Minutes of the 37th Expert Appraisal Committee (Industry-2) Meeting held during 29-31 May, 2018 at Indira Paryavaran Bhawan, Jor Bagh Road, Ministry of Environment, Forest and Climate Change, New Delhi - 3

29th May 2018 (Day 1)

37.1 Opening Remarks by the Chairman

37.2 Confirmation of minutes of the 36th meeting of the EAC (Industry-2) held on 24-26 April, 2018 at Indira Paryavaran Bhawan, New Delhi.

The EAC, having taken note that no comments were offered on the minutes of its 36th meeting held on 24-26 April, 2018 at New Delhi, confirmed the same.

37.3 Environmental Clearance

Agenda No.37.3.1

Expansion of specialty chemicals in existing unit of M/s Paushak Ltd at Plot No. 135, 136, 145, 146, 147, 229 & 230, Village Panelav, PO Tajpura, Taluka Halol, District Panchmahal (Gujarat)

[IA/GJ/IND2/60354/2016, IA-J-11011/19/2017-IA-II(I)]

37.3.1.1 The project proponent and accredited consultant M/s Aqua-Air Environmental Engineers Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for proposed expansion of Specialty Chemicals at 898 MT/Month to 2490 MT/Month by M/s Paushak Ltd. and located at Plot No. 135, 136, 145, 146, 147, 229 & 230, Village Panelav, PO Tajpura, Taluka Halol, District Panchmahal (Gujarat).

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 20th EAC meeting held during 27th - 28th February 2017 and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/19/2017-IA. II (I) dated 26th May, 2017

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

(iv) Ministry has issued EC earlier vide letter no. J-11011/19/2010-IA II(I) dated 06th February 2013 for Expansion of Specialty Chemicals to M/s Paushak Ltd.

(v) Existing land area is 59,554 m^2, additional 59,554 m^2 land will be used for proposed expansion. Industry is already developed greenbelt in an area of 33% i.e., 65308.9 (54.8%) m^2 out of 119108 m^2 of area of the project. The estimated project cost is Rs.75.5 crores including existing investment of Rs.5.5 crores. Total estimated project cost is Rs.70 crores for expansion Project. Total capital cost earmarked towards environmental pollution control measures is Rs.10 crores and the recurring cost (operation and maintenance) will be about Rs.1.10 Crores per annum.

(vi) Total Employment will be 260 persons (Existing – 230 + Additional – 30) as direct & indirect after expansion. Industry proposes to allocate Rs.20 Crores (approx.) in next 5 years @ 5/2.5 % (5.7%) towards Corporate Social Responsibility. As per Form-1, there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.

(vii) Ambient air quality monitoring was carried out at 12 locations during March, 2017 to May, 2017 and submitted baseline data indicates that ranges of concentrations of PM_{10} (70.65-81.60 $\mu g/m^3$), $PM_{2.5}$ (41.96-54.78 $\mu g/m^3$), SO_2 (12.16-21.73 $\mu g/m^3$) and NO_2 (10.23-18.06 $\mu g/m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.06 $\mu g/m^3$, 0.11 $\mu g/m^3$ and 0.04 $\mu g/m^3$ with respect to PM_{10}, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) Total water requirement is 344 m^3/day (Existing: 144 m^3/day + Additional: 200 m^3/day) of which fresh water requirement of 344 m^3/day and will be met from Ground Water Supply.

(ix) Treated effluent of 245 m^3/day (Industrial: 185 KL/Day + Domestic: 60 KL/Day). Industrial wastewater generation will be 185 KL/Day (Existing: 65 KL/Day + Additional: 120 KL/Day) which shall be treated in ETP and Final treated effluent shall be disposed to CETP of M/s Enviro Infrastructure Co. Ltd., Umaraya, District Vadodara. Domestic wastewater generation will be 60 KL/Day (Existing: 30 KL/Day + Additional: 30 KL/Day) which shall be treated in own STP and then shall be used for land irrigation.

(x) Power requirement after expansion will be 3000 KW including existing 1200 KW and will be met from MGVCL. State power distribution corporation limited (SPDCL). Existing unit has 3 Nos. DG sets of 620 KVA, 325 KVA & 125 KVA capacity, additionally 1 Nos. DG Sets of Capacity 1000 KVA are used as standby during power failure. Stack (height 15 m) will be provided as per CPCB norms to the proposed DG sets of 1000 KVA in addition to the existing DG sets of 620 KVA, 325 KVA & 125 KVA which will be used as standby during power failure.

(xi) Existing unit has 1 Nos. of 3 TPH & 1 Nos. of 10 TPH (Proposed) Coal fired boiler will be installed. DG Sets – 4 Nos (Existing (625 KVA, 320 KVA, 125 KVA) & Proposed (1000 KVA)) & Process Vents (2 Nos.). Final Caustic Scrubber & Central Scrubber (Alkali Scrubber). Adequate Stack Height & Electro Static Precipitator, Bag Filter, Silencer & Caustic Scrubber with a stack of height of 60 m will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm^3) for Proposed 10 TPH --- fired boilers respectively.

(xii) Details of Process emissions generation and its management.

DETAILS OF STACKS & VENTS (Existing):

S. No.	Source of Emission	Stack Height (meter)	Stack Diameter (meter)	Pollution Control Equipment	Air Pollutant	Concentration
1	3 TPH Boiler	30	1	Bag Filter	SPM	< 150 mg/Nm^3
					SO_2	< 100 ppm
					NOx	< 50 ppm
2	Final Caustic Scrubber	15	0.4	Caustic	Phosgene	---

				Scrubber	HCl	20 mg/ Nm^3
	Central Scrubber (Alkali Scrubber)				Cl_2	9 mg/ Nm^3
3	DG Set – 625 KVA (Stand by)	10	0.3	Silencer	SPM SO_2 NOx	< 150 mg/ Nm^3 < 100 ppm < 50 ppm
	DG Set – 320 KVA (Stand by)					
4	DG Set – 125 KVA (Stand by)	5	0.1	Silencer		

DETAILS OF STACKS & VENTS (Total Proposed):

Sr. No.	Source of Emission	Stack Height (meter)	Stack Diameter (meter)	Pollution Control Equipment	Air Pollutant	Concentration
1	10 TPH Boiler	60	1	Electro Static Precipitator (ESP)	SPM	< 150 mg/ Nm^3
					SO_2	< 100 ppm
					NOx	< 50 ppm
2	3 TPH Boiler (Stand by)	30	1	Bag Filter	SPM	< 150 mg/ Nm^3
					SO_2	< 100 ppm
					NOx	< 50 ppm
3	Final Caustic Scrubber	15	0.4	Caustic Scrubber	Phosgene	---
					HCl	20 mg/ Nm^3
	Central Scrubber (Alkali Scrubber)				Cl_2	9 mg/ Nm^3
4	DG Set – 320 KVA (Stand by)	10	0.3	Silencer	SPM SO_2 NOx	< 150 mg/ Nm^3 < 100 ppm < 50 ppm
	DG Set – 625 KVA (Stand by)					
5	DG Set – 125 KVA (Stand by)	5	0.1	Silencer		
6	DG Set - 1000 KVA (Stand by)	15	0.3	Silencer		

(xiii) Details of Solid waste/ Hazardous waste generation and its management.

In Existing as well as Proposed Scenario, Hazardous waste generation is Used Oil @ 2 MT/Yr is Collected, Stored, Transported, and Disposed by Selling to Registered Refiner. ETP Sludge @ 150 MT/Yr, MEE Salt @ 250 MT/Y is Collected, Stored, Transported, Disposed at TSDF of NECL, Nandesari. Discarded Container (Drums / Bags) @ 1,500 Nos. /Yr & 24,000 Nos. /Yr is Collected, Stored, Transported & given to registered vendors. Spent Carbon @ 5 MT/Yr, Residue & Waste (from VCF Process) @ 20 MT/Yr, Distillation Residue @ 60 MT/Yr & Distillation Residue (from contaminated organic solvents) @ 135 MT/Yr is Collected, Stored, Transported, given for co-processing in cement industries/RSPL, Panoli or disposal at CHWIF of NECL, Nandesari. Toxic Metal residue (from water purification plant) @ 10 MT/Yr is Collected, Stored, Transported,

Disposed at TSDF of NECL, Nandesari/RSPL, Panoli. Hydrochloric Acid (30 %) @ 1500 MT/M, FeCl2 @ 18 MT/M, Recovered Mercury @ 7.2 MT/M & Recovered Mercury Chloride @ 7.2 MT/M is Collected, Stored, Transported & Sold to authorized end users.

(xiv) Public Hearing for the proposed expansion project has been conducted by the State Pollution Control Board on 16th February, 2018. The main issues raised during the public hearing are related to Local Employment.

(xv) Certified Compliance Report was given by RO, MoEF&CC Bhopal on 09th November, 2017.

(xvi) Following are the list of existing and proposed products:

S. No.	Product	Quantity (MT/Month)			CAS No.	LD_{50}	LC_{50}
		Existing	Additional	Total		mg/kg	ppm
1	**Phosgene**	400	800	1200	75-44-5	--	96
2	**3,4,4 – Trichlorocarbanilide**	50	-50	0	101-20-2	>34600	--
3	**Carbamyl Chloride**	40	-12	28	--	--	--
	Dimethyl Carbamoyl Chloride				79-44-7	1000	180
	Diphenyl Carbamoyl Chloride				83-01-2	1500	
	Diethyl Carbamoyl Chloride				88-10-8	750	
	N Ethyl N Methyl Carbamoyl Chloride				42252-34-6	--	--
	N Methyl Piperazine Carbamoyl Chloride				55112-42-0	--	--
	N, N Bis 2 Chloroethyl Carbamoyl Chloride				2998-56-3		>1540
	Morpholine Carbamoyl Chloride				15159-40-7	--	--
	Any Other Carbamoyl Chloride				--	--	--
4	**Chloroformates**	250	150	400	--	--	--
	Benzyl Chloroformate				501-53-1	3000	590
	Isobutyl Chloroformate				543-27-1	--	--
	N Pentyl Chloroformate				638-41-5	--	--
	N Hexyl Chloroformate				6092-54-2	--	--
	Phenyl Chloroformate				1885-14-9	44	800
	Methyl Chloroformate				79-22-1	40	0.06
	2 Ethyl Hexyl Chloroformate				24468-13-1	--	--
	Cetyl Chloroformate				26272-90-2	--	--
	Myristyl Chloroformate				56677-60-2	5000	--
	Tert-Butyl Cyclohexyl Chloroformate				42125-46-2	2000	0.72

S. No.	Product	Quantity (MT/Month)			CAS No.	LD_{50}	LC_{50}
		Existing	Additional	Total		mg/kg	ppm
	Sec Butyl Chloroformate				17462-58-7	--	--
	1 Chloro2 Methyl Propyl Chloroformate				92600-11-8	--	--
	Propyl Chloroformate				109-61-5	650	--
	Isopropyl Chloroformate				543-27-1	--	--
	Ethyl Chloroformate				541-41-3	270	0.64
	Any Other Chloroformates				--	--	--
5	**Vinyl Chloroformates**	1	0	1	5130-24-5	--	--
	Isopropenyl chloroformate						
6	**4 Nitrophenyl Chloroformate**	10	-5	5	7693-46-1	--	--
7	**Urea**	10	190	200	--	--	--
	Diuron				330-54-1	1017	5.05
	3,4,4 Trichloro Carbanilide				101-20-2	>34600	--
	1,3 Diethyl Urea				96-31-1	4000	--
	Tetramethyl Urea				632-22-4	794	--
	Tetrabutyl Urea				4559-86-8	1700	700
	Any Other Urea				--	--	--
8	**Isocyanates**	50	250	300	--	--	--
	Trans 4 Methyl Cyclohexyl Isocyanate				32175-00-1	--	--
	2 Phenyl Ethyl Isocyanate				1943-82-4	--	--
	Cyclohexyl Isocyanate				3173-53-3	13	--
	2 Chloroethyl Isocyanate				1943-83-5	--	--
	Isopropyl Isocyanate (75% in Toluene)				1795-48-8	--	--
	4 Chloro -3 - (Trifluoromethyl) Phenyl Isocyanate				16588-69-5	--	--
	Phenyl Isocyanate				103-71-9	800	0.02
	Tert Butyl Isocyanate				1609-86-5	360	0.06
	3,4 Dichlorophenyl Isocyanate				102-36-3	91	2.7
	3,5 Dichlorophenyl Isocyanate				34893-92-0	7000	--
	4 Chloro Phenyl Isocyanate				104-12-1	138	0.11
	P - Toluene Sulfonyl Isocyanate				4083-64-1	2234	--
	Stearyl Isocyanate				112-96-9	100	--
	3 Chlorophenyl				2909-38-8	4200	--

S. No.	Product	Quantity (MT/Month)			CAS No.	LD_{50}	LC_{50}
		Existing	Additional	Total		mg/kg	ppm
	Isocyanate						
	4 Isobutoxybenzyl Isocyanate						
	Any Other Isocyanate				--	--	--
9	**Carbonates**	20	20	40	--	--	--
	Chloromethyl Isopropyl Carbonate				35180-01-9	--	--
	Bis 4 Nitro Phenyl Carbonate				5070-13-3	--	--
	4,5-Dimethyl-1,3-Dioxolen-2-One				37830-90-3	--	--
	4-Chloromethyl-5-Methyl-1,3-Dioxol-2-One				80841-78-7	--	--
	4-(Hydroxy Methyl)-5-Methyl-1,3-Dioxol-2-One				91526-18-0	--	--
	2-Methyl Cryloxy Ethyl Vinyl Carbonate				145497-35-4	--	--
	Dimethyl Carbonate				616-38-6	5000	5.36
	Diphenyl Carbonate				102-09-0	1500	--
	Any Other Carbonate				--	--	--
10	**Benzimidazol**	2	-2	0	--	--	--
	2 Benzimidazol				51-17-2	2910	--
	Any Other Benzimidazol				--	--	--
11	**Forskoline Carbonate**	0.5	-0.5	0	81826-81-5	--	--
12	**Chlorides/Acid Chlorides**	22.5	17.5	40	--	--	--
	3 Chloropropionyl Chloride - 3 CPC				625-36-5	1200	1
	Isobutyryl Chloride				79-30-1	--	--
	5 - Chlorovaleroyl Chloride				1575-61-7	320	--
	Pivaloyl Chloride				3282-30-2	638	1.4
	Chloroacetyl Chloride				79-04-9	220	660
	Other Chlorides/Acid Chlorides				--	--	--
13	**Carbamates**	22.5	17.5	40	--	--	--
	N Butyl Propargyl Carbamate				76114-73-3	--	--
	2-Methyl-2-Propyl-1,3-Propanediol Dichlocarbamate (90% in Toluene)				80471-57-4	--	--
	Benzyl Carbamate				621-84-1	--	--
	3 Iodo 2 Propynyl N Butyl				55406-53-6	--	--

S. No.	Product	Quantity (MT/Month)			CAS No.	LD_{50}	LC_{50}
		Existing	Additional	Total		mg/kg	ppm
	Carbamate						
	Other Carbamates				--	--	--
14	**Carbodiimides**	10	-5	5	--	--	--
	Dicyclohexyl Carbodiimide - DCC				538-75-0	400	0.16
	Other Carbodiimides				--	--	--
15	**Protected Amino Acids**	3	-3	0	--	--	--
	CBZ Valine				1149-26-4	--	--
	Other Amino Acids				--	--	--
16	**Nitriles**	5	-4	1	--	--	--
	Ethyl 2-(Hydroxylmino) Cyanoacetate				3849-21-6	--	--
	Acetonitrile				75-05-8	1320	3587
	2 Cyano Phenol				611-20-1	--	--
	Other Nitriles				--	--	--
17	**FTMA**	1	-1	0	535-52-4	--	--
18	**Polymers**	0.5	0.5	1	--	--	--
	Polyquat				75345-27-6	--	--
	Other Polymers				--	--	--
19	**Thiadiazole**	0	20	20	--	--	--
	5-Methoxy-1, 3, 4-Thiadiazol-2(3H)-One				17605-27-5	--	--
20	**Esters**	0	209	209	--	--	--
	Methyl 3-Aminocrotonate				14205-39-1	1760	0.02
	Phenyl Benzoate				93-99-2	1225	--
	Ethylene Glycol Dibenzoate				120-55-8	4190	200
	Benzyl Carbazate				5331-43-1	--	--
	Tert Butyl Carbazate				870-46-2	--	--
Total		**898**	**1592**	**2490**			

By-Products List

S.No	By-Product	Quantity (MT/Month)			CAS No.	LD_{50} mg/kg	LC_{50} Ppm
		Existing	Additional	Total			
1	Hydrochloric Acid (30 %)	500	1000	1500	7647-01-0	--	--
2	$FeCl_2$	6	12	18	7705-08-0	1300	--
3	Recovered Mercury	3.6	3.6	7.2	7439-97-6	--	0.03
4	Recovered Mercury Chloride	3.6	3.6	7.2	7487-94-7	--	--
Total		**513.2**	**1019.2**	**1532.4**			

37.3.1.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the expansion project of specialty chemicals of capacity from 898 TPM to 2490 TPM by M/s Paushak Ltd in a total area of 119108 sqm at Plot No. 135, 136, 145, 146, 147, 229 & 230, Village Panelav, PO Tajpura, Taluka Halol, District Panchmahal (Gujarat). These chemicals are to be used as intermediates for manufacturing agrochemicals and pharmaceuticals.

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

The ToR for the project was granted on 26th May, 2017. Public hearing was conducted by the SPCB on 16th February, 2018.

Total fresh water requirement is estimated to be 344 cum/day (Existing - 144 cum/day, Additional - 200 m^3/day) to be met from the ground water. The necessary permission for abstraction of 144 cum/day from the CGWA has been obtained vide letter 14th January, 2011. It was informed that the application for additional abstraction of 200 cum/day has been applied vide letter date 9th September, 2017.

Treated effluent generated is estimated to be 245 KLD (industrial: 185 KLD + domestic: 60 KLD). Industrial wastewater of 185 KLD (existing: 65 KLD + additional: 120 KLD) shall be treated in ETP and treated effluent shall be disposed to CETP of M/s Enviro Infrastructure Co Ltd. Umaraya, District Vadodara. However, the Committee desired the project proponent to adopt Zero Liquid Discharge once the expansion becomes operational and accordingly the same was accepted by the project proponent by installing appropriate effluent treatment units such as RO, MEE, boiler etc.

Ministry had earlier issued EC vide letter dated 6th February, 2013 for expansion of Specialty Chemicals from 216.5 TPM to 898 TPM to in favour of M/s Paushak Ltd. The monitoring report on compliance status of EC conditions forwarded by the Regional Office at Bhopal vide their letter dated 9th November, 2017, was found to be satisfactory.

Consent to Operate for the present capacity of 898 TPM has been obtained from the State PCB vide letter dated 13th August, 2014, which is presently valid up to 17th June, 2019

37.3.1.3 *The EAC, after deliberations, insisted for more inputs and clarifications in respect of the following:-*

- *Categorization of project under the EIA Notification, 2006, item 5(b) and/or 5(f),*
- *Revised layout plan for proper demarcation of green belt 10 m width,*
- *Revised water balance for the unit conforming to Zero Liquid Discharge after the proposed expansion,*
- *Revised product list to ensure uniformity/consistency with the ToRs issued vide letter dated 26th May, 2017,*
- *Justification for several expansions during the period 2006 and 2013 as observed by the Regional Office of the Ministry vide their monitoring report dated 9th November, 2017,*
- *Proper explanation to be provided for the accident happened in 2015-2016 and necessary action/precautions taken by the project proponent.*

The proposal was, therefore, deferred for the needful on the above lines.

Agenda No.37.3.2

Manufacturing of Pesticides and Pesticide Specific Intermediates & Synthetic Organic Chemicals by M/s Sandhya Organic Chemicals Pvt Ltd at Plot No.1249 & 1250, GIDC, Sarigam, Taluka Umbergaon, District Valsad (Gujarat)

[IA/GJ/IND2/61613/2017, IA-J-11011/12/2017-IA-II(I)]

37.3.2.1 The project proponent and the accredited Consultant M/s Precitech Laboratories Pvt Ltd made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project for Manufacturing of Pesticides and Pesticide Specific Intermediates & Synthetic Organic Chemicals by M/s Sandhya Organic Chemicals Pvt Ltd at Plot No. 1249 & 1250, GIDC, Sarigam Taluka Umbergaon, District Valsad (Gujarat)

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 20th meeting held during 27th – 28th February 2017 and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/12/2017-IA-II(I) dated 26th May 2017

(iii) All Pesticides and Pesticides specific intermediates are listed at S.N. 5(b) and synthetic organic chemicals are listed at S.N. 5(f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and Category 'B' respectively. The current project contains a Cat 'A' project and hence appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) The proposed project is a new project and the total area of the project will be 8640 m^2. Industry will develop greenbelt in an area of 30% i.e., 2600 m^2 out of total area of the project. The estimated project cost is Rs.18.85 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.3.95 crores and the recurring cost (operation and maintenance) will be about Rs.0.3460 crores per annum.

(v) Total Employment will be 91 persons as direct for proposed new project. Industry proposes to allocate Rs.92.25 lakhs @ 5% towards Corporate Social Responsibility. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. Darotha river is flowing at 3.57 km in the East.

(vi) Ambient air quality monitoring was carried out at 8 locations during March 2017 to May 2017 and the baseline data indicates the ranges of concentrations as: PM_{10} (47-89 µg/m^3), $PM_{2.5}$ (15-43 µg/m^3), SO_2 (9-25 µg/m^3), NO_2 (13-29 µg/m^3), NH_3 (10 µg/m^3), HCl (<5 µg/m^3), CO (0.48-1.23 mg/m^3) and TVOC (as isobutylene) (0.009-0.053 mg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.43 µg/m^3, 7.45 µg/m^3 and 16.5 µg/m^3, 1.04 µg/m^3 and 1.86 µg/m^3 with respect to PM_{10}, SO_x, NO_x, HCl and NH_3. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(vii) Total water requirement will be 176 m^3/day of which fresh water requirement of 106.40 m^3/day will be met from GIDC water supply department. Effluent of 60 m^3/day quantity will be

treated through primary, secondary and tertiary treatment facilities followed by RO and MEE. The plant will be based on Zero Liquid discharge system

(viii) Power requirement for proposed project will be 500 kVA and will be met from Dakshin Gujarat Vij Co. Ltd. DG set of 500 kVA capacity will be installed as standby during power failure. Stack (Height: 15 m) will be provided as per CPCB norms to the proposed DG set.

(ix) Two no. of steam boilers having capacities 3000 kg/h and 5000 kg/h respectively will be installed. Two no. of thermic fluid heaters having capacities 6 lakh kCal/h and 2 lakh kCal/h respectively will be installed. Natural gas will be used as fuel in boilers and thermic fluid heaters. Common stack (Height: 15 m) will be provided to boilers and thermic fluid heaters.

(x) Details of Process emissions generation and its management.

- Two stage scrubbing system will be provided to control the process emissions of ammonia gas during manufacturing of Tri Methyl Phosphate (TMP) & Tri Ethyl Phosphite (TEP) and the scrubbing solution will be recycled back to the process. A carbon trap will also be provided on the TMP/ TEP plant.
- A water scrubber will also be provided in the storage area to check emissions from ammonia storage bullet.
- A Common two stage venturi scrubber will be provided to the reactor vent to control the emissions of Hydrogen chloride gas during manufacturing of Organic Phosphites & Phosphates and check the emissions from HCl storage tank. The scrubber solution will be sold as HCl (30%).
- The Methyl Chloride generated during manufacturing of DDVP will be burnt in incinerator. A venturi scrubber will be provided to the incinerator and the solution will be diverted to ETP.

(xi) Details of Solid waste/ Hazardous waste generation and its management

Solid wastes will be generated from process, effluent treatment system, maintenance of equipment and raw material consumption. Process Residue from Organic Phosphate plant and Spent Carbon will be sent to cement plants for co-incineration or will be sent to common incineration facility. Used oil will be sold to registered refiners or reused in plant as lubricant. ETP sludge & MEE/ATFD salt will be sent to TSDF. Discarded Containers will be sold to authorised re-conditioners**.**

(xii) As the project is located in the GIDC industrial estate of Sarigam, which was notified before 2006, Public Hearing is not applicable

(xiii) The details of products and capacity as under:

Table-A: Products requiring Environmental Clearance

S. No.	Product	Quantity (TPM)	Project or Activity as per Schedule I
1	Trimethyl Phosphite (TMP) and Triethyl Phosphite (TEP)	300	5(b) Pesticides specific intermediates
2	**TMP derivatives** Tri Decyl Phosphite (TDP), Tris Tridecyl Phosphite (TTDP), Tri Lauryl Phosphite (TLP), Tri-Iso Octyl Phosphite (TIOP)	200	5(b) Pesticides specific intermediates
3	Dichlorovos – Technical (Dimethyl 2, 2-	100	5(b) Pesticides

S. No.	Product	Quantity (TPM)	Project or Activity as per Schedule I
	Dichlorovinyl Phosphate)		
4	**Plastic and Paint Additives (Organic Phosphite)** (Tri Phenyl Phosphite, Diphenyl Isodecyl Phosphite, 2-Hexyl Diphenyl Phosphite, Phenyl Di-Isodecyl Phosphite, Tri Decyl Phosphite, Tri Trisdecyl Phosphite, TrisNonyl Phenyl Phosphite, Diphenyl Tridecyl Phosphite (DPTDP), Tetra Phenyl Dipropylene Glycol Phosphite (THOP), Poly (Dipropylene Glycol) Phenyl Phosphite (DHOP),4-4-Isoproplidine bis (Disodecyl Phenyl Phosphite)	300	5(f) Synthetic Organic Chemicals
5	**Organic Phosphates** Tri aryl and Alkyl Phosphate, Triphenyl Phosphate, Tributyl phosphate, Tricrisyl Phosphate, Cresyl Diphenyl Phosphate)	150	5(f) Synthetic Organic Chemicals
6	Methanol	30.54	5(f) Synthetic Organic Chemicals
7	Phenol	46	5(f) Synthetic Organic Chemicals
	Total	**1126.54**	

Table-B: By-Products which do not require Environmental Clearance

S. No.	By-Product	Quantity (TPM)
1	Dichlorovos Formulation	100
2	Ammonium Chloride crystal	434
3	HCl	414.90
	Total	**948.90**

37.3.2.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for manufacturing of Pesticides and Pesticide Specific Intermediates & Synthetic Organic Chemicals of total capacity 1126.54 TPM by M/s Sandhya Organic Chemicals Pvt Ltd in a total area of 8640 sqm at Plot No. 1249 & 1250, GIDC, Sarigam Taluka Umbergaon, District Valsad (Gujarat).

