GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
IA DIVISION (INDUSTRY-3 SECTOR)

***

Dated: 28.11.2020

MINUTES OF THE 1st MEETING OF THE EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR PROJECTS), HELD DURING NOVEMBER 17-19, 2020

Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 through Video Conferencing (VC)

Time: 10:00 AM onwards

DAY 1: 17th November, 2020 (Tuesday)

(i) Opening Remarks by the Chairman, EAC

The Chairman made hearty welcome to the Committee members. The Chairman has made brief deliberations on the new Committee and introduced the members. After opening remarks, the Chairman requested the Member Secretary for presentation on the EIA Notification, 2006 and opened the EAC meeting for further deliberations.

(ii) Presentation by Dr. R. B. Lal, Member Secretary, EAC:

Initially, the Dr. R.B. Lal, Additional Director, MoEFCC and Member Secretary of the EAC welcomed the new members and briefed about the issues related to the chemical and petrochemical sector (Industry 3) and the process involved in organizing EAC meetings. Subsequently, Dr. R. B. Lal, gave a power point presentation on the provisions of the EIA Notification, 2006 and online submission process involved in the Environmental clearance on PARIVESH portal. Member Secretary has informed that EAC (Industry-3 Sector) will appraise the proposals related various activities, viz. 1(b) Off shore and onshore oil & gas exploration, development & production; 4(a) Petroleum refining industry; 5(c)Petro-Chemical Complexes; 5(d) Manmade fibre manufacturing; 5(e) Petrochemical based manufacturing; 5(f) Synthetic organic chemicals industry; 5(g) Distilleries;(h) Integrated paint industries; 5(j) Sugar industries; and 6(a)Oil & Gas transportation pipelines.

(iii) Confirmation of the Minutes of the Earlier EAC Meeting held during October 20-22, 2020 at MoEFCC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (industry-2) members on the minutes of its 24th Meeting of the EAC (Industry-2) held during 20-22 October, 2020 conducted through Video Conferencing (VC), and as such no request has been received for any modifications in the minutes of the project/activities assigned to the EAC (Industry-3), confirmed the same.

After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

Details of the proposals considered during the meeting **conducted through Video Conferencing (VC)**, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under:-

Consideration of Environmental Clearance

Agenda No. 1.1

Manufacturing of Synthetic organic chemicals at Plot no. D-2/CH/ 5 & 6, GIDC Industrial Estate, Dahej –II, Tehsil: Vagra, Dist.: Bharuch, Gujarat by M/s Radha Madhav Procvessors private limited – Bifurcation of Environmental Clearance

[IA/GJ/IND2/174885/2020,IA-J-11011/274/2014-IA-II(I)]

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

The proposal is for transfer & bifurcation of the Environmental Clearance granted by Ministry vide letter no. IA-J-11011/274/2014-IA-II (I) dated 18 May 2018 in favour of M/s Radha Madhav Processors Pvt Ltd to the project for manufacturing chlorinated and hydrogenated derivatives of total capacity of 11000 TPM for Agro Intermediates Plant located at Plot No. D-2/CH/5&6, GIDC Industrial Estate, Dahej-II, Tehsil-Vagra, District-Bharuch, Gujarat, to M/s Meghmani LLP (Unit-3) & M/s Amulis Finechem Pvt Ltd.

The project proponent has requested for transfer & bifurcation of the EC with the details are as under:

S. No	Para of EC issued by MoEF&CC	Details as per the EC	To be Revised/Read as		Justification/ Reason
	M/s. Radha Madhav Processors Pvt. Ltd.		M/s. Meghmani LLP (Unit-3)	M/s. Amulis Finechem Pvt. Ltd.	
1	2	The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for manufacturing chlorinated and hydrogenated	The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for manufacturing Synthetic Organic	The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for manufacturing Synthetic Organic	PP now intend to split and transfer the existing EC.

		derivatives of total capacity of **11000 TPM** for Agro Intermediates Plant by **M/s. Radha Madhav Processors Pvt. Ltd.** at **Plot No. D-2/CH/5&6,** Survey No.843/P, 844/P, 845/P, 850/P, 851/P, 852/P, GIDC Industrial Estate, Dahej-II, Tehsil-Vagra, District-Bharuch(Gujarat).	Chemical Industries' of total capacity of **3500 TPM** for **M/s Meghmani LLP (Unit 3)** at **Plot No. D-2/CH/5,** GIDC Industrial Estate, Dahej-II, Tehsil-Vagra, District-Bharuch(Gujarat).	Chemical Industries' and Chemical intermediates of total capacity of **7500 TPM** for **M/s Amulis Finechem Pvt. Ltd** at **Plot No. D-2/CH/6**, GIDC Industrial Estate, Dahej-II, Tehsil-Vagra, District-Bharuch(Gujarat).	
2	3	**Total land area** available for the project is **60,000 sq. m,** out of which **greenbelt** will be developed in an area of **19,900 sq.m**. The estimated **project cost** of is **Rs. 97.4 crores**. Total **capital cost** earmarked for pollution control measures is **Rs. 503.19 lakhs** and the **recurring cost** (operation and maintenance) will be about **Rs. 2383.52 lakhs per annum**. **Total employment** opportunity will be for **200 persons** as direct and 100 persons during construction phase.	**Total land area** available for the project is **30,000 sq. m,** out of which **greenbelt** will be developed in an area of **9,950 sq.m.** The estimated **project cost** of is **Rs.44 crores**. Total **capital cost** earmarked for pollution control measures is **Rs. 231.32 lakhs** and the **recurring cost** (operation and maintenance) will be about **Rs. 1480.55 lakhs per annum**. **Total employment** opportunity will be for **80 persons** as direct and 50	**Total land area** available for the project is **30,000 sq. m,** out of which **greenbelt** will be developed in an area of **9,950 sq.m.** The estimated **project cost** of is **Rs. 53.4 crores**. Total **capital cost** earmarked for pollution control measures is **Rs. 311.87 lakhs** and the **recurring cost** (operation and maintenance) will be about **Rs. 905.37 lakhs per annum**. **Total employment** opportunity will be for **120 persons** as direct and 50 persons during construction phase.	PP now intend to split and transfer the existing EC.

			persons during construction phase.		
3	5	The details of products are asunder: **Refer Annexure A**	The details of products are asunder: **Refer Annexure B**	The details of products are asunder: **Refer Annexure C**	PP now intend to split and transfer the existing EC.
4	6	Out of the **total water requirement** of **2156 cum/day**, **fresh water requirement** of **1956 cum/day** shall be met from GIDC Water Supply. Remaining **200 cum/day** shall be through **recycled water.** Total **industrial effluent generation** is **1885 cum/day** and **domestic effluent generation** is **8 cum/day**. High COD, high TDS stream of **1237 cum/day** will be **treated in ETP of capacity 1250 cum/day**. Low COD and low TDS stream of **656 cum/day** will be **treated in ETP of capacity 700 cum/day.** Around **200 cum/day** of water will be **recycled and 1693 cum/day** will be	Out of the **total water requirement** of **1337cum/day**, **fresh water requirement** of **1269 cum/day** shall be met from GIDC Water Supply. Remaining **68 cum/day** shall be through **recycled water.** Total **industrial effluent generation** is **1232.8 cum/day** and **domestic effluent generation** is **3.2 cum/day**. Total **1236 cum/day** will be treated in **ETP of capacity 1250 cum day**. Around **68 cum/day** of water will be **recycled and 1168 cum/day** will be disposed in GIDC drain.	Out of the **total water requirement** of **819 cum/day**, **fresh water requirement** of **687 cum/day** shall be met from GIDC Water Supply. Remaining **132 cum/day** shall be through **recycled water.** Total **industrial effluent generation** is **652.2 cum/day** and **domestic effluent generation** is **4.8 cum/day**. Total of **657 cum/day** will be treated **in ETP of capacity 700 cum/day**. Around **132 cum/day of** water will be **recycled and 525 cum/day** will be disposed in GIDC drain.	PP now intend to split and transfer the existing EC.

		disposed in GIDC drain. The **power requirement** for the proposed plant is **1 MW** and will be met from Dakshin Gujarat Vij Company Ltd (DGVCL). The unit has **DG set of 250 kVA capacity**, stack (height 11 meter) will be provided as per CPCB norms to the proposed DG set. The unit will have **2x5 TPH coal fired boilers and 20 Lac KCal capacity Thermic Fluid Heater**. **Multi cyclone separator/ bag filter** with a stack height of 40 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3.	The **power requirement** for the proposed plant **is 1 MW** and will be met from Dakshin Gujarat Vij Company Ltd (DGVCL). The unit has **DG set of 250 kVA capacity**, stack (height 11 meter) will be provided as per CPCB norms to the proposed DG set. The unit will have **1x5 TPH coal fired boiler**. **Multi cyclone separator/ bag filter** with a stack height of 40 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3.	The **power requirement** for the proposed plant is **1 MW** and will be met from Dakshin Gujarat Vij Company Ltd (DGVCL). The unit has **DG set of 250 kVA capacity**, stack (height 11 meter) will be provided as per CPCB norms to the proposed DG set. The unit will have **1x5 TPH coal fired boiler and 20 Lac KCal capacity Thermic Fluid Heater**. **Multi cyclone separator/ bag filter** with a stack height of 40 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3.	
4	7	The project/activities are covered under **category A** of item **5(b)** 'Pesticides industry and pesticide specific	The project/ activities are covered under **category A** of item **5(f)** 'Synthetic Organic Chemical	The project/ activities are covered under **category A** of item **5(b)** 'Pesticides industry and	PP now intend to split and transfer the existing EC.

		intermediates (excluding formulation)' and **5(f)** 'Synthetic Organic Chemical Industries' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.	Industries' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.	pesticide specific intermediates (excluding formulation) and **5(f)** 'Synthetic Organic Chemical Industries' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.	
5	10	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project for Manufacturing Chlorinated and Hydrogenated Derivatives of total capacity of **11000 TPM** for Agro Intermediates Plant by **M/s Radha Madhav Processors Pvt Ltd** at **Plot No. D-2/ CH / 5 & 6**, Survey No. 843/P, 844/P, 845/P, 850/P, 851/P, 852/P,	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project for Manufacturing of Synthetic Organic Chemicals of total capacity of **3500 TPM** by **M/s Meghmani LLP (Unit 3)** at **Plot No. D-2 / CH/5,** GIDC Industrial Estate, Dahej-II, Tehsil Vagra, District Bharuch (Gujarat),	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project for Manufacturing of Synthetic Organic Chemicals & Chemical Intermediates of total capacity of **7500 TPM** by **M/s. Amulis Finechem Pvt. Ltd.** at **Plot No. D-2/CH/6,** GIDC Industrial Estate, Dahej-II,	PP now intend to split and transfer the existing EC.

		GIDC Industrial Estate, Dahej-II, Tehsil Vagra, District Bharuch (Gujarat), under the provisions of EIA Notification, 2006 and the amendments made therein, subject to the compliance of terms and conditions, as under:-	under the provisions of EIA Notification, 2006 and the amendments made therein, subject to the compliance of terms and conditions, as under:-	Tehsil Vagra, District Bharuch (Gujarat), under the provisions of EIA Notification, 2006 and the amendments made therein, subject to the compliance of terms and conditions, as under:-	
6	10 (vi)	**Total fresh water requirement** shall not exceed **1956 cum/day** to be met from GIDC Water Supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.	**Total fresh water requirement** shall not exceed **1269 cum/day** to be met from GIDC Water Supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.	**Total fresh water requirement** shall not exceed **687 cum/day** to be met from GIDC Water Supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.	PP now intend to split and transfer the existing EC.
Note: *All remaining conditions of EC granted on 18/05/2018 would remain same except the above stated EC conditions.*					

Annexure – A: PRODUCTION CAPACITY OF M/S. RADHA MADHAV PROCESSORS PVT. LTD.

Plant Code	Common Name	Products	Capacity (TPM)
Plant A	CPVC	Chlorinated Poly Vinyl Chloride	1,500
Plant B	Chlorination of Benzene &Toluene	Benzyl Chloride, 2,6 Dichloro Phenol, 2,4 Dichloro Phenol, 2/4 Chloro Phenol, Benzyl Chloride/Benzo Trichloride/Benzal Chloride, P- Chorobenzyl Choride/P-Chorobenzal Choride/P-Chloro Benzotrichloride, o-Chorobenzyl Choride/o-Chorobenzal Choride/o-Chloro Benzotrichloride, Chloro Benzene/Di Chloro Benzene, Mono Chloro Benzene (MCB), Dichloro Benzene (DCB) (Ortho/Meta/Para), Para Chloro Toluene/ Ortho Chloro Toluene	2,000

Plant C	Chlorination of Acetic Acid	MonoChloroAceticAcid,TriChloro Acetyl Chloride	1,500
Plant D	Hydrolysis of Chlorinated Compound	Iso Phthaloyl Chloride, Phthaloyl Chloride, o-Chlorobenzaldehyde, p- Chlorobenzaldehyde, Benzyl Alcohol, o-Chloro Benzyl Alcohol, p-Chloro Benzyl Alcohol, Benzoyl Chloride, Benzaldehyde, 2-Methoxy 5-Bromo 6-Methyl Benzoyl Chloride, 2,4 Dichloro Benzoyl Chloride, 4 Methyl Benzoyl Chloride, Propargyl Chloride, Pivaloyl Chloride, 4-Chloro Butyryl Chloride, Terephthaloyl Chloride, N-Valeroyl Chloride, 4-Chloro Benzoyl Chloride, 3-Nitro Benzoyl Chloride, 4-Nitro Benzoyl Chloride	1,500
Plant E	Amines	Primary Amines, Ethoxylation of Primary Amines	1,000
Plant F	--	Paracetamol	1,000
Plant G	Nitro Compounds	4-Chloro 3,5 Dinitro Benzoic Acid, 6,Nitro3,4 Dichloro Aniline, 4-Nitro,5-Chloro, 2-Methyl Aniline, 2-Nitro 4-Methyl Aniline, 3,Nitro4-Chloro Benzoic Acid,3-Nitro-para Toluic Acid, 2,4 Dichloro 6-Nitro Phenol, 2,3 Dichloro 4-Nitro Phenol, 2,5 Dichloro 4-Nitro Phenol, 1,3 Di Nitro Benzene, Nitro Benzene, 2/3/4 Nitro Toluene, 3,5 Di Nitro Benzoic Acid, p-Nitro Salicylic Acid, 2,5 Dichloro Nitro Benzene,3,4/2,3Dichloro Nitro Benzene	1,000
Plant H	Hydrogenation Compounds	p-Hydroxy Aniline/o-Hydroxy Aniline	1,000
		3,4 Dichloro Aniline, 3-IsoPropoxy Aniline, o-Toluidine, m-Toluidine, p-Toluidine, Aniline, 3,4 Diamine Toluene,2,5 Dimethyl1,4 Phenylene Diamine, 2-Chloro,5- Methyl, 1,4 Phenylene Diamine,2, Chloro 1,4 Phenylene Diamine,2,5 Dichloro1,4 PhenyleneDiamine, 2,4,5Trichloro Aniline, 6-Methyl 5-Amino Benzimidazolone, 5-Amino Benzimidazolone, 3-Amino 4-Chloro Benzoic Acid, 3-Amino 4-Chloro Benzotrifluoride, 3-Amino Benzotrifluoride, 3,5 Dichloro Aniline, 2,5 Dichloro Aniline, 2,3 Dichloro Aniline, 3-Amino 4-Methyl Benzoic Acid	500
		Total	**11,000**

Annexure – B: PRODUCTION CAPACITY OF M/S. MEGHMANI LLP (UNIT -3)

Plant Code	Common Name	Products	Capacity (TPM)
Plant A	CPVC	Chlorinated Poly Vinyl Chloride	1,500
Plant F	--	Paracetamol	1,000

Plant H	Hydrogenation Compounds	p-Hydroxy Aniline/o-Hydroxy Aniline	1,000
		Total	**3,500**

Annexure – C: PRODUCTION CAPACITY OF M/S. AMULIS FINECHEM PVT. LTD.

