any other

Agenda No.11.4.1

Expansion of existing ethylene capacity with new product diversification at Tehsil Satahata-1, Haldia, District East Medinipur (West Bengal) by M/s Haldia Petrochemicals Limited - Amendment in Environmental Clearance

[IA/WB/IND2/67219/2016, IA/WB/IND2/54367/2016, J-11011/194/2016-IA-II (I)]

11.4.1.1 The proposal is for amendment in environmental clearance granted by the Ministry vide letter dated 20th March 2018 for expansion of Naphtha cracking facility and petrochemical products at Tehsil Sutahata-I, Haldia, District East Medinipur (West Bengal) in favour of M/s Haldia Petrochemicals Limited.

11.4.1.2 The project proponent has requested for amendment/bifurcation of EC for the following reasons:

- HPL has incorporated a wholly owned subsidiary in the name of Advanced Performance Materials Private Limited (AdPerMa) in July 2017 to explore new opportunities downstream of HPL, which will help to de-risk HPL's cash flows by driving business in performance chemicals with flexibility to venture with technology partner and/or other value added partners (equity, trading or specialist distributors);
- Butene -1 Project will be the initial project that will be transferred to AdPerMa; and
- HPL has no objection in transferring applicable part of the EC to AdPerMa for Butene -1 plant along with associated infrastructure like storage and pipelines.
- The bifurcation/amendment would include the following:

Description	Existing Conditions		Proposed bifurcation of products and infrastructure			
			HPL		AdPerMa	
Products as per EC – F.No. J-11011/194/2016-IA-II(I) dated 20/03/2018	Name of Product	KTA	Name of Product	KTA	Name of Product	KTA
1.	Ethylene	770	Ethylene	770	-	-
2.	Propylene	385	Propylene	385	-	-
3.	Polypropylene	341	Polypropylene	341	-	-
4.	High Density Poly Ethylene (HDPE)	494	High Density Poly Ethylene (HDPE)	494	-	-
5.	Linear Low Density Poly Ethylene (LLDPE)	386	Linear Low Density Poly Ethylene (LLDPE)	386	-	-
6.	Butadiene	111	Butadiene	111	-	-
7.	Benzene	175	Benzene	175	-	-
8.	Butene-1	30.2			Butene-1*	30.2
9.	MTBE	98.6			MTBE*	98.6
10.	C4 Raffinate	-	C4 Raffinate	126 Note-1		
11.	Vinyl Acetate Ethylene (VAE)	60	Vinyl Acetate Ethylene (VAE)	60	-	-
12.	Mixed Butane	126 Note -2	Mixed Butane	126 Note -2	-	-
13.	Cyclo Pentane	8.2	Cyclo Pentane	8.2	-	-
14.	Pyrolysis	200	Pyrolysis	200	-	-

	Gasoline		Gasoline			
15.	Motor Spirit (MS) Euro IV	300	Motor Spirit (MS) Euro IV	300	-	-
16.	Phenol	200	Phenol	200	-	-
17.	Acetone	123	Acetone	123	-	-
18.	Carbon Black Feedstock (CBFS)	100	Carbon Black Feedstock (CBFS)	100	-	-
19.	Poly Butylene Terephthalate (PBT)	70	Poly Butylene Terephthalate (PBT)	70	-	-
20.	Tetrahydrofuran (THF)	16	Tetrahydrofuran (THF)	16	-	-
21.	C6 Raffinate	64	C6 Raffinate	64	-	-
Additional Hazardous Chemical Storage Tank	Name of Product (No. of tanks)	Storage Quantity	Name of Product (No. of tanks)	Storage Quantity	Name of Product (No. of tanks)	Storage Quantity
1.	Naphtha (1)	28,632	Naphtha (1)	28,632	-	-
2.	Motor Spirit (1)	6,160	Motor Spirit (1)	6,160	-	-
3.	Hydrogenated Py-Gas (1)	3,560	Hydrogenated Py-Gas (1)	3,560	-	-
4.	MS Blending Tank (1)	932	MS Blending Tank (1)	932	-	-
5.	Butadiene (1)	1,271	Butadiene (1)	1,271	-	-
6.	Fuel Grade Naphtha (1)	9,380	Fuel Grade Naphtha (1)	9,380	-	-
7.	LPG (1)	10,000	LPG (1)	10,000	-	-
8.	Methanol (2)	7,128			Methanol (2)	4500
9.	MTBE (2)	7,400			MTBE (2)	5000
10.	MTBE (1)	2,072			MTBE (1)	2800
11.	Phenol (3)	16,050	Phenol (3)	16,050	-	-
12.	Acetone (2)	7,910	Acetone (2)	7,910	-	-
13.	Butanediol (2)	6,324	Butanediol (2)	6,324	-	-
14.	THF (2)	3,556	THF (2)	3,556	-	-
15.	VAM (2)	10,274	VAM (2)	10,274	-	-
16.	VAE (2)	7,520	VAE (2)	7,520	-	-
17.	NaOH 50% (Caustic Soda) (2)	795	NaOH 50% (Caustic Soda) (2)	795	-	-
18.	H ₂ SO ₄ 98% (1)	478	H ₂ SO ₄ 98% (1)	478	-	-
Land (ha)	453.00		451.48		1.519	
Manpower (Permanent)	40-50		40-50		Currently, five key positions have been identified and filled for AdPerMa by nominating/transferring appropriate resources from HPL. In addition, O&M contract between HPL	
Manpower (Contractual)	100-150		100-150			

			and AdPerMa is already in place for extending necessary services by HPL to AdPerMa for operating and maintaining the Plant. Welfare amenities for the above employees will be provisioned at AdPerMa by HPL
Power (MW)	19	18.24	0.76
Steam (TPH)	172.25	148.55	23.7
Power and Steam Source	Additional 1X35 MW CSTG and 3X120 TPH Coal Fired Boiler in existing Captive Power Plant	Additional 1X35 MW CSTG and 3X120 TPH Coal Fired Boiler in existing Captive Power Plant	Sourced from HPL
Water (MGD)	10 (Sourced from Geonkhali Water Supply System)	9.842 (Sourced from Geonkhali Water Supply System)	0.158 (Sourced from HPL)
Effluent (m ³ /day)	1000 (Effluent discharged will be treated in Integrated Wastewater Treatment Plant of HPL)	937.6 (Effluent discharged will be treated in Integrated Wastewater Treatment Plant of HPL)	62.4 (Effluent discharged to be treated in Integrated wastewater Treatment Plant of HPL)
Catalysts MT/3-5 years (Hazardous waste)	150 (To be handled by HPL)	104.32 (To be handled by HPL)	45.68 (To be handled by HPL)
Project Cost in Crores (INR)	4310	4080	230

Note-1: In EC approved by MoEFCC on 20th March, 2018, C4 Raffinate from Naphtha Cracker Associated Unit was considered transferred as feedstock to Butene-1 plant to produce Butene-1 and MTBE. Accordingly, C4 Raffinate was not shown in the product slate of HPL. After proposed bifurcation of EC, HPL would produce and transfer C4 Raffinate to AdPerMa as feedstock to Butene-1 plant. Thus, HPL's product slate shall include C4 Raffinate as product.

Note-2: Maximum production in case Butene-1 plant is non-operational. Normal production would be 33 kTA.

11.4.1.3 The proposal was considered earlier by the EAC in its meeting held 30-31 May, 2019. The Committee, observed that the EIA Notification, 2006, read with subsequent amendments, was not having any provisions for the proposed bifurcation/amendment of environmental clearances on the above lines. Further, in view of M/s Advanced Performance Materials Private Limited (AdPerMa) being a wholly owned subsidiary of M/s HPL, the Committee opined to discourage such bifurcations aimed at financial gains only, which would recur at subsequent stages and ultimately result in compliance of the EC conditions more difficult and complex.

11.4.1.4 In response to earlier observations of the Committee, the project proponent informed that there are similar other cases where existing EC was split and/or amended. The Committee asked for details of such proposals to ensure uniformity. The proposal was therefore deferred and was decided to be discussed in the next EAC meeting.