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

The ToR for the project was granted on 26th May 2017. Public hearing is exempted under the provisions as per Para 7 (i) III.Stage (3) (i) (b) of the EIA Notification, 2006, as plant is located in notified Industrial Estate.

Total water requirement is estimated to be 176 cum/day of which fresh water demand of 106.40 cum/day, is proposed to be met from GIDC water supply.

Total effluent generated from different industrial operations is estimated to be 60 cum/day and shall be treated primary, secondary and tertiary treatment facilities followed by RO and MEE. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

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 noted that earlier environmental clearance was obtained from SEIAA/SEAC Gujarat vide letter dated 30th July, 2016 in favour of M/s Sandhya Plasticizer & Chemicals for setting up synthetic organic chemical manufacturing unit. However, the project proponent informed that no CTE was obtained from GPCB and no construction/operation work has been carried out. In this regard, the project proponent has also submitted an affidavit/undertaking confirming the same.

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

- *Total production of pesticides shall include manufacturing at least 25% of bio-pesticides.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *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.*
- *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 106.4 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*

- *Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.*
- *The company shall undertake waste minimization measures as below:-*
  - *(i) Metering and control of quantities of active ingredients to minimize waste.*
  - *(ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - *(iii) Use of automated filling to minimize spillage.*
  - *(iv) Use of Close Feed system into batch reactors.*
  - *(v) Venting equipment through vapour recovery system.*
  - *(vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Transportation of raw materials/products should be carefully performed using GPS enabled vehicles.*
- *Continuous online (24X7) monitoring system for stack emissions and the effluent, shall be installed for measurement of flow/discharge and the pollutants concentration, and the emission and effluent monitoring data to be transmitted to the CPCB and SPCB server as per the directions of CPCB in this regard.*

Agenda No.37.3.3

Bulk drug manufacturing unit by M/s Sri Krishna Pharmaceuticals Limited at Plot. No. F-1 MIDC, Chincholi, Taluka Mohol, District Solapur (Maharashtra)

[IA/MH/IND2/59941/2016, J- 11011/343/2016-IA. II(I)]

37.3.3.1 The project proponent and the accredited consultant M/s Pridhvi Envirotech Private Limited, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for Proposed Bulk drugs manufacturing facility by M/s Sri Krishna Pharmaceuticals Limited at Plot No. F-1, MIDC, Chincholi (V), Mohol (Taluk), Solapur (D), Maharashtra.

(ii) The project proposal was granted Standard ToR issued automatically by system. The TOR has been issued by Ministry vide letter no. J- 11011/343/2016-IA II (I) dated 9th December 2016.

(iii) All products are listed at S.No 5 (f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Existing land area is 25.0 Acres. Industry will develop Greenbelt in an area of 36 % i.e., 9.0 acres out of 25.0 acres of area of the project. The estimated project cost is Rs. 125.0 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 8.0 crores and the recurring cost (operation and maintenance) will be about Rs. 165 lakhs per annum. Total Employment will be 150 persons as direct & 50 persons indirect for the proposed project. Industry proposes to allocate Rs. 68.0 lakhs @ 5/2.5 % towards Corporate Social Responsibility.

(v) As per Form-1 there is GIB Nanaj Sanctuary within in 10 km distance and there are no national parks, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10km distance. Sina river is located at 6.6 Km in SE from the site.

(vi) Ambient air quality monitoring was carried out at 8 locations during January to March 2017 and submitted baseline data indicates that ranges of concentration of PM_{10} (44.5-70.2 µg/m^3), $PM_{2.5}$ (17.3-37.4 µg/m^3), SO_2 (10.2-18.2 µg/m^3) and NO_2 (12-25.4 µg/m^3) respectively. AAQ modeling study for point source emissions indicated that the maximum incremental GLCs after the proposed project would be 0.521 µg/m^3, 1.680 µg/m^3 and 0.521 µg/m^3 with respect to PM10, Sox and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(vii) Total water requirement is 1430 m^3/day of which fresh water requirement of 766 m^3/day and will be met from MIDC Water Supply. Treated effluent of 664 KLD will be reused out of total effluent of 841 KLD which will be treated through Stripper, MEE and ATFD for high TDS Stream and Low TDS will be treated in Biological ETP followed by RO system. The plant will be based on Zero Liquid discharge system.

(viii) Power requirement for the proposed project will be 6000 HP and will be met from Maharashtra State Electricity Distribution company limited (MSEDCL). 2 X 1000 KVA DG Sets will

be used as standby during power failure. Stack (height 6.5 m) will be provided as per CPCB norms to the proposed DG set which will be used as standby during power failure.

(ix) 2 x 15 TPH coal fired boilers and 10 TPH Coal fired stand by boiler will be installed. Bag filter with a stack of height of 30 m will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm^3).

(x) Details of process emissions generation is 6473.2 kg/day which are scrubbed through double stage scrubbers.

S.No	Emissions	Qty Kg/day	Control system
1	Acetic acid	1349.9	Two Stage Scrubber
3	HCl	4279.4	
4	H_2	173.2	Safely let in to atmosphere
2	CO_2	670.7	
	Total	**6473.2**	

(xi) Details of solid waste/ Hazardous waste generation and its management - Total solid waste generation and disposal option is given in table below-

S.N	Type of waste	Schedule No.	Quantity in TPM	Disposal
	Hazardous waste			
1	ETP Sludge	34.3	30.0	CHWTSDF
2	MEE salts / ATFD salts and inorganic residue	34.3	2511.0	CHWTSDF
3	Spent carbon	28.2	47.5	CHWTSDF
4	Distillation bottom Residue/process sludge	20.3	412.4	Authorized cement Industries/ CHWTSDF
5	Spent solvents	28.5	52.0	CHWTSDF
6	Iron sludge	28.1	580.0	Authorized cement Industries
7	Waste oil	5.1	0.2	Authorized recyclers/ CHWTSDF
8	oil from process	5.1	10.0	Authorized recyclers/ CHWTSDF
9	E- Waste	-	0.240	Send to E- waste Recycler
10	Used Lead acid batteries	-	2 Nos.	Return to supplier for replacement in exchange
	Biodegradable waste			
1	ETP Bio sludge	-	12.9	Composting and used as manure for gardening
	Non Biodegradable waste			
1	Waste paper	-	100.0 Kgs/month	Sale

2	Corrugated boxes	-	500.0 Kgs/month	Sale
3	Broken glass	-	100.0 Kgs/month	Sale
4	Decontaminated used drums	-	100.0 Kgs/month	Sale
5	Decontaminated HDPE Bags	-	100.0 Kgs/month	Sale
6	Coal ash	-	428.0	Sale

(xii) Public Hearing for the proposed project is not applicable as the unit is located in Notified Industrial Estate.

(xiii) Following are the list of existing and proposed products:

S.No	Product	Capacity TPM	Capacity TPA	Product Description
1A	Paracetamol (starting from PNCB- 4 stages)	400.0	4800.0	Bulk Drug
1B	Paracetamol (starting from PAP- 2 stages)	1100.0	13200.0	Bulk Drug
2	Ibuprofen	500.0	6000.0	Bulk Drug
3	Metformin	500.0	6000.0	Bulk Drug
4	Domeperidone	15.0	180.0	Bulk Drug
5	Dextromethorphan hydrobromide	20.0	240.0	Bulk Drug
6	OMEGA 3	10.0	120.0	Bulk Drug
	Total	**2545.0**	**30540.0**	
	By Products			
1	Acetic acid	1788.0	21456.0	
2	Soap	40.0	480.0	

37.3.3.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project 'Bulk drug manufacturing unit' of total capacity 2545 TPM by M/s Sri Krishna Pharmaceuticals Limited in a total area of 25 acres at Plot. No. F-1 MIDC, Chincholi, Taluka Mohol, District Solapur (Maharashtra).

The project/activity is covered under category B of item 5(f) 'Synthetic organic chemicals industry' of Schedule of Environmental Impact Assessment (EIA) Notification, 2006, and requires appraisal at the State level by the concerned SEAC/SEIAA. However, applicability of general condition (GIB Nanaj Sanctuary within 5 km), the proposal was accepted and appraised at central level by the sectoral EAC in the Ministry.

The Standard ToR for the project was granted on 9th December 2016. Public hearing is exempted under the provisions as per Para 7(i) III. Stage III (3) (i) (b) of the EIA Notification, 2006, as plant is located in notified Industrial Estate.

Total water requirement is estimated to be 1430 m^3/day of which fresh water demand of 766 m^3/day shall be met from MIDC Water Supply. The project proponent has agreed to reduce the fresh water demand to 700 cum/day by installing induced draft cooling towers.

Total effluent of 841 cum/day shall be treated in Stripper, MEE and ATFD for high TDS Stream and Low TDS will be treated in Biological ETP followed by RO system. The treated water of 664 KLD shall be reused in the process. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

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.

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

- *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 implies 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.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *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.*
- *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 98% 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 700 cum/day* to be met from MIDC water 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.*
- *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 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 1.5% 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.*
- *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 and the effluent, shall be installed for measurement of flow/discharge and the pollutants concentration, and the emission and effluent monitoring data to be transmitted to the CPCB and SPCB server as per the directions of CPCB in this regard.*
- *The energy sources for lighting purposes shall preferably be LED based.*

Agenda No.37.3.4

Installation of facilities of BS VI MS/HSD (ISOM -1100 TMTPA Indmax GDS- 1150 TMTPA HGU – 2 x 60 TMTPA Kero HDS – 300 TMTPA DHDT revamp) at Paradip Refinery by M/s Indian Oil Corporation Limited at Abhaychandrapur, Jagatsinghapur (Orissa)

[IA/OR/IND2/63183/2017, IA-J-11011/121/2017-IA-II(I)]

37.3.4.1 The project proponent and accredited Consultant M/s Engineers India Limited made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for installation of Ethylene Recovery Unit (ERU), Mono Ethylene Glycol Unit (MEG) & BS-VI Facilities Projects at Paradip Refinery cum Petrochemical Complex by M/s Indian Oil Corporation Limited (IOCL) and located at village Abhayachandrapur, Kujang tehsil, District – Jagatsinghpur, Odisha.

(ii) The ERU & MEG project proposal was considered earlier by the Expert Appraisal Committee (Industry-2) in its 17th EAC meeting held during 26-29 December, 2016 and recommended Terms of References (TOR) for the Project vide Ministry's letter no. J-11011/344/2016-IA-II(I) dated 28th February, 2017. Subsequently, EAC(Industry-2) considered IOCL's proposal of setting up BS:VI MS/HSD facilities at Paradip Refinery in its 23rd meeting held during 3rd to 5th May, 2017 and issued amended TOR for the combined projects of MEG/ERU and BS-VI facilities at Paradip Refinery vide Ministry's letter no. J-11011/344/2016-IA-II(I) dated 30th May 2017.

(iii) All Petroleum Refinery projects are listed at S.N. 4(a) and Petrochemical complex projects under 5(c) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Ministry has issued EC earlier vide letter no. J-11011/70/2007-IA-II (I) dated 06.07.2007 for Grass root Refinery cum Petrochemical Complex of 15 MMTPA at Abhayachandrapur village, District Jagatsinghpur, Odisha by M/s Indian Oil Corporation Limited. Further extension of validity of EC was issued vide letter no. J-11011/395/2012-IA-II (I) dated 18.09.2014. Further, amendment to EC was issued vide letter no. J-11011/395/2012-IA-II (I) dated 06.01.2015 to include Rapid Rail loading system (RRLS) for Pet coke evacuation and minor revision in secondary unit capacities without affecting the product mix.

(v) Existing land area is 1194 Ha (Refinery cum Petrochemical area), additional no land will be required for proposed expansion.

(vi) Industry is already developed Greenbelt in an area of 250 ha out of 1194 ha area of the project. Additionally 53 Ha has been planted in Refinery Township, CISF Colony, Balia (Jagatsinghpur) and Kisanagar (Cuttack).

(vii) Total estimated project cost for installation of ERU and MEG units is Rs. 3752 crores and for BS-VI fuel quality project is Rs.4049 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.1.42 Crores and the Recurring cost (operation and maintenance) will be about Rs.0.35 crores per annum.

(viii) Employment (Indirect) during construction phase is estimated at 1500-2000 persons and Industry proposes to allocate Rs 19.5 crores towards Corporate Environment Responsibility.

(ix) It is reported that as per Form-1 no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Santra creek, one of the channels of Mahanadi River passes through the refinery cum petrochemical complex.

(x) Ambient air quality monitoring was carried out at 9 locations during March to May 2017 and submitted baseline data indicates that ranges of concentrations of PM_{10} (31.4-51.9 µg/m^3), PM2.5 (15.9–27.6 µg/m^3), SO_2 (12.5–20.6 µg/m^3) and NO_2 (15.1-23.4 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental resultant GLCs (including baseline concentration) after the proposed project would be 21.84 µg/m^3 and 28.53 µg/m^3 with respect to SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(xi) Additional water requirement for proposed project is 824 m^3/hr. Total water requirement will be 3861 m^3/ hr (Existing Complex + BS-VI Facilities & ERU/MEG Project) and will be met from existing raw water system from Mahanadi River Total allocated raw water quantity is 6014 m^3/hr from Mahanadi river.

(xii) Wastewater generation estimated at 52 m^3/hr will be treated in existing ETP Plant.

(xiii) Power requirement for the BS-VI & MEG/ERU projects at 56 MW will be met from existing CPP & State Grid.

(xiv) Emission release due to new units under BS-VI & ERU/MEG Projects have been estimated at 12.9 kg/hr. However, the total emission after proposed projects will be within 1000 Kg/hr (including MEG/ERU & BS VI project) as prescribed by MoEFCC.

(xv) Hazardous waste will be disposed off in secured landfill inside refinery/ nearby authorized landfill agency. Spent catalysts will be sent back to the original supplier/ approved recycler for reprocessing.

(xvi) Public Hearing was exempted as per provisions contained in clause no. 7(ii) of EIA Notification 2006.

(xvii) RO-MoEF certificate has been received from Eastern Regional Office, Bhubaneswar vide letter no.101-260/EPE dated 09.02.2018.

(xviii) The following proposed units are envisaged for BS-VI MS/HSD project and ERU/MEG petrochemical project

S.No.	Unit	Proposed capacity
1	Isomerization Unit (ISOM)	1100 TMTPA
2	Indmax Gasoline De-sulphurisation Unit	1150 TMTPA
3	Hydrogen Generation Unit (HGU)	2 X 60 TMTPA
4	Kero De-sulphurisation Unit	300 TMTPA
5	Diesel Hydro treating Unit (DHDT)	20% revamp
6	Mono-ethylene Glycol Unit (MEG)	332 KTA
7	Ethylene Recovery Unit (ERU)	180 KTA

Following are the list of existing units in Paradip Refinery cum Petrochemical Complex.

NAME OF EXISTING UNIT	INSTALLED CAPACITY
Crude/ Vacuum Distillation Unit	15.0 MMTPA
Delayed Coking Unit	4.1 MMTPA
Diesel Hydro treating Unit	5.2 MMTPA
VGO Hydro treatment Unit	5.4 MMTPA
Fluidised Catalytic Cracking Unit	4.2 MMTPA
Sulphur Recovery Unit	2 x 525 TPD+ 1 TGTU
Hydrogen Plant	72.8 TMTPA
Various Treating Units	
Alkylation Unit	650 TMTPA
Polypropylene Unit	2 x 340 TMTPA
Paraxylene Unit (Naphtha Hydro treating Unit, Continuous Catalytic Reformer, Reformate Splitter Unit (I & II)), Xylene Isomerisation Unit, Parex Unit, Sulfolane Extraction Unit, Benzene/ Toluene Fractionation Unit, Tatoray Unit (deferred)	1200 TMTPA of Paraxylene
Ethyl Benzene and Styrene Monomer Unit (deferred)	631 TMTPA
Captive power plant and cooling tower	GT with HRSG (3*102MW); STG(2*30MW); UB(4*300T/hr); Standby GT with HRSG of 1*30MW (366MW,1200TPH)
Details of the treating and other unit capacities	
LPG Treater	210 TMTPA
LPG Treater (Cracked LPG)	1850 TMTPA
LPG Treater (Coker LPG)	165 TMTPA
ATF (merox)	1200 TMTPA
SWS I + SWS II	227 + 398 =625 m3/hr
ARU – Rich amine circulation rate	1*454.6 +1*898.5 = 1353 m3/hr
Para – Xylene Unit	1200 TMTPA
Naphtha Hydro-treating Unit	3941 TMTPA
Continuous Catalytic Reformer	2990 TMTPA
Reformate Splitter Unit (I&II)	Part of Reformer 4246 TMTPA
Xylene Isomerization Unit (2 trains)	Isomerate 1200 PX
Parex Unit (2 trains)	963 TMTPA
Sulfonate Extraction Unit, Benzene/ Toluene fractionation Unit, Tatoray Unit	part of sulfolane Unit 2183 TMTPA
Pet coke Evacuation through Rapid Railway Loading System (RRLS).	1.3 MMTPA

Product yield pattern post BS VI/ERU/MEG projects is given below.

Streams	Pre BS VI (TMT)	Post BS VI/ERU/MEG (TMT)
CRUDE	15000	15000
LPG	896	932
Poly Propylene	678	678
Naphtha exports	215	0
EURO-IV MS	2076	0
EURO-VI MS	0	3260
Reformate	1235	96
SKO	312	312
ATF Domestic	463	463
EURO-IV HSD	5941	0
EURO-VI HSD	0	6017
Sulphur	349	350
Pet Coke	1262	1253
Fuel & Loss	1574	1641
MEG	-	332 KTA
DEG	-	24 KTA
TEG	-	1 KTA

37.3.4.2 During deliberations on the proposal, the EAC noted the following:

The proposal is for environmental clearance and CRZ clearance to the project 'Installation of Ethylene Recovery Unit (ERU), Mono Ethylene Glycol Unit (MEG) & BS-VI Facilities Projects at Paradip Refinery cum Petrochemical Complex by M/s Indian Oil Corporation Limited (IOCL) in a total area of 1194 ha at Village Abhayachandrapur, Tehsil Kujang, District Jagatsinghpur (Odisha).

The project/activity is covered under category A of item 4(a) 'Petroleum Refining Industry' and 5(c) 'Petrochemical complexes' of the Schedule to the Environmental Impact Assessment Notification, 2006, and requires appraisal at Central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 28th February, 2017 followed by amendment on 30th May 2017. Public hearing was exempted as per provisions under 7(ii) of the EIA Notification 2006.

Total water requirement is estimated to be 3861 cum/h (existing Complex + BS-VI Facilities & ERU/MEG Project). Additional water requirement for proposed project is 824 m^3/h and shall be met from existing raw water system - Mahanadi river. Total allocated raw water quantity is 6014 m^3/h from Mahanadi river.

Total effluent generated from different industrial operations is estimated to be 52 cum/h shall be treated in the existing Effluent Treatment Plant and 12 cum/h is proposed to be discharged into deep sea.

The Ministry had earlier issued EC vide letter dated 6th July, 2007 for Grass root Refinery cum Petrochemical Complex of 15 MMTPA at Abhayachandrapur village, District Jagatsinghpur, Odisha in favour of M/s Indian Oil Corporation Limited. Further extension of validity of said environmental

clearance was granted vide letter dated 18th September, 2014. Also, the said environmental clearance was amended vide letter dated 6th January, 2015 to include Rapid Rail loading system (RRLS) for Pet coke evacuation and minor revision in secondary unit capacities without affecting the product mix.

The monitoring report on compliance status of EC conditions forwarded by the Regional Office at Bhubaneswar vide their letter dated 9th February, 2018.

37.3.4.3 *The EAC, after deliberations, desired for more inputs and clarifications in respect of the following:-*

- *Proposal to be restructured to make it consistent with the items listed in the Schedule to the EIA Notification, 2006.*
- *Product list to be revised to ensure uniformity/consistency with the EIA Notification, 2006.*
- *Necessary documents/maps as per the requirements contained in the CRZ Notification, 2011 shall be submitted to the Ministry. In fact, these documents were to be submitted by the project proponent to the Odisha State CZMA for seeking their recommendations from CRZ perspective.*
- *Firm commitment from the concerned regulatory authority to meet the requirement of fresh water from Mahanadi river shall be submitted.*
- *Adequate justification for exemption from public hearing for the project.*

The proposal was, therefore, deferred for the needful on the above lines.

Agenda No.37.3.5

Expansion of additional storage tanks by M/s Indian Oil Corporation Limited at IOCL, Delhi Terminal, Bijwasan (New Delhi)

[IA/DL/IND2/64268/2017, IA-J-11011/255/2017-IA-II(I)]

37.3.5.1 The project proponent and the accredited Consultant M/s Eco Chem Sales & Services, made a detailed presentation on the salient features of the project are informed that:

(i) The proposal is for environmental clearance for expansion of Isolated storage terminal with additional two storage tanks for Ethanol (2000 KL capacity each) at IOCL- Delhi Terminal, Bijwasan, New Delhi – 110061 by M/s INDIAN OIL CORPORATION LIMITED

(ii) The project proposal to be considered by the Expert Appraisal Committee (Industry-2) in its 28th EAC meeting held during 18th - 20th September, 2017 and EAC issue Terms of References (ToR) for the Project on 25th September, 2017.

(iii) All Isolated Storage & Handling of Hazardous Chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000) projects are listed at S.N. 6(b) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'B'. In absence of State Expert Appraisal Committee, Delhi, case will be appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Existing land area is 287327 m^2, No additional land will be acquired for proposed expansion, as expansion is within the site. Industry has already developed Greenbelt in an area of 97231 m^2

(i.e. 33.84%) out of 287327 m^2 of area of the project. The estimated project cost is Rs.9.79 Cr. Details of capital cost earmarked towards environmental pollution control measures and the recurring cost (operation and maintenance) is 2.18 lakh.

(v) Total employment will remain same after propose expansion. During construction phase ~ 100 person will be required. Industry proposes to allocate INR 25 lakh (i.e. 2.5% of total project cost ~9.79 Crore) towards Corporate Social Responsibility. It is reported that as per Form-1, No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Sahibi river (Najafgarh drain) is flowing at 4.5 km in the West.

(vi) Ambient air quality monitoring was carried out at 8 Locations during 1st March 2017 to 31st May 2017 and submitted baseline data indicates that ranges of concentrations of PM_{10} (158.6 – 218.4 µg/m^3), $PM_{2.5}$ (83.7 – 128.1 µg/m^3), SO_2 (9.8 -17.6 µg/m^3) and NO_2 (20.6- 32.4 µg/m^3) respectively. Monitoring and analysis was also carried out for CO and Total HC. Result for the CO and Total HC was found well within the norms. The proposed expansion involves additional two tanks of Ethanol. There will not be any addition of stack. So there will not be any addition of pollutants in air hence, modeling is not essential

(vii) Total water requirement is 50 m^3/day and will be met from tankers. Water is required only for gardening and domestic purpose. No additional water required after proposed expansion.

(viii) It is a zero liquid discharge as the terminal is providing only storage and handling services, there will be no generation of industrial effluent. Domestic waste water of 20 m^3/day will be disposed off in soak pit through septic tank.

(ix) Power requirement for the terminal is 1.15 MW (Existing 1.15 MW + Proposed Nil) supplied by BSES (Bombay Suburban Electric Supply) through a 6.6/0.415 kV Transformer. As a backup plan during emergency, terminal equipped with 02 Nos. of 750 kVA & 01 No. of 500 kVA DG Sets. Stack (height 7 meters) is provided as per CPCB Norms to the existing DG Set of 2 x 750 kVA & 1 x 500 kVA. There is no additional power requirement for proposed expansion and additional DG Set will not be proposed.

(x) As the terminal is providing only storage and handling services, there is no generation of process emission.

(xi) Details of Solid waste/ Hazardous waste generation and its management.

S. No.	Hazardous Waste	Hazardous Waste Category	Quantity per Annum			Management
			Existing	Proposed	Total	
1	Used Oil	5.1	60 liters	0.00	60 liters	Disposed to authorized agency

(xii) Public hearing is exempted in terms of provision of the EIA Notification, 2006. The same is mentioned in ToR Letter.