Plant Code	Common Name	Products	Capacity (TPM)
Plant B	Chlorination of Benzene &Toluene	Benzyl Chloride, 2,6 Dichloro Phenol, 2,4 Dichloro Phenol, 2/4 Chloro Phenol, Benzyl Chloride/Benzo Trichloride/Benzal Chloride, P-Chorobenzyl Choride/P-Chorobenzal Choride/P-Chloro Benzotrichloride, o-Chorobenzyl Choride/o- Chorobenzal Choride/o-Chloro Benzotrichloride, Chloro Benzene/Di Chloro Benzene, Mono Chloro Benzene (MCB), Dichloro Benzene (DCB) (Ortho/Meta/Para), Para Chloro Toluene/ Ortho Chloro Toluene	2,000
Plant C	Chlorination of Acetic Acid	Mono Chloro Acetic Acid, Tri Chloro Acetyl Chloride	1,500
Plant D	Hydrolysis of Chlorinated Compound	Iso Phthaloyl Chloride, Phthaloyl Chloride, o-Chlorobenzaldehyde, p-Chlorobenzaldehyde,BenzylAlcohol, o-Chloro Benzyl Alcohol, p- Chloro Benzyl Alcohol, Benzoyl Chloride, Benzaldehyde, 2-Methoxy 5-Bromo 6-Methyl Benzoyl Chloride, 2,4 Dichloro Benzoyl Chloride, 4 Methyl Benzoyl Chloride, Propargyl Chloride, Pivaloyl Chloride, 4-Chloro Butyryl Chloride, Terephthaloyl Chloride, N-Valeroyl Chloride, 4- Chloro Benzoyl Chloride, 3-Nitro Benzoyl Chloride, 4-Nitro Benzoyl Chloride	1,500
Plant E	Amines	Primary Amines, Ethoxylation of Primary Amines	1,000
Plant G	Nitro Compounds	4-Chloro 3,5 Dinitro Benzoic Acid, 6,Nitro 3,4 Dichloro Aniline, 4-Nitro ,5-Chloro, 2-Methyl Aniline, 2-Nitro 4- Methyl Aniline,3,Nitro4-ChloroBenzoicAcid,3-Nitro-para Toluic Acid, 2,4 Dichloro 6-Nitro Phenol, 2,3Dichloro 4-Nitro Phenol, 2,5 Dichloro 4-Nitro Phenol, 1,3 Di Nitro Benzene, Nitro Benzene, 2/3/4 Nitro Toluene, 3,5 Di Nitro Benzoic Acid, p-Nitro	1,000

		Salicylic Acid, 2,5 Dichloro Nitro Benzene,3,4/2,3Dichloro Nitro Benzene	
Plant H	HydrogenationCompounds	3,4 Dichloro Aniline, 3-Iso Propoxy Aniline, o-Toluidine, m-Toluidine, p-Toluidine, Aniline, 3,4 Diamine Toluene, 2,5Dimethyl1,4 Phenylene Diamine,2-Chloro,5-Methyl, 1,4 Phenylene Diamine,2,Chloro 1,4 Phenylene Diamine, 2,5 Dichloro 1,4 Phenylene Diamine, 2,4,5 Trichloro Aniline, 6-Methyl 5-Amino Benzimidazolone, 5-Amino Benzimidazolone, 3-Amino 4-Chloro Benzoic Acid, 3-Amino 4-Chloro Benzotrifluoride,3-Amino Benzotrifluoride, 3,5 Dichloro Aniline, 2,5 Dichloro Aniline, 2,3 Dichloro Aniline, 3 Amino 4-Methyl Benzoic Acid	500
		Total	**7,500**

Deliberations in the EAC:

The EAC has made a detailed deliberation on the proposal. The Committee at the first instance was not inclined to the accept the proposal in its present form, as it is felt that the bifurcation is merely on business purpose. The Committee noted that the project proponent has not initiated any work, even plantation of greenbelt in the project area, though the environmental clearance was granted during 2018. The Committee noted that the proposals needs thorough rework to project the present scenario, and to balance the escalation due to bifurcation into two units.

The Committee, after detailed deliberations has suggested that project proponent shall submit a short EIA/EMP report separately for the individual units, along with following additional inputs/information:

(i). Detailed material balance, chemical balance and environmental parameters in both the units have to be provided since the production is different in each plant.

(ii). Rework on the cost, environmental and utilities like water, effluent, power etc.

(iii). Details of common utilities, if any.

(iv). Detailed greenbelt development plan.

(v). Detailed health and medical plan.

(vi). Safety and risk assessment and management plan.

(vii). Details of renewable energy utilization in the plants.

(viii). Energy conservation plan

(ix). Details of sensitive area within 10 km radius, like National Park, Sanctuary, Coastal areas, rivers etc.

(x). Copy of NOC, affidavit, registration details of companies for transfer of ECs.

The proposal was accordingly return for the needful by the project proponent.

Agenda No. 1.2

Expansion of existing molasses based distillery from 45 KLD to 125 KLD (RS/ENA/Ethanol) along with installation of new 4.0 MW Power Plant Village Jajoonagar, Tanda, Pargana Chaumahala, Tehsil Baheri, District Bareilly, Uttar Pradesh by M/s Kesar Enterprises Limited-Consideration of Environment Clearance

[IA/UP/IND2/162762/2017, IA-J-11011/223/2019-IA-II(I)]

The Project Proponent and their accredited Consultant M/s Environmental and Technical Research Centre has submitted the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion of molasses based distillery from 45 KLD to 125 KLD (RS/ENA/Ethanol) along with installation of 4 MW Power Plant at village Jajoonagar, Tanda, Pargana Chaumahala, Tehsil Baheri, District Bareilly, Uttar Pradesh by M/s Kesar Enterprises Limited Distillery Division.

The details of products and capacity as under:

S. No.	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1	Ethanol/Extra Neutral Alcohol/ Rectified Spirit	45 KLD	80 KLD	125 KLD
2	Power	-	4 MW	4 MW

The Standard ToR has been issued by the Ministry of Environment, Forest & Climate Change vide letter no. No.IA-J-11011/223/2019-IA-II (I) dated 15 July 2019. Public Hearing for the proposed project has been conducted by Uttar Pradesh Pollution Control Board on 13th March, 2020. The main issues raised during the public hearing are related to employment, rain water harvesting, ground water abstraction, control of air pollution was raised.

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

Total plant area is 20.831 Hectare (208310 m^2). The expansion & installation will be done within the existing plant premises; which is already under the possession of company. Industry will develop greenbelt in an area of 35% i.e. 7.29 Hectares (72900 m^2) out of total area of the project.

The estimated project cost is Rs. 98.50 Crore for proposed expansion project. Total capital cost earmarked towards environmental pollution control measures is Rs.18 Crores and the Recurring cost (operation and maintenance) will be about Rs. 2 Crores per annum. Total Employment will be 15 persons as direct & 10 persons indirect after expansion. Industry proposes to allocate Rs. 98 Lakhs i.e. maximum percentage of total project cost as per Office Memorandum dated 1st May, 2018 towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. River Dhora is flowing at a distance of 3.49 kms in East direction; Kichha River is flowing at a distance of 2.15 Kms in West direction. Various canals and distributaries are seen in study area.

Ambient air quality monitoring was carried out at 8 locations during Winter Season (October to December, 2019) and the baseline data indicates the ranges of concentrations as: PM_{10} (68.5 to 89.2 µg/m^3), $PM_{2.5}$ (34.86 to 52.78 µg/m^3), SO_2 (6.92 to 14.90 µg/m^3) and NO_2 (11.92 to 17.5 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.07 µg/m^3, 1.36 µg/m^3, 1.52 µg/m^3, 0.77 µg/m^3 with respect to $PM_{2.5}$, PM_{10}, SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 2400 m^3/day of which fresh water requirement of 770m^3/day will be met from ground water. Effluent of 1630 KLD quantity will be treated through condensate treatment unit (based on anaerobic, aerobic treatment). The plant will be based on Zero Liquid discharge system**.**

Total power requirement will be 4.0 MW which will be met from proposed 4.0 MW co-generation power plant. The company has proposed 2 boilers: 27 TPH, 12 TPH incineration boilers which is slop (Conc. Spent Wash) fired Boiler with auxiliary fuel Bagasse. Electrostatic Precipitator with a stack height of 63 meters (with 27 TPH boiler) & 45 meter (with 12 TPH boiler) will be installed for controlling the particulate emissions within the statutory limit.
Details of Process emissions generation and its management.

Source	Emissions	Management
Incineration Boiler (Co-generation power plant)	Particulate matter, SO_2, NOx	Electrostatic Precipitator will be installed. Adequate stack height will be provided. Necessary temperature profile will be maintained.
Fermentation	Carbon dioxide	Carbon dioxide generated will be collected and sold to authorized vendors.

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

- Ash will be used as manure due to rich potash content (biomass ash)
- Conc. spent wash will be used as fuel in boiler combined with auxiliary fuel.
- Sludge generated will be used as manure.

- Used oil generated from plant machinery as hazardous waste will be provided to authorized vendors.

Unit was established in year 1951; at the time there was no provision for Environmental Clearance, unit is obtaining regular Consent (Air and Water) from UPPCB and unit is regularly complying with the stipulated conditions. No Litigation is pending against the proposal

Deliberations in the EAC:

The EAC has deliberated on the proposal. **The Committee noted that there was reports of court cases against the project proponent and the same has not been mentioned in the EIA report or in the Form 2. The Committee was of the opinion that the project proponent shall require to provide the compliance status of the existing CTO conditions, details of show-cause notice received from the SPCB along with current status and status of court cases. The Committee pointed out that the EIA consultant shall ensure providing complete information in the report.**

The Committee after detailed deliberations, desired for following information/inputs in respect of the following:

(i). Detailed presentation on the existing and future environmental parameters vis-à-vis the project.

(ii). Certified compliance of CTO of existing unit from the SPCB as per TOR granted to the Project (TOR 3(ix). This is required for the expansion project.

(iii). Complete information in the Form 2

(iv). Details of health and medical facilities.

(v). Details of court cases along with current status. Details of court case, if any, related Air & Water Act and E(P) Act along with detailed action plan needs to be submitted.

(vi). Details of show cause notice from SPCB and current status.

(vii). Detailed water scheme and effluent management system.

(viii). Detailed of Schedule-I species and its conservation plan needs to be uploaded.

(ix). Public hearing issues, action plan and proposed activities to address PH issues and socio-economic *conditions of the study area.*

The Committee opined that the project proponent shall revise the Form 2 and accordingly returned the proposal in its present form.

Agenda No. 1.3

Establishment of API Manufacturing Unit Gat No. 88/2/C, 96, 97, 98/1/A/1, 98/1/A/2, 98/2, 98/3, 92/1, At Watwate, Post: Inchgaon, Tal:-Mohol Dist; Solapur, Maharashtra by M/s Jakraya Sugar Ltd-Consideration of Environmental Clearance

[IA/MH/IND2/176513/2020, IA-J-11011/260/2020-IA-II(I)]

The Project Proponent and their accredited Consultant M/s Equinox Environments (I) Pvt. Ltd., gave a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for grant of Environmental Clearance (EC) to the project for establishment of API Manufacturing Unit at Gat No. 88/2/C, 96, 97, 98/1/A/1, 98/1/A/2, 98/2, 98/3, 92/1 at Watwate, Inchgaon post, Mohol taluk, Solapur district, Maharashtra State by M/s Jakraya Sugar Ltd. (JSL).

The details of products and capacity are as under:

S. No	Products	Qty. (MT/M)	CAS No.	Uses
1	Pefloxacin	4	70458-92-3	Treatment of bacterial infections
2	Ciproloxacin HCL	20	93107-08-5	
3	Enrofloxacin	2	93106-60-6	In veterinary medicine for bacterial infections
4	Diloxanide Furoate	15	3736-81-0	To treat infection by Entamoeba
5	Metformin HCL	1000	1115-70-4	Treatment of Diabetes (blood sugar control)
6	Amlodipine Besylate	5	111470-99-6	To treat chest pain (angina) & other conditions caused by coronary artery disease
7	Amlodipine Maleate	1	88150-47-4	
8	Amlodipine Base	5	88150-42-9	
9	Phthaloyl Amlodipine	6	88150-62-3	
10	S-Amlodipine Besylate	1	150566-71-5	
11	Temisartan	4	144701-48-4	Treatment of high BP (hypertension), preventing strokes; heart attacks & kidney problems.
12	Norfloxacin	15	70458-96-7	To treat infections by bacteria.
13	Erthromycin Thiocynate (TIOC)	66.67	7704-67-8	To treat infections by gram-positive & gram-negative bacteria.
	Total	1144.67		

The proposed project falls under Category 'A' as per the Environmental Impact Assessment (EIA) Notification,2006. But as per EIA notification, 2006 vide. S.O.1223 (E) dated 27th March 2020 where in proposals for projects in Active Pharmaceutical Ingredients (API) received up to 30th September shall be appraised as category 'B2' projects. Due to general condition of the presence of Great Indian Bustard Sanctuary within 3.49 km from the project location, the proposed project is appraised at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 76574.89 m^2. Industry will develop greenbelt in an area of 25,641 m^2 which is 33.5% out of the total project area. The proposed

project cost is about Rs. 60.0 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 5.40 crores and the recurring cost (operation and maintenance) will be about Rs. 0.85 crore per annum. Total Employment under proposed expansion project would be 500 persons. Industry proposes to allocate Rs. 1.43 crores towards Corporate Environmental Responsibility within five years.

The Great Indian Bustard Sanctuary is located within a distance 3.49 km. The project site is located 3.1 km from the Eco Sensitive Zone (ESZ). The Doodhganga River is flowing at 6.5 Km on North West and Krishna River at 8 Km on North East of project site.

The total water requirement is 1558.2 m^3/day of which fresh water requirement of 386.2 m^3/day and will be met from Bhima River. The industry has obtained water permission from Water Resources Department, Pune vide Letter No Outgoing No. Chief Engineer Head of Department / Project Branch 8 / Jakraya Sugar 6558, Dated: 17/11/2008 to draw water upto 0.2 Million M^3/annum from Bhima river. Generated effluents of 1150 m^3/day, 22 m^3/day shall be treated by ETP and STP respectively and needs to be recycled. Effluent of quantity 1235.97 m^3/Day shall be treated through two Stream ETP. The plant shall be based on Zero Liquid Discharge.

Power requirement of project will be 2000 KVA and will be taken from MSEDCL. One DG set of 1000 KVA capacity will be installed as standby during power failure. Stack of height 6M ARL is provided as per CPCB norms to the DG sets. Fuel bagasse/briquette fired boiler of 20 TPH shall be installed with stacks of height 20 m. Cyclone separators and bag filters will be installed separately for each of the boiler for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3).

Process emissions in the form of acidic, alkaline and solvent vapours are generated from the process. The emissions from the process would be taken care of through scrubbers and scrubbed material forwarded to ETP for treatment

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

Solid waste

S. No	Type	Quantity (MT/M)	Disposal
1	Boiler Ash	145	Sale to Brick Manufacturer
2	Fermenter Bio-mass Sludge	135	Used as Manure
3	Metal Scrap	5	Sale to authorized recyclers.
4	Empty Containers & Drums	50 Nos.	
5	Packing Materials	1.50	
6	Battery Waste	5 Nos.	
7	E-waste	0.08	

Hazardous waste

No.	Description	Category	Quantity (MT/M)	Disposal
1	Process Residue	28.1	4.5	Will be forwarded to CHWTSDF
2	Distillation Residue	20.3	60	
3	ETP sludge	35.3	10	
4	MEE Salt	35.3	100	
5	Spent Carbon	28.3	15	
6	Discarded Containers/ Barrels/ Liners	33.1	100 Nos.	Sale to Authorized Party
7	Filter Medium	36.2	1.50	
8	Spent/ Used Oil	5.1	0.50	

Public hearing is not required since the proposed project falls under category B2. It was informed that no litigation is pending against the proposal.

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

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

The Committee noted that the PFR report reflects the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance subject to approval of conversion of land use for industrial purpose certificate.

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water

(Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance, **subject to submission of conversion of land use for industrial purpose** and compliance of terms and conditions as under, and general terms of conditions at **Annexure**:-

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.

(iii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(iv). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(v). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(vi). 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.

(vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(viii). Total fresh water requirement shall not exceed 386.2 cum/day, proposed to be met from Bhima river. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(i). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(ix). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera

with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(x). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xi). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

(xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented. Preference shall be given to local villagers for employment in the unit.

(xv). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.4

Expansion of Existing Grain Base Distillery from 59 KLPD to 71 KLPD along with 3.75 MW Co-generation power plant based on Agro waste fuel by M/s Khemani Distilleries Pvt. Ltd., located at Village: Ringanwada, Kachigam Road, Nani Daman, Daman, Daman and Diu - Consideration of Environmental Clearance

[IA/DD/IND2/176552/2020, IA-J-11011/261/2020-IA-II(I)]

The Project Proponent and their accredited Consultant M/s. Anacon Laboratories Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for expansion of existing Grain Base Distillery from 59 KLPD to 71 KLPD along with 3.75 MW Co-generation power plant based on Agro waste fuel – Briquette and 66 lakhs cases IMFL by M/s Khemani Distilleries Pvt.. Ltd. Located at Village: Ringanwada, Kachigam Road, Nani Daman, Daman, Daman and Diu.

The details of existing and proposed products and capacity as under:

S. No.	Particulars	Unit	Existing	Proposed	Total	Use
Products						
1	ENA (Extra Neutral Alcohol)	KLD	59	12	71	Captive consumption for the manufacturing of IMFL. Sold to Market
2	Co-Generation Power Plant	MW	3.75	-	3.75	Captive consumption
3	IMFL	lakhs cases/annum	66	-	66	Sold to Market
By-Products						
1	DWGS (Distillers Wet Grain Soluble)	TPD	81	14	95	Sold As a cattle feed
2	DDGS (Distillers Dried Grains & Soluble)	TPD	27	6	33	
3	CO_2	TPD	29.5	6.5	36	Recovered by CO_2 Plant and sold commercially. Plant will be commissioned in the month of December, 20

The project/activities are covered under category A of item 5 (g) 'Distilleries' of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry as the non-existence of SEIAA. The proposal has been submitted under the Ministry's EIA Notification, 2006 amendments vide S.O.236 (E) dated 16 January, 2020 for proposed 20 % capacity addition of ethanol with "No

increase in Pollution Load" para 7 (ii) of the EIA Notification, 2006 requesting exemption from ToR, Public Hearing and EIA report.

PP has informed that earlier issued EC vide letter no. DCF/DMN/EIA/579 /2014/16; dated 27th August, 2018 to the existing project ''Expansion of grain based distillery (33 to 59 KLPD and installation of 3.75 MW co-generation power plant at Ringanwada, Kachigam road, Daman'' in favour of M/s. Khemani Distilleries Pvt. Ltd.

The Certified compliance report submitted by the Ministry's Regional office at Bangalore vide letter dated 28.02.2019. The Committee noted that since the instant proposal has submitted under provisions of para 7 (ii) of the EIA Notification, 2006, therefore the Committee deliberated the compliance status of earlier EC submitted by PP and found in order. It was informed that there is no litigation pending against the project.

PP reported that the existing land area is 97473 m^2, no additional land will be used for proposed expansion. The proposed activities will be within the existing land area. Industry has already developed/will develop greenbelt in an area of 33 % i.e.32200 m^2 out of total area of the project.