Agenda No.11.4.2

Expansion of Active Pharmaceutical Ingredient & Intermediates (47 MTA to 300 MTA) in Existing Unit at Survey No 137, 144P & 145P, village Panelav, Tehsil Halol, District Panchmahal, Gujarat by M/s Alembic Pharmaceuticals Limited (API Unit-II) - Amendment in EC

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

11.4.2.1 The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated December 20, 2016 for the project Proposed Expansion of Active Pharmaceutical Ingredient & Intermediates in Existing Unit located at Survey No.137, 144P & 145P, Village: Panelav, TehsilHalol, District Panchmahal (Gujarat) in favour of M/sAlembic Pharmaceuticals Limited (API Unit - II)

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

S. No.	Para of EC	Details as per the EC	To be revised/read as	Justification/reasons
1	EC Condition no. 2	The Ministry of Environment, Forests and Climate Change has examined the application. It is noted that the proposal is for Expansion of Active Pharmaceutical Ingredient & Intermediates (47 MTA to 300 MTA) in Existing Unit at Survey No. 137, 144P & 145P, Village Panelav, Tehsil Halol, District Panchmahal Gujarat by M/s. Alembic Pharmaceuticals Limited (API Unit-II). Total plot area is 37332 m ² , out of which green belt developed on 20194 m ² (i.e. 54% of the	MoEF&CChas examined the application. It is noted that the proposal is for Expansion of Active Pharmaceutical Ingredient & Intermediates (47 MTA to 300 MTA) in Existing Unit at Survey No. 137, 144P & 145P, Village Panelav, Tehsil Halol, District Panchmahal Gujarat by M/s. Alembic Pharmaceuticals Limited (API Unit-II). Total plot area is 37332 m ² , out of which green belt developed on 15017.97 m ² (40.22% of the total area) addition of two plants without increasing existing permitted production tonnage and pollution load.	Separating manufacturing process from the existing multi steps production in multi product plants to avoid cross contaminations and to maintain smooth and safe process as per WHO GMP / USFDA requirement. There will not be any addition of Land/survey no. as there is enough land to establish proposed plants but greenbelt area will be reduced from 20194 m ² to 15017.97 m ² (40.22% of the total area) due to addition of Intermediate plants and ware House.

		total area)		
2	EC Condition no. 3	<p>Bag Filter will be provided to additional coal fired boiler to control particulate emissions. Scrubber will be provided to control process emissions viz. HCl, Cl₂ and SO₂. Total water requirement will be increased from 70.8 m³/day to 106 m³/day after expansion. Out of which fresh water requirement will be 50 m³/day and remaining water requirement will be met from recycled/treated effluent. Total waste water generation will be 55 m³/day after expansion and segregated into high TDS/ COD and Low TDS/ COD effluent stream. High TDS/ COD effluent will be treated through stripper followed by MEE. Low TDS/COD effluent stream will be treated in ETP and treated effluent will be passed through RO. RO permeate will be recycled/ reused in the process. No effluent will be discharged outside the plant premises. ETP sludge and sludge from scrubber will be sent to TSDF. Distillation residue and process waste will be sent to</p>	<p>Bag Filter will be provided to additional coal fired boiler to control particulate emissions. Scrubber will be provided to control process emissions viz. HCl, Cl₂ and SO₂. Total water requirement will be increased from 70.8 m³/day to 161 m³/day after expansion. Out of which fresh water requirement will be 85 m³/day and remaining water requirement will be met from recycled/treated effluent. Total waste water generation will be 65 m³/day out of which Industrial effluent will remain same i.e. 45 m³/day and Domestic Waste water will increase from 15 m³/day to 20 m³/day The Industrial waste water shall segregated into high TDS/ COD and Low TDS/ COD effluent stream. High TDS/ COD effluent will be treated through stripper followed by MEE. Low TDS/COD effluent stream will be treated in ETP and treated effluent will be passed through RO. RO permeate will be recycled/ reused in the process. No effluent will be discharged outside the plant premises. ETP sludge and sludge from scrubber will be sent to TSDF. Distillation residue and process waste will be sent to authorized recyclers / re-processors.</p>	<p>Increase of 15 m³/day in cooling tower make up water due to day-to-day ambient temperature of the location which results in increase in out let cooling water temperature resulting impacting Process. Presently, we are having total 8 nos. of cooling towers. Blow down is being limited by adopting SCALE-OFF technology.</p> <p>There will be 15 m³/day increases in Boiler make-up water quantity which was wrongly assumed during production capacity enhancement i.e. in previous EC application. TDS level of ground water is also being increased, which forced to increase withdrawal of fresh water.</p> <p>5 m³/day Domestic water requirement increases due to addition of Quality Control (QC), Quality Assurance (QA), Administration and Human Resource (HR) departments which were earlier centralized at our Vadodara Head Office.</p> <p>20 m³/day Domestic wastewater generated after proposed expansion will be treated in STP and reused back for gardening so gardening water requirement will be 25 m³/day which will be totally recycled</p>

		authorized recyclers / re-processors.		water.
3	A. Specific Condition No. iv	Total fresh water requirement from ground water source shall not exceed 50 m ³ /day and prior permission shall be obtained from the CGWA/SGWA	Total fresh water requirement from ground water source shall not exceed 85 m ³ /day and prior permission shall be obtained from the CGWA/SGWA	<p>Increase of 15 m³/day in cooling tower make up water due to day-to-day ambient temperature of the location which results in increase in out let cooling water temperature resulting impacting Process. Presently, we are having total 8 nos. of cooling towers. Blow down is being limited by adopting SCALE-OFF technology.</p> <p>There will be 15 m³/day increases in Boiler make-up water quantity which was wrongly assumed during production capacity enhancement i.e. in previous EC application.</p> <p>5 m³/day Domestic water requirement increases due to addition of Quality Control (QC), Quality Assurance (QA), Administration and Human Resource (HR) departments which were earlier centralized at our Vadodara Head Office.</p>
4	A. Specific Condition No. xiv	As proposed, greenbelt of 20194 m ² shall be developed within the plant premises with at least 10-meter-wide green belt on all sides along the periphery of the project area, in downwind direction, and along the road sides etc. Selection of plant species shall be as per the CPCB	As proposed, greenbelt of 15017.97 m ² shall be developed within the plant premises with at least 10-meter-wide green belt on all sides along the periphery of the project area, in downwind direction, and along the road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.	There will not be any addition of Land/survey no. as there is enough land to establish proposed plants but greenbelt area will be reduced from 20194 m ² to 15017.97 m ² due to addition of Intermediate plants and warehouse.

		guidelines in consultation with the DFO.	
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11.4.2.3 The proposal was earlier considered by the EAC in its meeting held during 26-28 February, 2019. The EAC, after detailed deliberations, observed that the proposed amendment in the environmental clearance dated 20th December, 2016 would involve substantive changes in the project profile, water requirement, waste generation, disposal mechanism, etc. Considering the same and especially in view of no permission obtained even for ground water withdrawal of 50 cum/day to meet the present requirements, the Committee found no merit in the proposal and insisted for compliance status of the conditions stipulated in the said EC from the Ministry's Regional Office.

11.4.2.4 *The EAC was informed by the project proponent that in order to avoid cross contamination and to maintain smooth and safe process as per WHO GMP/USFDA requirement, amendment in environmental clearance is proposed for separating manufacturing process from the existing multistep production in multiproduct plant.*

The Committee, after detailed deliberations, agreed for reducing the green belt area from the earlier proposed/approved of 20194 sqm (54% of the project area) to 15017.97 sqm (40.22% of the project area) to set up intermediate plants and warehouse within the area so made available.

Agenda No.11.4.3

Distillery plant expansion from 60 KLPD to 90KLPDSy.Nos.36, 38, 41 & 43 of Jekkepally Village, YalalMandal, Vikarabad (Earlier Rangareddy District) District, Telangana by M/s Radical Bio-Organics Limited- Amendment of ToR

[IA/TG/IND2/109318/2019, J-11011/57/2010-IA-II(I)]

11.4.3.1 The proposal is for amendment in the standard terms of reference granted by the Ministry vide letter dated 30th May, 2019 for expansion of grain based distillery plant from 60 KLPD to 90 KLPD at Sy.Nos.36, 38, 41 & 43 of Jekkepally Village, Yalal Mandal, Vikarabad (Earlier Ranga Reddy) District, Telangana in favour of M/s Radical Bio-organics Limited.

11.4.3.2 The project proponent has requested for amendment in the Standard ToR with the details as under-

S. No	Para of ToR	Details as per ToR	To be revised/read as	Justification /reasons
1.	Page No.1	In this regard, under the provisions of the EIA Notification, 2006 as amended, the Standard TOR for the purpose of preparing Environmental Impact Assessment and Environmental	As the present proposal is for expansion and is proposed to enhance the Distillery plant capacity from 60 KLPD to 90 KLPD by doing process modifications and Distillation columns modifications & Reduction in power	<ul style="list-style-type: none"> •No additional land is envisaged for the proposed capacity enhancement. •Steam requirement reduced by 26% and accordingly air emission also reduces. •No additional water requirement is envisaged for expansion proposal. •No additional wastewater

		Management Plan for obtaining prior Environmental clearance is prescribed with Public consultation.	generation capacity from 7 MW to 3.0 MW. Hence we request the EAC to kindly exempt Public Hearing for the present proposal of enhancement from 60 to 90 KLPD as Public hearing for the existing proposal has been carried out on 7 th July, 2010.	generation from the expansion proposal. <ul style="list-style-type: none"> • Ash generation reduces by 27.3% with the present proposal. • Existing ETP system for Distillery are adequate for expansion also. • Public Hearing has been conducted on 07/07/2010 as per the provisions of EIA Notification, 2006 and its amendments there of.
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11.4.3.3 *The EAC, after detailed deliberations and in exercise of the provisions contained in para 7 (ii) of the EIA Notification, 2006, recommended for exemption from public hearing, to enable consideration for environmental clearance.*

Day two - 29th August, 2019

11.5 Environmental Clearance

Agenda No.11.5.1

Thiruvallur Bangalore Pipeline section of ETBPNMTPL at District Chittoor (Andhra Pradesh) by M/s Indian Oil Corporation Limited (Pipelines Division) - Environment Clearance

[IA/AP/IND2/74035/2018, IA-J-11011/140/2018-IA-II(I)]

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

11.5.1.1 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for laying of pipeline from Thiruvallur (Tamil Nadu) to Bengaluru (Karnataka) section of ETBPNMTPL by M/s Indian Oil Corporation Limited (Pipelines Division). The pipeline capacity will be 35 MMSCMD (Mainline dia 16 inch, length 281 km and Spur line dia 6 inch, length 30 km).