(xii) Following are the list of existing and proposed products:

As the terminal is providing only storage and handling services, Details of storage & handling for existing and additional products / Hazardous chemicals are given as below:

Material	Existing		Additional		Total	
	Storage Capacity (KL)	No. of Storage Tanks	Storage Capacity (KL)	No. of Storage Tanks	Storage Capacity (KL)	No. of Storage Tanks
HSD	11000	1	-	-	42396	4
	13791	1	-	-		
	10805	1	-	-		
	6800	1	-	-		
MS	9163	1	-	-	31952	4
	8827	1	-	-		
	6981	2	-	-		
SKO	8385	2	-	-	13615	3
	5230	1	-	-		
LDO	5200	1	-	-	5200	1
ATF	16220	2	-	-	62072	6
	8655	1	-	-		
	7194	1	-	-		
	9783	1	-	-		
	4000	1	-	-		
EMPTY	180	2	-	-	360	2
93-OCTANE	180	1	-	-	180	1
ETHANOL	938	2	2000	2	5876	4
Total	**166036**	**23**	**4000**	**2**	**170036**	**25**

37.3.5.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the expansion project of Isolated storage terminal with additional two storage tanks for Ethanol (2000 KL capacity each) by M/s Indian Oil Corporation Limited at IOCL- Delhi Terminal, Bijwasan (New Delhi). Due to the proposed expansion, total storage capacity of the terminal (having 23 storage tanks) shall be increased from 166036 KL to 170036 KL.

The project/activity is covered under category B of item 6(b) 'Isolated Storage & Handling of Hazardous Chemicals' of Schedule of Environmental Impact Assessment (EIA) Notification, 2006, and requires appraisal at the State level by the concerned SEAC/SEIAA. However, due to non-existence of SEIAA in New Delhi, the proposal was accepted and appraised at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 25th September, 2017 and public hearing is exempted in terms of provision of the EIA Notification, 2006.

Total water requirement is estimated to be 50 m^3/day proposed to be met from tankers. Water is required only for gardening and domestic purpose. No additional water required after proposed expansion.

There will be no discharge of treated/untreated waste water from the unit, as the terminal is providing only storage and handling services and thus conforming to Zero Liquid Discharge.

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.

IOCL, Delhi Terminal was established in the year 1982 prior to the EIA Notification 2006. Hence there is no requirement of prior environment clearance.

Consent to Operate for the present capacity has been obtained from the State PCB, which is presently valid up to 6th May, 2018. The unit has applied for renewal of the same.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *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.*
- *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.*
- *The green belt of 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 and in consultation with the State Forest Department.*
- *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.*
- *Regular monitoring of VOC and HC in the work zone area in the plant premises should be carried out and data to be submitted to Ministry's Regional Office, CPCB and State Pollution Control Board. Quarterly monitoring for fugitive emissions should be carried out as per the guidelines of CPCB and reports submitted to Ministry's Regional Office.*
- *The project proponent shall conduct a traffic density survey on the approach road to be used for transportation of LPG tankers and LPG cylinders.*
- *Necessary approvals from Chief Controller of Explosives, as applicable, shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented.*
- *Emergency Response Plan should be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once a month.*
- *Additional safety measures should be taken by using remote operated shut off valve, Double Block &Bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe, if applicable.*

- *Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.*
- *The norms/guidelines of Oil Industry Safety Directorate (OISD) for installation and design of equipment and operation of the LPG Bottling Plants shall be strictly followed. Safety audit to be carried out and report submitted to the Regional Office.*
- *No packing/loading/unloading of LPG cylinders shall be made on road/outside factory premises. Vehicles loaded/unloaded with LPG cylinders shall be parked inside the plant premises only and not on road sides.*
- *Road tankers should be equipped to the standard specified in national regulations reputable code. Vehicles should be mobilized during transfer operations and equipped to prevent untimely movement. Loading/unloading bays should be protected against impact. Fire-resistant coatings shall be provided to tanks/vessels.*
- *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.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *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.*

Agenda No.37.3.6

Development Plan by M/s ONGCL-CIL Consortium of Raniganj North CBM block in West Bengal

[IA/WB/IND/21531/2013, J-11011/374/2013-IA-II (I)]

37.3.6.1 The project proponent and the accredited Consultant M/s Arcadis India Pvt Ltd made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project CBM Development Activities At Raniganj CBM Block (North), West Bengal Project by M/s by M/s ONGCL-CIL Consortium

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its14th meeting held during 19-20 December 2013 and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/374/2013- IA II (I); dated 5th March 2014 and duly extended on 20th July 2017 vide letter No. F. No. J-11011/374/2013- IA II (I)

(iii) All the projects related to offshore and onshore Oil and Gas Exploration, Development and Production are listed at S.N. para 1(b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Existing land area is 311780000 m^2. Industry will develop greenbelt which has been planned around the drill site and gas collection stations in an area of 33 % i.e., 102887400 m^2 out of total area of the project. The estimated project cost is Rs.957 crores. Total capital cost earmarked for

pollution control measures is Rs.278.6 lakhs and the recurring cost (operation and maintenance) will be about Rs 92.8 Lakhs per annum.

(v) Total Employment will be 870 Persons (Permanent employment during construction: 240, Permanent employment during operation: 240, Temporary employment during construction: 150, Temporary employment during operation: 240; contractual workers both unskilled and semiskilled will be deployed for site preparation and laying of gas pipelines. During development well drilling and coal seam perforation & hydro-fracturing it is estimated that 45 nos. and 20 nos. workers will be deployed onsite respectively on 12 hour shift basis with each drilling rig. Further approx. 175 nos. security personnel will be deployed along with supported by 240 nos. office and logistic personnel) as direct. Industry proposes to allocate (2% of profit) @ of 5/2.5 % towards Corporate Social Responsibility.

(vii) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Damodar from north west to south east direction (a stretch of 10km of Damodar river flows through Sector B) and the Ajay river passing through north east direction of Sector A of the block is flowing within the study area.

(viii) Ambient air quality monitoring was carried out at 10 locations during 22.03.17 to 18.06.17 and the baseline data indicates the ranges of concentrations as: PM_{10} (136.5 – 80.1 µg/m^3), $PM_{2.5}$ (65.8 - 41.3 µg/m^3), SO_2 (12.8 - 5.2 µg/m^3) and NO_X (36.8 -20 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.12 µg/m^3, 0.17 µg/m^3 and 1.78 µg/m^3 with respect to $PM_{10,}$ SOx and NOx respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS) with minimal exceptions for PM10 due to high baseline ambient air quality result.

(ix) Total water requirement is 800 m^3/day/ well proposed to be met from authorized Water Tanker Vehicles. Effluent of 10 – 12 m^3/Well quantity will be treated through ETP. The plant will be based on Zero Liquid discharge system.

(x) Power requirement after expansion will be 33 – 350 kVA; depending on operation type [DG Sets of 350 KVA capacity will be used for drilling purposes. During Work Over 33 KV Gen set would be used while during testing power requirement will be met out from 100 KVA DG set. It is estimated that per month 36 KL of diesel will be required during drilling phase and 5 KL of diesel would be used during testing. Further average 7.2 KL of diesel would be used per day during stimulation] and will be met from West Bengal State power distribution corporation limited (WBSPDCL).

(xi) Details of Process emissions generation and its management:

(a) Dismantling of the rig, all associated equipments and the residential camp, and transporting it out of the project area; (ii) The wellhead and all casing string will be cut off to a minimum depth of 3 m below ground level; (iii) All concrete structures will be broken up, and the debris disposed off as per the regulatory requirements. (iv) All solid and liquid wastes will be disposed in accordance to the CPCB guidelines and HWMH Rules. (v) All fencing and access gates will be removed. (vi) All pits will be backfilled and closed out. (vii) Restoration of unusable portion of the access track, removal of pilings; (viii) After decommissioning of site, it will be de-compacted and stored top soil will be overlaid on the de-compacted site

with certain moisture conservation measures and seeding of leguminous plant for restoration soil nutrient level.

(xii) Details of Solid waste/ Hazardous waste generation and its management:

The drilling process will generate solid and hazardous waste streams which are listed below:

Hydrocarbon Wastes: Waste oils from leakage from equipment or diesel storage tanks, used oil (from engine oil changes) is designated as hazardous;

Non-hazardous solid waste: Non-hazardous wastes like paper, wood, plastics, containers (plastic or metallic used for substances other than chemicals) etc.,

Off specified hazardous wastes: Off specified hazardous wastes are Containers (including poly bags) holding hazardous ingredients like fluid, or testing chemicals, or previously holding volumes of hazardous chemicals or used batteries, disposed air filters etc.; and Biodegradable waste: The drill site will generate food rejects constituting biodegradable wastes.

Hazardous waste streams viz. used/waste oil will be disposed through WBPCB registered hazardous waste recyclers. All recyclable solid waste viz. paper, plastic, bottles etc. will be segregated at source and recycled through local waste recyclers registered with municipal authorities. Food waste will be stored in properly labeled containers and disposed to nearby municipal dumping grounds. [According to EPR rules 1986, guidelines given under Oil Drilling and Gas Extraction Industry A, B and C.]

(xiii) Public Hearing for the proposed project has been conducted by the West Bengal State Pollution Control Board on 27.02.2018 & 28.02.2018. The main issues raised during the public hearing are related to: (i) Environmental pollutions associated with drilling of wells for coal bed methane extraction activities, (ii) Land lease benefits, (iii) Employment opportunity, (iv) Funds for development of schools, drinking water, roads, market place, improving civic amenities etc.

(xiv) The details of products and capacity as under:

An aggregate peak gas production of ~0.45 MMSCMD and a sustained average production of >0.4 MMSCMD may be attained over a plateau of six years on raw field basis. At an operating efficiency of 90% and further discounting the production profile for workover days and internal consumption. Volume that may be available for marketing after discounting these factors is 0.37 MMSCMD at peak and ~0.33 MMSCMD over a plateau of six years. Evacuation of gas has been planned from four production hubs viz. Gas Collection Station (GCS). Therefore, a handling capacity of 0.05 to 0.2 MMSCMD of gas at the respective mini GCS, and a total effluent handling of 1200 m3/d have been provisioned to meet the peak production. Four mini gas collection station (GCS – R1, R2A, R2B and R3) have been proposed. The number of wells to be connected to each GCS is R1-26 wells, R2A- 17wells, R2B- 7wells and R3-33wells.Centralized Effluent Treatment Plant (ETP) has been planned at R-3 GCS.

37.3.6.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project ‘Development and production of Coal Bed Methane Gas’ by M/s ONGCL-CIL Consortium in a total area of 311780000 sqm at Ranigani North block, District Paschim Bardhaman (West Bengal).

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).

The ToR for the project was granted on 5th March, 2014, further extension of ToR was granted vide letter dated 20th July, 2017 up to 4th March, 2018. Public hearing was conducted by SPCB on 27th & 28th February, 2018. Major issues raised during public hearing include environmental pollutions associated with drilling of wells for coal bed methane extraction activities, land lease benefits, employment opportunity, funds for development of schools, drinking water, roads, market place, improving civic amenities etc.

Total water requirement is estimated to be 800 cum/day/well proposed to be met from authorized water tanker vehicles. Effluent of 10 – 12 m^3/well shall be treated in the Effluent Treatment Plant. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

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.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, CH_4, HC, Non-methane HC etc.*
- *Approach road shall be made pucca to minimize generation of suspended dust.*
- *The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.*
- *Total fresh water requirement shall not exceed the proposed quantum of 800 cum/day/well proposed to be met from water tankers, and prior permission shall be obtained from the concerned regulatory authority.*
- *The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.*

- *Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.*
- *Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.*
- *The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.*
- *The company shall develop a contingency plan for H_2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H_2S detectors in locations of high risk of exposure along with self containing breathing apparatus.*
- *The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and Regional Office.*
- *Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.*
- *Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.*
- *The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored the area in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.*
- *All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*
- *At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.*
- *Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office.*
- *Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.*
- *An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.*
- *Company shall have own Environment Management Cell having qualified persons with proper background.*
- *Company shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at*

each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.

- *On completion of drilling, the company has to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.*

Agenda No.37.3.7

Construction of GCS at BK-1 well-site with 180000 m^3 Gas Handling Capacity and Laying of 35 km underground 3.5" seamless pipeline from well BU-2 to BK-1, including interconnecting pipelines of 4 additional wells by M/s ONGC at Tehsil Silchar, District Cachar (Assam)

[IA/AS/IND2/39784/2016, J-11011/33/2016-IA II (I)]

37.3.7.1 The project proponent and their accredited Consultant M/s ERM India Pvt., made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for construction of GCS at BK-1 well-site with 180000 m^3 Gas Handling Capacity and Lying of 29.3Km underground 3.5" seamless pipeline from well BU-2 to BK-1, including interconnecting pipelines of 4 additional wells at Tehsil Silchar District Cachar, Asssam by M/s ONGC.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 5th EAC meeting held during 25-26 February, 2016 and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter no. J-11011/33/2016 dated 19th April, 2016.

(iii) All are listed in S.N. 1 of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' to be appraised at Central Level Expert Appraisal Committee).

(iv) Existing land area is 9.0 acres (GCS), additional 16.7 acres land will be used for proposal expansion of GCS and three wells (3.80 acres for each well) and one well will be drilled from existing well pad. Industry will develop Green belt in an area of 33% of area of project.

(v) The estimated project cost is Rs.177.10 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.72.39 lac and the recurring cost (operation and maintenance) will be about 18.5 crores per annum. Total employment will be approximately 120 persons during peak construction (GCS) period as direct & and indirect during operation, approximately 20 permanent employees will be working in the GCS. CSR activity will be taken up as per CSR Act and Rules, Govt. of India.

(vi) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km. distance. River/ water body Barak River is flowing is flowing at a distance of 0.85 km in NW direction.

(vii) Ambient air quality monitoring was carried out at 8 locations for 12weeks and base line data indicates the ranges of concentrations as: PM_{10} (51.54-74.15 µg/m^3), $PM_{2.5}$ (27.43-39.98 µg/m^3, SO_2 (5.22-6.20 µg/m^3) and NO_2 (18.31-22.64 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.51

µg/m^3 and 19.03 µg/m^3 with respect to PM_{10} and NOx. The resultant concentrations are within the National ambient Air Quality Standards (NAAQS).

(viii) Total water requirement is 8 m^3/day of which fresh water requirement of 3 m^3/day will be met from bore well during construction of GCS. During drilling 25m^3/day, out of which 10m^3/day for mud preparation, 5m^3/day for rig washing and 10m^3 for domestic use.

(ix) Effluent will be treated through mobile ETP at drilling rig and at GCS.

(x) Power requirement after expansion will be 600KVA will be met from ASEB, additionally 160 kVA DG sets are used as standby during power failure from ASEB.

(xi) Details of Process emissions generation and its management:

Emission Sources	**Stack Height(m)**	**Stack Dis.(m)**	**Stack gas temp.(K)**	**Stack gas velocity (m/s)**	**Emission rate (g/s)**			
					PM	**NOx**	**CO**	**HC**
950 KVA DG set	**6**	**0.3**	**773**	**17**	**0.008**	**0.3**	**0.018**	**0.03**

(xii) Details of Solid waste/ Hazardous waste generation and its management\

Item	**Quantity per**	**Unit**	**Distance from Site**	**Mode of Transport**	**Mode of Disposal**
Drill cuttings	250 – 300 m^3/well	M3	At site	NA	Drill cuttings will be disposed off in a well designed pit lined with impervious liner located on site as per S No. 72 C.1.a Schedule I Standards for Emission or Discharge of Environmental Pollutants
Acid – Lead Batteries	2 – 3 Batteries per drilling of well	Number		NA	Will be recycled through the vendors supplying acid – lead batteries as required under the Batteries (Management &
Recyclables *viz*. packaging wastes, paper,	Unquantified				Proper segregation and storage of recyclable waste in designated bins onsite. Recyclables will be periodically sold to

	- Item:- (Industrial waste,Municipal Solid waste,Fly ash, Bottom Ash, Hazardous Waste (as per Hazardous and Other Waste Management Rules 2016),E Waste,Bio-Medical waste,Construction & Demolition waste,Plastic Waste,Others) - Unit:- (Tons, Kiloliter) - Mode of Disposal:- (Treatment, Storage and Disposal Facility(TSDF),Authorized Re- cyclers,Landfills,Sanitary Landfills,Others)

(xiii) Public Hearing for the proposed project has been conducted by state State Pollution Control Board on 15th September 2017.

(xiv) The proposed product is Gas and GCS plant capacity is 180000m^3

37.3.7.3 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project 'Development and production of Gas in Banskandi and Bhubandar Block with interconnecting pipelines' by M/s ONGC in a total area of 25.7 acres at Tehsil Silchar, District Cachar (Assam).

The project/activity is covered under category A of item 1(b) 'Offshore and onshore oil and gas exploration, production and development' of the Schedule to the Environmental Impact Assessment (EIA) Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 19th April, 2016 and the public hearing was conducted by SPCB on 15th September 2017.

Total fresh water requirement is estimated to be 25 cum/day proposed to be met from water tankers.

Effluent of 6.3 cum/day will be treated through mobile ETP at drilling rig and at GCS. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

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.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *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. Domestic sewage shall be disposed off through septic tank/soak pit.*

- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, CH_4, HC, Non-methane HC etc.*
- *Approach road shall be made pucca to minimize generation of suspended dust.*
- *The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.*
- *Total fresh water requirement shall not exceed the proposed quantum of 25 cum/day, proposed to be met from water tankers and prior permission shall be obtained from the concerned regulatory authority.*
- *The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.*
- *Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.*
- *Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.*
- *The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.*
- *The company shall develop a contingency plan for H_2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H_2S detectors in locations of high risk of exposure along with self containing breathing apparatus.*
- *The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and Regional Office.*
- *Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.*
- *Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.*
- *The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored the area in original condition. In the event that no economic quantity of hydrocarbon*

is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.

- *All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*
- *At least 1.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.*
- *Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office.*
- *Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.*
- *An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.*
- *Company shall have own Environment Management Cell having qualified persons with proper background.*
- *Company shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.*
- *On completion of drilling, the company has to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.*

Agenda No.37.3.8

Expansion and modification of Molasses Based Distillery Plant from 60 KLPD to 70 KLPD through process modification in its existing Distillery Plant by M/s Siddapur Distilleries Limited at Bagalkot (Karnataka) - Correction in Minutes of EAC meeting held on 27-28 March, 2018

[IA/KA/IND2/61585/2017, IA-J-11011/10/2017-IA-II(I)]

37.3.8.1 The EAC in its meeting held on 27-28 March, 2018 has recommended for grant of environmental clearance to the project for expansion and modification of molasses based distillery plant from 60 KLPD to 70 KLPD through process modification/improvement in the existing plant by M/s Siddapur Distilleries Limited at Sy. Nos.49/2B/1 & 2, 57/2D & 2E, 58/1B, 58/1A/3, 66/4D, 85/2, 87, 93/2/3, 95/1A, 95/1B, 107/2, village Siddapur, Taluk Jamkhandi, District Bagalkot (Karnataka).

37.3.8.2 The project proponent vide letter dated 5th April, 2018 has requested for correction in minutes of the EAC meeting, with the details as under:

S. No.	Condition in the MoM	Correction desired by the project proponent
1	Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High	The treatment and disposal of effluent at Siddapur Distilleries is Evaporator to concentrate the spent wash and then treated

	TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in the ETP and then through RO system.	in bio methanization plant and composted using press mud from the parent sugar unit. The spent lees and evaporator condensate are treated by physico chemical treatment and the treated water is reused for dilution of molasses or in cooling tower as make up water.
2	Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	Need to be revised to suit it for the distillery
3	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.	-do-
4	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.	-do-
5	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.	-do-
6	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 cleaning to reduce wastewater generation.	-do-

37.3.8.3 *The EAC, after detailed deliberations, observed that the conditions listed from S.No.1 to 6 in the table above, are general in nature and could be relevant for the distillery as well. In case, any of these conditions are not applicable to the project, the project proponent is in no way bound to comply with. Accordingly, the Committee was not agreed for correction in minutes.*

The Committee, however, agreed for addition of the following:-

'The spent wash after evaporation shall be taken for bio-methanization and composted using press mud. The spent lees and evaporator condensate shall be provided physico chemical treatment for the treated water to be reused for dilution of molasses or in cooling tower as make up water.'

Agenda No.37.3.9

Proposed specialty chemicals, pesticide intermediates and perfumery chemical unit by M/s V India Chemical Industries Pvt Ltd at Plot No. CH-11/A, Dahej-I, Dahej Industrial Estate, Taluka Vagra, District Bharuch (Gujarat)

[IA/GJ/IND2/40697/2016, J-11011/34/2016-IA II (I)]

37.3.9.1 The project proponent and their accredited consultant M/s Aqua-Air Environmental Engineers Pvt Ltd made a detailed presentation on the salient features of the project & informed that:

(i) The proposal is for environmental clearance to the Proposed Pesticide Specific Intermediates (150 MT/Month), Specialty Chemicals (275 MT/Month) and Perfumery Chemicals (200 MT/Month) Manufacturing Unit of M/s. V India Chemical Industries Pvt. Ltd.

(ii) The project proposal was considered by the Expert Appraisal Committee (industry-2) in its 6th EAC meeting held during 2nd April, 2016 and recommended Terms of References (ToR) for the project. The ToR has been issued by Ministry vide letter No. J-11011/34/2016-IA II (I) dated 11/05/2016 then ToR amendment was considered by the Expert Appraisal Committee (industry-2) in its 22th EAC meeting held during 17-18 April, 2017 and recommended Amendment in Terms of References (ToR) for the project

(iii) All Products are listed at S.N. 5(b) & 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) No Existing land area, land - 5101 m^2 required for proposed project. Industry will be developed Greenbelt in an area of 30 % i.e. 1540 m^2 out of 5101 m^2 total area of the project. The estimated project cost is Rs.25 Crores. Total Capital cost earmarked towards environmental pollution control measures is Rs.3.0 Crore and recurring cost (Operation and Maintenance) will be around Rs.2.0 Crore per annum.

(v) Total employment will be 20 people as direct and 30 person indirect. Industry purposes to allocate Rs. 0.50 Cr towards Corporate Social Responsibility. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Sea is flowing at a distance of 7 Km in North Direction.

(vi) Ambient air quality monitoring is carried out at 8 locations during March 1, 2017 to May 31, 2017. The dispersion of pollutants in the atmosphere is a function of several meteorological parameters viz. temperature, wind speed and direction, mixing depths, inversion level, etc. The ambient air samples were collected and analyzed for Particulate Matter (PM_{10}), Particulate Matter ($PM_{2.5}$), Sulphur Dioxide (SO_2), Oxides of Nitrogen (NOx), Ozone (O_3), Lead (Pb), Carbon Monoxide (CO), Ammonia (NH_3), Benzene (C_6H_6), Benzo (a) Pyrene (BaP), Arsenic (AS), Nickel (Ni), HC, & VOCs were monitored at site and nearby villages for identification, prediction, evaluation and assessment of potential impact on ambient air environment. The PM_{10} values at all the locations in residential/rural areas ranged between 72.5 – 81.20 $\mu g/m^3$ respectively in pre-monsoon season. Similarly, the values of $PM_{2.5}$ varied in the range of 40.65 – 45.99 $\mu g/m^3$. The PM_{10} and $PM_{2.5}$ concentrations at all the AAQM locations were primarily caused by local phenomena including vehicular activities and natural dust getting air borne due to manmade activities and blowing wind. The values of NO_x at all the locations in residential/rural areas were observed to be in the range of 14.06 – 18.36 $\mu g/m^3$. The values of SO_2 at all the locations in residential/rural areas ranged between 11.7 – 16.28 $\mu g/m^3$. The values of O_3 at all the locations in residential/rural areas ranged between 10.02 – 10.75 $\mu g/m^3$. At all the air quality monitoring locations in residential/rural areas, the values of NOx, SO_2 & O_3 were observed to be within limits. The values of CO at all the locations in residential/rural areas ranged between 1.12 – 1.20 mg/m^3. The values of NH_3 at all the locations in residential/rural areas ranged between BDL – 1.75 $\mu g/m^3$. The values of Ni at all the locations in residential/rural areas ranged between 10.05 – 10.15 ng/m^3. The values of VOCs at all the locations in residential/rural areas ranged between 0.2 – 0.9 ppm. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(vii) Total water requirement will be 120 m^3/day of which fresh water requirement of 64 m^3/day and will be met from GIDC Water Supply. Total water consumption shall be 120 m^3/day (105 m^3/day: Industrial + 10 m^3/day: Domestic + 5 m^3/day: Gardening) to be met through GIDC water supply.

Total wastewater generation shall be 68 m^3/day (60 m^3/day: Industrial + 8 m^3/day: Domestic). Total 60 m^3/day waste water will be neutralized in ETP then it will be sent to solvent stripper. Effluent will be sent to MEE plant. MEE condensate (56 m^3/day) will be reused/recycled.

(viii) Total Power Requirement - 500 kVA from DGVCL from Dakshin Gujarat Vij Company Limited (DGVCL). 2 Nos. of DG Set will be used as standby during power failure. Stack (Height – 11 m) will be provided as per CPCB norms to the proposed DG Set.

(ix) Proposed plant will have 2 TPH Natural gas base 1 No. steam boiler & 1 No. Thermopack, 2 No. D.G. Set as standby. Stack of height of 25 m, 11 m will be installed for controlling the Particulates Matter (PM) within statutory limit of 150 mg/Nm^3 for the proposed boilers.

(x) Details of Process emissions generation and its management – There will 3 Nos. of process gas emission like HCl, SO_2, NH_3 and Company will install two stage scrubber system to control process gas emission.

(xi) Details of Solid waste / Hazardous waste generation and its management:

Type of Waste	Category	Source	Quantity	Disposal Method
Used oil	5.1	Plant & machinery	0.2 kl/month	Collection, storage, transportation & recycle or given to GPCB

				authorized recycler
Discarded containers/ bags/carboys	33.1	Process	Bags = 2000 nos./ month Drums = 500 nos./month	Collection, storage, transportation, decontamination & sent to GPCB registered vendor
Distillation residue	20.3	Process	15 mt/month	Collection, storage, transportation & disposal to incinerator site or send to cement industries for co-processing
Process waste (iron sludge & other sludge)	26.1	Process	70 mt/month	Collection, storage, transportation & sent to cement industries or disposal to TSDF site
Etp waste	35.3	Etp	15 mt/month	Collection, storage, transportation & disposal at TSDF site
Mee salt	35.3	Mee	120 mt/month	
Inorganic waste	-	Process	300 mt/month	

(xii) Public Hearing is not applicable as plant is located in notified Industrial Estate (Dahej-I GIDC).