The existing estimated project cost will be Rs.100 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.27 crores and the Recurring cost (operation and maintenance) is approx. Rs.4.10 Crores per annum. Total Employment will be 425 persons after expansion.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Natural drain from project site and Daman ganga river is flowing at a distance of 0.97 km in WSW direction. (A natural drain is also passing through factory premises which is seasonal, pockets of reserve forest are located in the study area).

Ambient air quality monitoring was carried out at Eight locations during Feb 2020 and the baseline data indicates the ranges of concentrations as: PM10 (32.4-79.1µg/m3), PM2.5 (14.3-40.7 µg/m3), SO_2 (4-23.6 µg/m3) and NO_2 (8.8-27.2 µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1 µg/m^3, 0.85 µg/m^3, 13.5 µg/m^3 with respect to PM10, Sox and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 3278 m^3/day of which fresh water requirement of 1204 m^3/day will be met from ground water and canal water. Effluent of 907 m^3/day quantity will be treated through ETP. The plant will be based on Zero Liquid discharge system. Recycling plant /ETP capacity 950 KLPD.

Power requirement after expansion will be including existing 2700 kVA and will be met from 3.75 MW captive power generation and Electricity Department Daman & Diu State power distribution corporation limited (…DDED). Existing unit has 500, 2 x 1000 kVA DG sets of 2500 kVA capacity, additionally not required power failure. Stack of height 30 m provided as per CPCB norms to the DG sets.

Existing unit has 27.5 TPH 1 no boiler with stack height of 50 meters agro waste Rice Husk /Bagasse/Briquette fired boiler and 12 TPH as standby boiler with stack height of 32 meters based on FO as fuel. ESP with a stack of height of 50 m is installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the proposed boilers. Existing boiler 27.5 TPH and 12 TPH as stand by, after proposed expansion boiler 27.5 TPH and 12 TPH as standby will be used.

Details of Process emissions generation and its management.

S. No.	Source	Pollution Control Measure	Height in Mtr	Exit Temp (°C)	Top Dia (m)	PM, mg/Nm^3	Fuel used
1	Boiler 27.5 TPH	ESP	50	110	1.15	150	Agro Based fuel
2	Boiler 12 TPH Standby	MS chimney	32	110	0.75	150	Furnace oil
3	DG sets 2 x 1000 KVA	Chimney.	30	395	0.25	150	Diesel
4	DG set 1 x 500 KVA	500 KVA Chimney.	30	310	0.123	150	Diesel

Boiler: The industry has already 27.5 TPH@67 kg/ cm² pressure capacity Traveling Grid (TG) for steam and 3.75 MW of cogeneration of power. The 12.0 TPH boiler is as standby. TG boiler is most suitable technology for the biomass as fuel.

Reduced gaseous emission from biomass briquettes burning would be discharged into atmosphere through ESP and 50 meter stack height. The emissions will be limited & proper mitigation measures like installation of high efficiency Electrostatic precipitators (ESP) is taken for the existing and proposed plant.
Online Continuous Emission Monitoring System for stack is already installed and connected to CPCB server and PCC, DD & DNH.

Details of Solid waste/ Hazardous waste generation and its management

Process Waste	Existing Quantity, Tons/day	Proposed Quantity of generation	Total after Expansion Quantity of generation	Disposal
	Tons/day			
Grain Grit	1.35	0.20	1.55	Sold as Cattle feed
Ash (bio-briquettes)	12	-	12	Brick Manufacturer & Bio-manure manufacturer
Domestic waste	0.03	–	0.03	Organic-as manure & incinerable to boiler
ETP sludge	0.3	–	–	As manure within the plant
STP sludge	0.03	–	–	As manure within the plant

Hazardous & e-waste Management

Type of Waste	Disposal Method	Total Waste Existing and after expansion
Used Oil (Hazardous Waste)	Hazardous waste is only used oil (schedule 5.1) that is sold to authorized recycler as per our PCC consent condition.	5 Kl/annum
E-waste	It is being collected and given to approve recycler of State Pollution Control Board as per Electronic Wastes (Management &Handling) Rules, 2016. The same shall be followed after expansion also.	12 Kg/month

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

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

The Committee noted that the report is satisfactory issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated Environmental Audit Report submitted by PP and CO_2 management and found to be addressing the issues in the study area. Based on the deliberations in the EAC, PP has submitted additional information. The Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee.

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the

recommendations made in the EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(iii). Total fresh water requirement shall not exceed 1204 m^3/day proposed to be met from surface water/ground water source. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.

(iv). As committed by the Project Proponent, the spent wash/other concentrates shall be incinerated.

(v). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(vi). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(vii). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix). 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.

(x). Process organic residue and spent carbon, if any, shall be sent to Cement/other suitable industries for its management/incinerations.

(xi). 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.

(xii). 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. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiii). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

(xiv). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xvi). Project Proponent shall reduce the quantity of effluents generation in the unit and PP shall install the effective wastewater treatment system. Adequate system shall be in place for controlling the odour and mitigation measures to protect the contamination of ground/surface water.

(xvii). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

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

(xix). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.5

Bulk Drugs and API manufacturing unit by M/s Bondbay Pharmaceuticals Private Limited at Plot no.483, KIADB Kadechur Industrial Area, Kadechur, Yadgir, Karnataka - Consideration of Environment Clearance

[IA/KA/IND2/173004/2020,IA-J-11011/262/2020-IA-II(I)]

The Project Proponent and their Consultant Mr. Muniraju G, appeared for the presentation on the salient features of the project through Video conferencing.

It is noted by the Committee that an individual having Hon'ble High Court stay order in 2016 is not eligible to make presentation before the EAC as the proposal involved preparation of Report as per provisions of the EIA Notification, 2006. **The Committee also observed that the quality of report is very poor and not reflecting any environmental concerns and the projected scenario for all the environmental components and its mitigation measures**. Accordingly, the EAC has **returned the proposal in present form** and suggested the PP to submit the adequate Report as per provisions of the EIA Notification, 2006 through Accredited Consultants.

Agenda No. 1.6

Proposed 120 KLPD Molasses based Distillery along with 7.0 MW Co-generation Power plant at Village Ramgarh-Mahsui, Tehsil Misrikh, District Sitapur, Uttar Pradesh by M/s Dalmia Chini Mills, Unit Ramgarh- Distillery Division (A unit of Dalmia Bharat Sugar and Industries Limited) - Consideration of Environment Clearance

[IA/UP/IND2/76077/2018, IA-J-11011/253/2018-IA-II(I)]

The Project Proponent and the accredited Consultant M/s JM EnviroNet Pvt Ltd, made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Setting up 120 KLPD Molasses based Distillery along with 7 MW Co-generation Power plant at Village Ramgarh-Mahsui, Tehsil Misrikh, District Sitapur, Uttar Pradesh by M/s Dalmia Chini Mills, Unit Ramgarh- Distillery Division (A unit of Dalmia Bharat Sugar and Industries Limited).
The details of products and capacity as under:

S. No.	Units	Capacity	Products
1.	Distillery	120 KLPD	Ethanol/Extra Neutral Alcohol/Rectified Spirit/Impure alcohol
2.	Co-Generation Power Plant (Incineration based)	7.0 MW	Power & steam

Standard ToR has been issued by the Ministry of Environment, Forest & Climate Change vide letter no. IA-J-11011/253/2018-IA-II (I) dated 13th September, 2018. Public Hearing for the proposed project has been conducted by the Uttar Pradesh Pollution Control Board on 29th September, 2020, which was presided over by the Additional District Magistrate. The main issues raised during public hearing are related to cane payment, employment, water conservation, air and water pollution prevention, spent wash treatment, noise pollution, ground water for gardening, greenbelt development. No Litigation is pending against the proposal.

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

Total land area of 4.772 ha (11.792 acres) is required for the proposed project which is already under the possession of company. Industry will develop greenbelt in an area of 33% i.e. 1.58 Hectares out of total area of the project. The estimated project cost is Rs. 120 Crores for proposed project. Total capital cost earmarked towards environmental pollution control measures is Rs. 50 Crores and the Recurring cost (operation and maintenance) will be about Rs. 2.0 Crores per annum. No. of working days will be 365 days/annum. Total Employment during operation phase will be 70 persons (50 permanent and 20 temporary). Industry proposes to allocate Rs. 2.3 Crores i.e. maximum percentage of total project cost as per Office Memorandum dated 1st May, 2018 towards Corporate Environment Responsibility.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. However, there are two unnamed Protected Forests i.e. Protected Forest (~5.5 km in North direction), Protected Forest (~8.0 km in NNE direction) and one Reserved Forest i.e. Gendharia RF (~ 9.5 km in NE direction) within 10 km distance from project site. There are 9 water bodies in buffer zone in which two are rivers i.e. Gomati River flowing at a distance of 5.8 km in South direction and Beta Nadi flowing at a distance of 8 km in NE direction. Remaining 7 are minors/distributary/tal i.e. Misrikh Distributary flowing at a distance of 1.2 km in NNE direction, Banaura Distributary at a distance of 1.5 km in West direction, Jhabra Tal flowing at a distance of 3.5 km in SE direction, Sarosa Minor flowing at a distance of 4.5 km in NNE direction, Marehli Minor flowing at a distance of 8.0 km in WNW direction, Manpur Minor flowing at a distance of 8.0 km in West direction & Machhrehta Distributary flowing at a distance of 8.8 km in NE direction.

Ambient air quality monitoring was carried out at 8 locations during Post-monsoon Season (October to December, 2018) and the baseline data indicates the ranges of concentrations as: PM_{10} (57.2 to 92.4 μg/m3), $PM_{2.5}$ (24.3 to 46.9 μg/m3), SO_2 (5.9 to 14.8 μg/m3) and NO_2 (13.3 to 27 μg/m3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.13 μg/m3, 0.39 μg/m3, 3.25 μg/m3, 2.77 μg/m3 with respect to $PM_{2.5}$, PM_{10}, SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement for the proposed project will be 640 KLPD (360 KLPD for distillery+ 120 KLPD for pump seals & scrubbers+ 150 KLPD boiler makeup water & 10 KLPD for domestic & others) which will be met from Groundwater. Effluent of 1078 KLPD quantity will be treated through Condensate Treatment Plant (Based on Anaerobic, aerobic treatment, filters, UV, UF & RO) of capacity 1100 KLPD. The plant will be based on Zero Liquid discharge system.

Total power requirement will be 2.5 MW which will be met from proposed 7.0 MW co-generation power plant. D.G. Set of 1500 KVA capacity will be used as standby during power failure. Stack (8 m height) will be provided as per CPCB norms to the proposed DG sets. The company has proposed 50 TPH incineration boiler which is slope (Conc. spent wash) fired boiler with auxiliary fuel like Bagasse/Indian coal/biomass. Electrostatic Precipitator/Bag filter with a stack height of 68 meters will be installed for controlling the particulate emissions within the statutory limit for the proposed boiler.

Details of Process emissions generation and its management.

Source	Emissions	Management
Incineration Boiler (Co-generation power plant)	Particulate matter & gaseous emission	• ESP/Bag filter will be installed. • Adequate stack height (68 m) will be provided. • Necessary temperature profile will be maintained.
Fermentation	Carbon dioxide	Carbon dioxide generated will be collected and sold to authorized vendors.

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

- Spent wash generated during molasses operation, will be concentrated in Multi-effect evaporator and then used as fuel in boiler.
- Ash will be used as manure due to rich potash content / used in-house for brick manufacturing unit or sold to fertilizer manufacturers.
- Filtered sludge will be mixed with press mud for manufacturing organic manure.
- Used oil & grease generated from plant machinery/gear boxes as hazardous waste will be given to authorized recyclers.

Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan along with activities for addressing the socio-economic issues and found to be addressing the issues in the study area. The Committee noted that the project proponent proposed to undertake activities like Water conservation, Soil health improvement, Education & Infrastructure in schools for drinking water supply, Scientific support and awareness to local farmers to increase yield of crop and fodder, Health infrastructure improvement in nearby villages, Electrification including solar power & Solar Equipment, Development of greenbelt along the road and Dairy Project. Based on the deliberations in the EAC, PP has submitted following additional information related to CPU, spent wash storage and air pollution control mechanism. The Committee found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee.

S. No.	Desired information/documents by EAC	Reply
1	Proposed Scheme of Condensate Polishing Unit (CPU) to be installed	Details regarding scheme of Condensate Polishing Unit (CPU) and flow diagram depicting treatment of waste water/condensate from process is incorporated

2	Details regarding spent wash storage lagoon.	The spent wash storage holding tank (RCC lined lagoon) of storage capacity 6000 m3 and 5 days storage shall be constructed as per CPCB guidelines.
3	Air Pollution Control Equipment to be installed.	Bag filter will be installed as air pollution control equipment.

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(iii). As committed, Bag filter shall be installed as air pollution control equipment.

(iv). As proposed, total fresh water requirement shall be 640 cum/day, proposed to be met from ground water source. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time.

(v). Project Proponent want to install incineration boiler for treatment of spent wash to ensure ZLD. As committed by PP, the spent wash/other concentrates shall be incinerated.

(vi). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(vii). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix). 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.

(x). Process organic residue and spent carbon, if any, shall be sent to Cement/other suitable industries for its management/incinerations.

(xi). 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.

(xii). 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. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiii). The activities and the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented.

(xiv). The project proponent shall ensure rain water harvesting system in the project area and reduce dependency on ground water.

(xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(xvii). Project Proponent shall reduce the quantity of effluents generation in the unit and PP shall install the effective wastewater treatment system. Adequate system shall be in place for controlling the odour and mitigation measures to protect the contamination of ground/surface water.

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

(xix). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.7

Expansion of synthetic resins manufacturing industry by M/s Adarsh Industrial Chemicals located at Survey No.343/7A, Murthangady, Sanoor, Taluk karkala, District Udupi, Karnataka - Consideration of Environment Clearance regarding.
[IA/KA/IND2/140706/2018, IA-J-11011/233/2018-IA-II(I)]

The Project Proponent and their accredited Consultant M/s. Samrakshan, Swastik Manandi Arcade, gave a detailed presentation on the salient features of the project through video conferencing (VC).

The proposal is for Environmental Clearance to the project for Expansion of Synthetic Resins manufacturing industry by M/s Adarsh Industrial Chemicals, located at Survey No.343/7A, Murthangady, Sanoor, Taluk karkala, District Udupi, Karnataka.

The details of products and capacity as under:

S. No	Products	Capacity in TPM	Year	After expansion in TPM	Remarks
1	Cashew shell nut liquid (CSNL)	300	1992	300	• Core new products will be added – sl. no. 5 to 8. The existing products at 2 & 3 production will be enhanced. • The industry is established prior to EIA Notification 1994 and the activities then were exempted • Two products will be manufactured at a time apart from continuous expeller used for cashew oil expelling.
2	Cardanol	30	1992	150	
3	Recidol	20	1992	60	
4	Liquid resin	20	2001	20	
5	Phenalkamine	120	-	120	
6	Paints and varnishes,	60		60	
7	Adducts	80	-	80	
8	Phenolic Resin	80	-	80	

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

The public hearing for the proposed expansion of industry was conducted by the State Pollution Control on 24th September 2019. Public Hearing was presided over by Additional Deputy Commissioner. The main issues raised during the public hearing were related to odour, noise pollution, health related problems and waste water discharge. The Committee deliberated the action plan of the issues raised during PH. There is no litigation pending against the proposal.

The unit is established prior to EIA Notification 1994 and the activities at that time were exempted under the said Notification. Since the industry proposes to expand the activities, this is the first application for obtaining Environmental clearance. The certified compliance report for the consent conditions is issued by Karnataka SPCB, dated 15th September 2020. The Committee deliberated the compliance condition of the CTO and found in order.

Total land area is 7,284 sqm (1.8 Acres). Proposed expansion will be within the existing premises. Industry has already developed greenbelt in an area of 35 % i.e., 2,549 sq. m. (0.6 Acres) out of total area of the project.

The estimated project cost for expansion is Rs.1.32 Crores. Existing investment is Rs.1.07 Crores. Capital cost earmarked towards environmental pollution control measures is Rs.8.6 Lakhs and the Recurring cost (operation and maintenance) will be about Rs.6.9 Lakhs per annum. Total Employment will be 35 persons after expansion. Industry proposes to allocate Rs.2 Lakhs @ 1 % towards Corporate Environmental Responsibility.

There are no National parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Two Reserve forests viz., Durgamalai and Mujimalai are beyond 7 km towards North East and South East respectively from the project site within 10 km radius. River/ water body is small pond located at a distance of 750 m towards East of the project site and Anekere Lake and Matadha Kere located at a distance of 4.3 Km (North)& 3.1 km (North).

Ambient air quality monitoring was carried out at 8 locations during November, December 2018 and January 2019 and the baseline data indicates the ranges of concentrations as: PM10 (49.87 - 56.32 µg/m^3), PM2.5 (20.12 – 29.91 µg/m^3), SO2 (9.87 – 15.06 µg/m^3) and NOx (10.56 –18.76 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4.12 µg/m^3, 4.88 µg/m^3 and 1.13 µg/m^3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS)

Total water requirement is 14500 LPD. The industrial waste water, boiler blow down, cooling tower blow down and washings of 5000 LPD will be treated in ETP comprising of equalization tank, neutralization cum settling tank and sludge drying bed. The treated effluent is used for greenbelt development. The 460 LPD effluent from phenalkamine process will be treated by electrolysis process and reused. 2000 LPD of domestic waste water is treated in septic tank and soak pit. The plant will be based on Zero liquid discharge system.