The project/activity is covered under category A of item 6(a) 'Oil & gas transportation pipe line (crude and refinery/ petrochemical products), passing through national parks /sanctuaries/coral reefs /ecologically sensitive areas including LNG Terminal' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and requires appraisal/approval at central level in the Ministry.

The estimated project cost is Rs.720 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 1 lakhs and the recurring cost (operation and maintenance) will be about Rs.1 lakhs per annum. Total Employment will be 10 persons as direct &150 persons indirect.

Koundinya wildlife sanctuary is within 10 km distance from the project site. The proposed R-LNG pipeline passes through Palamner reserved forest and Koundinya wildlife sanctuary. The area of forest land involved is 4.6 ha.

Standard Terms of References (ToR) for the project was granted on 24th May, 2018. Public hearing was conducted by the Andhra Pradesh Pollution Control Board on 9th May 2019 at IOCL depot Yadamari. The main issues raised during the public hearing are related to RoU compensation and safety. All the issues raised during public hearing have been addressed etc. The EAC suggested to submit an affidavit in respect of issues raised during public hearing and commitment made by the project proponent.

During construction phase the total fresh water requirement will be 5 m³/day, proposed to be met from tanker supply. No effluent will be generated during operational phase.

Power requirement will be 50 kVA, proposed to be met from State Grids of Tamil Nadu, Andhra Pradesh and Karnataka). A temporary DG set will be provided on demand during construction phase.

Ambient air quality monitoring was carried out at 14 locations during 1st October to 31st December, 2018 and the baseline data indicates the ranges of concentrations as: PM₁₀ (53.5 to 90.1 µg/m³), PM_{2.5} (28.2 to 53.4 µg/m³), SO₂ (5 to 23.5 µg/m³) and NO₂ (11.5 to 37.9 µg/m³). There is no any point, mobile and line source of emission so AAQ modeling for proposed project was not done.

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

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

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

- *Stage-I forest clearance for diversion of forest land (covering all the five wells locations) for non-forestry purposes as required under the Forest (Conservation) Act, 1980 shall be obtained and submitted to the Ministry.*
- *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. Grant of environmental clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposals for Wildlife Clearance will be considered by the respective authorities on their merits and decision taken*
- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *The Oil Industry Safety Directorate (OISD) guidelines for pipeline projects shall be followed in letter and spirit.*

- *Necessary approval from Chief Controller of Explosive must be obtained before commission of project.*
- *During construction phase, air pollution and the solid waste management aspects need to be properly addressed ensuring compliance of the Construction and Demolition Waste Management Rules, 2016.*
- *As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 1% 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 Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.*
- *All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.*
- *Sections of pipeline and storage systems that can be isolated with valves or blinds should be equipped with safety valves to protect against possible damage as liquid LPG expands with increases in temperature.*
- *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.*
- *Water sprinkling has to be undertaken on regular basis to control the polluting particles.*
- *The construction of pipelines through the waterbodies shall be avoided during the rainy season/ breeding seasons of aquatic animals.*
- *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.*
- *SCADA system shall be installed with dedicated optical fiber based telecommunication link for safe operation of pipeline and leak detection system.*
- *Intelligent pigging facilities shall be provided for the entire pipeline system for internal corrosion monitoring. Coating and impressed current cathodic protection system shall be provided to prevent external corrosion.*
- *All the recommendations mentioned in the risk assessment report shall be implemented and Emergency response plan shall be based on guideline prepared by OISD*
- *Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Onsite and Offsite Disaster Management Plan shall be implemented.*
- *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.*

Agenda No.11.5.2

Installation of Ethanol Plant from PSA Off Gases ex HGU using Gas Fermentation Technology at Panipat (Haryana) by M/s IOCL Panipat Refinery & Petrochemical Complex - Environmental Clearance

[IA/HR/IND2/73149/2018, IA-J-11011/78/2018-IA-II(I)]

The project proponent and their accredited consultant M/s ABC Techno Labs India Private Limited, made a detailed presentation on the salient features of the project.

11.5.2.1 During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for setting up 128 KL per day Ethanol production plant from Pressure Swing Adsorption (PSA) off gases (containing CO, H₂& CO₂) from Hydrogen Generation Unit (HGU) using gas fermentation technology by M/s Indian Oil Corporation Ltd (IOCL) in Panipat Refinery & Petrochemical Complex at Panipat (Haryana).

The project/activity is covered under category A of item 4 (a) 'Petroleum refining industry' of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal/approval at central level in the Ministry.

Standard Terms of Reference for the project was granted by the Ministry on 3rd May, 2018. Public Hearing for the proposed project was conducted by the State Pollution Control Board on 27th March, 2019.

Existing land area is 59200 sq. m (5.92 Ha). No additional land will be used for proposed project. Industry will develop Greenbelt in an area of 33% i.e. 19500 sq. m (1.95 Ha) out of total 59200 sq. m (5.92 Ha) of area of the project. The estimated project cost is Rs. 598.2Cr. with +/- 30% accuracy. Total capital cost earmarked towards environmental pollution control measures is Rs. 0.2 Cr. and the Recurring cost (operation and maintenance) will be about Rs. 0.05 Cr. per annum. Total employment will be 15 persons per shift as Direct and 5 persons indirect during plant operation.

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

Total water requirement will be 3600 cum/day (150m³/hr.) proposed to be met from Munak Regulator on Western Yamuna Canal. Effluent of 209 cum/day will be treated in existing ETP-III (PTA-ETP) of Panipat Refinery Effluent Treatment Plant.

Power requirement will be 12 kVA, proposed to be met through existing captive power plant.

Ambient Air Quality monitoring was carried out at Eight locations during December 2016 to February 2017 and submitted baseline data indicates that ranges of concentrations of PM10 (77.0-95.76 µg/m³), PM2.5 (47.7- 58.3µg/m³), SO₂ (18.0 – 25.48 µg/m³) and NO₂ (29 - 44 µg/m³) respectively. Ambient Air Quality (AAQ) modelling study for the Point Source Emissions indicates that the maximum incremental GLCs after the proposed project would be Zero the total GLCs would be 95.76µg/m³, 25.48µg/m³ and 4 µg/m³ with respect to PM10, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

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

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

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

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

- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Odour shall be prevented at the source and effective odour management scheme shall be implemented.*
- *Total fresh water requirement shall not exceed 3600 m³/day, proposed to be met from Munak Regulator on Western Yamuna Canal. Prior permission shall be obtained from the concerned regulatory authority.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
 - (k) 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.*
 - (x) Venting equipment through vapour recovery system.*
 - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.*
- *At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Priority shall be given for construction/repair of the village roads.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.*
- *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 online Ph, TSS, BOD, COD and flow meter at the ETP outlet,.*
- *The unit shall comply with NGT Order and shall not damage environment any further including ground water.*

- *The unit shall take precautionary measure for control of VOCs and shall follow CPCB guidelines and norms.*

Agenda No.11.5.3

Expansion of Offshore and Onshore Oil and Gas Exploration, Development & Production in existing Ravva Field, PKGM-1 Block (of 331.26 km²) located near Surasniyanam Village (S. Yanam) in Krishna-Godava Andhra Pradesh by M/s Vedanta Limited (Division Cairn Oil & Gas) - Environmental/CRZ Clearance

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

11.5.3.1 *Member Secretary was not present during appraisal of the proposal due to other important assignment in the office.*

11.5.3.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of Offshore and Onshore Oil and Gas Exploration, Development & Production by M/s Vedanta Limited (Cairn Oil & Gas Division) in existing Ravva Field, PKGM-1 Block of 331.26 km² at near village Surasaniyanam in Krishna-Godavari Basin, District East Godavari (Andhra Pradesh). The proposal involves activities as under:-

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

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

Existing land area is about 235 acres, additionally 131 acres of land will be used for proposed expansion. Green belt has already been developed in 35% i.e., 83 Acres of total area. The cost of the project is estimated to be ~ INR 7,924 Crores.

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

Standard Terms of References (ToR) for the project was granted on 24th March 2018. Public hearing was conducted by the Andhra Pradesh Pollution Control Board on 11th 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 etc.

The total water requirement will be increased from 10,413 m³/day to 18,285 m³/day from saline groundwater through deep bore wells. 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.

Total effluent generation will be 5 m³/day/well and the same will be treated in ETP. Domestic wastewater of 4.5 m³/day will be treated in STP. For offshore drilling, onboard domestic wastewater generation is expected to be 30 m³/day, which will be treated onboard STP and bilge and wash wastewater of 5 m³/day will be treated oil-in-water separator before offshore discharge complying with MARPOL 73/78 standards.