(xiii) Following are the list of proposed products:

S. No.	Products	Proposed Quantity (MT/Month)	CAS No.	LD_{50} (mg/kg)
1.0	**PESTICIDE SPECIFIC INTERMEDIATES**			
1.1	1,2,4 Triazole	150	288-88-0	1750
1.2	3-Methyl 4- Nitro Imino Per hydro1,3,5 Oxidiazine		153719-38-1	2000
1.3	4- HPA / (R HPPA - (R (+) -2- [4- (5- Chloro -3- Fluoro pyridine -2- yloxy Phenoxy)] Propionic Acid		--	--
1.4	4,4' Thio Diphenol		2664-63-3	230
1.5	D- Allethrollone		43917-8-56	5000
1.6	N- NII – N- Nitro Imino Imidazolidine		5465-96-3	200
1.7	CCMP / 2- Chloro 5- Chloromethyl Pyridine		70258-18-3	289
1.8	CCMT / 2- Chloro 5- Chloromethyl Thiazole		105827-91-6	--
1.9	Na- TCP / 3,5,6 Tri Chloro Pyridinol Sodium Salt		6515-38-4	1000
1.10	TCAC / Tri Chloro Acetyl Chloride		76-02-8	475
1.11	Transfluthrin Acid Chloride		118712-89-3	5000
2.0	**Specialty Chemicals**			
2.1	2, Diazo 1- Napthol, 5- Sulphonic Acid Sodium Salt (NAS)		2657-00-3	--
2.2	2,7 Di Chloro 4- (2- Dibutyl Amine) Ethane Fluorine		--	590
2.3	3- Quinoline Carboxyllic Acid 7- Chloro -1-		13721-10-2	

	Cyclopropyl -1,4 – dihydro 8- Methyl 4-Oxo – Ethyl Ester	275		
2.4	L-2- Chloropropionic Acid Isobutyl ester		83261-15-8	2000
2.5	2- Phenyl Benzimidazol -5- Sulphonic Acid		27503-81-7	390
2.6	Neodecanoyl Chloride		40292-82-8	2016
2.7	2- Ethyl Hexanoyl Chloride		760-67-8	1260
2.8	2,3 Dichloro Benzoyl Chloride		2905-60-4	5000
2.9	3-(4-Amino-3, 5-Di Methyl Phenyl) Prop-2-ene Nitrile		500287-72-9	3200
2.10	4-[[4-[[4-[(1E)-2-Cyanoethenyl]-2,6-dimethylphenyl]amino]-2-pyrimidinyl]amino]benzonitrile N-Glucuronide		143779-52-0	500
2.11	(R)-1-(6-Amino-9H-purin-9-yl)propan-2-ol		14047-28-0	1250
2.12	4-[(4-Hydroxy Pyrimidin-2-yl) Amino] Benzonitrile		189956-45-4	540
2.13	4-[(5- Hydroxy Pyrimidin-2-y**l**)Amino] Benzonitrile		189956-45-*4*	540
2.14	4-[(5-Oxo-4,5-Dihydro Pyrimidin-2-yl) Amino] Benzonitrile		--	2000
2.15	4-({6-Amino-5-Bromo-2-[(4-Cyanophenyl) Amino]Pyrimidin-4-yl}Oxy)-3,5-Dimethyl Benzonitrile		269055-75-6	2000
2.16	EBASA – Ethyl Benzyl Aniline Sulphonic Acid		101-11-1	100
2.17	5- Cyano Phthalide		82104-74-3	20
2.18	2- Chloro 6- Nitro Benzotrifluoride		777-37-7	1075
2.19	2,4 Di Chloro 3,5 Dinitro Benzotrifluoride		29091-09-6	292
2.20	Diphenyl Sulfide		139-66-2	--
3.0	**PERFUMARY CHEMICALS**			
Group -1		50		
3.1	Allyl Caproate		123-68-2	218
3.2	Allyl Haptanoate		142-19-8	630
3.3	Isobutyl Caproate		105-79-3	5000
3.4	Amyl Caproate / Iso Amyl Caproate		540-07-8	5000
3.5	Hexyl Caproate		6378-65-0	5000
3.6	Allyl Phenoxy Acetate		7493-74-5	820
3.7	Octyl Acetate		112-14-1	--
3.8	Decycle Acetate		112-17-4	5000
3.9	Hexyl Iso Butyrate		2349-07-7	5000
3.10	Phenoxy Ethyl Iso butyrate		103-60-6	5000
3.11	Citronellyl Acetate		150-84-5	8400
3.12	Geranyl Tiglate		7785-33-3	5000
3.13	Phenyl Ethyl Tiglate		55719-85-2	5000
3.14	Cinnamyl Cinnamate		122-69-0	42000
3.15	Ethyl Butyrate		105-54-4	2000

Group -2				
3.16	Sandalite	50	--	--
3.17	Purasandal		--	--
3.18	Megasandal		--	--
3.19	DIPAL		--	--
3.20	PRINILE		--	--
3.21	Isojasmone P		--	--
Group -3				
3.22	Citralite	50	77-92-9	975
3.23	Praistone		--	--
3.24	Applitone		119-61-9	5000
3.25	Herboxane		54546-26-8	5000
Group -4				
3.26	SAFRANAL	50	116-26-7	30
3.27	CDEA		--	--
Grand Total		**625**		

37.3.9.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for pesticide specific intermediates (150 MT/Month) and specialty chemicals (475 MT/Month) manufacturing unit of total capacity 625 TPM by M/s V India Chemical Industries Pvt Ltd in a total area of 5101 sqm at Plot No. CH-11/A, Dahej-I, Dahej Industrial Estate, Taluka Vagra, District Bharuch (Gujarat).

The project/activities are covered under category A of item 5(b) 'Pesticides and Pesticides 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.

The ToR for the project was granted on 11th May, 2016 followed by amendment in ToR in its meeting held during 17-18 April, 2017 for exemption from public hearing under the provisions as per Para 7 Stage III. (3) (i) (b) of the EIA Notification, 2006, as plant is located in notified Industrial Estate.

Total water requirement is estimated to be 120 cum/day of which fresh water demand of 64 cum/day proposed to be met from GIDC water supply.

Total effluent generated from different industrial operations is estimated to be 60 cum/day and shall be neutralized in ETP then it will be sent to solvent stripper followed by MEE plant. MEE condensate (56 cum/day) shall be reused/recycled in the process. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

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

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

- *Total production of pesticides shall include manufacturing at least 25% of bio-pesticides.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *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.*
- *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 64 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.*
- *The company shall undertake waste minimization measures as below:-*
    - *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.*
- *At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*

Agenda No.37.3.10

Laying of Anjar - Chotila Natural Gas transportation pipeline project with associated facilities from Anjar (District Kutch) to Chotila (District Surendranagar), Gujarat by M/s Gujarat State Petronet Limited

[IA/GJ/IND2/53487/2016, J-11011/144/2016- IA II(I)]

37.3.10.1 The project proponent and their accredited consultant M/s Anacon Laboratories Pvt Ltd, Nagpur, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance & CRZ Clearance to the project for laying of 36/30" Natural Gas transportation pipeline from Anjar (Kutch) to Chotila (Surendranagar) covering Approx. length 196.14 km with associated facilities at Gujarat by M/s Gujarat State Petronet Limited, Gandhinagar, Gujarat. CRZ Recommendation given by GCZMA to MoEF&CC vide dt. 04-09-2017

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 9th Meeting held during 27-28th June 2016 and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/144/2016-IA II (I) dated 2nd August, 2016.

(iii) All project activities are listed at S.N. 6(a) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Industry will develop greenbelt in an area of 33 % out of total area of the plot acquired for SV Stations/ IP station/Dispatch Terminal/Receiving Terminal. The estimated proposed project cost is Rs. 1058.40 crores. The estimated cost earmarked towards environmental pollution control measures is approx. Rs. 200 Lakhs and the recurring cost during operation and maintenance will be about Rs. 77 lakhs per annum. However, the above amount does not include the NPV value as per as per Wildlife Protection Act & Forest Conservation Act and the same will be deposited as per the Statutory requirements.

(v) Total Employment will be 10 persons as direct & 80 persons indirect after construction. Industry proposes to allocate @ 2.0 % profit after tax towards Corporate Social Responsibility as per norms.

(vi) There is a Wild Ass Ghudkhar Sanctuary within 10 km distance from the project site. Proposed pipeline length of 5.675Km passes through Wild Ass Ghudkhar Sanctuary and length of 98.368Km passed through Eco Sensitive Zone of Wild Ass Ghudkhar Sanctuary. The WLS permission/Clearance already obtained with vide no.: WLP/32/b/32-37/2018-19, Dated 03.04.2018.

(vii) Major Rivers and water body crossing details are given below

LIST OF RIVER CROSSINGS: Ratanpar at Chotila to Dispatch station Rata Talav, Anjar

S. No.	Details of Crossing	RL (m)	Width of Crossing (m)	Location of Occurrence	Progressive Chainage (km)	CS No.
1	Bhogava River	156.70	172.99	IP12/1-TP13	04/786.54	3
2	Brahmani River	113.26	45.55	IP61/1-IP61/2	23/705.17	15
3	Brahmani River	88.09	71.82	IP83/1-IP83/2	35/991.74	23
4	Brahmani River	86.41	130.50	TP90-IP90/1	41/701.78	26
5	Ghodadhral River	62.44	27.81	IP120/1-IP120/2	58/309.39	33
6	Ghodadhral River	50.83	29.56	IP127/1-IP127/2	63/813.71	40
7	Ghodadhral River	26.40	91.95	IP134/1-IP134/2	71/578.54	45
8	Ghodadhral River	14.59	144.43	IP147/3-IP147/4	81/672.59	54
9	Khara River	12.79	54.50	IP150/1-IP150/2	84/634.81	55
10	Machchhu River	2.83	129.92	IP175/1-IP175/2	98/742.29	67
11	Sakra River	20.09	133.79	IP317/1-IP317/2	176/035.05	120
12	Churva River	54.54	28.34	IP339/1-IP339/2	192/868.89	128
13	Hadkiya Creek	-0.53	435.80	IP187/3-IP187/4	109/272.48	75

LIST OF CANAL CROSSINGS

S.	Details of	RL	Width of	Location of	Progressive	CS

No.	Crossing	(m)	Crossing (m)	Occurrence	Chainage (km)	No.
1	Morbi Branch Canal	60.97	50.04	IP125/5-IP125/6	62/488.71	38
2	Proposed Canal	58.56	27.83	IP128/9-TP129	66/213.10	42
3	Lined Canal	36.22	60.34	IP137/1-IP137/2	73/397.84	46
4	Minor Canal	23.98	2.67	IP144/1-IP144/2	79/239.84	52
5	Lined Minor Canal	15.83	10.62	IP150/5-IP150/6	85/564.58	56
6	Lined Canal	14.47	14.93	IP150/11-IP150/12	86/548.59	57
7	Proposed Minor Canal	11.46	10.11	IP152/7-TP153	90/600.19	60
8	Narmada Lined Canal	6.27	46.68	IP165/1-IP165/2	94/782.38	63
9	U/C Wandhiya Sub-Branch Canal	21.89	19.92	IP254/5-IP254/6	139/683.65	95
10	Wandhiya Sub-Branch Canal	26.84	38.41	IP277/1-IP277/2	149/541.38	104
11	Kachchh Branch Canal	23.68	92.75	IP281/1-IP281/2	151/020.24	106
12	U/C Kachchh Branch Canal	40.91	75.00	IP309/1-IP309/2	171/384.97	115
13	Kachchh Branch Canal	38.88	66.34	IP325/1-IP325/2	181/519.68	123
14	Minor Canal	59.32	11.15	IP338/1-IP338/2	192/723.77	126

35 no. of nala crossings were identified in the pipeline route, details are provided in Survey Report.

(viii) Ambient air quality monitoring was carried out at 30 locations during March-May 2016 (pre-monsoon season-2016) and the base line data indicates the ranges of concentrations as: PM_{10} (40-68 µg/m^3), SO_2 (8-27 µg/m^3) and NO_2 (11-29 µg/m^3) as per ToR. AAQ modeling study for point source Emissions indicate that the maximum incremental GLCs after the proposed project would be 0.075 µg/m^3, 0.0032 µg/m^3 and 1.6 µg/m^3 with respect to PM_{10}, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total average water requirement during construction phase shall be 50-60 m^3/day and during operation phase only 20 m^3/day for domestic purpose and for greenbelt area, the water requirement will be mostly met from Tankers. There won't be any effluent disposal from this project. The sewage generated from construction camps will be treated in septic tanks followed by soak pits.

(x) The average power required per Station will be approx. 40 KV.The power source shall be drawn from nearest local State Electricity Board.

- 50 kVA Acoustic enclosed DG sets as per GPCB norms will be provided at each station as a backup to the State power supply.

(xi) Details of Solid waste/ Hazardous waste generation and its management:-

A. Along the pipeline route:
The domestic solid waste generation during construction phase will be 50 Kg/day and during operation phase it will be 3 Kg/day so the total domestic waste generation 53 Kg/day along pipeline route.

B. At stations (SV/IP/DT/RT)
The domestic solid waste generation during construction phase will be 55 kg/day and during operation phase it will be 11 kg/day so the total domestic waste generation will be 66 kg/day.

Disposal of Wastes:
Solid Waste: Solid wastes generated will be properly collected, segregated and disposed off appropriately. On completion of construction, the waste generated like bags, wooden planks, steel scrap, food waste and other surplus materials will be completely removed and land will be reinstated to near its original state. Dumping of construction waste on agricultural land will be prohibited. Only excavation soil will be generated during construction, which will be reinstated to original condition after laying the pipeline.

Hazardous waste: No such Hazardous waste is generated except minimal oil/lubricants from the construction equipments during the construction stage. Hazardous wastes generated during operational activities in the form of spent oil from DG sets, equipments will be reused as lubricant, drums & pigging waste etc., will be disposed off as per GPCB *g*uidelines.

(xii) Public Hearing for the proposed project has been conducted by the Gujarat State Pollution Control Board on 21.03.2018 at District Morbi, on 23.03.2018 at District Surendranagar and on 27.03.2018 at District Kutch. The main issues raised during the public hearing are related to provisions of Land & Crop compensation, safety issues, time period for the completion of project etc. which have been replied satisfactorily by M/s GSPL.

(xiii) The details of products and capacity as under:
The Proposed pipeline project is for Transportation of Natural Gas in Gujarat State from Anjar(dist. Kutch) to Chotila (district: Surendranagar) covering approx. length Approx. 196.14Km and dia. 36”/30” with associated facility. i.e.

- 8 Sectionized Valve station ,
- 1 Intermediate pigging station,
- 2 Dispatch Terminal /Receiving Terminal
  Capacity: 23.13 MMSCMD.

37.3.10.2 During deliberations, the EAC noted the following: -

The proposal is for environmental/CRZ Clearance to the project for laying 36/30” Natural Gas transportation pipeline from Anjar (Kutch) to Chotila (Surendranagar) covering Approx. length 196.14 km with associated facilities by M/s Gujarat State Petronet Limited (Gujarat). Gujarat CZMA has submitted its CRZ Recommendation to MoEF&CC vide letter dated 4th September, 2017.

The project/activity is covered under category A of item 6(a) ‘Oil & Gas transportation pipeline’, of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 2nd August, 2017 and public hearing is conducted by the Gujarat State Pollution Control Board at Districts Morbi, Surendranagar and Kutch on 21st March, 2018, 23rd March, 2018 and 27th March, 2018 respectively.

Total average water requirement during construction phase shall be 50-60 m^3/day and during operation phase only 20 m^3/day for domestic purpose and for greenbelt area, the water requirement will be mostly met from Tankers.

There shall not be any effluent disposal from this project and thus conforming to Zero Liquid Discharge. The sewage generated from construction camps will be treated in septic tanks followed by soak pits.

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 noted that the project proponent has obtained the wildlife clearance from Standing committee of NBWL and subsequently State Government vide letter dated 3rd April, 2018 has issued clearance under the Wildlife (Protection) Act, 1972.

37.3.10.3 *The EAC, 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.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *All terms and conditions stipulated by the State Coastal Zone Management Authority in their recommendation/NOC letter dated 4th September, 2017 shall be strictly adhered to.*
- *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.*
- *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.*
- *The green belt of 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 and in consultation with the State Forest Department.*
- *At least 0.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and the details along with time bound action plan shall be submitted to the Ministry's Regional Office.*
- *Regular monitoring of VOC and HC in the work zone area in the plant premises should be carried out and data to be submitted to Ministry's Regional Office, CPCB and State Pollution*

Control Board. Quarterly monitoring for fugitive emissions should be carried out as per the guidelines of CPCB and reports submitted to Ministry's Regional Office.

- *The project proponent shall conduct a traffic density survey on the approach road to be used for transportation of LPG tankers and LPG cylinders.*
- *Necessary approvals from Chief Controller of Explosives, as applicable, shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented.*
- *Emergency Response Plan should be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once a month.*
- *Additional safety measures should be taken by using remote operated shut off valve, Double Block &Bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe, if applicable.*
- *Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.*
- *The norms/guidelines of Oil Industry Safety Directorate (OISD) for installation and design of equipment and operation of the LPG Bottling Plants shall be strictly followed. Safety audit to be carried out and report submitted to the Regional Office.*
- *No packing/loading/unloading of LPG cylinders shall be made on road/outside factory premises. Vehicles loaded/unloaded with LPG cylinders shall be parked inside the plant premises only and not on road sides.*
- *Road tankers should be equipped to the standard specified in national regulations reputable code. Vehicles should be mobilized during transfer operations and equipped to prevent untimely movement. Loading/unloading bays should be protected against impact. Fire-resistant coatings shall be provided to tanks/vessels.*
- *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.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *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.*

30th May, 2018 (Day 2)

37.3 Environmental Clearance

Agenda No.37.3.11

Proposing to manufacture Activated Pharma Ingredients by M/s Skanttr Lifescience LLP at Survey no. 340 & 345, Village-Amipura, Kensville Nalsarovar Road, District Bavla, (Ahmedabad)

[IA/GJ/IND2/62557/2017, IA-J-11011/46/2017-IA-II(I)]

37.3.11.1 The project proponent and their consultant M/s T. R. Associates (Ahmedabad) made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environment clearance to the project Active Pharmaceutical Ingredients manufacturing unit at Survey No.: 340 & 345, Village Amipura, Taluka Bavla, District Ahmedabad, Gujarat by M/s Skanttr Lifescience LLP.

(ii) The project proposal was considered by the expert appraisal committee (Industry 2) in its 37th EAC meeting held during 29th to 31st May 2018 and recommended Terms of References (TORs) for the project. The TOR has been issued by Ministry vide letter No. J-11011/46/2017-IA.II (I) dated 30/5/2017.

(iii) All Synthetic Organic Chemicals Industry projects, located outside the notified industrial area/estate and not fall into small scale unit criteria are listed at S.N. 5(f) of schedule of Environmental Impact Assessment (EIA) notification under Category 'A' and are appraised at Central level by the Expert Appraisal Committee (EAC).

(iv) Total 14485 m^2 land area will be used for proposed project.

(v) Industry will develop greenbelt in an area of 33 % i.e. 4,767 m^2 out of 14485 m^2 area of the project.

(vi) The estimated project cost is Rs. 7.048 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 201.8 lakhs and the recurring cost (operation and maintenance) will be about Rs. 122.1 lakhs per annum.

(vii) Total employment will be 110 persons as a direct. Industry proposes to allocate Rs. 17.62 Lakhs @ of 2.5% towards Corporate Social Responsibility.

(viii) There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild life Corridors etc. Lies within 10 km distance from the project site. RiverRodh is flowing at a distance of 6.1 km in WNW direction, Amipura Pond is at 0.95 km in SSW direction and Canal from Vasna Barrage is flowing at a distance of 1 km in WSW direction.

(ix) Ambient air quality monitoring was carried out at 8 locations during March to May 2017 and the baseline data indicates the ranges of concentrations as: PM_{10} (55.12 to 80.41 µg/m^3), $PM_{2.5}$ (22.49 to 34.42 µg/m^3), SO_2 (9.63 to 25.15 µg/m^3) and NO_2 (18.25 to 40.32 µg/m^3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 17.4 µg/m^3, 0.756 µg/m^3, 3.94 µg/m^3, 0.860 µg/m^3 and 1.16 µg/$m^3$with respect to PM_{10}, SO_2, NO_2, HCl Process Gas and SO_2 Process Gas. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(x) Total water requirement is 69 m^3/day of which fresh water requirement of 34 m^3/day and which will be met from Bore well.

(xi) Effluent of 39.5 m^3/day will be treated through Effluent Treatment Plant (having MEE followed by Condenser). The unit will be based on Zero Liquid Discharge system.

(xii) Power requirement of proposed project will be 550 kVA and will be met from Uttar Gujarat Vij Company Limited (UGVCL). 125 kVA DG Set will be used as standby during power failure. Stack (height 6.5 m) will be provided as per CPCB norms to the proposed D.G. set.

(xiii) Briquettes/Coal fired 1 TPH Steam Boiler will be installed. Cyclone Separator followed by Bag Filter with a stack height of 30 m will be installed for controlling the particulate emissions (within statutory limit of 150mg/Nm^3).

(xiv) Details of process emissions generation and its management.

S.No.	Vent attached to	Vent Height	Expected Pollutant	APC System	Quality of Pollutant
1	Glimepiride	12 m	HCl Gas	Common duct to Caustic Scrubber with adequate stack height	As per GPCB Norms
2	Carbidopa	12 m	SO_2 Gas		
3	Folic Acid	12 m	H_2S Gas		

(xv) Details of solid waste/hazardous waste generation and its management.

S.No	Description	Category	Quantity (MT/Annum)	Management
1	ETP Sludge & evaporation residue	35.3	252	Collection, storage and disposal at approved TSDF Site
2	Distillation Residue	20.3	641.5	Collection, storage and disposal at approved CHWIF Site
3	Spent Catalyst & Carbon	28.2 & 28.3	79.6	Collection, storage and disposal at approved CHWIF Site
4	Spent Solvent	28.6	22.8	Collection, storage and disposal at approved CHWIF Site
5	Used / Spent Oil	5.1	0.1	Collection, storage and used within premises as a lubricant / sold to registered recycler.
6	Discarded bags/ drums/ containers	33.1	28.6	Collection, storage & sell to authorized vendor
7	Off – specification drug	28.4	App. 5	Collection, storage and disposal at approved CHWIF Site
8	Date-expired Drugs	28.5	48	Collection, storage and disposal at approved CHWIF Site

(xvi) Public hearing for the proposed project has been conducted by the State Pollution Control Board on 06/03/2018.The main issues raised during the Public Hearing are related local employment and domestic waste water management.

(xvii) Following are the list of proposed products.

S.No	Products	Capacity (TPM)
1.	Atenolol	9.6
2.	Glimepiride	10.0
3.	Atorvastatin Calcium	6.0
4.	Abacavir Sulfate	2.1
5.	Pantoprazole Sodium	16.0
6.	Olanzapine	3.2
7.	Rosuvastatin Calcium	1.5
8.	Montelukast sodium	5
9.	Carbidopa	1.5
10.	Amlodipine Besylate	6.8
11.	Hydroxychloroquine	4.0
12.	Labetalol hydrochloride	3.0
13.	Methylcobalamin	0.1
14.	Lafutidine	2.2
15.	Aripiprazole	3.0
16.	Levosulpride	2.1
17.	Fexofenadine Hydrochloride	2.2
18.	Folic acid	3.0
19.	Ipratropium Bromide	2.2
20.	Ursodeoxycholic acid	1.4
21.	Albuterol	1.5
22.	Saxagliptin	1.0
23.	Research & Development	0.5
	Total	**87.9 TPM**

37.3.11.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for setting up Active Pharmaceutical Ingredients Manufacturing Unit of 87.9 TPM by M/s Skanttr Lifescience LLP in a total area of 14485 sqm at Survey No. 340 & 345, Village Amipura, Taluka Bavla, District Ahmedabad (Gujarat).

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

The ToR for the project was granted on 30th May, 2017. Public hearing was conducted by the SPCB on 6th March, 2018. The main issues raised during the Public Hearing are related to employment to the local people, waste water management etc.

Total estimated water requirement is 69 cum/day of which fresh water requirement of 34 cum/day will be met from bore well.
Total effluent generated from different industrial operations is estimated to be 35 cum/day, which will be taken to the Effluent Treatment plant having MEE followed by Condenser. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

37.3.11.3 *The EAC, after deliberations, insisted for more inputs and clarifications in respect of the following:*

- *Clarity on products and quantity,*
- *Plot area,*
- *Compliance of other terms and conditions vis-a-vis the ToR dated 30th May, 2017,*
- *Revised water balance for the unit conforming to Zero Liquid Discharge,*
- *Revised Form-1,*

The proposal was deferred for the needful on the above lines

Agenda No.37.3.12

Expansion of specialty chemicals in premises by M/s Pragna Life Science Pvt. Ltd at Plot no. 409/b/2, GIDC Industrial Estate, Panoli, Taluka Ankleshwar, District Bharuch (Gujarat)

[IA/GJ/IND2/63992/2017, IA-J-11011/188/2017-IA-II(I)]

37.3.12.1 The project proponent and their consultant M/s Aqua-Air Environmental Engineers Pvt. Ltd. made a detailed presentation on the salient features of the project & informed that:

(xiv) The proposal is for Environmental Clearance to the project for expansion of pesticide specific intermediates (104.15 MT/Month) and specialty chemicals (96.6 MT/Month) manufacturing unit in existing unit at Plot No. 409/B/2, GIDC Industrial Estate, Panoli-394116, Dist: Bharuch (Guj.) by M/s. Pragna Life Science Pvt. Ltd.