Power requirement for the project after expansion will be 250 kVA. It will be met from Mangalore Electricity Supply Company (MESCOM). DG set of 125 kVA and is present in the industry and power will be drawn in case of power failure. Additional DG set of 125 kVA is proposed in the expansion programme. Stack of height 4 m is provided for the existing DG Set as per CPCB norms.

Existing unit has 850 kg/h Boiler (stack height – 18 m) and 4 Lakh kilo calories Thermic fluid heater (stack height – 18 m) fired by Fire wood mixed with cashew shell cake. In proposed expansion Thermic fluid heater of 6 Lakh kilo calories is proposed. Cyclone dust collector with stack of height of 18 m will be installed controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed boiler. There are no process emissions. All the reactions are carried out under closed operating conditions.

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

Sl No	Waste generated	Quantity	Method of handling
1	Domestic solid waste	8.7 kg/d	Segregated at source and disposed by way of composting.
2	Boiler ash	15 Kg/d	Ash is used as soil conditioner with in the factory for green belt and also given to land owners around the plant.
3	Thermic fluid heater ash	10 Kg/d	
4	Cashew shell cake	210 TPM	15% of this is used for boiler and thermic fluid heater and the balance is sold as fuel.
5	ETP sludge (phenalkamine section)	0.2 kg/d	Dried and used as fuel

PP reported that the only Hazardous waste generated from the industry is Used oil of 250 l/annum it is Collected in barrels and sold to authorized recyclers.

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC

due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/hazardous raw material shall be bare minimum in quantity and inventory. The Committee has noted that the land has been converted for Industrial purpose.

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

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.

(iii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(iv). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(v). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(vi). 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.

(vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(viii). Total fresh water requirement shall not exceed 14500 LPD. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(ix). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

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

(xi). 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xiii). 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.

(xiv). 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. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xv). The activities and the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented. Preference shall be given to local villagers for employment in the unit.

(xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-

fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.8

Expansion of existing Bulk Drugs & Intermediates Manufacturing Unit along with 2.5 MW co-generation by M/s Tagoor Chemicals Pvt. Ltd. located at Survey No.:32, Tupakulagudem (V), Tallapudi (M), West Godavari District, Andhra Pradesh - Reconsideration of Environment Clearance regarding.

[IA/AP/IND2/159022/2016, J-11011/368/2014-IA-II(I)]

The proposal was earlier placed before the EAC in its meeting held during 14-16 July, 2020 wherein EAC deferred the proposal and desired for certain requisite information/inputs. Information desired by the EAC and response submitted by the project proponent is as under:

S. No.	Observation of EAC	Reply/Justification of PP	Observation of EAC
1.	Details of Existing, Proposed and total products in tabular format.	PP submitted Existing, Proposed and total products in tabular format.	The EAC deliberated the matter and found the reply to be satisfactory.
2.	Details of existing products vis-a-vis EC & CTO.	As per EC, the pollution load of wastewater generation is 40 KLD & water consumption is 79.71 KLD. As per CTO order No., the pollution load of wastewater generation is 40 KLD & water consumption is 79.7 KLD, above pollution loads are within the limits. Hence, there is no increase of pollution loads due to change in products mix.	The EAC deliberated the matter and found the reply to be satisfactory.
3.	Production details since inception of the unit to verify the violation, if any.	PP submitted the production details since November, 2018.	The EAC deliberated the matter and found the reply to be satisfactory.
4.	Alternative fuel in place of coal.	PP will utilize Fuel briquettes regularly and requested to permit to use coal if the non- availability of fuel briquette during monsoon season, which will not exceed 30 % of its total fuel consumption per Annum.	The EAC deliberated the matter and found the reply to be satisfactory.

5.	Detailed action plan on the public hearing issues, response and as proposed, CER plan for Rs.2 Crores.	The action plan on the public hearing issues in detailed is submitted.	The EAC deliberated the matter and found the reply to be satisfactory.
6.	Revised water balance and plan for ZLD.	PP submitted revised water balance.	The EAC deliberated the matter and found the reply to be satisfactory.
7.	Rainwater harvesting plan and reuse in the plant.	Rainwater harvesting system will be adopted in the proposed expansion project to manage the rainwater with in the premises. Separate collection system will be implemented for the rooftop water to proposed project.	The EAC deliberated the matter and found the reply to be satisfactory
8.	Plan for generation of 20 % power requirement of the unit from green energy solar power.	The total power requirement will be 2000 kVA in which 20 % i.e., 2000 x 20% = 400 kVA of power will be met from green energy solar power. The solar panels will be installed within a year after receiving Environmental Clearance at the plant site and the generated power will be sent to the APTRANSCO and the power of 400 KVA will be drawn from APTRANSCO which will be used for Plant street lighting, buildings lighting and plant operations.	The EAC deliberated the matter and found the reply to be satisfactory
9.	Verification/ re-analysis of AAQ study and predicted incremental values.	The predicted ground level concentrations when added to Baseline scenario, the overall scenario levels of PM10, PM2.5, SO2 and NOX are well within the permissible limits as specified by NAAQ Standards. Verified/ re-analysed of AAQ study and predicted incremental values submitted by PP.	The EAC deliberated the matter and found the reply to be satisfactory

10.	Risk and safety assessment using advanced models.	Risk and Safety assessment has been considered for: 1. Toluene & Methanol Accidental leakage from tanks, ignition and consequence of Thermal radiation from Pool fire. 2. O-Xylene -BLEVE - Consequence of Thermal radiation from Fire ball. 3. Bromine and Ammonia gas dispersion, formation of Toxic area of Vapor cloud and its consequence. Detailed risk and emergency plan is submitted.	The EAC deliberated the matter and found the reply to be satisfactory

The Project Proponent and their accredited Consultant M/s. Rightsource Industrial Solutions Pvt. Ltd., gave a detailed presentation on the salient features of the project through video conferencing (VC).

The proposal is for Environmental Clearance to the project for Expansion of existing Bulk Drugs & Intermediates Manufacturing Unit along with 2.5 MW co-generation by M/s Tagoor Chemicals Pvt. Ltd., located at Survey No.:32, Tupakulagudem (V), Tallapudi (M), West Godavari District, Andhra Pradesh.

The details of products and capacity as under:

S. No.	Product Name	Production Capacity Tons/Month	CAS No.	Therapeutic category
1	Amitriptyline	10	549-18-8	Antidepressant
2	Atrovastatin Calcium	5.0	134523-03-8	Hypercholesterolemia
3	Bupropion	5.0	34841-39-9	Anti-depressant
4	Clopidogrelbisulfate	5.0	135046-48-9	Antithrombotic
5	Cyclobenzaprine HCl	5.0	6202-23-9	Muscle relaxant
6	Cyproheptadine HCl	10	41354-29-4	Anti-allergic
7	Desloratadine	5.0	100649-74-8	Antihistamine
8	Domperidone	30	99497-03-7	Anti-emetic
9	Domperidone maleate	2.0	99497-03-7	Anti-emetic
10	Donepezil HCl	1.0	12004-70-3	Alzheimer's disease
11	Ebastine	5.0	90729-43-4	Anti-allergic
12	Esomeprazole Sodium	3.0	161796-78-7	Anti-ulcerative
13	Esomeprazole Magnesium trihydrate	3.0	217087-09-7	Anti-ulcerative

S. No.	Product Name	Production Capacity Tons/Month	CAS No.	Therapeutic category
14	Fexofenadine Hydrochloride	5.0	143439-40-8	Anti-histamine
15	Haloperidol	2.0	52-86-8	Antipsychotic
16	Itopride Hydrochloride	2.0	122892-31-3	Antispasmodics
17	Itraconazole	15	84625-61-6	Antifungal
18	Ketrolac Tromethane	2.0	74103-07-4	Anti-Inflammatory
19	Lansoprazole	10	103577-45-3	Ant ulcerative
20	Loperamide Hydrochloride	10	34552-83-5	Anti-diarrhea agent
21	Losartan Potassium	2.0	124750-99-8	Anti-Hypertensive
22	Nebivolol HCl	2.0	99200-09-6	Anti-Hypertensive
23	Nortriptyline HCl	2.0	894-71-3	Anti-depressant
24	Omeprazole	60	95510-70-6	Ant ulcerative
25	Omeprazole Sodium	2.0	95510-70-6	Ant ulcerative
26	Omeprazole Magnesium Dihydrate	2.0	95382-33-5	Ant ulcerative
27	Oxatomide	1.0	60607-34-3	Antihistamine
28	Pantoprazole Sodium Sesqui Hydrate	20	164579-32-2	Ant ulcerative
29	Pimozide	2.0	2062-78-4	Antipsychotic
30	Pregabalin	2.0	148553-50-8	Epileptic
31	Quetiapine Hemifumarate	2.0	111974-72-2	Antipsychotic
32	Rabeprazole Sodium	20	117976-90-6	Ant ulcerative
33	Rupatadine fumarate	2.0	182349-12-8	Antihistamine
34	Telmisartan	2.0	144701-48-4	Anti-Hypertensive
35	Terbinafine hydrochloride	15	78628-80-5	Anti-fungal
36	Valsartan	2.0	137862-59-4	Anti-Hypertensive
37	1-Benzy-4-piperidone	5.0	3612-20-2	Drug Intermediate
38	1-Benzyl-4-chloropiperidine	5.0	67848-71-9	Drug Intermediate
39	1-Benzylpiperidin-4-ol	5.0	4727-72-4	Drug Intermediate
40	1-Methylpiperidin-4-amine	5.0	41838-46-4	Drug Intermediate
41	4-Aminopiperidine	5.0	13035-19-3	Drug Intermediate
42	4-Hydroxy piperidine	5.0	5382-16-1	Drug Intermediate
43	4-Phenylpiperidine	1.0	771-99-3	Drug Intermediate
44	4-piperidinopiperidine	1.0	4897-50-1	Drug Intermediate
45	N-tert-Butoxycarbonyl-4-hydroxy piperidine	5.0	109384-19-2	Drug Intermediate
Total (We will manufacture any 10 Products at any given point of time)		**200**		
**** Co-generation of 2.5 MW Power**				

Table: List of By-Products and its quantities

S. No.	Product Name	Name of the By- product	Quantity in Kg /Day
1	Clopidogrel Bi-sulphate Omeprazole Domperidone	Ammonium sulphate	7848.00
2	Domperidone Cyclobenzaprine hydrochloride Itraconazole	Sodium bromide	948.00
3	Cyclobenzaprine hydrochloride Cyproheptadine Hydrochloride Desloratadine	Magnesium Chloride	239.00
4	Desloratadine Ebastine	Potassium chloride	226.00
5	Ebastine	Aluminium hydroxide solution (12%)	667.00
6	Itraconazole Telmisartan	Potassium bromide	117.00
7	Pantoprazole sodium Sesquihydrtae Domperidone	Ammonium chloride	2215.57
8	Pantoprazole sodium Sesquihydrtae	Ammonium acetate	437.00
		Acetic acid	289.00
		Ammonium phosphate	994.00
		Sodium methyl sulphate	1238.00
9	Pantoprazole sodium Sesquihydrtae Domperidone Rabeprazole sodium Omeprazole	Sodium acetate	1660.00
10	Omeprazole	Sodium nitrite	757.37
11	Domperidone	Methanol	299.00
12	Losartan Potassium	Trityl alcohol	43.50
13	Bupropion Itraconazole Loperamide Hydrochloride	Sodium bromide (After neutralization of HBr with Caustic Lye solution)	556.00
Note: *The By-Products will be produced according to the combination of required products manufacturing.*			

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

The Standard ToR has been issued by Ministry vide letter No. J-11011/368/2014-IA-II (I) dated 22nd January, 2019. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 05.07.2019 which was presided over by the District Revenue Officer & Additional District Magistrate. The main issues raised during the public hearing are related to utilization of CSR & CER funds. It was informed that no litigation is pending against the proposal.

The Certified compliance report on the existing EC has been forwarded by the Ministry's Regional Nagpur vide letter no. F. No.: EP/12.1/2017-18/AP/0242 Dated: 14.02.2020. The Committee deliberated the Report and found in order.

Total land area is 7.0 acres (28328 sqm) & additional area of 4.0 acres (16178 sqm) together with an area of 11 Acres (44506 sqm) land will be used for proposed expansion. Industry has developed greenbelt in an area of 9385.21 sqm and proposed to develop Greenbelt in an area of 5428.81 sqm i.e., 14814.02 which is 33.29% out of 44506 sqm of the total project area.

The proposed project cost for expansion is about Rs.45 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.262 Lakhs and the recurring cost (operation and maintenance) will be about Rs.60 Lakhs per annum. Total Employment after expansion will be 200 persons. Industry proposed to allocate Rs.90.0 Lakhs for 5 years @ 2.0 % of Project cost towards Corporate Social Responsibility & Rs.45 Lakhs for 5 years @ 1.0% of the Project cost and additional Rs.2.0 Crores will allocate for development of nearest Zilla parishad Schools towards Corporate Environment Responsibility. It is reported that no national parks, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. lies within 10 km distance.

Ambient air quality monitoring was carried out at 8 locations during October 2018 to December 2018 and submitted baseline data indicates that ranges of concentrations of PM10 (41.5 – 65.4 µg/ m^3), PM2.5 (16.6 – 26.2 µg/ m^3), SO2 (9.2 – 14.5 µg/ m^3), NOx (16.6 – 21.9 µg/ m^3), CO (0.32 – 0.75 mg/ m^3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM10, PM2.5, SO2 & NOx would be 0.395 µg/m3, 0.099 µg/m^3, 2.061 µg/m^3 & 3.982 µg/m^3 respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NQQS).

The total water requirement is 533.75 m^3/day of which fresh water requirement is 293.46 m^3/day and will be met from River Godavari. The permission to draw of surface water for industrial and drinking water purpose was obtained for 600 KLD from AP Irrigation department vide proceeding No: CE/ GDS/ DWM/ OT1/ AEE1/ 62D dated: 14.02.2019. Generated effluent of 193.19 m^3/day will be treated through stripper followed by MEE/ATFD, Biological Treatment Plant followed by RO plant will be based on Zero Liquid Discharge System.

Power requirement after expansion will be 2000 kVA including existing 300 kVA and will be met from Andhra Pradesh Southern Power Distribution Company Limited (APSPDCL). Existing unit has 250 kVA DG set is dropped and proposed to install 2 X 1000 kVA DG Sets, Stack (height 10 mts) will be provided for each as per CPCB norms to the proposed DG sets.

18.0 TPH Coal/ Fuel briquette fired boiler is proposed with stack of height 40 mtrs, Multi-cyclone separators & bag filters will be installed for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3). PP will utilize Fuel briquettes regularly and asked to permit use coal if the non- availability of fuel briquette during monsoon season, which will not exceed 30% of its total fuel consumption per Annum.

Details of Process emissions generation and its management.

S. No.	Name of the Gas	Quantity in Kg/ Day	Treatment Method
1	Sulphur dioxide	1796	Scrubbed by using C. S. Lye Solution
2	Hydrogen chloride	577	Scrubbed by using chilled water media
3	Hydrogen Bromide	371	Scrubbed by using C. S. Lye solution
4	Nitrogen	15	Dispersed into the atmosphere
5	Carbon dioxide	822	Will be converted into Dry CO_2 by using suitable compressor
6	Hydrogen	30	Diffused by using Nitrogen through Flame arrestor
7	Ammonia	104	Scrubbed by using chilled water media
8	Oxygen	664	Dispersed into the atmosphere
9	Chloro Methane	242	Scrubbed by using C. S. Lye Solution

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

S. No	Name of the Waste	Quantity	Disposal Method
Hazardous Waste Details			
1	Organic waste (Process Residue)	5298 Kg/ Day	Will be sent to Cement Industries
2	Spent Carbon	281.5 Kg/ Day	
3	Solvent Distillation Residue	2064 Kg/ Day	
4	Inorganic Waste	807 Kg/ Day	Will be sent to TSDF
5	Spent Mixed Solvents	4 KLD	Will be sent to SPCB authorized recyclers/ Cement Industries
6	ETP Sludge	500 Kg/ Day	Will be sent to TSDF
7	MEE Salts	9414 Kg/ Day	
8	Organic Evaporative Liquid (from MEE Stripper)	1660 Kg/ Day	Will be sent to Cement Industry
9	Used Oils	500 L/ Annum	Will be sent to SPCB Authorized Agencies for Reprocessing/Recycling
10	Detoxified Containers	800 No's/Month	After Detoxification will be sent to SPCB Authorized Agencies
11	Used Lead Acid Batteries	10 No's/Annum	Send back to suppliers for buyback of New Batteries
Solid Waste Details			

S. No	Name of the Waste	Quantity	Disposal Method
12	Ash from boiler	9.4 MT/ Day	Will be sent to Brick Manufacturers

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/hazardous raw material shall be bare minimum in quantity and inventory.

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

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance, subject to transfer of EC from compliance of terms and conditions as under, and general terms of conditions at **Annexure**:-

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.

(iii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(iv). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(v). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(vi). 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.

(vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(viii). Total fresh water requirement shall not exceed 293.46 m^3/day. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(ix). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

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

(xi). 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xiii). 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.

(xiv). 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. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xv). The activities and the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented. Preference shall be given to local villagers for employment in the unit.

(xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

DAY 2: 18th November, 2020 (Wednesday)

Agenda No. 1.9

Onshore Oil & Gas development drilling and production by M/s Oil India Limited in Dibrugarh district under Dibrugarh, Chabua, Hugrijan and Tinsukia PMLs - Consideration of Environment Clearance

[IA/AS/IND2/139270/2007, J-11011/1253/2007 IA II (I)]

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

The proposal is for environmental clearance to the project Onshore Oil & Gas development drilling and production of 25 wells and 1 production installation by M/s. Oil India Ltd. in Dibrugarh district under Dibrugarh, Chabua, Hugrijan and Tinsukia PMLs.