Power requirement will be met through two nos. DG set of 1,000 kVA capacity 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.

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: PM₁₀ (43.6 to 56.3 µg/m³), PM_{2.5} (18.4 to 25.7 µg/m³), SO₂ (8.7 to 14.8 µg/m³) and NO₂ (10.5 to 16.7 µg/m³). 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 µg/m³, 1 µg/m³ and 18.3 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be 0.25% of the project cost as committed by the project proponent.

Earlier, EC was granted by the Ministry vide letter dated 23rd February, 2015 for Oil & Gas Development in existing Ravva Offshore Field in favor of M/s Cairn India Ltd. The said EC was transferred by the Ministry vide letter dated 30th May, 2018 in the name of M/s Vedanta Ltd. Ministry had also granted CRZ clearance vide letter dated 25th May, 2017. The monitoring report on compliance status of above EC conditions issued by the Andhra Pradesh Pollution Control Board to the project proponent vide letter dated 31st January, 2019 and was found to be satisfactory.

The Andhra Pradesh Coastal Zone Management Authority has issued NOC vide letter dated 3rd April, 2019 in favour of M/s Vedanta Ltd for expansion of Offshore and Onshore Oil and Gas exploration, development and production.

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

Consent to Operate for the existing capacity has been obtained from the State PCB vide letter dated 16th November, 2016 which is valid up to 31st October, 2021.

11.5.3.3 *The Committee, after deliberations, deferred the proposal for want of following additional information:-*

- 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.
- 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.
- Copy of Coast Guard approved Oil Spill Contingency Plan with available trained man power and equipment shall be submitted to the ministry.

- Chapter-9 Environment 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.
- Treatment and disposal of Additional produced water generated not mentioned in EIA. Treatment and disposal do not depend on assumptions.
- On page 229 of EIA the values of S present in HSD has been reported 0.1%, need to be checked.
- 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.
- Item wise details of the budget allocated for Corporate Environment Responsibility (CER) need to be submitted for next five years.
- 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 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.

Agenda No.11.5.4

Proposed Expansion of Sugar- 8500 TCD to 11000 TCD, Distillery-60 KLPD to 150 KLPD & Co-generation- 38 MW to 49 MW at At Gangamainagar, Post Pimpalner, Tal. Madha, District Solapur (Maharashtra) by M/s Vitthalrao Shinde SahakariSakharKarkhana Ltd.- For Environmental Clearance reg.

[IA/MH/IND2/82804/2009, J- 11011/57/2009-IA.II(I)]

11.5.4.1 *Member Secretary was not present during appraisal of the proposal due to other important assignment in the office.*

11.5.4.2 During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for expansion of Molasses based distillery from 60 KLPD to 150 KLPD, Sugar unit from 8500 TCD to 11000 TCD and Co-generation unit from 38 MW to 49 MW by M/s Vitthalrao Shinde SahakariSakharKarkhana Ltd in an area of 636502 sqm at AtGangamainagar, Post Pimpalner, Taluka Madha, District Solapur (Maharashtra).

The details of products and capacity as under:

S. No.	Product	Existing	Proposed	Total
1	Sugar Unit	8500 TCD	2500 TCD	11000 TCD
2	Co-gen Unit	38 MW	11 MW	49 MW
3	Distillery Unit	60 KLPD	90 KLPD	150 KLPD

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

The ToR for the project was granted on 29th April, 2017. Public hearing for the project was conducted by the State Pollution Control Board on 26th June, 2018. The main issues raised during the public hearing are related to effluent treatment scheme, air pollution control equipment, planning to minimize the water requirement, benefits of the expansion project to the general public, proposed plan for rain water harvesting, health & safety measures for workers, reasonable rates to sugar cane, fire-fighting system & mock drill for any emergency situation etc.

Existing land area is 636502 sqm. The proposed expansion will be carried in an area of 20240 sqm. Industry has already developed Greenbelt in an area of 124544 sqm. Additionally 90000 sqm area is proposed for green belt development. The estimated project cost is Rs.162 crore Total capital cost earmarked towards environmental pollution control measures is Rs. 33.3 Cr. and the recurring cost (O&M) will be about Rs.1.10 crore per annum. Total Employment will be 25 persons as direct & 200 persons as indirect.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc. within 10 km from the project site. Ujani Dam is at 8 km in North West Direction.

Total water requirement is 3497 cum/day of which fresh water requirement for will be 1305 cum/day and will be supplied from Ujani Dam. The committee suggested to reduce the fresh water requirement for distillery unit @ 5kl/kl of alcohol production. The project proponent confirmed that the fresh water requirement for distillery will be 650 cum/day.

Effluent of 1358 m³/day quantity will be treated through Primary, Secondary and Tertiary treatment unit followed by CPU. Incineration boiler is proposed for burning of spent wash (80%) & 20% remaining spent wash will be used for bio-composting. The plant is based on Zero Liquid discharge system.

Power requirement after expansion will be 18.32 MW including existing and will be supplied by own generation from Cogeneration plant. Existing unit has 1 DG set of 380 KVA capacity. Additionally 1 No. of DG Set of 500 KVA is proposed. DG Sets are used as standby during power failure. Stack (height 18m) is provided as per CPCB norms to proposed DG Sets.

Existing unit has total 4 Nos. of boiler having capacities 40 TPH (2 Nos.), 70 TPH (1 No.) & 150 TPH (1 No.). The fuel for existing boiler is bagasse. For expansion 2 Nos. of 40 TPH bagasse/coal/spent wash fired boiler's will be installed. Electrostatic Precipitator with a stack of height of 65 m will be installed for controlling the particulate emissions within statutory limit of 115 mg/Nm³ proposed for the proposed boilers.

Ambient air quality monitoring was carried out at 9 locations during March 2017 to May 2017 and the baseline data indicates that ranges of concentrations as: PM₁₀ 37 µg/m³ to 62 µg/m³, PM_{2.5} 22 µg/m³ to 33 µg/m³, SO₂ 12 µg/m³ to 24 µg/m³ and NO_x 20 µg/m³ to 32 µg/m³ respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.29 µg/m³ for PM₁₀, 0.07 µg/m³ for PM_{2.5} and 0.98 µg/m³ for SO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The details of environmental clearance granted by the Ministry/SEIAA is as under:

1. F. No. J-11011/131/200-IA II dated: 03/02/2005 for 30 KLPD distillery.
2. J-11011/57/2009-IA II (I) dated 21st August 2009 for 30 to 60 KLPD distillery.

3. SEAC-2010/CR.2121/TC2 dated 3rd July 2010 for Cogeneration 10 MW to 30.5 MW.
4. SEAC-2010/CR-649/TC2 dated 18th September 2012 for expansion of sugar unit 3500 TCD to 8500 TCD and
5. SEIAA Meeting No. 121 SEIAA Statement- 0000000421 dated 17th March 2018 for Cogeneration 30.5 W to 38 MW to M/s Vitthalrao Shinde Sahakari Sakhar Karkhana Ltd.

Monitoring report on compliance status of the EC conditions forwarded by the Ministry's Regional Office at Nagpur (after conducting site visit on 6th June, 2019) vide letter dated 9th July, 2019. The EAC found the same to be satisfactory.

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

Consent to Operate for the existing industrial operations have been obtained from Maharashtra Pollution control Board vide letter dated 17th May, 2019 which is presently valid up to 31st July, 2020.

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

- *Prior approval shall be obtained from the Petroleum & Explosives Safety Organization (PESO) for the site and layout plan submitted to this Ministry along with the proposal for EC. In case of any change therein post PESO approval, the proposal shall require fresh appraisal by the sectoral EAC.*
- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Concentrated spent wash shall be incinerated and not to be released in open space.*
- *Odour shall be prevented at the source and effective odour management scheme shall be implemented.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 1305 cum/day proposed to be met from Ujni Dam. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.*
- *STP shall be installed for treatment of domestic waste water and treated waste water shall be used for irrigation. No fresh water shall be used for irrigation.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
 - (i) *Metering and control of quantities of active ingredients to minimize waste.*

- (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
- (iii) Use of automated filling to minimize spillage.*
- (iv) Use of Close Feed system into batch reactors.*
- (y) Venting equipment through vapour recovery system.*
- (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- At least 2.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.*
- Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Hazardous chemicals shall not be stored for more than three days in the premises.*
- 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.*
- CO₂ generated from the process shall be bottled/made solid ice and sold to authorized vendors.*

Agenda No.11.5.5

Expansion of Resin Manufacturing Unit at Sy. No.591 & 592, Kalol-Vamaj Road, Village Piyaj, Taluka Dalol District Gandhinagar (Gujarat) by M/s Formica Laminates (India) Pvt. Ltd- For reconsideration Environmental Clearance

[IA/GJ/IND2/29004/2014, J-11011/162/2014-IA II (I)]

11.5.5.1 *Member Secretary was not present during appraisal of the proposal due to other important assignment in the office.*

11.5.5.2 The proposal was earlier recommended by the EAC in its meeting held on 30th-2nd April, 2016 for grant of environmental clearance. During processing, it has been desired by the Ministry to submit latest certified compliance report from RO, MoEF&CC. Further, in view of Ministry's letter date 25th January, 2017, the Regional office at Bhopal has forwarded the site inspection report (visit undertaken on 26th May, 2017), and the details of clarification/input sought from the PP and due to non-submission of comprehensive EC compliance report, the proposal for grant of EC was kept in abeyance. Further, the reminder was sent on 23rd March, 2018 to RO at Bhopal to submit the comprehensive EC compliance report of the conditions of

the environmental conditions of the environmental clearance dated 24th august, 2010, to take the proposal forward. However, due to non-submission of the said report the proposal was delisted on 24th August, 2018 from the Ministry's portal.