(xv) The project proposal was considered by the Expert Appraisal Committee (industry-2) in its 24th EAC meeting held during 14th June, 2017 and recommended Terms of References (ToRs) for the project. The ToR has been issued by Ministry vide letter No. J-11011/188/2017-IA II (I) dated 24/07/2017.

(xvi) All Products are listed at S.N. 5(b) & 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(xvii) Existing unit was in operation before EIA Notification, 2006.

(xviii) Existing land area is 3504.26 m^2, no additional land required for expansion. Industry will develop greenbelt in an area of 20 % i.e. 700 m^2 out of 3504.26 m^2 total area of the project.

(xix) The estimated project cost is Rs. 5.50 Crores including existing investment of Rs. 1.5 Crores. Total Capital cost earmarked towards environmental pollution control measures is Rs. 1.0 Crore and recurring cost (Operation and Maintenance) will be around Rs. 1.5 Crore per annum.

(xx) Total employment will be 20 people as direct and 25 person indirect after expansion. Industry purposes to allocate Rs. 0.20 Cr of 5% towards Corporate Social Responsibility.

(xxi) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River Amla Khadi is flowing at a distance of 6 Km in North Direction.

(xxii) Ambient air quality monitoring is carried out at 9 locations during March 1, 2017 to May 31, 2017.The dispersion of pollutants in the atmosphere is a function of several meteorological parameters viz. temperature, wind speed and direction, mixing depths, inversion level, etc. The ambient air samples were collected and analyzed for Particulate Matter (PM_{10}), Particulate Matter ($PM_{2.5}$), Sulphur Dioxide (SO_2), Oxides of Nitrogen (NOx), Ozone (O_3), Lead (Pb), Carbon Monoxide (CO), Ammonia (NH_3), Benzene (C_6H_6), Benzo (a) Pyrene (BaP), Arsenic (AS), Nickel (Ni), HCl, Cl_2, HC, & VOCs were monitored at site and nearby villages for identification, prediction, evaluation and assessment of potential impact on ambient air environment.The PM_{10}values at all the locations in residential/rural areas ranged between 74.09 – 96.39 $\mu g/m^3$ respectively in pre-monsoon season. Similarly, the values of $PM_{2.5}$ varied in the range of 42.95 – 51.28 $\mu g/m^3$. The PM_{10} and $PM_{2.5}$ concentrations at all the AAQM locations were primarily caused by local phenomena including vehicular activities and natural dust getting air borne due to manmade activities and blowing wind. The values of NO_x at all the locations in residential/rural areas were observed to be in the range of 8.11 – 28.53 $\mu g/m^3$. The values of SO_2 at all the locations in residential/rural areas ranged between 10.87 – 26.72 $\mu g/m^3$. The values of O_3 at all the locations in residential/rural areas ranged between 10.51 – 11.73 $\mu g/m^3$. At all the air quality monitoring locations in residential/rural areas, the values of NOx, SO_2& O_3 were observed to be within limits.The values of CO at all the locations in residential/rural areas ranged between BDL – 1.30 mg/m^3.The values of NH_3 at all the locations in residential/rural areas ranged between BDL – 8.73 $\mu g/m^3$. The values of Ni at all the locations in residential/rural areas ranged between BDL – 10.94 ng/m^3. The values of HCl at all the locations in residential/rural areas ranged between <1.0 – 11.49 $\mu g/m^3$. The values of Cl_2 at all the locations in residential/rural areas is found to be <5.0 $\mu g/m^3$.The values of VOCs at all the locations in residential/rural areas ranged between 0.3 – 0.7 ppm. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(xxiii) Total water requirement will be 34.88 m^3/day of which fresh water requirement of 26.88 m^3/day and will be met from GIDC Water Supply.

(xxiv) Low COD & Low TDS Treated Effluent (10 KL/Day) will be sent to CETP, M/s. PETL, GIDC Panoli for further treatment.High TDS and COD treated Effluent (8KL/Day) will be reused in plant premises.
Total water requirement will be 34.88 m^3/day after proposed expansion. Total 23.3 m^3/day wastewater (17.3 m^3/day Industrial + 6.0 m^3/day domestic) shall be generated. 10 m^3/day industrial (low COD) & domestic wastewater will be given primary treatment & then after sent to CETP of PETL, Panoli for treatment & disposal. 3.3 m^3/day High COD & TDS wastewater will be given primary treatment and then after sent to Common Spray Dryer of PETL, Panoli. 10 m^3/day High TDS & COD wastewater will be treated in primary ETP and then sent to MEE & ATFD within premises for evaporation and condensate (8 m^3/day) will be reused for industrial purposes.

(xxv) Total Power Requirement - 1000 KVA from DGVCL (Existing -250 KVA + Proposed -750 KVA) from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has 1 D G Set of 125 KVA, Additionally 1 DG Set will be used as standby during power failure. Stack (Height – 11 m) will be provided as per CPCB norms to the proposed DG Set.

(xxvi) Existing unit have 0.6 TPH Natural gas bases one steam boilerand Natural gas basedone Thermic fluid heater. Additionally, 1 TPH Agro waste/Coal basedone steam boiler and and 6 Lac Kcal/hr Natural gas basedone Thermic fluid heater is proposed. Multi Cyclone Separator with Bag

Filter, scrubber with a stack of height of 30m, 12 m will be installed for controlling the Particulates Matter (PM) within statutory limit of 115 mg/Nm3 for the proposed boilers.

(xxvii) Details of Process emissions generation and its management: There will no process gas emission.

(xxviii) Company has valid Consent to Operate for existing unit vide letter no. AWH-59710 dated dated 10/01/2014 and valid up to 26/05/2018.

(xxix) Details of Solid waste / Hazardous waste generation and its management.

S. No.	Type of waste	Category	Qty. (MT/Month)			Mode of Treatment & Disposal
			Existing	Additional	Total	
1	ETP Sludge	35.3	5	25	30	Collection, Storage, Transportation and disposal at TSDF of BEIL or PSWMCL
2	Inorganic salts	35.3	0	75	75	
3	Used Oil	5.1	0.001	0.10	0.101	Collection, Storage, Transportation & disposal by Selling to registered re-refiners
4	Discarded Containers	33.1	15 Nos	665 Nos	680 Nos	Collection, Storage, Transportation, Decontamination and Sale to GPCB authorized vendor
	bags/liners		200 Nos	2750 Nos	2950 Nos.	
5	Incinerable Waste (Residue)	20.3	0	54	54	Collection, Storage, Transportation and co-processing in cement industries or sent to common incineration facility
6	Incinerable Waste (Spent Charcoal & Hyflow)	28.3	0	7	7	
7	Date expired & Off-specification material	28.4	0	0.4	0.4	
8	Spent Catalyst	28.2	0	2	2	Collection, Storage, Transportation and return back to supplier
9	Spent Sulfuric Acid	D2	0	280	280	Collection, Storage, Transportation and Sale to re-processors/end users
10	Spent Formic Acid	--	0	100	100	
11	Acetic Acid	--	0	10	10	
12	Dilute HCl	D2	0	50	50	
13	NaBr solution	B5	0	180	180	

14	NaHs solution	--	0	50	50

(xix)The details of existing and proposed products are as under:

S. No.	Product	Existing	Additional	Total	CAS No.	LD_{50}	Type of Product	End use of Product
		MT/MONTH						
1.	N-ETHYL 2 PYRIDONE	3.25	0	3.25	29097-12-9	--	5 (f)	Used in reactive yellow dyes.
2.	DIETHYL MALONATE	2	0	2	105-53-3	ORAL (LD50): Acute: 15000 mg/kg	5 (f)	Used in diethyl benzylidenemalonate(speciality chem.perfume)
3.	ETHYL CYANO ACETATE	8	0	8	105-56-6	1.115 mg/kg	5 (f)	Used in synthesis of N-ETHYL 2 PYRIDONE,dyes,synthetic rubber and surface protection adhesive(cyano acrylates)
4.	2,5 DiChloro Para Phenylene Diamine	0	29.16	29.16	20103-09-7	1750 mg/kg	5 (f)	Used in hair dyes as intermediates
5.	2 Nitro 4 Methoxy Aniline				96-96-8	14100 mg/kg	5 (f)	Used as dyes and pigments intermediates.
6.	2,5 Dimethyl-P-Phenylene diamine				639301 07	--	5 (f)	Used in hair dyes as intermediates
7.	2-Mercapto 5-Methoxy Benzimedazole				37052-78-1	--	5 (b)	Sulphonamide derivatives used as pesticides

								intermediate
8.	3-[4-chloro-5-(cyclopentyloxy)-2-fluorophenyl]-5-(1-methylethylidene)-1,3-oxazolidin-2,4-dione				110956-75-7	5000 mg/kg	5 (b)	Pentoxazane(pesticides specific intermediate)
9.	2 Chlor PPD				615-66-7	--	5 (f)	Used in hair dyes as intermediates
10.	2-Chloro 1-Phenoxy Benzene				2689-07-8	300 mg/kg	5 (b)	Metominostrobin (pesticides specific intermediate)
11.	2 Chloro 5 Methyl PPD				53070309	--	5 (f)	Used in hair dyes as intermediates
12.	5 Amino Ortho Toludine				95-53-4	--	5 (f)	Used in hair dyes
13.	2 Chloro 4 Flouro 5 Nitro Benzyl Chloride				120890-66-6	--	5 (b)	PCM (N (2-Chloro-4-Flouro)-5-(Ethoxy Carbonyl)-Amino)-Benzyl)-N-Isopropyl-N-Methylsulfamide
14.	3 Amino 4 Methoxy Acetanilide	0	83.33	83.33	6375-47-9	--	5 (b)	As Pesticides intermediates and disperse dyes intermediates.
15.	Nitro to amino conversion by catalytic hydrogenation						5 (b)	Pentoxazane (pesticides specific intermediate)

16.	Aldehyde to alcohol conversion by catalytic hydrogenation						5 (b)	Pesticides intermediates.
TOTAL		13.25	187.5	200.75				

Note: Total Specialty Chemicals means category – 5 (f) = 96.6 MT/Month
Total Pesticide Specific Intermediates means category – 5 (b) = 104.15MT/Month

37.3.12.2 The proposal was earlier considered by the EAC in its meeting held on 27-28 March, 2018 wherein the Committee, noted that the different products proposed to be manufactured included pesticides specific intermediates, and speciality chemicals which are to be utilized in making pharmaceuticals products. The Committee was of the opinion that such campaign operations shall not be allowed within the same unit/premises from environmental and health perspective. The Committee insisted for restructuring of the proposal accordingly, which would involve substantial changes in scope of work, assessment of pollution concerns and the EMP.

37.3.12.3 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of specialty chemicals (13.25 TPM to 96.6 TPM) and pesticide specific intermediates (104.15 TPM) manufacturing unit by M/s Pragna Life Science Pvt Ltd in a total area of 3504.26 sqm located at Plot No. 409/B/2, GIDC Industrial Estate, Panoli, District Bharuch (Gujarat).

The project/activity is covered under category A of item 5(b) 'Pesticide industry and pesticide specific intermediates' and 5(f) 'Synthetic Organic Chemical Industries' of Schedule to the EIA Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.
The ToR for the project was granted on 24/07/2017. Public hearing is exempted as the project site is located in the Industrial area.

Total water requirement is estimated to be 34.88 cum/day, of which fresh water requirement of 26.88 cum/day will be met from GIDC Water Supply.

Total effluent generated from different industrial operations is estimated to be 23.3 cum/day (Industrial - 17.3 cum/day + domestic - 6.0 cum/day). Industrial (low COD) & domestic wastewater of 10 m^3/day will be given primary treatment and sent to CETP of M/s PETL, Panoli for treatment & disposal. High COD & TDS wastewater of 3.3 m^3/day will be given primary treatment and then sent to Common Spray Dryer of M/s PETL, Panoli. High TDS & COD wastewater of 10 m^3/day will be treated in primary ETP and then sent to MEE & ATFD within premises for evaporation and condensate of 8 m^3/day will be reused for industrial purposes.

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 as per earlier observations of the Committee are found to be in order.

The unit is reported to be established prior to the EIA Notification, 2006, and thus requiring no prior environmental clearance for the present industrial operations of capacity 13.25 TPM.

Consent to Operate for the present capacity of 13.25 TPM speciality chemicals has been obtained from the State PCB vide letter dated 10th January, 2014 and valid up to 26th May, /2018.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *Presently generated effluent of 10 cum/day shall continue to be discharged to the CETP operated by M/s PETL, Panoli, after conforming to the standards prescribed under the Environment (Protection) Rules, 1986. However, there shall be no increase in effluent discharge to the CETP/ Common Spray Dryer due to the proposed expansion.*
- *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.*
- *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 98% 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* 26.88 cum/day, proposed 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. Storm water drain shall be passed through guard pond.*
- *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.*
- *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 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% 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.*
- *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 and the effluent shall be installed for measurement of flow/discharge and the pollutants concentration, and the emission and effluent monitoring data to be transmitted to the CPCB and SPCB server as per the directions of CPCB in this regard.*
- *The energy sources for lighting purposes shall preferably be LED based.*

Agenda No. 37.3.13

Proposed Synthetic Manmade Fibres & Ployester Granules under Category of manmade fiber-other than Rayon by M/s Beekaylon Synthetics Pvt. Ltd at Survey no. 287/1, 284P, 289/1/3, 289/1/2, 289/2; Village Velugam, UT of Dadra and Nagar Haveli

[IA/DN/IND2/70085/2017, IA-J-11011/493/2017-IA-II(I)]

37.3.13.1 The Project Proponent and their Consultant M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi made a detailed Presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to setup a new Manmade Fibers (other than Rayon) manufacturing unit at Survey No.: 287/1, 284P, 289/1/2, 289/1/3, 289/2 in the Industrial

Zone situated at Village-Velugam, U.T. of Dadra & Nagar Haveli - 396230 by M/s. Beekaylon Synthetics Pvt. Ltd.

(ii) The Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environmental clearance is prescribed with public consultation vide letter no. IA-J-11011/493/2017-IA II (I), dated: 16/11/2017.
Subsequently, Project Proponent had requested for amendment in the TOR's for exemption of public hearing and non applicable conditions on 01/12/2017. The proposal for amendment was returned to project proponent by generating EDS dated 21/01/2018. Through the EDS it was conveyed to the project proponent that, "*If the project is located within the notified industrial area, then public hearing would be exempted in terms of this Ministry's OMs. Also, there shall be no requirement of amendment in the standard ToR for the same. In case of any of the standard ToR conditions not applicable, the same may be reported accordingly while submission of the proposal for EC.*"

(iii) All activities are listed at S.N. 5(d) – Manmade Fiber- Other than rayonof Schedule of Environmental Impact Assessment (EIA) Notification Under category 'B', but are appraised at Central Level by Expert Appraisal Committee (EAC) due to applicability of General conditions.

(iv) Proposed land Area of 77800.00 m^2 will be used for the proposed new project.

(v) Industry will develop greenbelt in area of about 33.3% i.e., 25890.00 m^2 out of 77800.00 m^2 of area of the project.

(vi) The estimated project cost for the proposed project is Rs 443 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 10 Crores and the Recurring cost (operation and maintenance) will be about Rs. 66 Lakhs/Annum.

(vii) Total Employment will be 1353 persons as direct & considerable number of persons as indirect in phase-wise implementation of the proposed project. Industry proposes to allocate Rs. 100 Lakhs in next 10 years @ of 2.25 % towards Corporate Social Responsibility.

(viii) There are Patches of Reserved forests - 2.59 km W, Vasona Lion safari - 9.37 km NW, Satmalia Deer Park - 5.3 km NE, DNH Wild Life Sanctuary (1.30 km E) lies within 10 km distance. Damanganga, Dongar Khadi River, Sakartod River, Darotha River are flowing at a distance of 8.22 Km NE, 1.40 km N, 3.45 km NE, 5.23 Km NW respectively.

(ix) Ambient air quality monitoring was carried out at 8 Locations during October 2017 to December 2017 and the baseline data indicates the ranges of concentrations as: PM_{10} (68.75 - 82.54 µg/m^3), $PM_{2.5}$ (16.58 - 31.08 µg/m^3), SO_2 (15.71 - 20.17µg/m^3), NO_x (20.71 - 23.42 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.76 ug/m^3, 17.96 ug/m^3 and 33.48 ug/m^3 with respect to PM_{10}, SO_x and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(x) Total water requirement is 4270.00 KL/day of which fresh water requirement of3740 KL/day and will be met from irrigation canal (Surface water source)/ Ground water with required permission from CGWA.

(xi) Industrial Effluent generated from process, washing and boiler will be treated in proposed Effluent Treatment Plant as per required treatment and treated effluent from ETP @300.00 KL/day and cooling tower blow down @500 KL/day (Total: 800 KL/day) will be passed through multi stage Reverse Osmosis Plant. R.O. Permeate @600 KL/day will be reused and the R.O. reject @195 KL/day will be treated through MEE system. The condensate recovered water from MEE @ 150 KL/day will be reused. And MEE residue will be collected and sent to TSDF site.

(xii) Power requirement will be 27 MW and will be met from DNH Power distribution corporation Ltd. The details of proposed DG sets are as under:

S. No.	Item	No. of unit (Capacity)	Fuel & Fuel consumption	Control Measures	Pollutants & Limits
1.	**D. G. Set**	**1 No. (1000 KVA) & 2 Nos. (2500 KVA each)**	**Diesel: 3750 lit/hr.**	**Stack Height: 30 m (Each)**	PM<150 mg/Nm3 SO2< 100 ppm NOx< 50 ppm

(xiii) Proposed unit will have following utilities:

Sr. No.	Item	No. of unit (Capacity)	Fuel & Fuel consumption	Control Measures	Pollutants & Limits
1.	**Steam Boiler**	**1 No. (10 TPH), 2 Nos. (1 TPH each)**	**LSHS/ Furnace Oil: 60.00 KLD**	**Stack Height: 30 m (Common Stack)**	PM<150 mg/Nm^3 SO_2< 100 ppm NOx< 50 ppm
2.	**Thermic Fluid Heater**	**3 Nos. (10 M Kcal/Hr.)**		**Stack Height: 30 m(Common Stack)**	

(xiv) There will be no process emission from the proposed project.

(xv) Details of Solid waste / Hazardous waste generation and its management is as under:

Types of Waste & Category	**Source of Generation**	**Quantity per Month**	**Method of Disposal**
Hazardous Wastes			
ETP waste(35.3)	ETP, STP& MEE	60.00 MT	To TSDF of GEPIL site, Silvassa
Used oil(5.1)	Utility & Machineries	1.00 KL	Reuse or Sell to registered refiners
Empty drums(33.1)	Raw material	50000 Nos.	Reused or Sell to authorized scrap vendor
Process Waste (22.2)	From process	15.00 MT	Sell to authorized recycler or for co-incineration or to Common Incineration Facility
Non-Hazardous Solid Wastes			
Yarn waste& Lumps	From process	750.00 MT	Recycled or Sell to actual users.

(xvi) Public Hearing for the Proposed Project is exempted in terms of the provisions conditioned in paragraph 7(i)-(III)-(i)(b) of the Environment Impact Assessment Notification-2006 since the project site is located in the Notified Industrial Zone.

(xvii) There is no Litigation pending against the proposal.

(xviii) Details of products and capacity as under:

S.No	Product Details	Quantity (TPA)
1.	Polyester Filament Yarn (POY/FDY) / Staple Fiber/Polyester Granules By Continuous Polymerization & melt spinning process using PTA and MEG as raw material	432000.00
2.	Synthetic Filament Yarn : Bulk Continuous Filament Yarn(BCF)/Partially Oriented Yarn(POY)/Fully Drawn Yarn(FDY)/Dope Dyed Yarn(DD)/Low Oriented Yarn(LOY)/Highly Oriented Yarn(HOY)/ Nylon Yarn(N6 & N66)/ Polypropylene Yarn(PP) By Melt Spinning Using Ready Polyester/Nylon Chip /Polyamide Chips/ Polypropylene Chips As Raw Materials.	378000.00
3.	Polyester Texturised Yarn/Draw Texturised Yarn/Air Texturised Yarn/ Polyester Twisted Yarn/Cable Yarn/Double Yarn/ Draw Twisted Yarn/Acrylic Yarn /Covered Yarn/Spandex Yarn By Using Ready Yarn Of Polyester/Nylon/Acrylic	288000.00
4.	Winding Of Yarn/Heat Setting Of Yarn/Circular Knitting/Warping / Warp Knitting/Weaving Fabrics/Carpet Weaving/ Narrow Fabrics	36000.00
5.	Color Master Batch Chips / granules	9000.00
Total		**1143000.00**

37.3.13.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for setting up manmade fibres manufacturing unit of 1143000 TPA by M/s Beekaylon Synthetics Pvt. Ltd in a total area of 77800 sqm located at Survey No.287/1, 284P, 289/1/2, 289/1/3, 289/2, Industrial Zone, Village Velugam (Dadra & Nagar Haveli).

The project/activity is covered under category B of item 5(d) 'Manmade fibres manufacturing (other than rayon)' of Schedule to the EIA Notification, 2006, and requires appraisal at respective SEAC/SEIAA. Due to applicability of general condition (located within 5 km of DN&H Wildlife Sanctuary), the project was appraised at central level by the sectoral EAC in the Ministry.

The ESZ around sanctuary is notified and the project site is reported to be located outside the ESZ of the DN&H Wildlife Sanctuary.

The ToR for the project was granted on 16th November, 2017. Public hearing is exempted as the project site is located in the notified Industrial area.

Total water requirement is estimated to be 4570 KLD, of which fresh water demand of 3740 KLD is proposed to be met from Irrigation canal/surface water. The project proponent agreed to reduce the water requirement to 3725 KLD and fresh water consumption to 3000 KLD by enhancing efficiency of the cooling tower. The project proponent has obtained necessary permission from the concerned authorities for fresh water supply of 4000 KLD from Damangana river/canal.

Total effluent generated from different industrial operations is estimated to be 700 KLD, which will be taken to the Effluent Treatment plant followed by multi stage RO. Ro permeate of 528.34 KLD will be reused and RO reject of 171.71 KLD will be treated through MEE system. The condensate recovered water from MEE (131.66 KLD) will be reused and MEE resideue will be sent to TSDF site. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

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.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *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.*
- *Solvent management, if any, 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 98% 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.*
- *Total fresh water requirement shall not exceed 3000 KLD proposed to be met from Irrigation canal/surface water. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Rain water harvesting structures shall be provided to reduce dependency of fresh surface water for industrial purposes. In any case, no ground water shall be used for the plant.*
- *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.*
- *The company shall undertake waste minimization measures as below:-*
  (g) Metering and control of quantities of active ingredients to minimize waste.
  (h) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  (i) Use of automated filling to minimize spillage.
  (j) Use of Close Feed system into batch reactors.
  (k) Venting equipment through vapour recovery system.
  (l) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- *The green belt of at least 5-10 m width shall be developed in 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 1.5 % 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.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*
- *The energy sources for lighting purposes shall preferably be LED based.*
- *Transportation of raw materials/products should be carefully performed using GPS enabled vehicles.*

Agenda No.37.3.14

Manufacturing of Bulk Drugs, Intermediates & Allied Products in District Solapur (Maharashtra) of M/s Tetrahedron Laboratories Pvt Ltd

[A/MH/IND2/64545/2017, IA-J-11011/218/2017-IA-II(I)]

37.3.14.1 The Project Proponent and their Consultant M/s. Green Circle, Inc. made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project for manufacturing Bulk Drugs, Intermediates & Allied Products at Plot No.F-25, MIDC Chincholi, Taluka Mohol, District Solapur (Maharashtra) by M/s Tetrahedron Laboratories Pvt. Ltd.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 25th meeting held during 5th July, 2017 and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter No.J- 11011/218/2017-IAII(I) dated 11th August, 2017.

(iii) All Synthetic organic chemicals industry (bulk drugs and intermediates are listed at S.N. 5(f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Existing land area is 6000.00 m2, will be used for proposed project.

(v) Industry will develop greenbelt in an area of 33 % i.e., 2040.00 m2 out of total area of the project.

(vi) The estimated project cost is Rs.4.75 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.50.0 Lakhs and the recurring cost (operation and maintenance) will be about Rs.9.5 Lakhs per annum.

(vii) Total Employment will be 16 persons as direct & 15 persons indirect after expansion.

(viii) The Great Indian Bustard Sanctuary, Nannaj, is within 10 km distance from the project site. Sina River is flowing at a distance of 6.73 in SSW direction.

(ix) Ambient air quality monitoring was carried out at 8 locations during 01st October'17 to 31st December'17 and the baseline data indicates the ranges of concentrations as: PM_{10} (52.6 to 64.5 µg/m^3), $PM_{2.5}$ (22.1 to 27.1 µg/m^3), SO_2 (5.1 to 7.7µg/m^3) and NO_2 (11.3 to 14.8 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.5µg/m^3, 1.81µg/m^3 and 1.06 µg/m^3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).
(x) Total water requirement is 51.9 m^3/day of which fresh water requirement of 51.9 m^3/day will be met from MIDC water supply.

(xi) Effluent of 34.3 cum/day will be treated through ETP and then sent to CETP for further treatment.