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

The details of products and capacity as under:

S. No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1.	Wells and production installation	4 wells	21 wells and 1 production installation	25 wells and 1 production installation

The Standard ToR has been issued by Ministry vide letter No. IA-J-11011/490/2017-IA-II(I); dated 16th November, 2017. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 5th September, 2019. Public Hearing was presided over by Additional Deputy Commissioner. The main issues raised during the public hearing are related to environmental pollution, developmental activities, employment, infrastructure development for schools, public health. It was also informed that there are various court cases against the instant proposal and various other proposal of M/s Oil India Limited in the nearby area as under:

S. No	Case No. & Parties	Court/ Tribunal	Details of court case	Current Status
1.	PIL No. 35/2020, Mrinmoy Khataniar Vs. The Union of India and 13 Ors	Hon'ble Gauhati High Court	The Petitioners have filed the Public Interest Litigation of the environmental clearance dated 11.05.2020 granted to OIL by Union Ministry of Environment, Forest and Climate Change for Extension Drilling and testing of Hydrocarbons at 7 (seven) locations under the Dibru-Saikhowa National Park.	As directed by Court, OIL has filed Addl. Affidavit.
2.	PIL No. 39/2020, Gautam Uzir Vs The Union of India and 5 Ors	Hon'ble Gauhati High Court	The Public Interest Litigation has been filed by one Senior Advocate of Gauhati High Court as Petitioner-in-Person.	The Court has fixed the matter on 20.10.2020.
3.	O.A. no. 43/2020/EZ ,Bonani Kakkar Vs OIL & Ors	Hon'ble National Green Tribunal, Kolkata (Eastern Zone Bench)	An application has been filed before the Hon'ble NGT by an environmentalist i.e. Bonani Kakkar.	The Tribunal has deferred the hearing as the committee could not submit the final Report and fixed the next dated for hearing on 15.12.2020.
4.	O.A. No. 44/2020/EZ ,Wildlife and Environmen t Conservatio n Organisatio n Vs. Union of India &Ors	Hon'ble National Green Tribunal, Kolkata (Eastern Zone Bench)	An application has been filed before the Honble NGT by a Non-Governmental Organisation (NGO). i.e. Wildlife & Environment Conservation Organisation against the OIL.	The Tribunal has deferred the hearing as the committee could not submit the final Report and fixed the next dated for hearing on 15.12.2020.

5.	O.A. no. 41/2020/EZ , Sayyan Banerjee Vs. OIL &Ors	Hon'ble National Green Tribunal, Kolkata (Eastern Zone Bench)	An Application has been filed before the Hon'ble NGT by Sri Sayyan Banerjee pertaining to blowout at the Baghjan Oil Well no. 5.	The case is now listed on 03.11.2020. (Case tagged along with O.A. No. 43/2020/EZ, O.A. No. 44/2020/EZ, O.A. 50/2020/EZ)
6.	O.A. 50/2020/EZ , SoneswarNarah & Ors vs. OIL &Ors	Hon'ble National Green Tribunal, Kolkata (Eastern Zone Bench)	An Application has been filed before the Hon'ble NGT by Soneswar Narah and others pertaining to blowout at the Baghjan Oil Well no. 5.	The case is now listed on 03.11.2020. (Case tagged along with O.A. No. 41/2020/EZ, O.A. No. 43/2020/EZ, O.A. No. 44/2020/EZ)
7.	Appeal No. 04/2020/EZ ,(I.A. No. 34/2020) Bimal Gogoi & Anr. Vs. Union of India & Ors.	Hon'ble National Green Tribunal, Kolkata (Eastern Zone Bench)	An Appeal has been filed by the Appellant i.e. Sri Bimal Gogoi before the Hon'ble NGT to challenge the Environmental Clearance (EC) dated 11.05.2020 granted by Ministry of Environment, Forest & Climate Change in favour of OIL for drilling seven wells for Hydrocarbon exploration under the Dibru-Sikhowa National Park.	Court has fixed the next dated for hearing on 15.12.2020.
8.	W.P. no. (Civil) 835/2020, Rituraj Phukan Vs. Union of India & ors.	Hon'ble Supreme Court of India	PIL was filed before the Hon'ble Supreme Court by the Petitioner i.e. Rituraj Phukan	The Hon'ble Supreme Court vide its order dated 16.09.2020 issued notice and tag this Writ Petition with W.P. (Civil) no. 625/2020.

The Ministry had issued EC earlier vide letter no. J-11011/1253/2007 IA II (I); dated 1st November, 2011 to the existing project Drilling of Development Well (3 Nos.) and Exploratory Well (1 Nos.) at Dibrugarh Bhogpara Area in District Dibrugarh Assam by M/s Oil India Limited in favour of M/s Oil India Ltd. The EC compliance has been inspected and certified by Shillong Regional Office of MoEFCC vide letter No. RO-NE/E/IA/AS/MI/60/1800-1801 dated 05th October, 2020.

The land area used for the proposed project is 700000 m^2. Oil India Ltd. will develop greenbelt at the proposed one production installation having an area of 17500 m^2.

The estimated project cost is Rs.823.30 crore. Recurring cost for greenbelt plan, wildlife conservation plan and environmental control measures will be a total of INR 0.54 crores per annum. Capital and recurring costs for action plan for public consultation will be in compliance to the EAC recommendation. Total Employment will be 60 persons as direct & 120 persons indirect after expansion.

It was informed by PP that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km of the well locations. Brahmaputra River is flowing from the north-west corner of the block from NE to SW direction.

Ambient air quality monitoring was carried out at 8 locations during 5.10.2017 to 31.12.2017 and the baseline data indicates the ranges of concentrations as: PM10 (59.21 - 66.88 µg/m^3), PM2.5 (29.88 - 36.67 µg/m^3), SO_2 (5.73-8.9 µg/m^3) and NO_2 (16.57- 18.65 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 16.2 µg/m^3, 0.98 µg/m^3, 0.082 µg/m^3 and 0.21 µg/m^3 with respect to NOx, SO_2, PM10 and HC. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 50 m^3/day of which fresh water requirement of 39 m^3/day will be met from groundwater. Effluent of 21.8 KLD quantity will be treated through ETP and Septic tank. The project will be based on Zero Liquid discharge system. Power requirement will be met through two Diesel Generator Sets of 1250 kVA each. Another 1250 kVA DG set will be kept as standby. Stack height of 7 m will be provided as per CPCB norms to the proposed DG sets.

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

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

PP informed that in Baghjan Well No. 5 cement plug job was being carried out as per the program on 26.05.2020. The Well suddenly became very active and has resulted into a blowout at around 10.30 AM on 27.05.2020. Consequent upon incident of blowout and subsequent fire, various Govt. Authorities have constituted various committees to enquire into the cause of the Blowout. OIL is yet to receive Committee's report, except the Report of Oil Industry Safety Directorate (OISD). It is pertinent to mention that the Hon'ble HC in PIL No. 93/2020 (Gautam Uzir) has directed the Committee constituted by Govt. of Assam and MoPNG as well as OIL India Ltd. to submit their respective reports before the Court in sealed cover as the Court was of the opinion that the findings of these Committee's may be overlapping. Nevertheless, OIL shall implement recommendations of the Committee's unless recommendations are overlapping or contradictory. The Committee deliberated the details and is of the view that there may be condition that this instant EC is subject of Order of Hopn'ble Court.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project

Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

Deliberation in the EAC

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

The committee noted that Baghjan Well, adjacent to the proposed well location/area had a blow out and has caused severe impact on the environment and biodiversity of the region. subsequently Govt. Authorities have constituted various committees to enquire into the cause of the Blowout and has resulted into court cases. The committee has deliberated the action plan for safety measures and Emergency contingency plan.

The Committee observed that the block area is falling within 10 km of the National Park and Wildlife sanctuary and such requires permission/clearance on Forest/Wildlife angle. The project proponent has in turn informed that none of the wells are falling within 10 km of the protected areas. The Committee was of the view that, if any blow out/leakage, happens as that happened in Baghjan, it shall lead to disastrous effect on the environment, people and associated biodiversity. The project proponent has informed that lessons have been learned from the blowout and assured that all the safety and precautionary measures shall be taken to avoid any such disaster.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the action plan of pollution mitigation measures and found to be addressing the issues in the study area and public hearing issues. Additional information submitted by the project proponent found to be satisfactory and addressing the concerns of the Committee.

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

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

(i). This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, as may be applicable to this project.

(ii). The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, as applicable, as per the Ministry's OM dated 8th August, 2019. Grant of environmental

clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposal for Wildlife Clearance will be considered by the respective authorities on its merit and decision taken.

(iii). The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

(iv). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(v). The activities and the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented.

(vi). No pipelines or its part shall be laid in the Forest land/Protected Area without prior permission/approval from the Competent Authority.

(vii). Forest Clearance/Wild Life Clearance/ESZ Clearance shall be obtained from the concerned regulatory authority, as applicable to the project. Drilling in the forest area and area beneath it shall not be carried out without prior permission.

(viii). As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land. Mobile ETP along with RO plant shall be installed to treat the waste water.

(ix). During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.

(x). The project proponent also to ensure trapping/storing of the CO_2 generated, if any, during the process and handling.

(xi). Approach road shall be made pucca to minimize generation of suspended dust.

(xii). The project proponent 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.

(xiii). Total fresh water requirement shall not exceed 39 m^3/day. Prior permission shall be obtained from the concerned regulatory authority. Mobile ETP coupled with RO shall be installed to reuse the treated water in drilling system. Size of the waste shall be equal to the hole volume+ volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.

(xiv). The company shall construct the garland drain 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.

(xv). 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 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.

(xvi). 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.

(xvii). The project proponent shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At fixed installations or plants use of 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.

(xviii). The project proponent 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.

(xix). Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.

(xx). On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable DGH / Indian Petroleum Regulations.

(xxi). No lead acid batteries shall be utilized in the project/site.

(xxii). Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xxiii). Oil content in the drill cuttings shall be monitored and report & shall sent to the Ministry's Regional Office.

(xxiv). The project proponent 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.

Agenda No. 1.10

Onshore Oil & Gas development drilling and production by M/s OIL INDIA LIMITED in Khagorijan Oil & Gas Field in Dibrugarh & Tinsukia District under Tinsukia PML, Tinsukia Extension PML and Chabua PML District : Dibrugarh, Dibrugarh, Assam - Consideration of Environment Clearance

[IA/AS/IND2/72322/2018, IA-J-11011/35/2018-IA-II(I)]

The Project Proponent and their accredited M/s ERM India Pvt. Ltd., made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for environmental clearance to the project Onshore Oil & Gas development drilling and production for 54 wells and 2 production installations by M/s OIL INDIA LIMITED in Khagorijan Oil & Gas Field in Dibrugarh & Tinsukia District under Tinsukia PML, Tinsukia Extension PML and Chabua PML District : Dibrugarh, Dibrugarh, Assam.

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

The details of products and capacity as under:

S. No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1.	Wells and production installations	0 wells	54 wells and 2 production installations	54 wells and 2 production installations

The Standard ToR has been issued by Ministry vide letter No. J-11011/35/2018-IA II (I); dated 11th March, 2018. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 5th September 2019 and 12th March 2020 respectively for Dibrugarh

and Tinsukia districts. Public Hearing was presided over by Additional Deputy Commissioner. The main issues raised during the public hearing are related to environmental pollution, protection of ecologically sensitive areas, developmental activities, employment, infrastructure development for schools, public health.

It was also informed that there are various court cases against the instant proposal and various other proposal of M/s Oil India Limited in the nearby area as under:

Sl No	Case No. & Parties	Court/ Tribunal	Fact and Relief Sought	Current Status
1.	PIL No. 35/2020, Mrinmoy Khataniar Vs. The Union of India and 13 Ors	Hon'ble Gauhati High Court	The Petitioners have filed the Public Interest Litigation of the environmental clearance dated 11.05.2020 granted to OIL by Union Ministry of Environment, Forest and Climate Change for Extension Drilling and testing of Hydrocarbons at 7 (seven) locations under the Dibru-Saikhowa National Park.	As directed by Court, OIL has filed Addl. Affidavit.
2.	PIL No. 39/2020, Gautam Uzir Vs The Union of India and 5 Ors	Hon'ble Gauhati High Court	The Public Interest Litigation has been filed by one Senior Advocate of Gauhati High Court as Petitioner-in-Person.	The Court has fixed the matter on 20.10.2020.
3.	O.A. no. 43/2020/EZ ,Bonani Kakkar Vs OIL & Ors	Hon'ble National Green Tribunal, Kolkata (Eastern Zone Bench)	An application has been filed before the Hon'ble NGT by an environmentalist i.e. Bonani Kakkar.	The Tribunal has deferred the hearing as the committee could not submit the final Report and fixed the next dated for hearing on 15.12.2020.
4.	O.A. No. 44/2020/EZ ,Wildlife and Environmen t Conservatio n Organisatio n Vs. Union of India &Ors	Hon'ble National Green Tribunal, Kolkata (Eastern Zone Bench)	An application has been filed before the Honble NGT by a Non-Governmental Organisation (NGO). i.e. Wildlife & Environment Conservation Organisation against the OIL.	The Tribunal has deferred the hearing as the committee could not submit the final Report and fixed the next dated for hearing on 15.12.2020.
5.	O.A. no. 41/2020/EZ , Sayyan	Hon'ble National Green	An Application has been filed before the Hon'ble NGT by Sri Sayyan Banerjee pertaining to	The case is now listed on 03.11.2020.

	Banerjee Vs. OIL &Ors	Tribunal, Kolkata (Eastern Zone Bench)	blowout at the Baghjan Oil Well no. 5.	(Case tagged along with O.A. No. 43/2020/EZ, O.A. No. 44/2020/EZ, O.A. 50/2020/EZ)
6.	O.A. 50/2020/EZ , SoneswarNarah & Ors vs. OIL &Ors	Hon'ble National Green Tribunal, Kolkata (Eastern Zone Bench)	An Application has been filed before the Hon'ble NGT by Soneswar Narah and others pertaining to blowout at the Baghjan Oil Well no. 5.	The case is now listed on 03.11.2020. (Case tagged along with O.A. No. 41/2020/EZ, O.A. No. 43/2020/EZ, O.A. No. 44/2020/EZ)
7.	Appeal No. 04/2020/EZ ,(I.A. No. 34/2020) Bimal Gogoi & Anr. Vs. Union of India & Ors.	Hon'ble National Green Tribunal, Kolkata (Eastern Zone Bench)	An Appeal has been filed by the Appellant i.e. Sri Bimal Gogoi before the Hon'ble NGT to challenge the Environmental Clearance (EC) dated 11.05.2020 granted by Ministry of Environment, Forest & Climate Change in favour of OIL for drilling seven wells for Hydrocarbon exploration under the Dibru-Sikhowa National Park.	Court has fixed the next dated for hearing on 15.12.2020.
8.	W.P. no. (Civil) 835/2020, Rituraj Phukan Vs. Union of India & ors.	Hon'ble Supreme Court of India	PIL was filed before the Hon'ble Supreme Court by the Petitioner i.e. Rituraj Phukan	The Hon'ble Supreme Court vide its order dated 16.09.2020 issued notice and tag this Writ Petition with W.P. (Civil) no. 625/2020.

Total land will be used for proposed project is 1760000 m^2. Oil India Ltd. will develop greenbelt at the two proposed production installations having a total area of 35000 m^2.

The estimated project cost is Rs.1988.62 crore. Recurring cost for greenbelt plan, wildlife conservation plan and environmental control measures will be a total of INR 1.32 crores per annum. Total Employment will be 60 persons as direct & 120 persons indirect. As per MoEF&CC Notification no. F. No. 22-65/2017-IA.III dated 30th September, 2020 instead of allocation of funds under CER the EAC will prescribe specific conditions in physical terms to address the concerns raised during the Public Consultation while recommending the proposal. Oil India Ltd. will comply with the conditions.

PP reported that the Dibru Saikhowa National Park (DSNP) is located at the north eastern corner of Khagorijan Field. However, no wells located within notified ESZ of DSNP. Padumoni section of Bherjan-Borajan-Padumoni WLS within the Khagorijan Field boundary. Few wells are within ESZ of Bherjan-Borjan Podumoni Wild Life Sanctuary. Brahmaputra River is flowing from the northern part of the block from NE to SW direction.

PP reported that application for NBWL clearance submitted for 18 Nos of well falling within in 10 KM of ESZ of BBP. However, Eco-Sensitive Zone proposed by the State Govt. of Assam for Borjan, Bherjan and Podumoni (BBP) ESZ boundary is 0 km from the boundary of the Wildlife Sanctuary, around each of the three distinct entities namely Bherjan, Borjan and Podumoni (BBP). OIL's proposed drilling locations are located outside of the State Govt. of Assam's proposed Borjan, Bherjan and Podumoni ESZ boundary. OIL will drill the locations only after finalisation of the ESZ of Bherjan, Borjan and Podumoni (BBP) WLS or obtaining Wildlife Clearance from Standing Committee of NBWL whichever is earlier.

Ambient air quality monitoring was carried out at 8 locations during 4.10.2017 to 31.12.2017 and the baseline data indicates the ranges of concentrations as: PM10 (60.50 and 89.25 µg/m^3), PM2.5 (32.13 and 47.92 µg/m^3), SO_2 (5.50 - 6.14 µg/m^3) and NO_2 (16.57 - 24.19 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 12.35 µg/m^3, 0.44 µg/m^3, 0.06 µg/m^3 and 0.08 µg/m^3 with respect to NOx, SO2, PM10 and HC. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 50 m^3/day of which fresh water requirement of 39 m^3/day will be met from groundwater. Effluent of 21.8 KLD quantity will be treated through ETP and Septic tank. The project will be based on Zero Liquid discharge system. Power requirement will be met through two Diesel Generator sets of 1250 kVA each. Another 1250 kVA DG set will be kept as standby. Stack height of 7 m will be provided as per CPCB norms to the proposed DG sets.