Now, project proponent has forwarded the comprehensive compliance report issued by Regional office on 14th March, 2019 at Bhopal and requested to grant environmental clearance

11.5.5.3 During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for expansion of resin manufacturing unit by M/s Formica Laminates (India) Pvt Ltd in an area of 26602 m² at Survey No.591 & 592, Kalol-Vamaj road, Village Piyaj, Taluka Kalol, District Gandhinagar (Gujarat).

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

S. No.	Product	Quantity (MTPM)		
		Existing	Additional	Total after expansion
1	Decorative Laminates sheets	1,04,166 sheets/month	3,16,834 sheets/month	4,21,000 sheets/month
2	Phenol Formaldehyde Resin	205	1720	1925
3	Melamine Formaldehyde Resin	41	332	373

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

The ToR for the project was granted on 19th November, 2014. Public hearing was conducted by the state pollution control board on 30th May, 2015.

Existing land area is 26602 sqm. Industry will develop green belt an area ofout of total area of the project. The estimated project cost is Rs.35.0 crores. Total capital cost earmarking towards environmental pollution control measures is Rs.1 crores and the recurring cost (O&M) will be about Rs.0.35 crores per annum.

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

Total water requirement is estimated to be 130 cum/day including fresh water requirement of 65 cum/day proposed to be met from ground water.

Industrial wastewater generation will be increased from 2.8 m³/day to 44.0 m³/day after expansion. Effluent will be treated in the ETP and treated effluent will be evaporated. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Ambient air quality monitoring was carried out at 6 locations during October, 2014 to December, 2014 and submitted baseline data indicates that ranges of concentrations of PM10 (63.6 µg/m³ to 87.9 µg/m³), PM2.5 (34.5 µg/m³ to 48.5 µg/m³), SO₂ (14.9 µg/m³ to 23.6 µg/m³) and NO_x (15.1 µg/m³ to 23.5 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.282 µg/m³, 0.783 µg/m³ and 0.978 µg/m³ for SPM, SO₂ and NO_x respectively. The resultant concentrations are within the NAAQS.

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

Earlier, EC was granted by the Ministry vide letter dated 24th August, 2010 for resin manufacturing unit in favor of M/s Well Pack Papers & Containers Ltd. Later, the said EC letter has been transferred in the name of M/s Formica Laminates (India) Pvt. Ltd vide Ministry's letter dated 10th January, 2017. The monitoring report on compliance status of above EC conditions issued by the Regional office at Bhopal to the project proponent vide letter dated 14th March, 2019 and was found to be satisfactory.

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

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of resins.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time, shall be followed.*
- *Coal with sulphur content less than 0.5% or natural gas/lignite/bio-fuel/briquettes/bagasse/agro waste, shall be used as fuel in the boiler.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
 - (a) *Reactor shall be connected to chilled brine condenser system.*
 - (b) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
 - (c) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
 - (d) *Solvents shall be stored in a separate space specified with all safety measures.*
 - (e) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
 - (f) *Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
 - (g) *All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 65cum/day to be met through bore well. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.*

- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *Fly ash shall be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.*
- *The company shall undertake waste minimization measures as below:-*
 - (a) Metering and control of quantities of active ingredients to minimize waste.*
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
 - (c) Use of automated filling to minimize spillage.*
 - (d) Use of Close Feed system into batch reactors.*
 - (e) Venting equipment through vapour recovery system.*
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*
- *At least 2.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For 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.11.5.6

Integrated Project of Sugar Plant Expansion (5000 to 7500 TCD), Ethanol Plant Expansion (30 to 100 KLPD) with Incineration Boiler/TG /Auxiliaries for ZLD & Cogeneration Power Plant (44 MW) at village Nagnathannagar, Tal Walwe, Distt. Sangli (Maharashtra) by M/s PadmabhushanKrantiveer Dr NagnathannaNayakawadiHutatmaKisanAhir SSK Ltd - Environmental Clearance

[IA/MH/IND2/98116/2013, J-11011/197/2013-IA-II(I)]

11.5.6.1 *Member Secretary was not present during appraisal of the proposal due to other important assignment in the office.*

11.5.6.2 The proposal was earlier considered by the EAC in its meeting held during 30-31 May, 2019, wherein the EAC desired for clarification/inputs in respect of the following:-

- Details of existing products and utilities commissioned/not commissioned as per the existing ECs.
- Action Taken Report on non complied points reflected in the certified compliance report, to be forwarded by the Regional Office of the Ministry.
- Approval from PESO for the site and layout plan for storage facilities.
- Plan for achieving ZLD for the entire unit, with Incineration route
- Plan for Corporate Environment Responsibility.

The project proponent has provided parawise reply to different observations the Committee with the details as under:-

Clarifications/inputs sought by the EAC	Reply by the PP
Details of existing products and utilities commissioned/not commissioned as per the existing ECs.	30 KLD distillery has been commissioned with product RS/ENA/Ethanol. Sugar with crushing 5000 TCD is operating with 4 MW TG power generation. The Co-gen unit of 24 MW has not been commissioned due to financial constraints.
Action Taken Report on non complied points reflected in the certified compliance report, to be forwarded by the Regional Office of the Ministry.	Action taken report on non-complied, forwarded by regional office of the Ministry has been submitted.
Approval from PESO for the site and layout plan for storage facilities.	Approval from PESO for existing 30 KLPD unit has been submitted.
Plan for achieving ZLD for the entire unit, with Incineration route	ZLD plan has been submitted
Plan for Corporate Environment Responsibility.	CER plan has been submitted

11.5.6.3 During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for expansion of Sugar plant from 5000 to 7500 TCD, Distillery from 30 KLPD to 100 KLPD (ENA/RS/AA/Ethanol) and Cogeneration Power Plant from 24 to 44 MW by M/s Padma Bhushan Krantiveer Dr NagnathannaNayakawadiHutatmaKisanAhir SSK Ltd in a total area of 263575 located at Village Nagnathannanagar, Taluka Walwe, District Sangli (Maharashtra).

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

Standard Terms of Reference for the project was issued on 11th March, 2018. Public Hearing for the project has been conducted by the State Pollution Control Board on 12th October, 2018. The main issues raised during the public hearing are related to water pollution, air pollution, ash disposal and its management, etc.

Existing land area is 1, 83,935 sqm. Additional, 79,640 sqmland will be used for proposed expansion. Industry will develop greenbelt in an area of 84000 sqm, covering 33% of total project area. The estimated project cost is Rs.574.38 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 10.5 crores and the recurring cost (operation and maintenance) will be about Rs. 37.3 lakhs per annum. Employment opportunity will be for 200 persons directly and indirectly after expansion.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc. within 10 km from the project site. Krishna River is flowing at a distance of 2.2 km in West direction.

Total water requirement is estimated to be 5582 cum/day, which includes fresh water requirement of 1140 cum/day proposed to be met from Krishna River.

Effluent (Sugar & Cogen.) of 679 cum/day quantity will be treated through ETP. Total spent wash generation will be 840 cum/day. Existing spent wash is treated through Biogas unit followed by Multi effect evaporator (MEE) and bio -composting. Spent wash from the proposed unit will be concentrated in MEE and incinerated in 40 TPH boiler. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement will be 9.3 MW, proposed to be met from own cogeneration power plant. Existing unit has 1000 kVA X 1 DG set and additional 2 X 1000 kVA DG sets will be installed as standby during power failure, with stack (8 m) as per CPCB norms.

Existing unit has 50 TPHX1 and 28 TPHX 2 TPH boilers (Existing boiler shall be demolished). Additional, 220 TPH (sugar) and 40 TPH (Incineration boiler- Distillery) will be installed. Electrostatic precipitator with 72 m stack height will be installed for controlling of particulate emission within statutory limit of 115 mg/Nm³ for the proposed boilers.

Ambient air quality monitoring was carried out at nine locations during March to May, 2018 and the baseline data indicates the ranges of concentrations as:PM10 (36.9 to 54.6 µg/m³), PM2.5 (18.2 to 32.6 µg/m³), SO₂ (6.1 to 14.1 µg/m³) and NO₂ (9.6 to 19.4 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.18 µg/m³, 6.0 µg/m³ and 1.71 µg/m³ with respect to PM 10, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards.