(xii) Power requirement will be 250 KVA and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Unit has DG sets of 250 kVA capacity used as standby during power failure. Stack (height 13.00 m) will be provided as per CPCB norms to the proposed DG sets.

(xiii) 1.5 TPH Briquette fired boiler will be installed. Multi cyclone separator followed by bag filter with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

(xiv) Details of Process emissions generation and its management: Scrubber will be provided to Process Reactor having capacity 3000 CFM x 3 Nos. and stack of adequate height (14 m height) will be installed to control gaseous emission from process.

(xv) Details of Solid waste/ Hazardous waste generation and its management:
Hazardous waste like ETP Sludge (10 Kg/day) will be Collection, Storage, Transportation, Disposal at TSDF site, MEE Salts (600 Kg/day) will be Collection, Storage, Transportation, Disposal at TSDF site, Discarded containers/barrels/liners (25 Nos./Month) will be Return back to raw material supplier, Used/spent oil (5 Litres/Month) will be Sold to authorized reprocessor and Process residue/Bottom fraction (383 Kg/day) will be Sold to authorized vendor.

(xvi) No litigation is pending against the proposal. Public hearing is not applicable for this project.

(xvii) The details of products and capacity as under:

S. No	Product	Quantity (TPM)
1	Cyano Acetic Acid	80.00
2	Cyclohexanyle Acetonitrile (Alkyl Nitrile)	30.00
3	Caffiene	3.00
4	Theophylline	3.00
5	Theobromine	5.00
6	Ethyl Cyano Acetate	6.50
7	Methyal Cyano Acetate	5.80
8	Cyano Acetamide	2.034
9	Metformin Hydrochloride	10.50
	Total	**145.834**

37.3.14.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for Manufacturing Bulk Drugs, Intermediates of 145.834 TPM by M/s Tetrahedron Laboratories Pvt. Ltd in a total area of 6000 sqm at Plot No. F-25, MIDC Chincholi, Taluka Mohol, District Solapur (Maharashtra).

The project/activity is covered under category B of item 5(f) 'Synthetic Organic Chemical Industries' of Schedule to the EIA Notification, 2006 and requires appraisal by respective SEAC/SEIAA. Due to the applicability of general condition (located within 5 km distance of Wildlife Sanctuary), the project is appraised at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 11th August, 2017. Public hearing is exempted as the project site is located in the notified Industrial area.

Total fresh water requirement is estimated to be 51.9 cum/day proposed to be met from MIDC water supply.

Total effluent generated from different industrial operations is estimated to be 34.30 cum/day, which will be taken to the Effluent Treatment plant and taken to CETP for further treatment.

37.3.14.3 *The EAC, after deliberations, observed discrepancies in the proposal especially in respect of the different industrial processes/operations involved. Due to that, it was not possible to understand the pollution concerns and/or the impact of the project on different environmental parameters. The Committee also desired for presence of the EIA coordinator for presentation of the proposal.*

The proposal was accordingly deferred for the needful.

Agenda No.37.3.15

Expansion of Manmade fibre manufacturing unit by M/s Beekaylon Synthetics Pvt Ltd at Survey No. 205/1-2 & 207, 204/1-2-3, 205/6 & 206 and Plot No. 60, 62, 64 & 65, Industrial Zone, Village: Masat Samarvarni, Silvassa (U.T. of Dadra & Nagar Haveli)

[IA/DN/IND2/65578/2017, IA-J-11011/337/2017-IA-II(I)]

37.3.15.1 The Project Proponent and their Consultant M/s Unistar Environment and Research Labs Pvt Ltd, Vapi made a detailed Presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project Expansion of Manmade Fibers manufacturing by capacity enhancement and addition of new products from 56460.00 TPA to 232000.00 TPA at Plot No: 205/1-2 & 207, 204/1-2-3, 205/6 & 206 and Plot No. 60, 62, 64 & 65, Govt. Industrial Estate, Village-Masat-Samarvarni, Silvassa, D & NH-396 240 (U.T.) by M/s Beekaylon Synthetics Pvt. Ltd.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 26th meeting held during 27th-28th July 2017 and recommended Terms of References (ToR) for the project. The ToR has been issued by Ministry vide letter no. IA-J-11011/337/2017-IA II (I), dated: 23/08/2017.

(iii) All activities are listed at S.N. 5(d)- Manmade Fibres Manufacturing (other than rayon) of Schedule of Environmental Impact Assessment (EIA) Notification Under category 'B', but are appraised at Central Level by Expert Appraisal Committee (EAC) due to applicability of General condition.

(iv) Ministry has issued EC earlier vide letter no. J-11011/66/2010-IA II(I); dated: 30/12/2010 to the existing project for Manmade Fibers Manufacturing in favour of M/s. Beekaylon Synthetics Pvt. Ltd., Masat-Samarvarni.

(v) Existing land area is 32300.00 m^2, additional 4800.00 m^2 land will be used for proposed expansion.

(vi) Industry has already developed greenbelt in an area of 8500.00 $m^2$and will develop greenbelt in additional area of 4136.21 m^2. After proposed expansion, the total greenbelt area will be 34% i.e., 12636.21 m^2 out of total 37100.00 m^2 area of the project.

(vii) The estimated project cost is Rs 135.45 Crores including existing investment of Rs 74.00 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 0.45 Crores and the Recurring cost (operation and maintenance) will be about Rs. 160 Lakhs/Annum.

(viii) Total Employment will be 489 persons as direct & considerable number of persons indirect after expansion. Industry proposes to allocate Rs. 677.25 Lakhs in next 10 years @ of 5 % towards Corporate Social Responsibility.

(ix) DNH Wild Life Sanctuary (1.67 km W) lies within 10 km distance from the project site. Damanganga River is flowing at a distance of 1.54 Km in W Direction.

(x) Ambient air quality monitoring was carried out at 8 Locations during October 2017 to December 2017 and the baseline data indicates that ranges of concentrations as PM_{10} (60.25 to 85.75µg/m^3), $PM_{2.5}$ (16.63 to 30.54 µg/m^3), SO_2 (10.79 µg/m^3 to 22.54 µg/m^3), NO_x (15.63 µg/m^3 to 27.88 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.27 ug/m^3, 4.80 ug/m^3 and 27.94 ug/m^3 with respect to PM_{10} , SO_x and NO_X . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(xi) Total water requirement is 467.00 KL/day of which fresh water requirement of 373.2 KL/day and will be met from irrigation canal (Surface water source).

(xii) Industrial Effluent of 93.00 KL/day quantity will be treated through in-house ETP and the treated effluent will be recycled in washing and utility operation. The plant will be based on Zero Liquid discharge system.

(xiii) Power requirement after expansion will be 22750 KVA including existing 10750 KVA and will be met from DNH Power distribution corporation Ltd. The details of existing and proposed DG Set(s) is as under:

S. No.	Item	No. of unit (Capacity)	Fuel & Fuel consumption	Control Measures	Pollutants & Limits
Existing					
1.	D.G. Set	**1 No. (750 KVA)**	HSD: **120 Lts/Hr.**	Stack Height: 9 m Acoustic enclosure for Noise control	PM<150 mg/Nm3 SO2< 100 ppm NOx< 50 ppm
Proposed					
2	D.G. Sets	**4 Nos. (1000 KVA each)**	HSD : **160 lit/Hr. each**	Stack Height: 30 m Acoustic enclosure for Noise control	PM<150 mg/Nm3 SO2< 100 ppm NOx< 50 ppm

(xiv) Existing unit has following utilities:

Sr. No.	Item	No. of unit (Capacity)	Fuel & Fuel consumption	Control Measures	Pollutants & Limits
Existing Utilities					
1.	Steam Boiler	2 Nos. (Capacity- 2 tons/Hr each) **(One in standby)**	Coal: **0.05MT/Hr**	Bag filter & Stack Height: 30 m	PM<150 mg/Nm3 SO2< 100 ppm NOx< 50 ppm

(xv) For proposed expansion no additional boiler will be installed.

(xvi) There is no process emission from the existing and proposed project.

(xvii) Details of Solid waste (Hazardous and Non-hazardous) generation and its management:

Types of Waste & Category	Source of Generation	Quantity per Annum	Method of Disposal
Hazardous Wastes			
ETP waste (35.3)	ETP operation	20.00 MT	To TSDF site
Used oil (5.1)	Plant &machineries	4.00 KL	Reuse or Sell to registered refiners
Empty drums(33.1)	Raw material consumption	950 Nos.	Reuse for packing or Sell to authorized scrap vendor
Empty bags (33.1)		88200 Nos.	
Non-Hazardous Solid Wastes			
Yarn waste	From process	1500.00 MT	Sell to actual users.
Tex. Yarn waste	From process	11.53 MT	Sell to actual users.
Process Waste	From process	50.00 MT	Sell to actual users.
Fly ash	From existing Boiler	80 MT	Collection & storage in ash pond and 100% Utilization by sell to Brick/Cement manufacturer or construction projects

(xviii) Public Hearing for the Proposed Project is exempted in terms of the provisions conditioned in paragraph 7(i)-(III)-(i)(b) of the Environment Impact Assessment Notification-2006 since the project site is located in the Notified Industrial Zone. Public hearing is exempted as the TOR Letter No. IA-J-11011/337/2017-IA/II(I), dated: 23rd August, 2017.

(xix) Six monthly certified compliance report is submitted to MoEF&CC, as an Annexure of EIA report. Since, the certified compliance report is older than 3 years, request for issue of certified compliance report is made to RO-MoEF&CC, Bhopal. Subsequently, inspection of unit by RO-MoEF&CC, Bhopal is completed on 13th April 2018.

(xx) There is no Litigation pending against the proposal.

(xxi) Details of products and capacity as under:

S. No.	Product Details	Quantity (TPA)		
		Existing	Proposed	Total
	Polyester Texturised & Twisted Yarn	24960	35040	60000
	Polyester Oriented Yarn (POY) / Fully Drawn Yarn (FDY)	31500	68500	100000
	Bulk Continuous Filament Yarn/ Nylon Filament Yarn	---	72000	72000
	Total	56460	175540	232000

37.3.15.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of Manmade Fibres Manufacturing from 56460 TPA to 232000 TPA by M/s Beekaylon Synthetics Pvt Ltd in a total area

of 37100 sqm at plot Nos. 205/1-2 & 207, 204/1-2-3, 205/6 & 206, 60, 62, 64 & 65, Industrial Estate, Village Masat-Samarvarni, Silvassa (D & NH).

The project/activity is covered under category B of item 5(d) 'Manmade fibres manufacturing (other than rayon)' of Schedule to the EIA Notification, 2006, and requires appraisal at respective SEAC/SEIAA. Due to applicability of general condition (located within 5 km distance of DN&H Wildlife Sanctuary) the project was appraised at central level by the sectoral EAC in the Ministry.

The ESZ around sanctuary is notified and the project site is reported to be located outside the ESZ of the DN&H Wildlife Sanctuary.

The ToR for the project was granted on 23th August, 2017. Public hearing is exempted as the project site is located in the Notified Industrial area.

Total water requirement is estimated to be 467 KLD of which fresh water requirement of 373.2 KLD will be met from irrigation canal. The project proponent agreed to reduce the total water requirement to 414 KLD and fresh water consumption to 323.2 KLD by enhancing efficiency of the cooling tower. The project proponent has obtained necessary permission from the concerned authorities for fresh water supply from Damangana river/canal.

Total effluent generated from different industrial operations is estimated to be 87.5 KLD, which will be taken to the Effluent Treatment plant and the treated effluent of 67.5 KLD will be recycled in washing and utility operation. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

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.

Ministry had earlier granted environmental clearance vide letter dated 30th December, 2010 for expansion of Manmade Fibres Manufacturing of 56460 TPA in favour of M/s Beekaylon Synthetics Pvt Ltd. Latest monitoring report has been forwarded from Regional Office, Bhopal vide letter dated 29th May, 2018. The compliance status of the conditions was found to be satisfactory.

Consent to Operate for the present capacity of 56460 TPA has been obtained from the UT PCC vide letter dated 17th July, 2017, which was valid up to 31st March, 2018. The unit has applied for renewal of the same.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *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.*
- *Solvent management, if any, 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 98% 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.
- *Total fresh water requirement shall not exceed* 323.2 KLD *proposed to be met from Irrigation canal/surface water. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Rain water harvesting structures shall be provided to reduce dependency of fresh surface water for industrial purposes. In any case, no ground water shall be used for the plant.*
- *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.*
- *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 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 0.75 % of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*

- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*
- *The energy sources for lighting purposes shall preferably be LED based.*
- *Transportation of raw materials/products should be carefully performed using GPS enabled vehicles.*

37.4 Amendment in Environment Clearance

Agenda No.37.4.1

Expansion of Sugar unit (4500 TCD to 12000 TCD), Cogeneration Power Plant (20 MW to 70 MW) and Distillery Unit (60 KLPD to 160 KLPD) by M/s Baramati Agro Ltd at Village Shetphalgade, Tehsil Indapur, District Pune (Maharashtra)

[IA/MH/IND2/27937/2015, J-11011/106/2016- IA II(I)]

37.4.1.1 The proposal is for amendment in the environment clearance granted by the Ministry vide letter dated 20th March, 2017 for the project expansion of Sugar unit (4500 TCD to 12000 TCD), Cogeneration Power Plant (20 MW to 70 MW) and Distillery Unit (60 KLPD to 160 KLPD) by M/s Baramati Agro Ltd at Village Shetphalgade, Tehsil Indapur, District Pune, (Maharashtra).

37.4.1.2 The details of amendment requested are as under:

S. No.	Para of EC	Details as per the EC	To be revised read as	Justification/ reason

<table>
<tr><th>S. No.</th><th>Para of EC</th><th>Details as per the EC</th><th>To be revised read as</th><th>Justification/ reason</th></tr>
<tr><td>1</td><td>Para 2 (Point No. 2)</td><td>The following products will be generated by the company:
<table><tr><th>S. No.</th><th>Product</th><th>Production</th><th></th><th></th><th></th></tr><tr><td></td><td></td><td>Existing</td><td>New</td><td>Total</td><td>Working days</td></tr><tr><td>1</td><td>Crystalline Sugar</td><td>4500</td><td>7500</td><td>12000TCD</td><td>180</td></tr><tr><td>2</td><td>Co-gen Power</td><td>20</td><td>50</td><td>70 MW</td><td>240</td></tr><tr><td>3</td><td>Distillery (Ethyl Alcohol)</td><td>60</td><td>100</td><td>160 KLPD</td><td>270</td></tr></table></td><td>The following products will be generated by the company:
<table><tr><th>S. No.</th><th>Product</th><th>Production</th><th></th><th></th><th></th></tr><tr><td></td><td></td><td>Existing</td><td>New</td><td>Total</td><td>Working days</td></tr><tr><td>1</td><td>Crystalline Sugar</td><td>4500</td><td>7500</td><td>12000TCD</td><td>180</td></tr><tr><td>2</td><td>Co-gen Power</td><td>20</td><td>50</td><td>70 MW</td><td>240</td></tr><tr><td>3</td><td>Distillery (Ethyl Alcohol)</td><td>60</td><td>100</td><td>160 KLPD</td><td>330</td></tr></table></td><td>The environment management methodology is being upgraded from anaerobic digestion - composting combination to Conc. Incineration technology which will achieve ZLD on continuous time frame</td></tr>
<tr><td>2</td><td>Para 9 (Point No. 9)</td><td>…..The power evacuation line….</td><td>…… New incineration boiler of capacity 32 TPH will be installed for distillery. ESP will be provided with Stack height of 70 m for distillery for dispersion as per SPCB consent. The power evacuation line ……</td><td>Addition of new incineration boiler for change in disposal method.</td></tr>
<tr><td>3</td><td>Para</td><td>Spent wash generated in</td><td>Spent wash generated from</td><td>Kept 30 KLPD for</td></tr>
</table>

S. No.	Para of EC	Details as per the EC	To be revised read as	Justification/ reason
	11 (Point No. 11)	proposed project will be used as compost (organic fertilizer). It is also proposed to convert this and use as fuel in the factory. Air pollution control equipment …..	**30 KLPD facility will be used as compost (organic fertilizer) and remaining spent wash from 130 KLPD Facility will be burnt together with coal in new incineration boiler (32 TPH) for distillery.** Air pollution control equipment …..	composting & 130 KLPD for incineration boiler , in case of maintenance.
A	**Specific Condition**			
	(i) Para 14 of EC letter (pg. 3 of 7)	ESP &wet scrubber with stack height of 65m for **sugar co-gen and 40m for distillery for dispersion** and for proposed boiler as per SPCB ……	ESP &wet scrubber with stack height of 65m for **sugar co-gen and 70m for distillery for dispersion** and for proposed boiler as per SPCB ……	Addition of boiler increase in Stack Height
	(ix) Para 22 of EC letter (pg. 4 of 7)	**Spent wash to be generated will be used as compost (organic fertilizer) as proposed.** Treated spent wash will be evaporated in MEE and concentrated spent wash **will be bio-composted by mixing with press mud generated from sugar unit to achieve 'Zero' discharge.** Evaporator Condensate, spent lees and utilities effluent …..	**Spent wash generated from 30 KLPD facility will be used as compost (organic fertilizer) as proposed.** Treated spent wash will be evaporated in MEE and concentrated spent wash **will be bio-composted by mixing with press mud generated from sugar unit to achieve 'Zero' discharge. Remaining spent wash from 130 KLPD Facility will be burnt together with coal in new incineration boiler (32 TPH) for distillery.** Evaporator Condensate, spent lees and utilities effluent …..	Change in technology

37.4.1.3 *The EAC, after detailed deliberations, deferred the proposal for more clarity on the proposed amendments and desired for submission of an addendum to the EIA report, clearly spelling out the working days for distillery while composting the spent wash and/or its incineration. The Committee also asked for dispersion modeling for the additional stack attached to the incineration boiler of 32 TPH to arrive at the GLC for different pollutants, and also the impact of the proposed amendments on different environmental parameters.*

Agenda No.37.4.2

Expansion of Viscose Staple Fibre (1,27,750 to 2,33,600 TPA), Sulphuric Acid (1,46,000 to 2,19,000 TPA), Carbon-Disulphide (21,600 to 37,295 TPA) and Captive Power Plant (25 to 45 MW) by M/s Birla Cellulosic (A Unit of Grasim Industries Ltd) at Birladham, Village Kharach, Tehsil Hansot, District Bharuch (Gujarat)

[IA/GJ/IND2/59092/2016; J-11011/320/2016-IA.II(I)]

37.4.2.1 *The project proponent has informed about not to attend the EAC meeting and requested for consideration in the next meeting. The proposal was, therefore, deferred.*

Agenda No.37.4.3

Expansion of bulk drug manufacturing unit (from 103.83 MTPA to 189.03 MTPA) by M/s Concord Biotech Limited at Plot No. 1482- 1486, Trasad Road, Taluka Dholka, District Ahmedabad (Gujarat)

[IA/GJ/IND2/31732/2015, J-11011/268/2015-IA II (I)]

37.4.3.1 The proposal is for amendment in the environmental clearance granted by the Ministry vide letter dated 23rd October, 2017 for the project 'Expansion of Bulk Drugs Manufacturing from 103.83 MTPA to 189.03 MTPA at Plot No. 1482- 1486, Trasad Road, Taluka Dholka, District Ahmedabad (Gujarat) in favour of M/s Concord Biotech Limited.

37.4.3.2 The project proponent requested for amendment/correction in the said EC, with the details as under:

S. No.	Para of EC	Details as per the EC	To be revised/ read as	Justification/ Reasons
1	Condition no. 8, pg no. 3	Total water requirement is **955 m^3/day** of which fresh water requirement of 496.6 m^3/day to be met from bore well. Total effluent of **399 m^3/day** shall be treated through Effluent Treatment Plant with RO treatment along with MVR/MEE. Treated effluent shall be used for greenbelt. **Condensate of MEE & RO reject shall be utilized for cooling.** No effluent shall be discharged outside the plant premises.	Total water requirement is **646 m3/day** of which fresh water requirement of 496.6 m3/day to be met from bore well. Total effluent of **389 m3/day** shall be treated through Effluent Treatment Plant with RO treatment along with MVR/MEE. Treated effluent shall be used for greenbelt. Condensate of **MEE & RO permeate shall be sent to cooling.** No effluent shall be discharged outside the plant premises.	As per the EC reconsideration presentation
2	Condition	As proposed by the proponent, Zero liquid	As proposed by the proponent, Zero liquid	As per the EC reconsideration

	no. 15(b), pg no. 4	discharge shall be ensured and **no waste/treated water shall be discharged to any surface water body, sea and/or on land.** Domestic sewage shall be disposed off through septic tank/soak pit.	discharge shall be ensured and **no waste/ treated water shall be discharged to any surface water body, sea. Treated water shall be utilized on land after treatment for greenbelt development.**	presentation
3	Condition no. 15(f) (vii), pg no. 5	All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	To be deleted	Our all solvent tanks are insulated and no chances of generation vapor from solvent
4	Condition no. 15(r), pg no. 6	Raw material storage should **not exceed 3 days** at any point of time.	To be deleted	Inventory is depends on availability of raw material and its qty. So this condition is not suitable for our industrial activity.

37.4.3.3 *The EAC, after detailed deliberations, observed the proposal not admissible for amendment. The proposal was, therefore, deferred.*

Agenda No. 37.4.4

Setting up of Bulk drugs manufacturing plant at Survey No. 102/p, 105/p, 106, 119,120/p, 121, 73, 74, Ahmedabad–Mehsana Highway, Village Bileshwarpura, Taluka Kalol, District Gandhinagar, Gujarat by M/s Torrent Pharmaceuticals Limited Oncology

[IA/GJ/IND2/53242/2016, J-11011/129/2016- IA II(I)]

37.4.4.1 The proposal is for amendment in environmental clearance granted by Ministry vide letter dated 6th November, 2017 for 'Bulk Drug manufacturing project 'in favour of M/s Torrent Pharmaceuticals Limited (Oncology) at survey No. 102/p, 105/p, 106, 119, 120/p, 121, 73, 74, Village Bileshwarpura, Taluka Kalol, District Gandhinagar (Gujarat).

37.4.4.2. The project proponent had requested for amendment/correction in the said EC, with the details as under:

S. No.	Para of EC	Details as per the EC	To be revised/ read as	Justification/ Reasons
1.	Para	The green belt over 33%	The green belt over	As a responsible corporate

	11 (o)	of the total project area shall be developed with at least 10m wide along the plant periphery, in downward wind direction, and along road sides etc. As many as 25000 trees to be planted per year during first five years. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.	33% of the total project area shall be developed with at least 5m wide along the plant periphery, in downward wind direction, and along road sides etc. As many as 5000 trees to be planted per year during first five years in the green belt and nearby public places, schools, hospital compounds and village lakes. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. In addition to this, 500kW solar power plant to be installed in any of the manufacturing facility.	group we shall put in all efforts to plant as many trees as feasible within the plant premises and other manufacturing sites as well public places (schools, hospital compounds and village lakes) subject to availability of such large public place. 5000 trees per year shall be difficult to plant and maintain for consecutive five years period and hence we therefore request you to allow us to plant 5000 trees per year over a period of 5 years. We also propose to install a 500 KW solar power plant towards contribution for green energy.
2.	Para 11 (v)	Raw material storage should not exceed 3 days at any point of time	Quantity of raw material storage will be less than/equal to 20% of the total annual raw material requirement.	Maintaining and manufacturing of pharmaceutical API with 3 days inventory is impractical and this shall lead to disruption in manufacturing operations impacting the availability of finished API to marketing. Intermediates and KSM for API have dossier approved root of synthesis as submitted to regulatory authorities at the time of dossier approval. Manufacturer of such Intermediate is done based on finalized process for manufacturing and therefore it is not standard raw material available in market. These are manufactured by

				suppliers based on firm orders and supplied in their minimum manufacturing batch size packing. Therefore a time lag between the date of the order, manufacturing by supplier and subsequent delivery and receipt of the goods (imported RM takes further more time) and testing before it can be used for manufacturing is necessary. This is generally in the range of four to five months We therefore request for amendment in this condition from 3 days for raw material and request to allow us to store at the rate of less than/equal to 20 % of the annual raw material requirement.
3.	Para 11 (q)	At least 5% of the total project cost shall be allocated for Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	At least 2.5% of the total actual project cost shall be allocated for Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	The proposed anti-cancer API project is highly capital intensive as in order to protect environment and operator, the manufacturing process needs to be carried out under isolators. 5 % of total project cost for ESR will adversely impact on project viability and shall defeat the objective of cheaper anti-cancer drugs. Please allow us to spend 2.5%of actual total project cost towards ESR as is the general norm. This would be over and above our CSR spend.
4.	Para 11 (s)	Continuous online (24X7) monitoring system for stack	Continuous online (24X7) monitoring system for the effluent	As far as Liquid effluent is concerned, online monitoring system will be installed as

		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. In case of the treated effluent to be utilized for irrigation / gardening, real time monitoring system shall be installed at the ETP outlet.	shall be installed with web camera with night vision capability and flow meters in the channel / drain carrying effluent within the premises. In case of the treated effluent to be utilized for irrigation / gardening, real time monitoring system shall be installed at the ETP outlet.	per CPCB guidelines. Data will be uploaded onto the company web site and will also be provided to MoEF&CC, CPCB as well as SPCB. As regards with online monitoring of Air pollution, we would like to stress that our primary fuel will be PNG which is a clean fuel. Hence, concentration of emission shall be always well within the prescribed norms. Further, manufacturing of anti-cancer API products is a shift based operation which limits emission to a few instances and not on continuous basis. The Process emissions will be limited in quantum due to very small and low volume batches. These will be discharged through two stage scrubber. There will be no continuous emission. In view of the above, we request you to limit online monitoring to that for liquid effluent only.