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

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

PP informed that in Baghjan Well No. 5 cement plug job was being carried out as per the program on 26.05.2020. The Well suddenly became very active and has resulted into a blowout at around 10.30 AM on 27.05.2020. Consequent upon incident of blowout and subsequent fire, various Govt Authorities have constituted various committees to enquire into the cause of the Blowout. OIL is yet to receive Committee's report, except the Report of Oil Industry Safety Directorate (OISD). It is pertinent to mention that the Hon'ble HC in PIL No. 93/2020 (Gautam Uzir) has directed the Committee constituted by Govt of Assam and MoPNG as well as OIL India Ltd. to submit their respective reports before the Court in sealed cover as the Court was of the

opinion that the findings of these Committee's may be overlapping. Nevertheless, OIL shall implement recommendations of the Committee's unless recommendations are overlapping or contradictory.

Deliberations in the EAC:

The EAC has deliberated on the proposal. The committee noted that Baghjan Well, adjacent to the proposed well location/area had a blow out and has caused severe impact on the environment and biodiversity of the region. subsequently Govt. Authorities have constituted various committees to enquire into the cause of the Blowout and has resulted into court cases.

The Committee noted that the well locations are falling in the Bherjan-Borajan-Padumoni Wild Life Sanctuary. Further, 18 wells are falling within in 10 KM of ESZ of the sanctuary. It was also noted that the wells/blocks are within 10 km of the National Park. The Committee is of opinion that Forest Clearance/ Wild Life Clearance/ ESZ Clearance should be obtained from the concerned regulatory authority. The Committee was of the view that, if any blow out/leakage, happens as that happened in Baghjan, it shall lead to disastrous effect on the environment, people and associated biodiversity. The Committee has also observed that the soil quality of the region is degraded and is reported to be acidic due to drilling activities and contamination of ground water. The Committee was of the considered view that the project proponent needs to submit a detailed report on the impact of Baghjan blow out in the study area, proposed action plan for remediation, and the proposed safety and emergency action plan.

The Committee after detailed deliberations, desired for following information/inputs in respect of the following:

(i). Details of court cases along with current status.

(ii). Detailed safety and Emergency contingency plan.

(iii). Status of recommendations from the Standing Committee of NBWL.

(iv). Details on the assessment of Biodiversity of the area, as suggested by the Hon'ble Supreme court of India.

(v). Soil and ground water quality assessment to understand the impact of drilling activities in the region, if any.

(vi). Details of impact of Baghjan *blow out in the study area.*

(vii). Damage assessment of the blow out, action plan for remediation.

*The proposal was accordingly **deferred** for the needful.*

Agenda No. 1.11

Proposal to establish Synthetic Organic Manufacturing Plant at Additional Patalganga MIDC, Plot No. E-127, Khalapur taluk, Raigad district, Maharashtra by M/s SMT Organic Chemicals Pvt. Ltd - Consideration of Environment Clearance

[IA/MH/IND2/53584/2016, J-11011/145/2016- IA II(I)]

The project proponent and their accredited Consultant M/s. MITCON Consultancy & Engineering Services Ltd., made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for environmental clearance to establish Synthetic Organic Manufacturing Plant at Additional Patalganga MIDC, plot no. E-127, Khalapur taluk, Raigad district, Maharashtra

The details of products and capacity are as under:

S. No.	Product Name	Production Capacity (MTPA)
1.	Formaldehyde (37% to 55% Concentration) and	36,000
2A	Urea Formaldehyde and Melamine Formaldehyde Liquid Resin	31,304
2B	Urea Formaldehyde and Melamine Formaldehyde Powder Resin	15,652
3A	Phenol Formaldehyde Liquid resin	86,747
3B	Phenol Formaldehyde Powder resin	43,374
TOTAL		**213,077**

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

The Standard ToR has been issued by Ministry vide letter No. No. J – 11011/145/2016-IA.II (I); dated 11th May, 2017. Public Hearing for the project is exempted as the industry is located in Notified Industrial Area additional Patalganga MIDC. It was informed that no litigation is pending against the proposal.

The land area available for the project is 3997 m^2. Industry will develop greenbelt in an area of 33% i.e. 1320 m^2, out of total area of the project. The estimated project cost is Rs. 15.5 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs. 1.43 Cr and the recurring cost (operation and maintenance) will be about Rs. 22.0 lakhs per annum. Total Employment will be 20 persons as direct & 30-40 as indirect. Industry proposes to allocate Rs. 31 Lakh towards Corporate Environment Responsibility within five years.

The Karnala Bird Sanctuary which is a notified Eco sensitive Zone and is located at a distance of 2.3 km from the project site. Patalganga River is flowing at a distance of 1.1 km from the project site in West Direction.

Ambient air quality monitoring was carried out at eight locations during October to December, 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (31.9 to 55.7 µg/m^3), $PM_{2.5}$ (10.7 to 22.8 µg/m^3), SO_2 (5.7 to 20.2 µg/m^3) and NO_x (9.4 to 23.5 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.00061 µg/m^3, 0.00041 µg/m^3, 0.43015 µg/m^3 and 0.5869 µg/m^3

with respect to PM_{10}, $PM_{2.5}$, SO_X and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 322 m^3/day of which fresh water requirement of 305 m^3/day will be met through MIDC. Effluent of 17.85 m^3/day quantity will be treated through 18 CMD ETP cum STP followed by RO and MEE. The plant will be based on Zero Liquid discharge system.

Power requirement will be 890 kW and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). 1000 kVA DG set will be used as standby during power failure. Stack height 10 m will be provided as per CPCB norms to the proposed DG sets. 5 TPH Furnace Oil fired Boiler will be installed. Oxygen Trimming with Digital Burner Management System with a stack of height of 48 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers. It was also reported to the committee that no Process Emissions are envisaged**.**

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

S. No.	Description	Cat	UOM	Proposed	Method of Disposal
1.	Spent Oil/ used waste	5.1	L/month	30	Reused and excess sold through authorised recycler/ re-processor
2.	ETP Sludge	37.1	MT/Month	50	CHWTSDF
3.	Wastes/ Residue containing Oil	36.1	MT/month	0.2	Sale to authorised dealer
4.	Discarded bags	33.1	No. / Month	2,60,000	Sale to authorised dealer
5.	Spent Resin	36.1	KL/month	3	Sale to authorised dealer
6.	Old Catalysts	36.1	Kg/Month	50	Regenerated within the plant

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards.

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

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.

(iii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(iv). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(v). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(vi). 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.

(vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(viii). Total fresh water requirement shall not exceed 322 m^3/day, proposed to be met from MIDC. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(ii). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be

used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(ix). 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(x). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xi). 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.

(xii). 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. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiii). The activities and the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented. Preference shall be given to local villagers for employment in the unit.

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

(xv). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.12

Proposed Expansion of Synthetic Organic Chemicals in existing manufacturing unit at Plot No. 24, 24/1, GIDC Industrial Estate, Panoli-394116, Tal: Ankleshwar, Dist: Bharuch, Gujarat by M/s Merchem Limited- Consideration of Environmental Clearance

[IA/GJ/IND2/177837/2007, IA-J-11011/70/2020-IA-II(I)]

The Project Proponent and their Consultant M/s Shree Green Consultants (not accredited with QCI/NABET), made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for expansion of Synthetic organic chemicals at Plot No. 24, 24/1, GIDC Industrial Estate, Panoli-394 116, Taluka Ankleshwar, District Bharuch, Gujarat by M/s Merchem Limited.

The details of products and capacity as under:

S. No	Name of the product	Quantity MT/Month			End-use of product
		Existing	Proposed	Total	
	Chemical Intermediate				
1	NaMBT Intermediate (Sodium Mercapto Benzothiazole)	334	226	560	Intermediate
2	4- ADPA (P-amino diphenyl amine)- Intermediate	0	460	460	
	Thiazoles				
3	MBT (2-Mercaptobenzothiazole)	125	125	300	Accelerator
4	MBTS (Dibenzothiazole Disulfide)				
5	ZMBT (Zinc-2-mercaptobenzothiazole)				
6	Activated Thiazole	0	50		
	Co products				
	Na2S/ NaHS	155	105	260	
	Benzothiazole	0	50	50	
	Sulphenamides				
7	CBS (N-Cyclohexyl-2-benzothiazole sulfenamide)	290	310	600	Accelerator
8	TBBS (N-Tertiarybutyl-2-Benzothiazole Sulfenamide)				
9	MBS (2-(4morpholinothio)-Benzothiazole)				
10	DCBS (Dicyclo Hexyl BenzoThiazoleSulphenamides)				

11	TBSI(N-T-BUTYL-2-benzothiazole sulphenimide)				
12	DBBS(N,N-Dibenzyl-2-benzothiozole Sulpenamide)				
	Specialty Chemicals				
13	DHTS(Hexamethylene-1,6-bis(thiosulphate), dihydrate	0	500	500	Specialty Chemicals
14	3-hydroxy-N(1-3-dimethylbutylidene)-2 Napthohydrazide				
15	ZDDP(Zinc Dialkyl Dithio Phosphate)				
16	Hydro quinone Ethoxylated ether				
17	DBD (2,2-dithio bis - benzanilide)				
18	AHB(Aniline Heptaldehyde Base)				
19	DTDC(N, N' DithioCaprolactum)				
20	TAIC(Tri-allyl-iso-cyanurate)				
21	TMBS (N-phenyl - N (Trichloro methyl sulphenyl)-benzene sulphenamide)				
22	TAT (2,4, Triallyloxy-1,3,5-Triazine)				
23	PBM (N N phenylene Bis maleimide)				
24	CCMB (1,3-bis(citraconimidomethyl)benzene)				
25	DBDH (1,6-bis(N,N-dibenzylthiocarbamoyldithio)-hexane				
26	44PD (N,N' –di-sec-butyl-p-phenylenediamine (C14-H24-N2))				
27	DHTQ (Poly(1,2-dihydro-2,2,4-trimethylquinoline)				
28	77PD (N,N'-Bis(1,4-Dimethylpentyl)-P-Phenylenediamine)				
	Antioxidants				
29	6PPD(N-(1,3-Dimethyl-Butyl)-N'-Phenyl-p-	167	1233	1600	Antioxidants

	phenylenediamine) & Similar product				
30	TDQ (Tri MethylDihydroQuinoline) & Similar product				
31	SP (Mixture of Styrenated Phenols)	0	200		
32	MB (2 - Mercapto Benzimidazole)	0			
33	ZMMB (Zinc Salt of 4 &5 , Methyl 2- mercapto Benzimidazole)	0			
	Dithiocarbamate				
34	ZDBC (Zinc Di,N-Butyl DithioCarbamate)	0	200	200	Accelerator
35	ZBEC (Zinc Di Benzyl DithioCarbamate)				
36	ZDC (Zinc Di Ethyl DithioCarbamate)				
37	ZDMC(Zinc Di Methyl Dithio carbamate)				
38	SDMC (Sodium Di Methyl Di Thio Carbamate)				
39	DPTT (DiPenta Methylene Thiuram Tetra Sulphide)				
40	TBzTD (Tetra Benzyl ThiuramDisulphide)				
41	TMT (Tetra Methyl ThiuramDisulphide)				
	Formulation Chemical				
42	Formulation Products/Repacking	0	500	500	Formulation chemicals
	R&D Product/Chemicals				
43	Thiazoles/Sulphenamides/ Specialty Chemicals/Antioxidants/Dithio carbamate & other	0	20	20	R&D Product/Chemicals
	TOTAL	**1071**	**3979**	**5050**	
	Captive Power Plant	1.36 MWH	-1.36 MWH	00 MWH	It will be removed

The ToR has been issued by Ministry vide letter No. IA-J-11011/70/2020-IA-II(I); dated 24th July 2020. Public hearing is exempted as the project is located inside the notified industrial area.

The project/activities are covered under category B of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006. Due to applicability of general conditions (location of the project site within 5 km of CPA), the project

requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

This unit had started their production activity from August 2008. As per CTE No.53227 obtained from GPCB dated 19/06/2013, the unit had obtained Environmental Clearance from MoEF&CC on 15/04/2008. The copy of EC is not available. CTE (dated 07/12/2005) and CCA (dated 20/09/2008) were also obtained from Gujarat Pollution Control Board. The unit was under operation till march 2016. Due to financial crisis, the factory went into shut down afterwards. The sick unit was acquired on March 2019. This unit is does not fall under violation science it had EC(as per of CTE No. 53227 dated 19/06/2013), CTE and CCA from relevant authorities. No Litigation pending against the proposal

Existing land area is 89613.97 m^2. No additional land required for proposed expansion project. Industry has already developed has develop greenbelt in an area of 40.11 % i.e. 35950.0 m^2 out of total area 89613.97 m^2 of the project. The estimated project cost is Rs.162.38 crores including existing investment of Rs.66.38 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 1887.00 lacs and the Recurring cost (operation and maintenance) will be about Rs.161.63 lacs per month. Total Employment will be 400 persons as direct & 500 persons indirect after expansion. Industry proposes to allocate Rs. 2.4 crores @ of 2.5 % towards Corporate Social Responsibility.

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 Narmada river is flowing at a distance of 14.11 km in North direction.

Ambient air quality monitoring was carried out at 8 locations during 1st March 2019 to 31st May 2019 to and the baseline data indicates the ranges of concentrations as: PM_{10} (95.3 – 55 µg/m^3), $PM_{2.5}$ (46.1- 14.2µg/m^3), SO2 (28.6 – 3.2 µg/m^3) and NOx (32.4 -6.1 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4.32 µg/m^3, 2.70 µg/m^3 and 1.14 µg/m^3 with respect to PM10, Sox and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 3133 m^3/day of which fresh water requirement of 2198 m^3/day will be met from Panoli GIDC water Supply. Effluent of 1346 m^3/day quantity will be treated through proposed in house ETP & STP. Approximately 1346 KLD (100 KLD Domestic waste water + 1246 KLD Industrial Effluent) waste water will be generated from proposed expansion project. Total industrial effluent (1246 KLD) will be segregated into two streams having HTDS & LTDS stream. HTDS effluent (747.6 KLD) will be subjected to stripper column followed by MEE and ATFD. Treated HTDS effluent (647 KLD) will be reused in the plant. LTDS effluent (498.4) will be subjected to ETP and treated LTDS effluent (205 KLD) water will be stored in guard pond for disposing to FETP of M/s. NCTL, Ankleshwar which ultimately lead to deep sea for final disposal through NCTL pipeline and reaming LTDS treated effluent (288 KLD) will be reused in the plant. Domestic effluent shall be treated in STP and 70 KLD treated water will be reused in Gardening remaining quantity of STP treated water (30 KLD) will be stored in guard pond along with industrial effluent for disposal to FETP of M/s. NCTL, Ankleshwar which ultimately lead to deep sea for final disposal through NCTL pipeline.

Power requirement after expansion will be 2500 KVA including existing 1500 KVA and will be met from from DGVCL Power Supply. Proposed two D.G set one of 1250 KVA & 750 KVA are used as standby during power failure. Stack height 11 meter will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 12 TPH, 5 TPH & Captive Power plant (Note: Boiler (5TPH) & Captive power plant will be removed.) Additionally, 4 No. TFH (6 L Kcal/hr), 22 TPH steam boiler & 2 No. D.G set (750 KVA & 1250 KVA). Details of utility required are given as below.

Sr. No.	Particulars	Fuel	Fuel Quantity	Stack Height	APCM
Existing					
1	Steam Boiler (12 TPH)	Natural Gas	2212.5 m^3/hr	30 m	Adequate Stack Height
2	Steam Boiler* (5 TPH)	Natural Gas	4425 m^3/hr	30 m	--
3	Captive power plant*	Natural Gas		30 m	--
Proposed					
1	TFH -1 (6 L Kcal/hr)	Natural Gas	70 m^3/hr	30 m	Adequate Stack Height
2	TFH -2 (6 L Kcal/hr)	Natural Gas	70 m^3/hr		
3	TFH -3 (6 L Kcal/hr)	Natural Gas	70 m^3/hr	30 m	Adequate Stack Height
4	TFH -4 (6 L Kcal/hr)	Natural Gas	70 m^3/hr		
5	Steam Boiler (22 TPH)	Natural Gas/ Coal / Briquette	12430 SCMD/ 109.08 MT/DAY	40 m	Adequate Stack Height with ESP and water scrubber
6	D. G. Set (750 KVA)	HSD	166 lit/hr.	11 m	Adequate Stack Height
7	D. G. Set (1250 KVA)	HSD	275 lit/hr.		

Note: Boiler (5TPH) & Captive power plant will be removed

Details of Process emissions generation and its management.....