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

Earlier, the SEIAA issued environmental clearance vide letter dated 22nd June, 2007 to the project for expansion of sugar unit from 2500 TCD to 3500 TCD, and Ministry issued EC vide letter dated 17th September, 2007 to the project for Molasses based distillery of 30 KLPD, expansion of sugar unit from 2500 TCD to 3500 TCD and to set up co-generation power plant of 18 MW in favour of M/s HutatmaKisanAhirSahakariSakharKarkhana Ltd located at Walve, District Sangli (Maharashtra), the validity of the said EC was extended vide letter dated 12th October, 2015. Ministry vide letter dated 22nd February, 2017 has granted EC for expansion of sugar capacity from 3500 TCD to 5000 TCD and establishment of 24 MW Co-generation plant at Village & Tehsil Walwa, District Sangli (Maharashtra) in favour of M/s PadmabhushanKrantiveerDr NagnathannaNayakawadiHutatmaKisanAhirSahakariSakharKarkhana Ltd.

Monitoring report on compliance status of the EC conditions was forwarded by the Ministry's Regional Office at Nagpur (after conducting site visit on 11th November, 2018) vide letter dated

31st January, 2019 followed by action taken report on non/partial complied points vide letter dated 21st June, 2019 and the same was found to be satisfactory.

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

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Coal shall not be used as fuel in boiler.*
- *Total fresh water requirement shall not exceed 1140 cum/day, proposed to be met from Krishna River. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
 - (i) Metering and control of quantities of active ingredients to minimize waste.*
 - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
 - (iii) Use of automated filling to minimize spillage.*
 - (iv) Use of Close Feed system into batch reactors.*
 - (v) Venting equipment through vapour recovery system.*
 - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.*
- *At least 0.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*

- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.
- Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- CO₂ generated from the process shall be bottled/made solid ice and sold to authorized vendors.

Agenda No.11.5.7

Proposed bulkdrugs and intermediate manufacturing unit at PLOT NO. C-174/1, MIDC Chincholi, Tal-Mohol, District Solapur (Maharashtra) by M/s Devi Chemscience Private Limited - Environmental Clearance

[IA/MH/IND2/71771/2017, A-J-11011/580/2017-IA-II(I)]

11.5.7.1 Member Secretary was not present during appraisal of the proposal due to other important assignment in the office.

11.5.7.2 The proposal was earlier considered by the EAC in its meeting held during 6-8 May, 2019, wherein the EAC desired for clarification/inputs in respect of the following:-

- Ground level concentration (GLCs) for different air pollutants to be ascertained for locations in and around the GIB Sanctuary.
- Prediction for one of the critical air pollutant NO_x to be made.
- Project details in respect of production, project area and other core parameters, presented for obtaining recommendations of Standing Committee of NBWL, need to be consistent with those mentioned in Form-2 for environmental clearance.
- Plan to achieve 99.95% solvent recovery.

The project proponent has provided parawise reply to different observations the Committee with the details as under:-

Clarifications/inputs sought by the EAC	Reply by the PP
Ground level concentration (GLCs) for different air pollutants to be ascertained for locations in and around the GIB Sanctuary.	The villages from the study area, coming in the GIB Sanctuary are Kondi, Karamba, Darfal&Chincholikati where the AAQM was done during monitoring period of February to April, 2018.

Prediction for one of the critical air pollutant NOx to be made.	The incremental GLC prediction for NOx is now being presented.
Project details in respect of production, project area and other core parameters, presented for obtaining recommendations of Standing Committee of NBWL, need to be consistent with those mentioned in Form-2 for environmental clearance.	Project details in respect of production, project area and other core parameters have been entered now in NBWL application.
Plan to achieve 99.95% solvent recovery.	Solvent recovery plan to achieve 99.95 has been submitted.

11.5.7.3 During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for setting up of Bulk Drugs and Intermediates manufacturing unit of capacity 158.23 TPM by M/s Devi Chemscience Private Limited in an area of 16309 sqm located at Plot No.C-174/1, MIDC Chincholi, Taluka Mohol, District Solapur (Maharashtra).

The details of products/byproducts are as under:-

S. No.	Product	Capacity (MT/M)
1	Metoprolol Succinate & Intermediates	3
2	Metoprolol Tartrate & Intermediates	3
3	Acetazolamide & Intermediates	2
4	Bambutetrol HCl & Intermediates	0.025
5	(R)-Bambutetrol HCl & Intermediates	0.025
6	Bromohexine Hydrochloride & Intermediates	3.9
7	Chlorphenesin & Intermediates	6
8	Clopidogrel Bisulfate & Intermediates	2.01
9	Defriprone & Intermediates	0.201
10	Dioctyl Calcium Sulfosuccinate & Intermediates	0.9
11	Dioctyl Potassium Sulfosuccinate & Intermediates	0.9
12	Dioctyl Sodium Sulfosuccinate & Intermediates	50.1
13	Dorzolamide Hydrochloride & Intermediates	0.025
14	Formoterol Fumarate Dihydrate & Intermediates	0.005
15	Furosemide & Intermediates	2.01
16	Guaifenesin & Intermediates	20.1
17	Ipratropium Bromide & Intermediates	0.005
18	Levetiracetam & Intermediates	5.01
19	Methocarbamol & Intermediates	5.01

20	Permethrin & Intermediates	2.01
21	Quinaldic Acid	6
22	Levo Salbutamol Sulphate & Intermediates	0.025
23	Salbutamol Sulphate & Intermediates	3
24	Salmeterol Xinafoate & Intermediates	0.005
25	Tiotropium Bromide& Intermediates	0.005
26	Diamyl Sodium sulfosuccinate & Solution	30
27	Moxifloxacin Hydrochloride	0.99
28	Moxifloxacin Intermediate	3
29	Pregabalin & Intermediate	6
30	Carbimazole& Intermediate	0.99
31	Methimazole & Intermediate	0.48
32	Ondansetron & Intermediate	0.7
33	Carvedilol & Intermediate	0.75
	Total	158.23
By-Product		
1	Sodium Bromide	0.414
2	Sodium Chloride	0.414
3	Ammonium Chloride	0.165
4	Sodium Sulphite	0.84
5	Sodium Sulphate	0.168
6	Potassium Chloride	0.084
	Total	2.085

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 by the concerned SEAC/SEIAA. However, due to applicability of general condition (Great Indian Bustard (GIB) Sanctuary within 5 km), the proposal was appraised at central level by the sectoral EAC in the Ministry.

The standard ToR for the project was granted on 5th February, 2018. Public hearing is exempted as the project site is located inside the notified industrial area.

Total land area is 16309 sqm. Green belt will be developed in an area of 33% i.e.5381.97 sqm out of total area of the project. The estimated project cost is Rs.25 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs.3.83 Cr. and the recurring cost (operation and maintenance) will be about Rs.0.43 Cr. per annum.

Great Indian Bustard Sanctuary is located at a distance of 0.65 km. Application for necessary recommendations from wildlife angle has been submitted with the Standing Committee of NBWL.

Total water requirement is estimated to be 70 cum/day, which includes fresh water requirement of 36 cum/day, proposed to be met from MIDC water supply.

Effluent of 29 cum/day quantity will be treated through Effluent Treatment Plant and Multi Effect Evaporator. Treated effluent will be reused in the plant. Domestic waste water5 cum/day will be

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

Power requirement will be 1.133 MW, proposed to be met from Maharashtra State power distribution corporation limited (MSPDCL). The details of boilers and DG sets are as under:

Source	Steam Boiler	Thermic Fluid Heater	D.G. Sets
Capacity	2 TPH	2 Lakh Kcal/Hr	1010 KVA
Fuel	Coal/Biomass	Furnace Oil	HSD
Qty.	24/48 TPD	0.576 TPD	100Ltr/Hr
Stack Ht.	30 M	18 M	6.5 M
APC Equip.	Bag Filter	--	--

Ambient air quality monitoring was carried out at 8 locations during February 2018 to April 2018 and the baseline data indicates the ranges of concentrations as: PM10 (48.3 - 73.15 µg/m³), PM2.5 (12.22 - 25.48 µg/m³), SO₂ (16.47 - 29.26 µg/m³) and NO₂ (17.21 - 36.28 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 68.04 µg/m³ and 37.65 µg/m³ with respect to PM₁₀, and SO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

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

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

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21st July, 2010 and amended from time to time shall be followed. Fugitive emissions shall be controlled at 99.98% with effective chillers.*
- *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:*
 - (i) *Reactor shall be connected to chilled brine condenser system.*
 - (ii) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
 - (iii) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*

- (iv) Solvents shall be stored in a separate space specified with all safety measures.
- (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
- (vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
- (vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- Total fresh water requirement shall not exceed 36 cum/day, proposed to be met from MIDC supply. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.
- Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
- Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.
- The company shall undertake waste minimization measures as below:-
 - (i) Metering and control of quantities of active ingredients to minimize waste.
 - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (iii) Use of automated filling to minimize spillage.
 - (iv) Use of Close Feed system into batch reactors.
 - (v) Venting equipment through vapour recovery system.
 - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- Occupational health surveillance including dental check up of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For 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.11.5.8

Proposed Expansion in Existing Capacity of Pesticides Technical, Intermediate & Pesticides Formulation Products & Addition of New Pesticides Technical Product within Existing Premises at Plot 3405/3406/3460-A, GIDC Estate, Ankleshwar, Bharuch (Gujarat) by M/s UPL Ltd - Environment clearance

[IA/GJ/IND2/91392/2002, J-11011/77/2002-IA II]

11.5.8.1 Member Secretary was not present during appraisal of the proposal due to other important assignment in the office.