37.4.4.3 The proposal was earlier considered by the EAC in its meeting held during 22-24 January, 2018, wherein the Committee recommended the proposed amendments, except that at S. No.2 in respect of storage of raw material. To consider the same, the project proponent was asked to provide more details of all raw materials, their procurement, hazard potential and also the compliance vis-à-vis the MSIHC Rules, 1989.

The project proponent has now submitted that details of all raw materials, their procurement, hazard potential and also the compliance vis-à-vis the MSIHC Rules, 1989.

37.4.4.5 *The EAC, after deliberations and in view of its earlier observations, recommended for raw material storage to be within 20% of the total annual requirement. However, in case of the raw*

materials identified as the hazardous one under the MSIHC Rules, 1989, the statutory provisions contained therein shall continue to be followed.

Agenda No.37.4.5

Expansion for manufacture of Carbon Black (From 12500 MTPM to 18750 MTPM) along with Power Plant (From 33.7 MW to 47 MW) at K-16, Phase II, SIPCOT Village Pappankuppam, Gummidipoondi, district Tiruvallur, Tamil Nadu by M/s SKI Carbon Black India Pvt. Ltd Unit- Extension of validity of EC- reg.

[IA/TN/IND2/73860/2011, J-11011/350/2010-IA.II(I)]

37.4.5.1 The proposal is for extension of validity of environmental clearance granted by the Ministry vide letter dated 21st September, 2011 to the project 'Expansion of Carbon Black (12,500 MTPM to 18,750 MTPM) alongwith Power Plant (33.7 MW to 47 MW) at K-16, Phase II, SIPCOT Village, Pappakuppam, Gummidipoondi, District Thiruvallur (Tamilnadu)in favour of M/s Hi-Tech Carbon, India, which was further transferred to M/s SKI Carbon Black (India) Pvt. Ltd vide Ministry's letter dated 10th February, 2015

37.4.5.2 The extension of the EC validity has been requested for further period of three years on the following ground:

The expansion has been taken up in a phased manner. Phase I of expansion for the production of 14500 MTPM has been completed and CTO obtained for the same. Phase II expansion is underway (Carbon Black Production from 14500 MTPM to 18750 MTPM, and Power from 33.7MW to 47MW).

37.4.5.3 *The EAC, after deliberations and especially in view of the plant already commissioned at production capacity of 14500 MTPM, insisted for monitoring report on compliance status of the conditions stipulated in the environmental clearance dated 21st September, 2011 from the concerned Regional Office of the Ministry. The Committee desired to take the proposal forward after the certified compliance report is received.*

Agenda No.37.4.6

Expansion of Dye Intermediates Unit (4,200 to 45,000 MTPA) and Cogeneration Power Plant (2.67 MW) at Survey No. 327 to 334A, 325, 326, 989, 990 and 991, Village Karkhadi/Dudhwada, Taluka Padra, District Vadodara, Gujarat by M/s Mayur Dyechem Intermediates Limited (Unit-III) - Extension of EC Validity -reg

[IA/GJ/IND2/73534/2010, J-11011/800/2008 - IA II (I)]

37.4.6.1 The proposal is for extension of the validity of the environmental clearance granted by the Ministry vide letter dated24th December 2010 to the project 'Expansion of Dye Intermediates Unit (4,200 to 45,000 MTPA) and Cogeneration Power Plant (2.67 MW) at Survey No. 327 to 334A, 325, 326, 989, 990 and 991, Village Karkhadi/Dudhwada, Taluka Padra, District Vadodara, Gujarat in favour of M/s Mayur Dyechem Intermediates Limited (Unit-III).

37.4.6.2 The project proponent has requested for extension of the EC for further period of three years, as due to financial problems, it was unable to obtain CTO with the environmental clearance.

37.4.6.3 During deliberations, the EAC noted that the EC was granted to the project on 24th December 2010 and the proposal for extension of the validity of the EC was submitted in the Ministry's portal on 16th March, 2018. As per EIA Notification, 2006 and its subsequent amendments, provides that the period of validity may be extended by the regulatory authority concerned by a maximum period of three years if an application is made to the regulatory authority by the applicant within the validity period. Where the application for extension has been filed more than one month after the validity period of EC but less than three months after such validity period, then, based on the recommendations of the EAC, the delay shall be condoned with the approval of the Minister in charge of Environment, Forest and Climate Change. Provided that no condonation for delay shall be granted for any application for extension filed 90 days after the validity period of EC.

37.4.6.4 The EAC, after deliberations and in view of the provisions contained in the EIA Notification, 2006 read with subsequent amendments therein, recommended for extending validity of the EC dated 24th December, 2010 for a period of three years i.e. up to 24th December, 2020. The Committee further desired that delay in submitting the request (more than one month) could be condoned with the approval of the competent authority.

Agenda No.37.4.7

Proposed Molasses based Distillery (45 KLPD) by M/s Kancheshwar Sugar Ltd. (I) at Gat No. 74 and 79 Village Mangrul, Tehsil Tuljapur, District Osmanabad (Maharashtra)

[IA/MH/IND2/60405/2016, J-11011/224/2013-IA II(I)]

37.4.7.1 *The project proponent has informed about not to attend the EAC meeting and requested for consideration in the next meeting. The proposal was, therefore, deferred.*

31st May 2018 (Day 3)

37.5 Environmental Clearance

Agenda No.37.5.1

Expansion of Epoxy Hardening Plant by M/s Admark Polycoats Pvt Ltd at Sy.Nos.206 & 207, Village Luna, Tahsil Padra, District Vadodara (Gujarat)

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

37.5.1.1 *Prior to the meeting, the project proponent informed the Ministry that the details sought by the EAC were yet to be made available, and requested to defer the proposal.*

The proposal was, therefore, not considered.

Agenda No.37.5.2

Expansion of Synthetics Filaments Yarns (i.e, Partially Oriented Yarn, Polyester Filament Yarn, (POY) Textured Yarn and Twisted Yarn) having 255 MT/Day by M/s Geelon Industries Pvt Ltd at Survey No.255/1/16 & 255/1/17P, B/h IPCA Labs, Industrial Zone, Village Athal, Naroli, U.T. of Dadra and Nagar Haveli

[IA/DN/IND2/31527/2015, J-11011/286/2015-IA II (I)]

37.5.2.1 The project proponent and the accredited consultant M/s Unistar Environment and Research Labs Pvt Ltd, Vapi made a detailed Presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project for expansion of Synthetics Filaments Yarns (i.e., Partially Oriented Yarn (POY), Polyester Filament Yarn (PFY), Textured Yarn and Twisted Yarn) from 45 MT/Day to 300 MT/Day by M/s Geelon Industries Pvt Ltd at Survey No.255/1/16 & 255/1/17P, B/h IPCA Labs, Industrial Zone, Village Athal, Naroli, UT of Dadra and Nagar Haveli.

(ii) The project was considered by the Expert Appraisal Committee (Industry-2) in its 3rd meeting held during 18-19 January, 2015 and recommended Terms of References (ToR) for the project. The ToR has been issued by Ministry vide letter no. J-11011/286/2015-IA II (I), dated: 5th March, 2016, followed by amendment on 11th May, 2017, providing exemption from public hearing as per the provisions contained in Para 7 Stage III (3) (i) (b) of the EIA Notification, 2006.

(iii) All activities are listed at S.N. 5(d) – Manmade Fiber- Other than rayon of Schedule to the Environmental Impact Assessment (EIA) Notification, 2006 under category 'B', but due to applicability of General condition project appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) The existing unit was established before the implementation of EIA Notification 2006. Existing land area is 15147.96 sqm and no additional land shall be required for the proposed expansion. Industry will develop greenbelt in area of about 28% i.e., 4241.42 out of 15147.96 sqm of area of the project.

(v) The estimated project cost is Rs.118.71 Crores including existing investment of Rs.41.71 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.1.52 Crores and the Recurring cost (operation and maintenance) will be about Rs.29.60 Lakhs/Annum. Total employment will be 325 persons as direct & considerable number of persons indirect after expansion. Industry proposes to allocate Rs.1.93 crores @ 2.5 % towards Corporate Social Responsibility.

(i) DNH Wildlife Sanctuary is situated at a distance of 1.10 km in South East. Damanganga River is flowing at a distance of 2.88 km in East direction.

(ii) Ambient air quality monitoring was carried out at 8 Locations during March 2016 to May 2016 and submitted baseline data indicates that ranges of concentrations as PM_{10} (59.63 to 85.04 $\mu g/m^3$), $PM_{2.5}$ (20.21 to 28.63 $\mu g/m^3$), SO_2 (11.10 to 13.88 $\mu g/m^3$), NO_x (12.83 to 18.54 $\mu g/m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.14 ug/m^3, 3.82 ug/m^3 and 24.61 ug/m^3

with respect to $PM_{10,}$ SO_x and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(iii) Total water requirement is 393 cum/day of which fresh water requirement of 393 cum/day and will be met from existing bore well within premises.

(iv) Industrial Effluent of 18.00 KL/day quantity generated from washing activity will be treated through in-house ETP and the treated effluent will be recycled. The Industrial wastewater of 40 KL/day from cooling tower is reused for gardening, toilet flushing and washing after pH correction. Hence, there is no discharge of treated effluent outside the premises. The plant will be based on Zero Liquid discharge system

(v) Power requirement after expansion will be 4800 kVA including existing 2400 kVA and will be met from Electricity Department, Silvassa. Existing unit has one DG set of 1000 kVA capacity & two DG sets of 380 kVA capacity each and additionally two DG sets of 1000 kVA each is proposed which will be used as standby during power failure. One proposed DG Set will replace the existing two DG Sets of capacity 380 kVA each after proposed expansion. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets of 1000 kVA (2 No.) in addition to the existing DG set of 1000 kVA.

(vi) ETP waste (35.3) generated from ETP operation @82 MT/year will be collected and stored at designated place and disposal through TSDF. Used Oil (5.1) generated from plant machineries @ 4.10 KL/Year will be reused/ disposal by sale to registered recyclers. Empty drums/Bags/Liners (33.1) generated from raw materials @88000 Nos./Year will be reused for packing or sale to authorized scrap dealers. Non-hazardous Yarn waste from process @400 MT/Year will be recycled back/sale to actual uses.

(vii) Public Hearing for the project is exempted (as per paragraph 7(i) (III) (i) (b) of the Environment Impact Assessment Notification-2006 since the project site is located in the Notified Industrial Zone. Public hearing is exempted as per amended TOR letter no. J-11011/286/2015-IA II (I), dated: 11th May, 2017.

(viii) As the existing unit was established in the year 2004, before the implementation of EIA Notification -2006 (S.O. 1533 dated 14-09-2006).

(ix) Details of products and capacity as under:

S. No.	Product Details	Existing (MT/day)	Proposed (MT/day)	Total (MT/day)
1	Synthetics Filaments Yarns (i.e., Partially Oriented Yarn (POY), Polyester Filament Yarn (PFY), Textured Yarn and Twisted Yarn)	45.00	255.00	**300.00**

37.5.2.2 The proposal was last considered by the EAC in its meeting held on 27-28 March, 2018, wherein the EAC desired for clarifications/inputs in respect of the following:-

- Requirement of EC to the existing project (engaged in manufacturing of Partially Oriented Yarn, Polyester Filament Yarn, Textured Yarn and Twisted Yarn) of capacity 45 TPD. An undertaking in this regard to be submitted along with supporting documents.
- Recycling of treated water and the revised water balance.
- Permission for withdrawal of ground water of 122.50 KLD to meet the present industrial operations, from the concerned regulatory authority/CGWA.

Parawise replies submitted by the project proponent in response to the above observations, are as under:-

S. No.	Clarifications/inputs sought by the EAC	Reply submitted by the project proponent
1.	Requirement of EC to the existing project (engaged in manufacturing of Partially Oriented Yarn, Polyester Filament Yarn, Textured Yarn and Twisted Yarn) of capacity 45 TPD. An undertaking in this regard to be submitted along with supporting documents.	The existing unit did not attract requirement of prior environmental clearance as per statutory provisions of contained in EIA Notification, 1994 i.e. new project with investment less than Rs.100 crore and expansion project with investment less than Rs.50 crore were exempted from prior environmental clearance.
2.	Recycling of treated water and the revised water balance.	PP has submitted the revised water balance and as per the revised water balance the total water requirement will be 432 cum/day out of which fresh water requirement will be 355.55 cum/day, proposed to be met from existing bore well within premises. Total effluent generated from different industrial operations of 77.55 cum/day shall be taken to the Effluent Treatment plant for treatment. The treated water of 76.45 cum/day shall be reused within the plant premises. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.
3.	Permission for withdrawal of ground water of 122.50 KLD to meet the present industrial operations, from the concerned regulatory authority/CGWA.	The project proponent has submitted the copy of application for obtaining permission to abstract ground water for industrial use to CGWA, for existing as well as proposed fresh water requirement on 4/1/2018.

37.5.2.3 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of Synthetics Filament Yarn (Partially Oriented Yarn, Polyester Filament Yarn, Textured Yarn and Twisted Yarn) manufacturing unit from 45 MT/Day to 300 MT/Day by M/s Geelon Industries Pvt Ltd in a total area of 15147.96 sqm at Survey No.255/1/16 & 255/1/17P, B/h IPCA Labs, Industrial Zone, Village Athal, Naroli, Dadra & Nagar Haveli (UT).

The project/activity is covered under category B of item 5(d) 'Manmade fiber (other than rayon)' of the schedule to the Environmental Impact Assessment Notification, 2006. However, due to applicability of general condition (D&NH wildlife sanctuary at 1.10 km in SSE direction), the project requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 5th March, 2016 followed by amendment on 11th May, 2017, providing exemption from public hearing as per the provisions contained in Para 7 (i) III. Stage (3) (i) (b) of the EIA Notification, 2006.

Total fresh water requirement is estimated to be 355.55 cum/day, which is proposed to be met from existing bore well within premises.

Total effluent generated from different industrial operations of 77.55 cum/day shall be taken to the Effluent Treatment plant for treatment. The treated water of 76.45 cum/day shall be reused within the plant premises. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

The project is reported to be established prior to issue of the EIA Notification, 2006, and as such, there is no requirement of prior EC in terms of the said Notification. In support of their submission in this regard, the project proponent has submitted Consent to Establish issued by Pollution Control Committee, Daman & Diu and Dadra Nagar Haveli, vide letter dated 27th March, 2004 in favour of M/s Pamis Tex Pvt. Ltd.

Consolidated Consent and Authorization (CC&A) for the present production of 45 TPM has been obtained from the Pollution Control Committee, Daman & Diu and Dadra Nagar Haveli, which is presently valid up to 31st October, 2018.

The reply submitted by the project proponent in response to the observations of the EAC in respect of requirement of EC to the existing project, revised water balance and Permission for withdrawal of ground water was found in order.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *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 sewage treatment plant shall be installed to take care of non-industrial effluent, and the treated water shall essentially be used for gardening purposes. The layout plan shall be submitted indicating location of the guard pond at the ETP.*
- *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 355.55 cum/day to be met from ground water source. Prior permission from concerned regulatory authority/CGWA shall be obtained.*
- *Effluent shall be treated in ETP followed by multiple effect evaporators (MEE) and agitated thin film dryer (ATFD). Condensate from MEE and ATFD shall be reused for cooling towers make-up.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *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 applicable, 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 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 directions, along road sides, at the parking vehicle loading and unloading areas, 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.*
- *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.*
- *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.*

Agenda No.37.5.3

Expansion of Active Pharmaceuticals Ingredients (APIs) with R&D Facility by M/s Harika Drugs Pvt Ltd at S. Nos. 165/A, 165/AA & 165/E, Gummadidala (V & M), District Sangareddy (Telangana)

[IA/TG/IND2/66988/2017, IA-J-11011/398/2017-IA-II(I)]

37.5.3.1 The project proponent and the accredited consultant M/s KKB Envirocare Consultants Pvt Ltd, Hyderabad, made a detailed presentation on salient features of the project and informed that:

(i) The proposal is for Environmental Clearance to the project for expansion of Active Pharmaceutical Ingredients (APIs) manufacturing Unit with R&D facility at Sy. No.165/A, 165/AA & 165/E, Gummadidala (V & M), Sangareddy District (Telangana) by M/s Harika Drugs Pvt. Ltd.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 28thmeeting held during 20thSeptember, 2017 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter no. J-11011/398/2017-IA II(I); dated 25-09-2017.

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

(iv) Ministry had issued EC earlier vide letter no. J-11011/79/2004-IA-II (I); dated 15-07-2005 to the existing project in favour of M/s. Harika Drugs Pvt. Ltd.

(v) Existing land area is 11043 m^2, additional 11230 m^2 land will be used for proposed expansion. Total area would be 22273 m^2 (2.23 ha). Industry had developed greenbelt in an area of 35.4% i.e. 7886 m^2 out of total area of the project.

(vi) The estimated project cost is Rs.36.97 Crores including existing investment of Rs.15.97 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 6.04 crores including existing Rs.2.44 Crores and the Recurring cost (operation and maintenance) will be about Rs. 4.5 crores per annum. Total Employment will be 85 persons as direct &154 persons indirect after expansion. Industry proposes to allocate Rs. 105 lakhs@ 5% towards Corporate Social Responsibility (Enterprise Social Commitment).

(vii) There are No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc within 10 km distance. Water bodies like Pond near Nawabpet is at a distance of 3.3 km in NE direction; Pond near Kanukunta is at a distance of 2 km in E direction; Pond near Anantaram is at a distance of 2 km in ESE direction; Pond Near Gummadidala is at a distance of 1 km in SSE direction; Pond Near Bonthapally is at a distance of 3.4 km in SSW direction; ErraCheruvu Gummadidala is at a distance of 0.7 km in SW direction; Pond near Mambapur is at a distance of 1.7 km in SW direction; Pond Near Nallavalli is at a distance of 2.2 km in NW direction.

(viii) Ambient air quality monitoring was carried out at 9 locations during March to May 2017 and the baseline data indicates the ranges of concentrations as: PM_{10}:28- 50µg/m^3, $PM_{2.5}$: 10-22µg/m^3, SO_2: BDL - 15µg/m^3 and NO_2: BDL-19µg/m^3 respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would

be 0.472µg/m^3, 4.96µg/m^3 and 2.84µg/m^3 with respect to PM_{10}, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total water requirement is 206.9 m^3/day of which fresh water requirement of 141.4m^3/day will be met from ground water through bore wells. Effluent of 73.2 KLD quantity will be treated through Effluent Treatment plant. The plant will be based on Zero Liquid discharge system.

(x) Power requirement after expansion will be 1200 kVA including existing 200 kVA and will be met from Telangana State Power Distribution Corporation limited (TSPDCL). Existing unit has 2 nos. of DG sets of 75 kVA capacities, additionally 2 nos. of DG sets of 1000 kVA are used as standby during power failure. Stack height of 11 m will be provided as per CPCB norms to the proposed DG sets.

(xi) Existing unit has 0.5 TPH coal fired boiler. Additional 2 TPH & 4 TPH coal fired boilers will be installed. Multi cyclone separator & bag filter with a stack of height of 30 m will be installed for controlling the Particulate emissions within statutory limit of 115 mg/Nm^3 for proposed boilers. Additional 4 lakh Kcal/hr coal fired Thermic Fluid Heater (TFH) will be installed in addition to the existing 2 lakh Kcal/hr Diesel fired TFH. Existing 2 lakh Kcal/hr TFH will be used as standby after expansion. Existing 0.5 TPH boiler will be dismantled after expansion.

S. No.	Process Emission	Maximum Quantity on various combinations (kg/day)	Treatment
1.	HCl	47.67	• Scrubbed by using water & CS lye sol.
2.	SO_2	301.4	• Scrubbed by using CS lye solution
3.	NH_3	60.9	• Scrubbed by using Chilled water / dil. H_2SO_4 solution.
4.	H_2	1.5	• Diluted with Nitrogen and Diffused with Flame Arrestor

(xii) Details of Process emissions generation and its management.

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

S. No.	Description	Proposed Quantity (TPD)	Stream	Handling Method	Disposal
1.	Organic residue from Process	1.41	28.1 of Schedule -I	HDPE Drums	Sent to SPCB Authorized Cement industries through GEPIL (**or**) to TSDF for Incineration
2.	Distillation Bottom Residue (1% of spent solvents)	0.2	36.1of Schedule -I		
3.	Spent carbon	0.1	28.3 of Schedule -I		
4.	Inorganic & Evaporation salt (Process) (10% moisture)	2	35.3 of Schedule -I	HDPE Bags	Sent to TSDF for Landfill **(or)** to SPCB Authorized Cement industries through GEPIL
5.	Evaporation salt	0.5	35.3 of		

	(Non-Process)		Schedule -I		
6.	ETP Sludge	0.3	35.3 of Schedule -I		
7.	Boiler ash	11	--	HDPE Bags	Sent to Brick Manufacturers
Other Hazardous Waste generation from the Plant					
8.	a) Detoxified Container / Liners drums, HDPE Carboys, Fiber Drums,	100 Nos./ month	33.1 of Schedule-I	Designated covered area	Disposed to SPCB Authorized agencies after complete detoxification
	b) PP Bags	100 Kg/month	--		
9.	Spent solvents (17.2 KLD + 0.8 KLD water)	18 KLD	28.6 of Schedule -I	Tanks / Drums	Recovered within the plant premises
10.	Recovered Solvents from Spent solvents (85% recovery from spent solvents)	14.5 KLD	28.6 of Schedule -I	Tanks / Drums	Reuse **(or)** sold to Recyclers
11.	Spent Mixed solvents (unrecovered solvents)	2.7 KLD	28.6 of Schedule -I	Tanks/ Drums	Sent to SPCB Authorized agencies
12.	Waste oils & Grease	3 KL/annum	5.1 of Schedule -I	MS Drums	Sent to SPCB Authorized agencies for reprocessing
13.	Used Lead acid Batteries	50 Nos. / annum	A1160 of Schedule-III	Stored in Covered shed	Sent to suppliers on buy-back basis.
14.	Misc. Waste (spill control waste)	L.S.	--	Stored in Drums	TSDF
15.	Rejects	L.S.	--		
16.	E- waste	L.S.	--	Designated covered area	Authorized reprocessor **(or)** TSDF
17.	Waste papers & other types of packing scrap	L.S.	--		Sold to scrap venders
18.	Canteen waste	L.S.	--	HDPE bags	Composted on site and reused for green belt
19	Bio Medical Waste	LS.	--	Color coded containers	Sent to SPCB authorized Biomedical waste incinerator

Note: Hazardous / Solid waste quantities maximum on various combinations i.e., 6 products on campaign products at a point of time and R&D products.

(xiv) Public consultation is exempted in terms of provisions of para 7(ii) of the EIA Notification, 2006 as per the ToR issued by MoEF&CC dated 25th September, 2017.

(xv) Certified Compliance report was issued by Regional Office of MoEF&CC, Chennai dated 5th September, 2017.

(xvi) The details of products and capacity as under:

S. No.	Products	Quantity kg/day	Quantity (TPA)	CAS No.	Therapeutic Category
1.	Benzydamine HCl	13.33	4.8	132-69-4	Anti- Inflammatory
2.	Buclizine Dihydrochloride	25	9	129-74-8	Antihistamine
3.	Carisoprodol	**333.33**	**120**	78-44-4	Muscle Relaxant
4	Chlorpheniramine Maleate	16.67	6	113-92-8	Antihistamine
5	Chromium Picolinate	83.33	30	14639-25-9	Nutritional supplement
6	Doxylamine Succinate	25	9	562-10-7	antihistamine
7	Gliclazide	**200**	**72**	21187-98-4	Oral antidiabetic
8	Hydroxyzine Dihydrochloride	66.67	24	2192-20-3	Antihistamine
9	Imipramine Hydrochloride	20	7.2	113-52-0	Antidepressant
10	Meclizine Dihydrochloride Monohydrate	25	9	1104-22-9	Antihistamine
11	Meloxicam	33.33	12	71125-38-7	Anti-inflammatory
12	Orphenadrine Citrate	**333.33**	**120**	4682-36-4	Anticholinergic
13	Oxomemazine Hydrochloride	13.33	4.8	4784-40-1	antihistamine
14	Oxomemazine	20	7.2	3689-50-7	antihistamine
15	Pheniramine Maleate	**233.33**	**84**	132-20-7	antihistamine
16	Prochlorperazine Maleate	26.67	9.6	84-02-6	Neuroleptic
17	Promethazine Hydrochloride	**333.33**	**120**	58-33-3	Antihistamine
18	Promethazine Theoclate	16.67	6	17693-51-5	Antihistamine
19	Sertraline Hydrochloride	**233.33**	**84**	113-92-8	Antidepressant
Total 6 products at time out of total 19products		**1666.65**	**600**		
R & D Activity					
1	R&D	0.5	0.2		
Total 6 products at time out of total 19 products and R&D products		**1667.2**	**600.2**		

37.5.3.2 During deliberations, the EAC noted the following: -

Earlier, the proposal for grant of ToR to the project for expansion of APIs from 1.93 TPM to 50 TPM was considered by the EAC in its meeting held on 18-20 September, 2017. While recommending the proposal, the project was exempted from public consultation as provided under Para 7(ii) of the

EIA Notification, 2006. Based on recommendation of EAC, ToR to the project was granted on 25th September, 2017 providing exemption from public consultation.

The proposal for environmental clearance was considered by the EAC in its meeting held on 27-28 March, 2018. The Committee found the EIA/EMP report in compliance with the ToR dated 25th September, 2017 and recommended the project for environmental clearance subject to certain terms and conditions as environmental safeguards.