Sr. No.	Stack Attached To	Stack height	Emission Norms	APCM
Existing (Process Gas Emission)				
1.	Flare Stack	31 m	PM<150 mg/Nm3 SO2 < 40 mg/Nm3 NOx < 25 mg/Nm3 HCl < 20 mg/Nm3	Scrubber

			Chlorine < 9 mg/Nm3 H2S < 45 mg/Nm3 CO <150 mg/Nm3	
Proposed (Process Gas Emission)				
1.	Process Stack	16 m	HCl < 20 mg/Nm3 Chlorine < 9 mg/Nm3	Two Stage Scrubber
2.	Process Stack	16m	NH3 < 175 mg/Nm3	Two Stage Scrubber

Details of Solid waste/ Hazardous waste generation and its management

S. No.	Type of Waste	Source	Category No.	Quantity MT/Year			Mode of Disposal
				Existing	Proposed	Total	
1	Process Residue	Process	Sch-I/ 28.1	72.3	9538.7	9611	Collection, Storage, Transportation & disposal by incineration at CHWIF of BEIL/SEEPL or Co-processing to cement industries/waste mixing facility for cement industries
2	Used Oil	Plant & Machineries	Sch-I/ 5.1	2.37	13.11	15.48	Collection, Storage, Reuse and/or transportation & sold to authorized registered refiners.
3	Discarded Containers	Raw Material Storage & Handling	Sch-I/ 33.1	18.25	36.5	54.75	Collection, storage, Decontamination & transportation, given to authorized recyclers.
4	ETP Sludge from ETP and MEE Salt from MEE	ETP	Sch-I/ 35.3	3311	16369	19680	Collection, Storage, Transportation & disposal by incineration at CHWIF of BEIL/SEEPL or Co-processing to cement industries/waste mixing facility for cement industries
5	E-Waste	Electronics based Equipment	Sch-I/ 28.1	-	1.5	1.5	Collection, storage, transportation and disposal by sell it to approved/registered E-waste recycler.
6	Fly Ash	Boiler	Sch-I/ 37.2	-	3139.20	3139.20	Collection, storage, transportation and selling to brick manufacturer.

7	Plastic waste	Plant	Sch-I/ 33.1	-	120	120	Generation, Collection, Storage, Transportation and sending to TSDF of BEIL/SEPPL or approved TSDF Site and send to registered recyclers
8	Used PPE's	Equipment	Sch-I/ 33.2	-	10	10	Collection, Storage, Transportation and sending to TSDF of BEIL/SEPPL or approved TSDF Site..
9	Used Batteries	Equipment	Sch-II/ A-5	-	60 Nos	60 Nos	Collection, Storage and sold to approved Recyclers
10	Spent/Mix Solvent	Process	Sch-I/ 20.2	-	8945	8945	Collection, Storage, in-house distillation and re-use in premises.
11	Recovered Solvent	Process	20.2	-	108961	108961	Collection, Storage, in-house distillation and re-use in premises.

Deliberations in the EAC:

The EAC during deliberations noted that the Consultant is presenting the case with the Stay order from the Hon'ble High Court of Gujarat issued during 2016 and has not got accredited with QCI/NABET. The Committee noted that though the PP is claimed to have EC for existing operations, they are unable to produce the same before the Committee. The PP has neither approached Ministry nor approached its Regional Office for verification and to get certified compliance report of the EC conditions. As such it is observed that the unit was in operation in violation of the provisions of the EIA Notification, 2006.

The Committee, after detailed deliberations, has desired for following additional information/inputs in respect of the following:

(i). Accreditation status of the consultant.

(ii). Justification for not considering the project under violation category, if any.

(iii). Copy of the existing EC & CTO.

(iv). Certified Compliance status of the existing EC (if any) conditions from the Regional Office of the Ministry as per Ministry's OM of 2012 as it is an expansion proposal.

(v). Status of operation of the unit and compliance of the CTO conditions.

(vi). PP has to revise the EIA/EMP report & Form 2 on Parivesh Portal

The proposal was accordingly <u>returned</u> in its present form.

Agenda No. 1.13

Proposed Establishment of Active Pharmaceutical Ingredient (API)/ Bulk Drugs manufacturing facility at 71, UdyogKshetra, 2nd Floor, Mulund Goregaon Link Road, Mulund (W), Maharashtra by M/s Aarti industries Limited - Consideration of Environment Clearance

[IA/MH/IND2/172257/2020, IA-J-11011/263/2020-IA-II(I)]

The project proponent M/s Aarti Industries Limited, vide letter dated 11.11.2020, informed that they would not be attending the meeting and requested to defer the proposal. The EAC had put the best efforts to appraise the proposal. But as the PP had not even submitted the pre-requisite information as per compliance of Agenda and therefore the Committee RETURNED the proposal and is of the view that PP shall revise the Report as per provisions of the EIA Notification, 2006 so as to appraise by the EAC adequately.

Agenda No. 1.14

Change in Product Mix of Surfactants and Pigments at Survey No: 52 & 846 Village: Karai Taluka: Walahaj District: Vellore, Tamilnadu, Vellore, Tamil Nadu by M/s Ultramarine and Pigments Limited - Consideration of Environment Clearance

[IA/TN/IND2/171007/2019,IA-J-11011/114/2019-IA-II(I)]

The project proponent, vide email dated 16.11.2020, has informed that the Form 2 submitted for environmental clearance was incomplete with information related to NGT court cases and fine against the unit and **desired to withdraw the proposal. The Committee has accepted the request of PP to with draw the project.**

*The Committee has accordingly recommended to **return** the proposal in its present form.*

Agenda No. 1.15

Establishment of 120 KLD Molasses Based Distillery Along With Co Gen Power – 7 MW, Village: Mawana Kalan, Block: Mawana, District: Meerut, (U.P.) of M/s Mawana Sugar Works- Consideration of Environment Clearance

[IA/UP/IND2/98046/2019, IA-J-11011/64/2019-IA-II(I)]

The Project Proponent and their accredited Consultant M/s Environmental and Technical Research Centre, Lucknow, made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Setting up 120 KLD Molasses based Distillery (RS/AA) along with 7 MW co-generation power plant at village Mawana Kalan, Block & Tehsil Mawana, District Meerut (UP) by M/s Mawana Sugar Works (Distillery Division).

The details of products and capacity as under:

Sr. No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1	RS /Ethanol	-	120 KLD	120 KLD
2	Co-Gen Power	-	7.0 MW	7.0 MW

The Standard ToR has been issued by Ministry vide letter No. IA-J-11011/64/2019-IA-II(I) dated 12th March 2019. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 18.12.2019, which was presided over by the Additional District Magistrate. The main issues raised during the public hearing are related to the surrounding people will get employment in the proposed project. No Litigation Pending against the proposal.

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

Proposed land area is 4.88 hectare, which is already under the ownership of Mawana Sugar Works (A unit of Mawana Sugar Limited). Industry will develop greenbelt in an area of 33 % i.e., 1.61 hectare out of total area of the project. The estimated project cost is Rs 16000.00 Lakhs including existing investment of Rs 160.00 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs 4500 Lakh and the Recurring cost (operation and maintenance) will be about Rs 450 Lakh per annum. Total Employment will be 499 persons as direct & indirect after expansion. Industry proposes to allocate Rs 290 Lakhs towards Corporate Environmental Responsibility.

Hastinapur Wildlife Sanctuary falls at a distance of about 8.52 km in East direction from the plant site. PP has applied for NBWL clearance. River/ water body Ganga Canal is flowing at a distance of 0.86 Km in the East direction.

Ambient air quality monitoring was carried out at 8 locations during pre-monsoon season 1st March, 2019 to 31st May, 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (73.3 - 91.2 µg/m^3), $PM_{2.5}$ (38.45 – 51.19 µg/m^3), SO_2 (8.79 -13.83 µg/m^3) and NO_2 (11.49 -16.12 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, 0.41 µg/m^3, 2.84 µg/m^3 and 0.36µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 2400 m^3/day of which fresh water requirement of 720 m^3/day will be met from ground water. Spent wash 744.0 KLD quantity will be concentrated in MEE then concentrate from MEE will be incinerate in Slop fired boiler capacity – 47 TPH. Other waste water generated from cooling tower blow down, boiler blow down, vacuum pump, process condensate will be treated in CPU and recycled in the process after treatment. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 3000 KW will be met from Co-generation power plant of 7.0 MW & D.G Set (1 x 1000 KVA) State power Distribution Corporation Limited (SPDCL).

Adequate Stack (6.5 meters above roof top) will be provided as per CPCB norms to the proposed DG sets.

Unit proposed 47.0 TPH Slop fired boiler. Electro Static Precipitator (ESP) with a stack of height of 75 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boilers. 90 TPD CO_2 will be emitted.

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

Fly ash	70.7 TPD	Fly ash generated will be utilized as manure
Fermenter Sludge	12 TPD	Utilized as manure
Used Oil & Grease	approx. 1100 Liters /Annum	Hazardous waste will be disposed as per the Hazardous Waste Management Rules 2016.
Domestic Waste	approx. 34.25 kg /Day	• Organic waste will be disposed through Composting within premises. • Inorganic waste will be disposed as per Solid Waste Management Rules 2016.

Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan along with activities for addressing the socio-economic issues and found to be addressing the issues in the study area. The Committee noted that the project proponent has proposed conservation plan with Rs. 17.86 lakhs.

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

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to

approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, as applicable, as per the Ministry's OM dated 8th August, 2019. Grant of environmental clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposal for Wildlife Clearance will be considered by the respective authorities on its merit and decision taken.

(ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(iii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(iv). As proposed, total fresh water requirement shall be 720 cum/day, proposed to be met from ground water source. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time.

(v). Project Proponent want to install incineration boiler for treatment of spent wash to ensure ZLD. As committed by PP, the spent wash/other concentrates shall be incinerated.

(vi). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(vii). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix). 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.

(x). Process organic residue and spent carbon, if any, shall be sent to Cement/other suitable industries for its management/incinerations.

(xi). 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.

(xii). 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. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiii). The activities and the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented.

(xiv). The conservation plan proposed with Rs. 17.86 lakhs shall be implemented in consultation with State Forest/Wildlife Department.

(xv). The project proponent shall ensure rain water harvesting system in the project area and reduce dependency on ground water.

(xvi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xvii). Project Proponent shall reduce the quantity of effluents generation in the unit and PP shall install the effective wastewater treatment system. Adequate system shall be in place for controlling the odour and mitigation measures to protect the contamination of ground/surface water.

(xviii). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(xix). 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.

(xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Amendment in ToR

Agenda No. 1.16

Establishment of Group Gathering Station (GGS-IV) at Gamij, Kheda, Gujarat by M/s Oil And Natural Gas Corporation Limited- Amendment in ToR

[IA/GJ/IND2/177734/2020, IA-J-11011/454/2017-IA-II(I)]

The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter IA-J-11011/454/2017-IA-II (I) dated 01.02.2018 for the project Onshore Oil & Gas Production Facility- Group Gathering Station (GGS-IV) at Gamij, Kheda, Gujarat in favour of M/s ONGC Ltd., Ahmedabad.

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

Sl. No.	Para of ToR Issued by MoEF&CC	Details as per the ToR	To be revised/read as	Justification/ Reasons
1.	4.Project/Activity applied for: 1(b) Offshore and Onshore oil and gas exploration, development & production	Onshore Oil & Gas Production Facility- Group Gathering Station (GGS-IV) at Gamij	The proposed project 'Onshore Oil & Gas Production Facility- Group Gathering Station (GGS-IV) at Gamij is envisaged as "Isolated storage and handling of hazardous chemicals i.e. Crude Oil & Natural Gas (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000)" and falls under Category	The proposed isolated storage along with associated handling facilities for oil and gas pertains to storing & handling of crude oil and gas produced from the number of development wells. Ministry vide Notification S.O. 1960(E) dated 13.06.2019 has omitted entries relating to item 6(b) of the EIA Notification-2006. It is to submit that the proposed project falls under category 6(b) of Schedule-I of EIA Notification, which is now omitted.

			6(b) of EIA Notification (Amendment)-2019. Category 6(b) is now omitted and therefore, the project does not require EC.	***The proposal is for non-applicability of Environmental Clearance due to change in category and issuance of new notification.***

Deliberations in the EAC:

The EAC has made a detailed deliberation on the proposal. The EAC has been informed that the Ministry has twice addressed the concern of the project proponent in this regard. As per the Ministry's Notification dated 13th June, 2019, prior environmental clearance is not required for the projects related to the Isolated storage and handling of hazardous chemicals i.e. Crude Oil & Natural Gas. However, the instant proposal has been submitted under item 1 (b) 'Offshore and Onshore oil and gas exploration, development & production' and does not find any merit in reconsideration.

The Committee noted that the proposed associated facilities are part of the existing drilling operations and oil/gas drilled are getting collected in the proposed facilities**. The Committee suggested the project proponent to take required amendments in the environmental clearance granted for oil and gas drilling, for the envisaged associated facilities.**

The proposal was accordingly returned in its present form

Agenda No. 1.17

Establishment Early Production System (EPS) at Limbodra#181, Ahmedabad Asset Gujarat by M/s Oil And Natural Gas Corporation Limited- Amendment in ToR [IA/GJ/IND2/177887/2020, IA-J-11011/412/2017-IA-II(I)]

The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter IA-J-11011/412/2017-IA-II(I) dated 29.09.2017 for the project Establishment of Early Production System (EPS) # 181 at Limbodra located at Kolavada; Gandhinagar, Gandhinagar, Gujarat in favour of M/s ONGC Ltd., Ahmedabad.

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

Sl. No.	Para of ToR Issued by MoEF&CC	Details as per the ToR	To be revised/read as	Justification/ Reasons

1.	4.Project/Activity applied for: 1(b) Offshore and Onshore oil and gas exploration, development & production	Establishment of Early Production System (EPS) # 181 at Limbodra	The proposed project 'Establishment of Early Production System (EPS) # 181 at Limbodra' is envisaged as "Isolated storage and handling of hazardous chemicals i.e. Crude Oil & Natural Gas (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000)" and falls under Category 6(b) of EIA Notification (Amendment)-2019. Category 6(b) is now omitted and therefore, the project does not require EC.	The proposed isolated storage along with associated handling facilities for oil and gas pertains to storing & handling of crude oil and gas produced from the number of development wells. Ministry vide Notification S.O. 1960(E) dated 13.06.2019 has omitted entries relating to item 6(b) of the EIA Notification-2006. It is to submit that the proposed project falls under category 6(b) of Schedule-I of EIA Notification, which is now omitted. ***The proposal is for non-applicability of Environmental Clearance due to change in category and issuance of new notification.***

Deliberations in the EAC:

The EAC has made a detailed deliberation on the proposal. The EAC has been informed that the Ministry has twice addressed the concern of the project proponent in this regard. As per the Ministry's Notification dated 13th June, 2019, prior environmental clearance is not required for the projects related to the Isolated storage and handling of hazardous chemicals i.e. Crude Oil & Natural Gas. However, the instant proposal has been submitted under item 1 (b) 'Offshore and Onshore oil and gas exploration, development & production' and does not find any merit in reconsideration.

The Committee noted that the proposed associated facilities are part of the existing drilling operations and oil/gas drilled are getting collected in the proposed facilities. **The Committee suggested the project proponent to take required amendments in the environmental clearance granted for oil and gas drilling, for the envisaged associated facilities.**

The proposal was accordingly returned in its present form

DAY 3: 19th November, 2020 (Thursday)

Agenda No. 1.18

Synthetic organic chemicals manufacturing unit at Plot No. 1705, 3rd Phase, GIDC Estate, Vapi Dist. Valsad, Gujarat, by M/s Bhavisha Industries - Consideration of Environment Clearance

[IA/GJ/IND2/180046/2019,IA-J-11011/263/2020-IA-II(I)]

The Project Proponent and the accredited Consultant M/s Unistar Environment and Research Labs Pvt. Ltd has made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to the project for Setting up a Synthetic Organic chemical manufacturing unit at Plot No. 1705, Phase-III, GIDC Estate, Vapi, Gujarat, India by M/s Bhavisha Industries.

The details of products and capacity as under:

Sr. No	Name of the Products	CAS No.	Quantity (MT/Month)	End-use of the products
Non-EC Product				
1.	Admixture for Concrete and Dyes Industries	NA	**3000.00**	Construction chemicals
Products requiring Prior EC				
2.	**Dispersing Agents**		**6000.00**	Used to manufacture Disperse dyes, construction chemicals, Leather chemicals, etc. Used as dispersing agent in Agro formulation and Dyes industry.
	Naphthalene Based	9084-06-4		
	Phenol Based	102980-04-1		
	Sulphonated Alkyl naphthalene Formaldehyde Condensate Sodium Salt	577773-56-9		
	Dibutyl Naphthalene sulphonated sodium salt	25417-70-3		
3.	**Leather Chemicals**		**500.00**	In Leather processing industries.
	Syntans (Powder)	NA		
	Fat Liquor (Liquid)	NA		
4.	**PEG Based Polycarboxylate Ether (Liquid & Powder)**	70789-60-6	**3000.00**	Construction chemicals
5.	**Biaxial oriented polypropylene (BOPP) Self Adhesive**	9003-07-0	**300.00**	For manufacturing BOPP self-adhesive Taps
6.	**Waterproofing polymer**	25852-37-3	**300.00**	Use in Construction chemicals
Total (of products requiring prior EC):			**10100.00**	**--**

The project proposal was considered by the State Level Expert Appraisal Committee(Gujarat) in its 477th meeting held during 29/01/2019 and recommended Terms of References (TORs) for the project. The TOR has been issued by SEIAA, Gujarat vide letter no. SEIAA/GUJ/TOR/5(f)/550/2019; dated 10thApril 2019. Public Hearing for the Project is exempted since the project site is located in the Notified Industrial Area. There is no Litigation pending against the proposal.

The project/activities are covered under category B of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006. Due to applicability of general conditions (location of the project site within 5 km of CPA), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

PP reported that Land admeasuring 6213 m^2 will be used for proposed new project. Industry will develop greenbelt in area of 19% i.e.,1202 m^2out of 6213 m^2 of total area of the project. Apart from this company will do plantation outside the company premises in common land within the GIDC Vapi in1275.20m^2area. Thus the total greenbelt area will be developed by the company is 2477.20m^2 which is around 40% of the total plot area. The estimated project cost is Rs.12.309 crore. Total capital cost earmarked towards environmental pollution control measures is Rs.0.595 crore and the Recurring cost (operation and maintenance) will be about Rs. 0.316croreper annum. Total Employment will be 100 persons as direct. Industry proposes to allocate Rs.49.25 lakhs (in next 5 years) towards Corporate Social Responsibility.