11.5.8.2 During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for expansion of pesticide technical and pesticide specific intermediates manufacturing unit from 4069 TPM to 9564 TPM by M/s UPL Ltd in an area of 65,625 sqm located at Plot No.3405/ 3406/3460A, Notified Industrial Estate, GIDC, Taluka Ankleshwar, District Bharuch (Gujarat).

The details of proposed products are as under:-

Plant No	S.N.	Product Name	Existing Capacity (TP/M)	Proposed Capacity (TP/M)	After Expansion Product Name	Total Capacity (TP/M)
A	1	D-Devrinol OR Devrinol OR Clomazone (combined capacity)	300	NIL	D-Devrinol	300
		OR	OR	OR	OR	OR
	2	Metobromuron	60	NIL	Metobromuron	60
	3	Devrinol	NIL	400	Devrinol	400
	4	Imazapic Technical	NIL	500	Imazapic Technical	500
	5	Ethofumesate	NIL	100	Ethofumesate	100
B	6	Terbuphos OR	500	NIL	Terbuphos OR	500
		Phorate OR			Phorate OR	
		Metasystox (combined capacity)			Metasystox (combined capacity)	
7	Acetamiprid OR	10	40 (Combined Capacity)	Acetamiprid OR	50 (Combined Capacity)	
	Imidacloprid	5		Imidacloprid		
C	8	Acephate	1,225	NIL	Acephate	1,225
	9	OR Metamitron	OR 60	NIL	OR Metamitron	OR 60
D	10	Phosphamidon (PD) OR Azoxystrobin	400 OR	NIL	Phosphamidon (PD) OR	400 OR 40

Plant No	S.N.	Product Name	Existing Capacity (TP/M)	Proposed Capacity (TP/M)	After Expansion Product Name	Total Capacity (TP/M)
		Surflan OR	40		Surflan	
	11	Azoxystrobin	NIL	200	Azoxystrobin	200
	12	Clomazone	NIL	300	Clomazone	300
	13 OR	Monocrotophos OR			Monocrotophos OR	
	13	2-4 D technical (2, 4-Dichloro Phenoxy Acetic Acid) (Combined Capacity)	10 (Combined Capacity)	90 (Combined Capacity)	2-4 D technical (2, 4-Dichloro Phenoxy Acetic Acid) (Combined Capacity)	100
	14	Dichlorvos (DDVP) OR	85 OR	NIL	Mesotrion	85
		Ethofumesate OR	50 OR	NIL		
		Mesotrion OR	85 OR	NIL	OR	
		Pyrazosulfuron Ethyl	85	NIL	Pyrazosulfuron Ethyl (Combined Capacity)	
	15	Dichlorvos (DDVP)	NIL	470	Dichlorvos (DDVP)	470
	16	Metribuzin	5	NIL	Metribuzin	5
E	17	Acephate	NIL	1,775	Acephate	1,775
TOTAL A - Submitted in PFR & Form 1			2,235	3,575		5,810
<u>TOTAL A1 - Revised After Exclusion of Prohibited Pesticides</u>			2,175	3,405	--	5,580
<i>Based on The Pesticide (Prohibition) Order 2018 dated 8th August 2018 by Ministry of Agriculture and Farmers Welfare the Products - Dichlorvos, Phorate&Phosphamidon are Prohibited for Manufacture, Formulate, Import with effect from the 1st January, 2019.</i>						
<i>Note: The strikethrough items are no longer manufactured or produced at Unit 2 from January 01st 2019</i>						
(B) Intermediate Chemicals - Existing and Proposed capacity						
A	1	Di Methyl Methyl Phosphonate (DMMP)	100	200	Di Methyl Methyl Phosphonate (DMMP)	300
B	2	Di Ethyl ThioPhosphoryl Chloride (DETCL) OR	50 OR	NIL	Di Ethyl ThioPhosphoryl Chloride (DETCL) OR	50 OR
		Amino Aceto Nitrile Sulphate (AANS) OR	160 OR		Amino Aceto Nitrile Sulphate (AANS) OR	160 OR
		Myristyl amine oxide (MO)	160		Myristyl amine oxide (MO)	160

Plant No	S.N.	Product Name	Existing Capacity (TP/M)	Proposed Capacity (TP/M)	After Expansion Product Name	Total Capacity (TP/M)
					(Combined capacity)	
	3	Para Chloro O Cresol (PCOC)	96	NIL	Para Chloro O Cresol (PCOC)	96
	4	Di Ethyl Thio Phosphoric Acid (DETA) OR ZnDTP (Combined Capacity)	1,000	1,000	Di Ethyl Thio Phosphoric Acid (DETA) OR ZnDTP (Combined Capacity)	2,000
	5	Absolute alcohol	420	NIL	Absolute alcohol	420
	6	Noflan	8	NIL	Noflan	8
C	7	Di Methyl Phosphorus Amido Thionate (DMPAT)	110	890	Di Methyl Phosphorus Amido Thionate (DMPAT)	1000
TOTAL B - Submitted in PFR & Form 1			1,894	2,090		3,984
TOTAL B1 - Revised After Exclusion of Prohibited Pesticides			1,894	2,090		3,984
Grand Total (A + B) As per PFR Submission			4,129	5,665		9,794
<u>Grand Total (A1 + B1) After Exclusion of Prohibited Pesticides</u>			4,069	5,495		9,564

Note: The strikethrough items are no longer manufactured or produced at Unit 2 from January 01st 2019 as per The Pesticide (Prohibition) Order 2018 dated 8th August 2018 by Ministry of Agriculture and Farmers Welfare, the products are banned

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

Standard Terms of Reference for the project was issued on 31st January, 2018. Public Hearing is exempted being project site located inside the notified industrial area.

Existing land area is 65,625m² and no additional land will be used for proposed expansion. Industry has already developed greenbelt in an area of 14226.58 m² out of total area of the project. The industry has also requested / signed MOU with GIDC for additional land for green belt development. The estimated project cost is Rs. 445.89 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.26.02 Crores and the recurring cost (operation and maintenance) will be about Rs.34 crores per annum. Total Employment will be 103 persons as direct & 150 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. Narmada river flows at 7 km in North East.

Total water requirement will be 3442 cum/day of which fresh water requirement of 2747 cum/day will be met from GIDC water supply. Effluent of (513.00 cum/day Existing + 317 cum/day Additional = 830 cum/day) quantity will be treated through existing ETP followed by RO and MEE. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be ~16,799 kW including existing 6,895 kW proposed to be met from Dakshin Gujarat Vij Company Limited (DGVCL) State power distribution corporation limited (SPDCL). Existing unit has 3 DG sets of 1x1,250 kVA, 1x500 kVA and 1x2,000 kVA capacity, additionally 1x2,000 kVA DG sets are used as standby during power failure. Stack (height 30 m) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 2x10 TPH and 1x5 TPH capacity natural gas/ LSHS and FO fired boilers. Additionally, 2x20 TPH capacity natural gas/ LSHS and FO fired boiler will be installed. Multi cyclone separator/ bag filter with a stack of height of 55 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm³ for the proposed boilers.

Ambient air quality monitoring was carried out at 9 locations during 26th February 2018 to 21st May, 2018 and the baseline data indicates the ranges of concentrations as: PM₁₀ (35.5 – 121.0 µg/m³), PM_{2.5} (15.8 – 64.2 µg/m³), SO₂ (7.3 – 25.4 µg/m³) and NO₂ (11.5 – 45.4 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.5 µg/m³, 6.41 µg/m³ and 2.23 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Earlier, environmental clearance was granted by the Ministry vide letter dated 15th April, 2008 to the project for expansion of pesticides and intermediate products in favour of M/s United Phosphorous Ltd. Unit-2 located at Plot No.3405/ 3406, GIDC Industrial Estate, Ankleshwar, District Bharuch (Gujarat). The Monitoring report on compliance status of the EC conditions was forwarded by the Ministry's Regional Office at Bhopal (after conducting site visit on 18th July, 2018) vide letter dated 2nd November, 2018. The EAC found the same to be satisfactory.

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

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

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

- *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- *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.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Natural gas shall be used as fuel in the boiler. Furnace oil shall not be used in the plant.*

- *National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13th June, 2011, as amended from time to time, shall be followed.*
- *No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD₅₀<100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
 - (v) Reactor shall be connected to chilled brine condenser system.*
 - (w) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
 - (x) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
 - (y) Solvents shall be stored in a separate space specified with all safety measures.*
 - (z) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
 - (aa) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
 - (bb) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 2747 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.*
- *The company shall undertake waste minimization measures as below:-*
 - (i) Metering and control of quantities of active ingredients to minimize waste.*
 - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
 - (iii) Use of automated filling to minimize spillage.*
 - (iv) Use of Close Feed system into batch reactors.*
 - (v) Venting equipment through vapour recovery system.*
 - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 0.75% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *Safety and visual reality training shall be provided to employees.*

- For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- Occupational health surveillance and urological assessment of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- Being a Pesticide manufacturing unit, no ground water shall be recharge. Harvested Rain water shall be collected in RCC tanks and shall be used for process requirements.
- 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.
- Mitigating measures suggested during process safety and risk assessment studies shall be carried out.