As per the observations of the regulatory authority, the proposal was again taken to the EAC for reconsideration, especially to examine the rationale and/or justification for exemption from public consultation. While reconsideration of the proposal, the Committee observed the following:-

- The project was earlier granted CTE/CTO by the SPCB in 1993 for production capacity of 225 TPM (5 products).
- Based on the directives of the SPCB vide letter dated 26th February, 2005 regarding ex-post facto environmental clearance, public hearing for the project with its production capacity 1.93 TPM was conducted by the SPCB on 11/12 April, 2005.
- The project was granted environmental clearance by the Ministry on 15th July, 2005, considering the unit as SSI and located in the notified industrial estate requiring no public hearing.
- The concerned Gram Panchayat, Gummadidala, District Sanga Reddy has resolved and given its no objection vide letter dated 10th August, 2017 for the proposed expansion of the project which is based on feedback/input of the Panchayat members (15 Nos).

37.5.3.3 *The Committee, after detailed deliberations, reiterated its earlier recommendations for exemption from public hearing and grant of environmental clearance to the project as per the terms and conditions stipulated earlier.*

Agenda No.37.5.4

BS VI Fuel Quality upgradation project of Guru Gobind Singh Refinery Limited by M/s HPCL-Mittal Energy Limited (HMEL)

[IA/PB/IND2/61343/2016, J- 11011/386/2016-IA II(I)]

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

(i) The proposal is for BS-VI Fuel Quality Project at Guru Gobind Singh Refinery by M/s. HPCL-Mittal Energy Limited (HMEL) and located at village Phulo Khari, Tehsil Talwandi Sabo, Bhatinda district, Punjab.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 18th EAC meeting held during 23-25 January, 2017 and recommended Terms of References (TORs) for the Project. The TOR has been issued by Ministry vide letter no. J-11011/386/2016-IA II (I); dated 29th April, 2017.

(iii) All Petroleum Refinery projects are listed at S.N. 4(a) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Ministry had issued EC earlier vide letter no. J-11011/275/2007-IA-II(I) dated 22.06.2015 for expansion of refinery from 9 MMTPA to 11.25 MMTPA at village Phulo Khari, Tehsil Talwandi Sabo, District Bhatinda, Punjab by M/s HPCL-Mittal Energy Limited. Further EC was issued for the proposed Polymer Addition Project vide letter no. J-11011/266/2017-IA-II(I) dated 12.12.2017.

(v) Existing land area is 787 Ha (GGSRL area), additional no land will be required for proposed expansion.
(vi) Industry is already/ will be developed Greenbelt in an area of 33 % i.e. 193 Ha out of 594 Ha area of the project.

(vii) As such the total project cost Rs 1100 crores is for control of pollution & environmental protection. However, capital cost earmarked towards additional environmental pollution control measuring devices is Rs 0.6 Crores and the recurring cost (operation and maintenance) for the same will be about Rs 0.05 crores per annum.

(viii) Additional direct employment will be 16 as direct (during operation) & indirect employment for 2000-3000 persons during construction phase. Industry proposes to allocate Rs 2.75 crores towards Corporate Environment Responsibility.
(ix) It is reported that as per Form-1 no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River/ water body is not present within 10 km radius from the refinery.

(x) Ambient air quality monitoring was carried out at 8 locations during October to December 2017 and submitted baseline data indicates that ranges of concentrations of PM10 (249-307 µg/m3), PM2.5 (147-171 µg/m3), SO2 (4.6-16.8 µg/m3) and NO2 (15.1-24.6 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 26.2 µg/m3 and 9.5 µg/m3 with respect to SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(xi) Additional water requirement for proposed project is 32 m3/hr. Total water requirement will be 5952 m3/hr (Existing refinery:2420 m3/hr+ Polymer addition project: 3500 m3/hr + Proposed BSVI fuel quality Project:32 m3/hr) and will be met from existing raw water system from Kotla canal.

(xii) Additional wastewater generation will be 5 m3/hr which will be treated through existing ETP Plant.

(xiii) Power requirement for BS-VI Fuel Quality project will be 6.9 MW and will be met from existing CPP.

(xiv) The total SOx emission from the proposed BS-VI Fuel Quality project is 0.16 TPD and the overall SOx emission from the Guru Gobind Singh Refinery will be 23.8 TPD.

(xv) Hazardous waste will be disposed off in secured landfill inside refinery / nearby authorized landfill agency. Spent catalysts will be sent back to the original supplier / approved recycler for reprocessing.

(xvi) Public Hearing was exempted as per provisions contained as clause no. 7(ii) in EIA Notification 2006.

(xvii) Regional Office, Chandigarh submitted certified copy on 20/07/2017 after site visit of Guru Gobind Singh Refinery.

(xviii) There is no litigation pending against the proposal.

(xix) The following proposed units are envisaged in BS-VI Fuel Quality Project :

- New DHDT unit (1.9 MMTPA)
- HGU units revamp (capacity enhancement by 2X11 KTA)

(xx) Following are the list of existing and proposed products:

S No.	Products	Configuration @ 11.25MMTPA, KTPA	Proposed Configuration post BS-VI, KTPA
1	LPG	963.9	963.9
2	Naphtha	871.7	369
3	Gasoline	Bharat IV REG 1306.4	Bharat VI 1540
		Bharat IV PRE 25	
4	ATF	500	250
5	Kerosene	200	200
6	Diesel	Bharat IV 4842.6	Bharat VI 5018
7	Sulphur	227	245.5
8	Coke	991.5	943.5
9	Hexane	5	5
10	Motor Turpentine Oil	25	25
11	Polypropylene	500	500
12	Bitumen	520	520

37.5.4.2 The proposal was last considered by the EAC in its meeting held on 26-28 February, 2018, wherein the EAC, taking cognizance of the alarming baseline air quality (especially in terms of much higher PM_{10} & $PM_{2.5}$) and the observations of Regional Office in their compliance monitoring report, recommended for the following:-

- Action plan for improvement in ambient air quality to be prepared by the State Government of Punjab/SPCB in consultation with the CPCB, and implemented in letter and spirit and in time bound manner.

- Adequate clarifications regarding commencement of the project before the issue of EC dated 22nd June, 2015, which needs to be first examined by the Regional Office vis-à-vis their observations and then forwarded to the Ministry for necessary action in this regard.

The Committee also recommended that the Ministry may examine the matter in complete perspective including the environmental clearance granted recently by the Ministry vide letter dated 12th December, 2017 to the Polymer Addition project in the same complex and the conditions stipulated therein, to allow or regulate more industrial operations in the area (including the said project).

37.5.4.3 Response of the project proponent is as under:

S. No.	Clarifications/inputs sought by the EAC	Reply submitted by the project proponent
1.	Action plan for improvement in ambient air quality to be prepared by the State Government of Punjab/SPCB in consultation with the CPCB, and implemented in letter and spirit and in time bound manner.	Action plan for improvement in ambient air quality to be prepared by the State Government of Punjab/SPCB in consultation with CPCB, and implemented in letter and spirit and in time bound manner. Through Punjab PM concentration during winter season remains high. Punjab Pollution Control Board has taken following significant steps for curbing PM pollution during winter season:- • PPCB has directed all Brick Kiln owners operating their units shall restrict the firing period in the brick kilns from 1st of February to 30th September to improve the air quality. • The Brick Kiln in the state of Punjab shall not operate for the period from 1st October, 2018 to 31st January, 2019.
2.	Adequate clarifications regarding commencement of the project before the issue of EC dated 22nd June, 2015, which needs to be first examined by the Regional Office vis-à-vis their observations and then forwarded to the Ministry for necessary action in this regard.	Issue was taken up with RO, MoEF&CC, Chandigarh and on discussion it emerged that inadvertently the construction date was mentioned as 9/9/2014 in place of 9/9/2015 due to typographical error.

37.5.4.4 During deliberations, the EAC noted the following:-

The proposal is for environmental clearance to the project for BS-VI Fuel Quality upgradation project at Guru Gobind Singh Refinery by M/s HPCL-Mittal Energy Limited (HMEL) and located at village Phulo Khari, Tehsil Talwandi Sabo, Bhatinda district, Punjab.

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

The ToR for the project was granted on 29th April, 2017, exempting public consultation in terms of provisions contained in para 7(ii) of the EIA Notification, 2006.

Additional water requirement for proposed project is 32 m^3/hr. Total water requirement will be 5952 m_3/hr (Existing refinery:2420 m3/hr+ Polymer addition project: 3500 m^3/hr + Proposed BSVI fuel quality Project:32 m^3/hr) and will be met from existing raw water system from Kotla canal.

Additional wastewater generation will be 5 m^3/hr which will be treated through existing ETP Plant.

The reply submitted by the project proponent in response to the observations of the EAC, as mentioned in para 37.5.4.3 above, were found in order.

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

- *The project proponent shall take stringent mitigating and other remedial measures to minimize the incremental concentration of air pollutants (mainly PM_{10} & $PM_{2.5}$) to the extent possible.*
- *The project proponent shall develop local air quality management plan in consultation with SPCB and implemented to achieve desired standards.*
- *The incremental ground level concentrations (GLCs) for PM_{10}, $PM_{2.5}$, SO_2 & NO_x due to the increased vehicular and other allied/developmental activities, shall be analysed and reported for actual impact of the project.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *For the fuel quality up-gradation, 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.*
- *Total SO_2 emissions from the Refinery shall not exceed 990 kg/hr.*
- *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.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed with different stacks (attached to DHDT, HGU, Prime G) to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stacks of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 5952 cum/day (including 32 cum/hr for the proposed project) to be met from Kotla Canal. Necessary 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 to be done 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 ash from boiler shall be sold to brick manufacturers/cement industry.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.*
- *The company shall undertake waste minimization measures as below:-*
  (i) Metering and control of quantities of active ingredients to minimize waste.
  (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  (iii) Use of automated filling to minimize spillage.
  (iv) Use of Close Feed system into batch reactors.
  (v) Venting equipment through vapour recovery system.
  (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- *The green belt of 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% 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.*
- *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. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*

37.6 Amendment in ToR

Agenda No.37.6.1

Proposed Manufacturing Unit of New Technical Pesticides by M/s Samradhi Crop Chemicals (SCC) at HD-20, 21, 22 & 23, UPSIDC Industrial Area, Sikandrabad, District Bulandshahr (UP)

[IA/UP/IND2/62984/2017, IA-J-11011/76/2017-IA-II(I)]

37.6.1.1 The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter dated 7th July 2017 for the New Technical Pesticide manufacturing unit located at plot no. HD 20, 21, 22 & Plot No. HE-27, 28, 29 & 30, UPSIDC Industrial Area, Sikandrabad, District Bulandshahr (UP)-203205 by M/s Samradhi Crop Chemicals Pvt. Ltd (Erstwhile known as M/s Samradhi Crop Chemicals).

37.6.1.2 The project proponent has requested for amendment in the ToR with the details are as under;

S. No	Para of ToR	Details as per the ToR	To be revised/read as	Justification/ reasons
1	Point 1 4th Line onwards	Plot no. HD 20, 21, 22& 23 UPSIDC Industrial Area, Sikandrabad, Dist-Bulandshahr (UP)-203205 by M/s Samradhi Crop Chemicals.	Plot no. HD 20, 21, 22 & PLOT NO. HE-27, 28, 29 & 30, UPSIDC Industrial Area, Sikandrabad, Dist-Bulandshahr (UP)-203205 by M/s Samradhi Crop Chemicals Pvt. Ltd.	Additional land purchased which is under possession of Company. Company is incorporated as Private limited, Hence the new name of company is M/s Samradhi Crop Chemicals Pvt. Ltd. (Erstwhile known as M/s Samradhi Crop Chemicals).
2	Point 2 1st Line onwards	Total Plot area is 3200 sqm, out of which green belt will be developed in an area of 1056 m^2 (33%)	Total Plot area is 4800 m^2. Green belt will be developed covering area of >33% i.e.1584 $m^2$of the total project area.	Additional land purchased, 1600 m^2
3	Point 3 Table given	Total production capacity 165 MTPA	Total production capacity 760 MTPA	Amendment required in ToR letter because as per management intention and market requirement product capacity increase from 165 MTPA to 760 MTPA.

37.6.1.3 *The EAC, after deliberations, observed that the proposed amendments in ToR dated 7th July, 2017 involve substantial changes in the proposal viz. change of company name, plot area and production capacity. Accordingly, the Committee preferred for submission of the fresh proposal rather than amending the said ToR.*

The proposal was therefore not recommended.

Agenda No.37.6.2

Proposed 110 KLPD Grain based Distillery and 5MW Co-generation Power Plant by M/s Chilika Distilleries Private Limited at village Kanaka, Tehsil Khallikote, District Ganjam (Odisha)

[IA/OR/IND2/71669/2017, IA-J-11011/570/2017-IA-II(I)]

37.6.2.1 *The project proponent vide email dated 28th May, 2018 has informed that due to some unavoidable reasons, they are unable to attend the EAC meeting. The proposal was, therefore, deferred.*

Agenda No.37.6.3

Manufacturing of Phenol formaldehyde resin, melamine formaldehyde resin and urea formaldehyde resin by M/s Priva Laminates LLP at Survey No. 44/1 Paiki 3/1, NH-8A, Near Affil Vitrified, Village Pipli, Taluka & District Morbi (Gujarat)

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

37.6.3.1 The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter dated 14th January 2018 to the project for manufacturing of Phenol Formaldehyde Resin, Melamine Formaldehyde Resin and Urea Formaldehyde Resin located at Survey no. 44/1 Paiki 3/2, NH-8A, Near Affil Vitrified, Village Pipli, Taluka & District Morbi in favour of M/s Priva Laminates LLP.

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

S. No.	Para of ToR	Details as per the ToR	To be revised/ read as	Justification/reasons
1.	Address of the Proposed project site	Survey no. 44/1 **Paiki 3/1**, NH-8A, Near Affil Vitrified, Village - Pipli, Taluka & District – Morbi	Survey no. 44/1 **Paiki 3/2**, NH-8A, Near Affil Vitrified, Village - Pipli, Taluka & District – Morbi	Change in our land revenue survey number

37.6.3.3 *The Committee, after deliberations, found no merit in the proposal and thus not recommended.*

Agenda No.37.6.4

Expansion of Molasses based Distillery (30 KLPD to 100 KLPD) and installation of 5 MW co-generation power plant within existing plant premises by Dwarikesh Sugar Industries Limited at Dwarikesh Nagar, Village Bundki, Tehsil Nagina, District Bijnor (UP)

[IA/UP/IND2/72802/2018, J-11011/256/2015-IA II (I)]

37.6.4.1 The proposal is for amendment in the standard Terms of Reference granted by the Ministry vide letter dated 11th March, 2018 in favour of M/s Dwarikesh Sugar Industries Limited for their expansion project of molasses based distillery from 30 KLPD to 100 KLPD & installation of 5 MW Co-generation power plant within existing plant premises located at Dwarikesh Nagar, Village Bundki, Tehsil Nagina, District Bijnor (UP).

37.6.4.2 The project proponent has requested for amendment in the standard ToR with the details are as under;

S. No.	Para of ToR	Details as per the ToR	To be revised/ read as
	Page No. 2/ Para 1	In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard ToR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed *with public consultation* as follows:	In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard ToR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed ***without public consultation*** as follows:

37.6.4.3 *The EAC, noted that, the Ministry had earlier granted environmental clearance vide letter dated 28th March, 2017 for expansion & modernization of the distillery from 30 to 60 KLPD along with installation of 2.1 MW co-generation power plant. Public hearing for the project was conducted on 20th July, 2016 by Uttar Pradesh PCB. Due to adoption of better treatment technology (bio-composting to incineration route) and with the modernization in treatment process of spent wash by installing Multi Effect Evaporator (MEE), the production will be increased from 60 KLD to 100 KLD. The concerns raised during the last public hearing will be resolved with adoption of the proposed technology.*

The Committee, after deliberations, recommended the project for exemption from public hearing as per the provisions contained in Para 7(ii) of the EIA Notification, 2006.

Agenda No.37.6.5

Synthetic organic chemicals industry (dyes & dye intermediates by M/s Godavari Biorefineries Ltd at Sakarwadi, Survey No.14, Gut No.187, Kanhegaon, Kopargaon, Ahmednagar (Maharashtra)

[IA/IND/MH/23929/2014, IA- J-11011/402/2014 IA-I (I)]

37.6.5.1 The proposal is for amendment and extension of validity of the Terms of Reference granted by the Ministry vide letter dated 18th May, 2015 in favour of M/s Godavari Biorefineries Ltd for their expansion project of synthetic organic chemicals located at PO-Sakarwadi, Taluka Kopargaon, District Ahmednagar (Maharashtra).

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

S. No.	Para of ToR	Details as per ToR	To be revised/ read as	Justification/reasons
1	**Product Details**			
	Ethyl Acetate	8,700.0	8700.00	
	Acetaldehyde	2,100.0	2800.00	
	Croto Resin and Croto Di Urea	0.0	130.00	
	Crotonaldehyde	0.0	1000.00	
	1,3 Butylene Glycol	0.0	200.00	
	Acetic Acid	1,950.0	598.85	
	Dilute Acetic Acid	143.0	110.00	
	Dilute Ethyl Acetate and other ester	0.0	30.00	
	Acetaldol	0.0	425.00	
	Paraldehyde	0.0	60.00	
	Crotonic Anhydride	0.0	10.00	
	Crotonitrile	0.0	10.00	
	Dilute 1-3 Butylene Glycol	0.0	32.22	
	Butanol	0.0	117.70	
	2-Ethyl, 1, 3 Hexane Diol	0.0	33.33	
	3-Methoxy Butanol	0.0	275.00	
	Dilute 3 MethoxyButanol	0.0	30.00	The ToR was approved in 2015, however, this market is extremely fragile and thereby frequented by sudden changes in demand patterns
	3-Methoxy Butyl Acetate	0.0	340.00	
	3-Methyl 3- Pentene - One (MPO)	0.0	500.00	
	Sodium Sulphate	0.0	245.00	
	Ketone Mixture	0.0	197.50	
	Absolute Alcohol (Fuel Grade from RS/IS)	0.0	2000.00	
	Acetaldehyde Oxime	0.0	175.00	
	Ammonium Sulphate	0.0	139.70	
	Acetaldehyde Diethyl Acetal	0.0	250.00	
	Ethyl Vinyl Ether	0.0	100.00	
	Acetonitrile	0.0	425.00	
	Diethyl Oxalate	0.0	175.00	
	Gbamber	0.0	100.00	
	Sorbic Acid or Potassium Sorbate	0.0	500.00	
	Acetals	0.0	15.00	
	Esters	0.0	20.00	
	Oximes	0.0	15.00	
	Other Aldehydes	0.0	200.00	
	Other Acids	0.0	15.00	
	Other Alcohol	0.0	20.00	

	Ketones	0.0	15.00	
	Waxes	0.0	12.00	
	Nitriles	0.0	20.00	
	Ethers	0.0	15.00	
	Ketene	0.0	15.00	
	Organic Salts	0.0	19.64	
	TOTAL	**12,893.0**	**20,090.94**	
2	**Waste Water and its Management**			
	Sewage	190.00	223.00	Since, the production quantities have increased there is Corresponding change in the waste water generation
	Effluent	505.00	1215.00	
	STP Capacity	200.00	250.00	
	ETP Capacity	170	450.00	
	RO	800.00	800.00	
	MEE Capacity [M3/day]	30.00	30.00	
3	**Water Requirement**			
	Total Water consumption	2190	4188	Since, the production quantities have increased there is Corresponding increase in water quantity
	Total Fresh Water	1495	2750	
	Domestic	200	235	
	Sewage generation	190	223	
	Washing	50	80	
	Scrubber	30	50	
	Cooling (Fresh + Recycled)	1405	2865	
	Boiler Feed	80	200	
	DM regeneration	60	100	
	R&D Activity	5	5	
	Process	170	430	
	Recycled	695	1438	
	Effluent Generation	505	1215	
	Gardening (Recycled)	190	0	
4	**Power Demands**			
	Power Demand	50 MW/Day	140MW/Day	Since, the production quantities have increased there is Corresponding change in the power demands
	Transformer	1500kVA x 2	1500kVA x 2	
	D.G. Set [kVA]	1000 x 1 590 x 1	1000 x 4 590 x 1	
	Turbine Generator	2.3 MW	7.1MW	
5	**Hazardous Waste Generation**			
	Used/Spent Oil	1.2	3 KL/Year	Since, the production quantities have increased there is Corresponding increase in quantity of Hazardous Waste
	Chemical Sludge from WWTP	0.1	0.3TPD	
	Organic Residue	8	8CMD	
	Distillation/Process Residue	0.192	10.192TPD	
	Spent Catalyst and molecular sieve	1.4	181.4Kg/Day	
	E-waste	1	2Ton/Y	
	Spent Carbon	0	0.3TPD	
	Mixed Spent Solvents	0	2KLD	
	Lead Acid Batteries	0	80Nos/Y	
	Salts generated in	0	7.8 TPD	

	MEE			
	Used Filters (HEPA filters, Oil Filters etc)	0	100Nos./Y	
	Bio Medical Waste	0	0.8TPA	
	Used/Discarded Filter Bags	0	100Nos./Y	
	Discarded PPE	0	0.5TPA	
6	**Solid waste Management**			
	Dust	0.1MT/D	7.0MT/D	Since, the production quantities have increased there is Corresponding increase in quantity of Hazardous Waste
	Bio-Degradable Waste	8Kg/D	606Kg/D	
	Non-Bio-Degradable Waste	0.192Kg/D	404.5Kg/D	
	Boiler Ash	1.4TPD	150TPD	
	Glass Bottles	1No./M	100No./M	
	HDPE Containers	0TPM	100TPM	
	Liners and Bags	0	0.5TPM	
	Salts generated in MEE from Rejects of WTP	0	0.6TPD	
	Paper, Cotton waste & packing materials i.e wood, carton,ropes	0.3TPA	5TPA	
	STP Sludge	0Kg/D	75Kg/D	
	Metal Scrap	0TPA	30TPA	
	Plastic Waste	0TPA	0.5PTPA	
	Waste packing wood/ broken glass etc	0	5TPA	
	Used / Discarded RO Membranes	1.2TPA	0.2TPA	
	Insulation and Glass wool Waste	0.1TPM	1TPM	
7	**Stack Details**			
	Boiler (18 TPH)	2	2	Since, the production quantity is increased in order to control the emission generated No. of Stacks along with additional new stacks are proposed
	Boiler (12 TPH) *	1	1	
	Boiler (24TPH)	Nil	2	
	Thermic Fluid Heater (10 Lac KCal./hr.)	Nil	1	
	Thermic Fluid Heater (2 Lac KCal./hr.)	Nil	1	
	Hydrogen Generator (5200 Cum/day)	Nil	3	
	Nitrogen Generator (1000 Cum/day)	Nil	1	
	D.G. Set (1000kVA)**	1	4	
	D.G. Set (590kVA)**	1	1	
8	**Fuel Requirement**			
	Coal	149TPD	468TPD	Since, the production quantity is increased the Fuel required will simultaneously increase
	Diesel	215Lit/Hr	3.5KLPD	

37.6.5.3 During deliberations, the Committee noted that the proposal is for amendment in the ToR dated 18th May, 2015 for the proposed expansion project due to change in product mix (from 7 nos of products envisaged earlier to 42 nos of products proposed now), and extension of validity of the ToR for a period of one year.

The Committee further observed that while considering the earlier ToR, different products reported to have been manufactured at that stage included, Industrial Alcohol-1800 TPM, Ethyl Acetate-5400 TPM, Acetaldehyde-1500 TPM, Acetic Acid-1500 TPM, Dilute Acetic Acid-110 TPM, Crotonaldehyde-500 TPM and Paraldehyde-60 TPM. Out of it, expansion was earlier proposed for four products only namely, Ethyl Acetate, Acetaldehyde, Acetic Acid and Dilute Acetic Acid (as per the Form 1). Later, the project proponent vide letter dated 20th January, 2015 informed that the proposed expansion shall be limited to two products namely Ethyl Acetate from 5400 TPM to 8700 TPM and Acetaldehyde from 1500 TPM to 2100 TPM. The same was considered by the EAC in its meeting held on 16-17 March, 2015, and as per their recommendations, ToR was granted on 18th May, 2015.

The present proposal for amendment in ToR explains different series of existing products, reflecting huge discrepancy in the statements informed during the presentation and the documents submitted. The proposal for amendment in ToR was considered earlier also by the EAC in its meeting held on 27-28 July, 2017, wherein the Committee found no merit in the proposal and thus not recommended.

In view of the above, the Committee insisted for reconfirmation of the existing scenario, which is necessarily to be consistent with the EC issued by the Ministry/State, if any, and/or the consent to operate for different products issued by the State Pollution Control Board from time to time.

37.6.5.4 *The EAC, after deliberations, deferred the proposal for amendment in the ToR dated 18th May, 2015 till the needful on the above lines. The Committee, however, recommended for extending validity of the ToR for a period of one year i.e. up to 18th May, 2019 as per the extant norms/guidelines.*

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Members of the EAC (Industry-2) present during 37th meeting held on 29-31 May, 2018 at MoEF&CC, New Delhi

1	Dr. J. P. Gupta	Chairman
2	Prof. J.R. Mudakavi	Member
3	Dr. Ahmed Kamal	Member
4	Prof. (Dr.) H.R.V. Reddy	Member
5	Dr. Shashank Shekhar	Member
6	Sh. Paritosh Kumar	Member
7	Sh. Sanjay Bist	Member
8	Prof. (Dr.) Y.V. Rami Reddy	Member
9	Shri S.K. Srivastava	Member Secretary