11.6 Amendment in EC

Agenda No. 11.6.1

Expansion of resins at Block No.1834/P1 & P2, ChikhliVansda Road, Opposite KhodiyarQuary, Taluka Chikhali, District Navasari (Gujarat) by M/s Windson Chemical Pvt. Ltd -For amendment in EC reg.

[IA/GJ/IND2/27574/2014, J-11011/103/2014-IA II (I)]

11.6.1.1 The proposal is for amendment in the environmental clearance granted by the Ministry vide letter dated 28th December, 2017 for Expansion of Resin manufacturing unit located at Block No.1834/P1 & P2, Chikhlivasda Road, Opp. Khodiyar Quarry, At & Po.: Alipore – 396409, Taluka: Chikhli, District: Navsari, Gujarat in favor of M/s. Windson Chemical Pvt. Ltd.

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

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised / read as	Justification / reasons
1	6 (page no. 2)para -1	Power requirement after expansion will be 600 KVA, proposed to be met from Dakshin Gujarat Vij Company Ltd. (DGVCL). Existing unit has one DG set of 250 KVA capacity. Two more DG sets of 250 KVA each shall be kept as standby during power failure. Stack (6 m) shall be provided as per	<ul style="list-style-type: none"> • Existing unit has one DG set of 250 KVA capacity which will be removed after proposed expansion. • Additionally one DG set of 350 KVA capacity, 2 DG set of 400 KVA capacity and 1 DG set of 620 KVA capacity shall be kept as standby during power failure. Stack (6 m) shall be provided as per CPCB norms to the each proposed DG set. 	During executing process; it comes to conclude that unit has to provide higher capacity of DG set to control process operation.

		CPCB norms to the proposed DG sets.		
6 (page no. 2)	Existing unit has 0.6 TPH bio-coal/agro waste fired boiler equipped with multicyclone separator with a stack of 30 m to control the particulate emissions within the statutory limit of 150 mg/Nm ³ . No additional boiler shall be used for the proposed expansion project.	<ul style="list-style-type: none"> Existing unit has 0.6 TPH bio-coal fired boiler equipped with multicyclone dust collector with a stack of 30 m to control the particulate emissions within the statutory limit of 150 mg/Nm³. One additional 1.5 TPH bio-coal fired boiler will be used for the proposed expansion project. It will be equipped with multicyclone dust collector with a stack of 30 m to control the particulate emissions within the statutory limit of 150 mg/Nm³. No additional fuel shall be used for the proposed expansion project. Additionally waste hydrogen gas fired Hot Air Generator with the capacity of 5 Lac Kcal/Hr., 7 Lac Kcal/Hr. and 9 Lac Kcal/Hr. will be equipped with a stack of 20 m to control air emissions. 	<p>During executing project ; it comes to know that steam requirement at first time is higher. So only 0.6 TPH Boiler is not adequate and unit will have to propose 1.5 TPH additional boiler to start up the process.</p> <p>Hot air generators have been described in EIA report but detailed capacities have not mentioned in EIA report.</p>	
6 (page no. 2)	--	<ul style="list-style-type: none"> Bag filter will be provided to spray dryer having capacity of 500 KG/Hr. and 700 Kg/Hr. & 1 bag filter will be provided to spray dryer having capacity of 1000 Kg/Hr. with each stack of 20 m to control the process emissions. Common bag filter will be provided with 2 nos. of Fluid bed dryer each of having capacity of 300 Kg/Hr. with a common 	<p>Spray Dryers with their air pollution control measures have been described in EIA report but detailed capacities have not mentioned in EIA report.</p>	

			<p>stack of 18 m to control the process emissions.</p> <ul style="list-style-type: none"> • Water Scrubber will be attached with Hexamine reactor with a stack of 6 m to control process emission - NH₃. • Common scrubber will be attached with reactor-1 (Para Formaldehyde concentrator), reactor-2 (Para Formaldehyde concentrator)& Adsorbing column (formaldehyde) with a stack of 6 m to control process emissions - Formaldehyde. 	<p>Water scrubbers and common scrubber have been described in EIA report but detailed capacities have not mentioned in EIA report.</p>
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11.6.1.2 *The EAC, after deliberations, observed that the project proponent wants to change the above mentioned para from the environmental clearance without changing any conditions mentioned therein.*

The EAC after *deliberations*, recommended for remove the above para from the environmental clearance dated 28th December, 2017, for which amendment has been sought.

Agenda No.11.6.2

Petroleum and petrochemical complex in multi products special Economic Zone in District in Jamnagar in Gujarat by M/s Reliance Sibur Elastomers Private Limited - Amendment in EC

[IA/GJ/IND2/110022/2019, J 11011/149/2007 IA II(I)]

11.6.2.1 *Member Secretary was not present during appraisal of the proposal due to other important assignment in the office.*

11.6.2.2 The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 30th March, 2010 in favour of M/s Reliance Infrastructure Limited to the project for Petrochemicals plant located at Jamnagar. The said EC was later transferred to Reliance Industries Limited vide letter dated 18th October, 2011. The Ministry has further granted validity extension till 30th March, 2020 vide letter dated 14th May, 2015.

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

The unit for elastomers, already approved as a unit manufacturing C4/C5 chemicals in the original EC, is aimed at manufacturing various butyl-based rubbers including halogenated rubbers. The project is one of its kind with an aim to produce these products for the first time in the country. This project is proposed to be implemented as a Joint Venture with PJSC Sibur Holding, Russia having a stake in the project. Thus, for administrative and commercial reasons the project needs to be implemented in the name of "Reliance Sibur Elastomers Private Limited (RSEPL)".

The transfer of the unit to this name will be required to produce the Elastomers, Butyl and Halo-butyl rubber, at a capacity of 0.18 MMTPA.

“Reliance Sibur Elastomers Private Limited” will remain bound to comply with all the applicable conditions prescribed in the environmental clearance.

Environmental clearance is sought in the name of Reliance Sibur Elastomers Private Limited (RSEPL) for production of Elastomers (Butyl and Halo Butyl Rubbers), by separating the above EC in two ECs, while maintaining the remainder of the original EC, for other products intact.

The details of products and capacity as under:

S. No.	Product Details	Capacity	Total
1	Butyl Rubber	120 KTA	120 KTA
2	Halo butyl Rubber	60 KTA	60 KTA
Total			180 KTA

11.6.2.4 *The EAC, after deliberations, was agreed in-principle to the proposal for separation of Elastomers (Butyl and Halo Butyl Rubbers) unit from the ECs dated 30th March, 2010 in the name of M/s Reliance Sibur Elastomers Private Limited for production of Butyl Rubber @ 120 KTA and Halo butyl Rubber @ 60 KTA. The committee also suggested to submit the project details including total plot area, utilities, water consumption, waste water management, storage for products and raw materials) and other environmental parameters. The Committee desired that the Ministry may ensure other administrative requirements (like Certificate of Incorporation) for separation of any product from the EC.*

Agenda No.11.6.3

Integrated Project consisting of PVC Plant, PMB Plant, Gas Storage Terminal, LPG Bottling Plant, Gas Based Captive Power Plant, Sea Water Desalination Plant (RO process) for captive consumption by M/s Veritas Polychem Pvt Ltd- Amendment of ToR

[IA/MH/IND2/80916/2018, J-11011/305/2018-IA-II(I)]

11.6.3.1 The project proponent did not attend the meeting. The project proponent vide email dated 23rd August, 2019 has informed that they have submitted request to delist the present proposal as they have obtained a fresh ToR.

Agenda No.11.6.4

Expansion of manufacturing capacity of Glucosamine Hydrochloride molecule from 30 TPM to 186 TPM at Door No.40-25-35/1, Opposite Kesava Towers, Patamatalanka, Asramam street, Vijayawada (Andhra Pradesh) by M/s Andhra Medi Pharma India Pvt Ltd- For Amendment of ToR

[IA/AP/IND2/104506/2019, J-11011/05/2010-IA II (I)]

11.6.4.1 The project proponent vide email dated 28th August, 2019 has informed their inability to attend the meeting due to family emergency and requested to postponed the meeting.

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

S. No.	Name	Designation
1.	Dr. J. P. Gupta	Chairman
2.	Shri R K Singh	Member
3.	Dr. Y.V. Rami Reddy	Member
4.	Dr Tudi Indrasen Reddy	Member
5.	Dr J S Sharma	Member
6.	Shri Dinabandhu Gouda	Member
7.	Dr T K Joshi	Member
8.	Dr Ajay Gairola	Member
9.	Shri S C Mann	Member
10.	Shri Ashok Agarwal	Member
11.	Shri S.K. Srivastava	Member Secretary