There are no National parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lying within 10 km distance from the project site. River Damanganga, River Kolak, River Rati and River Darotha are flowing at a distance of 4.83 Km SW, 2.86 km N, 2.06 km NE and 8.07 Km SW respectively.

Ambient air quality monitoring was carried out at 8 locations during October 2019 to December 2019 and submitted baseline data indicates that ranges of concentrations as **PM10 (53µg/m3 (Demani) to 127/m3),** PM2.5 (15µg/m3 (Dumlav) to 63µg/m3), SO2 (10µg/m3 (Dumlav) to 23µg/m3), NOx (13µg/m3 (Zari) to 37µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.484 ug/m3, 1.568 ug/m3 and 16.725 ug/m3 with respect to PM10, SOx and NOX.

Total water requirement is 210.50 m^3/day and will be met from Water supply pipeline of GIDC Vapi. Effluent of 5.60 KLD quantity will be treated through in-house ETP then will be send to Spray dryer. The Plant will be based on Zero Liquid discharge system. Power requirement will be 600 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). The unit has proposed 2 Nos. DG sets of 200 & 500 KVAcapacity. D.G. Sets will be used as standby power supply during power failure. Stack (with height 11m) will be provided as perCPCB norms to the proposed DG sets.

The unit has proposed 3 (2+1) nos. of NG fired steam boiler with capacity 2TPH each. Two steam boiler will be operational and one steam boiler will be on standby mode. Stack height of 15mwill be installed for controlling the particulate emission within the statutory limit of 120

mg/Nm^3 for the proposed steam boilers. The unit has proposed one NG fired Thermopack with capacity 10 Lakh K.cal/hr.and stack height of 15 mwill be installed for controlling the particulate emission within the statutory limit of 120 mg/Nm3 for the proposed Thermopack.

The unit has also proposed one NG fired Hot Air Generator with capacity 25 Lakh K.cal/hr.and stack height of 15mwill be installed for controlling the particulate emission within the statutory limit of 120 mg/Nm3 for the proposed Hot Air Generator.

Details of Process emissions generation and its management

S. No.	Product Name	Stack attached to	Stack Ht. (in meter)	Probable pollutants & Limits	Air Pollution Control System
1.	Phenol Based Dispersing Agent	Spray dyer -1 (Cap.- 600 kgs/hrx1)	15	PM<120 mg/Nm^3	Bag filter
	Di butyl Naphthalene Sulphonated&PEGbasedpolycarboxylate ether	Spray dyer-2 (Cap.200x1kgs/hr)	15	PM<120 mg/Nm^3	Bag filter
	Sulphonated alkyl naphthalene formaldehyde condensate	Spray dyer -3 (Cap.900x1kgs/hr)	15	PM<120 mg/Nm^3	Bag filter
2.	Naphthalene Based Dispersing Agent	Process Vent (Sulphonator & Oleum Storage Tank)	11	SO_x< 32 mg/Nm^3	Two stage Alkali-scrubber

Details of Solid waste/Hazardous waste generation and its management

Sr. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)	Management of HW
1	ETP Waste	ETP operation & Spray dryer	35.3	15.00	Collection, Storage, Transportation, Disposal at TSDF Site.
2	Spent/ Used Oil	Machinery	5.1	0.095	Collection, Storage, Transportation, disposal by selling to registered recyclers.
3	Discarded materials Drum, Liners/ Bags/ Carboys	Raw Materials	33.1	125.00	Collection, Storage, Decontamination, Disposal on sell to actual users.

4	Process Waste	Mfg. Process (Product-Naphthalene based Dispersing agent)	26.1	400.00	Collection, storage, transportation, disposal at TSDF Site.
5	Scrubber Bleedoff	Process Scrubber (Product-Naphthalene based Dispersing agent)	37.1	290.00	To be managed with other wastewater using ETP.
6	Used Filter Cloths	Mfg. Process	33.2	1.00	Collection, Storage, Transportation, disposal to Co-Processing.

S. No.	Activity	Amount allocated in Rs.
1. Total Cost	Land, Building and Civil Works, Plant, Machinery and other fittings & Environmental protection, Safety & Emergency measures.	1230.94 Lakhs
2. EMP Cost	EMP for Air, Noise, Water, SHW, Occupational Health & Safety &Greenbelt Management.	59.50 Lakhs
3. Recurring Cost	Recurring cost for Air, Noise, Water, SHW, Occupational Health & Safety, Greenbelt, soil & Ecological Conservation & Protection.	21.75 Lakhs/Annum
4. CER Cost	Sports equipment for the youth, Renovation around of the lake, Development and renovation of infrastructure for Primary School in Koparli Village, Providing drinking water facilities to (R.O. Plant) Primary School, Development and renovation of infrastructure for Primary School in Valwada Village.	49.25 Lakhs (4% of Capital cost) [@9.85 Lakhs/ Annum for 5 Years]
5. Land	Land occupation	361.44 Lakhs
6. P.H. Commitment	Not Applicable	--
7. Green belt	Equipment & facilities, Sapling, Plantation & replantation.	3.25 Lakhs
8. Conservation plan	Its included in recurring cost of Greenbelt, soil & Ecological Conservation & Protection.	1.03 Lakhs/Annum

Deliberations in the EAC:

The EAC has made detailed deliberations on the proposal. The Committee noted that the AAQ monitoring data indicates that ranges of concentrations of PM10 (53µg/m3 to 127/m3), and the incremental GLCs after the proposed project 2.484 ug/m3, 1.568 ug/m3 and 16.725 ug/m3 with respect to PM10, SOx and NOX are exceeding National Ambient Air Quality Standards (NAAQS). **The Committee has of the considered view that as such, Industries shall be restricted in the area considering the environmental quality of the region or the project**

proponent shall come out with methods to arrest the fugitive emissions from their units. The Committee opined that the project proponent shall explore the feasibility of alternative site for the proposed unit.

The Committee after detailed deliberations, has desired for addition studies/information/inputs in respect of the following:

(i). Alternate site analysis.

(ii). One month recent baseline data.

(iii). Rework on the baseline, incremental GLC.

(iv). Detailed action plan for completely arresting the emissions from the unit.

The proposal was accordingly returned in its present form.

Agenda No. 1.19

Proposed Expansion of Sugarcane crushing capacity from 7500 TCD to 13200 TCD, Distillery capacity from 45 KLPD to 145 KLPD (Rectified Spirit/ENA/Ethanol) and establishment of 24 MW Co-generation power plant at Yeshwantnagar, Karad taluk, Satara district, Maharashtra by Sahyadri Sahakari Sakhar Karkhana Limited.- Environmental Clearance.

[Proposal No. IA/MH/IND2/168892/2018, F.NO. IA-J-11011/114/2018-IA-II(I)]

The Project Proponent and the accredited Consultant M/s Dr. Subbarao Environment Center made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project Expansion of Sugar Factory capacity from 7500 to 13,200 TCD, Distillery capacity from 45 to 145 KLPD (Rectified Spirit/ENA/Ethanol) and establishing 100 KLPD Ethanol and 24MW Co-generation Power Plant at Yeshwantnagar, Karad taluka, Satara district by Sahyadri Sahakari Sakhar Karkhana Limited.

The details of products and capacity as under:

Sr. No.	Unit	Capacity		
		Existing	Proposed	Total
1.	Sugarcane crushing capacity	7500 TCD	5700 TCD	13200 TCD
2.	Cogeneration Power Plant	--	24 MW	24 MW
3.	Distillery	45 KLPD	100 KLPD	145 KLPD
4.	TG Set	--	5 MW	5 MW

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

The Standard ToR has been issued by Ministry vide letter No. IA-J-11011/114/2018-IA-II(I); dated 04 May 2018. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 15th June 2019 under the chairmanship of Additional District Magistrate, Satara District. The main issues raised during the public hearing are related to noise pollution, bad odour and Green Belt Development. It was also reported by the PP that there is no litigation pending against the proposal.

Existing land area is 978800 m^2 no additional land is required for proposed expansion. Industry has already developed greenbelt in an area of 33 % i.e, 323010 .m^2 out of total area of the project. The estimated project cost is Rs.438.0555 crores including existing investment of Rs 138.0555 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 54.9 crores and the recurring cost (operation and maintenance) will be about Rs 5.1 crores per annum. Total Employment will be 100 persons as direct & indirect after expansion. Industry proposes to allocate Rs 2.25 crore towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Krishna River is flowing at a distance of 3 km in South-West direction.

Ambient air quality monitoring was carried out at 9 locations during December 2019 to February 2020 and the baseline data indicates the ranges of concentrations as: PM10 (35.9 – 72.2 µg/m3), PM2.5 (25.2 – 49.4 µg/m3), SO2 (11.4 - 41 µg/m3) and NO2 (13 – 39 µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.37 µg/m^3, 0.25 µg/m^3, 14.28 µg/m^3 and 2.25 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO2, and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 9820 m^3/day of which fresh water requirement of 508 m3/day will be met from Krishna River. The industry has obtained water permission from Water Resources Department, Tembhu lift irrigation project management division ogalewadi, dated: 13.05.2016 to draw water from river Krishna. Effluent of 1865 m^3/day (Sugar & Co-generation effluents 545 m^3/day, Spraypond Overflow 1320 m^3/day) quantity is generated from the sugar and cogeneration unit. The spray pond overflow shall be treated in clarifloculator, and the treated effluent shall be combined with sugar factory effluent. The combined effluent of 1865 m^3/day shall be treated in sugar ETP consisting of Preliminary treatment (Mechanical oil separator and Oil and Grease trap), Equalization tank, Aeration tank, Secondary Clarifier, Sump well, Sludge drying beds, 15 days treated storage tank and Monthly washing tank etc. treated effluent will be used for irrigation. Spentwash generated from 45 KLPD distillery shall be 270 m^3/day and from proposed 100 KLPD distillery shall be 200 m^3/day. The 45 KLPD distillery spentwash shall be treated in the existing composting plant and the proposed 100 KLPD distillery spentwash shall be treated on the principle of concentration and incineration technology. The spentwash generated is restricted to 2 KL/ KL of alcohol produced for the proposed 100 KLPD Distillery. Other effluents like spentless 200 m^3/day, MEE Condensates 460 m^3/day, cooling tower blow

down 80 m^3/day and fermenter washing 30 m^3/day shall be treated in condensate polishing unit and recycled as process water/makeup water for the cooling tower. Two separate condensate polishing units for sugar condensates and MEE condensates from distillery are provided. The Sugar CPU is designed for 3000 m^3/day and distillery CPU is designed for 800 m^3/day. The design of CPU is based on Anaerobic and Aerobic biological treatment principles. Domestic effluent (82 m^3/day) shall be treated using Root Zone Technology and used for gardening/irrigation and). The plant shall be based on Zero Liquid discharge system**.**

Power requirement after expansion will be 17000 KVA including existing 8500 KVA and will be met from its own proposed 24 MW co-generation power plant. Existing unit has 3 DG sets of two DG sets of 160 KVA each and other DG set of 625 KVA capacities, no additional DG sets are used as standby during power failure. Stack height of 6 m above roof level is provided as per CPCB norms for the DG sets. xiii. Existing unit has total four bagasse fired boilers, one boiler of 50 TPH, one boiler of 30 TPH, and two boilers of 20 TPH. After the proposed expansion the existing boilers shall be abandoned and two bagasse fired boilers of 120 TPH and one 35 TPH incinerator boiler with bagasse and concentrated spentwash as fuel will be installed. ESP with a stack of height of 80 m for co-generation boilers and 80 m height for incinerator boiler will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the proposed boilers.

Process emissions: SO_2 and CO_2 gases shall be scrubbed. CO_2 gas shall be recovered.

Details of Solid waste/ Hazardous waste generation and its management: Press mud generated will be around 12000MT/Month which shall be used in composting along with spent wash. Fly ash generated will be 1080 MT/Month which shall be used in composting and remaining, if any, shall be sold to brick manufacturer. Incinerator boiler ash from distillery division will be 1350 MT/M, which shall be sold as Potash Rich Manure to farmers. The total quantity of ETP sludge generated shall be 16.67 MT/M, which will be used in composting along with the spent wash from the distillery Hazardous waste is spent oil of 1.23 MT/Annum shall be utilized in-house for the lubrication of bullock carts.

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan along with activities for addressing the socio-economic issues and found to be addressing the issues in the study area.

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(iii). Total fresh water requirement shall not exceed 508 m^3/day proposed to be met from river Krishna. Prior permission shall be obtained from the concerned regulatory authority.

(iv). Project Proponent want to install incineration boiler for treatment of spent wash to ensure ZLD. As committed by PP, the spent wash/other concentrates shall be incinerated.

(v). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(vi). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(vii). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.

(x). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xi). 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.

(xii). 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. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiii). The activities and the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented.

(xiv). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xvi). Project Proponent shall reduce the quantity of effluents generation in the unit and PP shall install the effective wastewater treatment system. Adequate system shall be in place for controlling the odour and mitigation measures to protect the contamination of ground/surface water.

(xvii). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

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

(xix). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.20

Expansion of molasses based distillery from 30 KLPD to 110 KLPD by M/s Chidanand Basaprabhu Kore Sahakari Sakkare Karkhane Niyamit located at S. No. 184, 185, 186, 455, 456, 621, 626, 627, 631,Village Nanadi Kerur, Chikodi, Belgaum, Karnataka - Consideration of Environment Clearance

[IA/KA/IND2/179926/2000, J-11011/8/2000-IA II(I)]

The Project Proponent and their accredited consultant M/s. Equinox Environments (I) Pvt. Ltd. made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for environmental clearance to the project for Expansion of molasses based distillery from 30 KLPD to 110 KLPD by M/s Chidanand Basaprabhu Kore Sahakari Sakkare Karkhane Niyamit located at S. No. 184, 185, 186, 455, 456, 621, 626, 627, 631, Village Nanadi Kerur, Chikodi, Belgaum, Karnataka.

The details of products and capacity as under:

Industrial Unit	Product & By-product	Quantity		
		Existing	Expansion	Total
Distillery (Expansion - 30 to 110 KLPD)	Rectified Spirit (RS)/ Extra Neutral Alcohol (ENA) / Ethanol (KLPD)	30	80	110
	By-products			
	CO_2 (MT/D)	23	60	83
	Fusel Oil (MT/D)	0.05	0.14	0.19
	Compost (MT/D)	55	-	55

The project is categorized as "Category A" project under Item 5(g) {Distilleries (Molasses based distilleries > 100 KLD)} of schedule of Gazette Notification dated 14th September, 2006 and subsequent amendments of EIA Notification, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR has been issued by Ministry vide letter No. F. No J-11011/8/2000-IA-II (I) dated 18th December, 2019. Public Hearing for the project has been conducted by the State Pollution Control Board on 09.07.2020, which was presided over by the Additional Deputy Commissioner & Additional District Magistrate. No any specific issues were raised during public hearing. It was also informed that no litigation is pending against the proposal.

The Ministry has issued EC earlier vide letter no. J-11011/8/2000-IA II (I) dated 11th December, 2001 to the existing 30 KLPD distillery unit in favour of M/s. Shree Doodhganga Krishna Sahakari Sakkare Karkhane Niyamit (DKSSKN) which is now changed to M/s Chidanand Basaprabhu Kore Sahakari Sakkare Karkhane Niyamit, (CBKSSKN). The EC compliance has been inspected and certified by the Regional Officer; MoEFCC, Bangalore during his visit on 22.01.2020 and certification report dated 18.08.2020 was forwarded by the Regional Office MoEFCC Bangalore. The Committee deliberated the compliance status and found in order.

The land area available for the project is 7,05,698 m^2. Existing built-up area 1,77,316 m^2 additional built up area for distillery expansion is 4500 m^2. Industry has already developed Green Belt in an area of 1,83,9700 m^2 (26% out of total plot area). Moreover, additional Green Belt area of 49,372 m^2 (7% out of total plot area) will be developed. After expansion of distillery, the total Green Belt area would be 2,33,342 m^2 which accounts for 33 % of total plot area. Total Employment will be 20 persons as direct. The estimated proposed expansion project cost is Rs.102.2 Crores. Total capital cost earmarked towards environmental pollution control

measures under distillery is Rs.45 Crores and the Recurring cost (operation and maintenance) will be about Rs.1.16 Crores per annum. Industry proposes to allocate Rs.140 Lakh @ of 1.3% towards Corporate Environmental Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Dudhaganga River is flowing at 6.5 Km on North West and Krishna River at 8 Km on North East of project site.

Ambient air quality monitoring was carried out at 8locations during March 2019 – May 2019 and submitted baseline data indicates that ranges of concentrations of PM10 (50.60 – 69.90 µg/m^3), PM2.5 (11.70 – 30.20 µg/m^3), SO_2 (11.70 – 30.20 µg/m^3) and NOx (20.40 – 34.60 µg/m^3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs would be 3.62 µg/m3 for PM10 (towards South West side), 0.908 µg/m^3 for PM2.5 (towards South West side), 4.853 for SO2 µg/m^3 (towards South West side) and 9.46 µg/m^3 NOx (towards South West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement after expansion of Distillery project will be 1612 CMD. Out of which, 461 CMD will fresh water from Krishna river while 904 CMD will be CPU treated effluent and 247 CMD will be harvested rainwater to be recycled. The effluent generated from 110 KLPD distillery would be in the form of raw spent wash to the tune of 880 m^3/Day. Here, raw spent wash shall be concentration in Multiple (Five) Effect Evaporator (MEE). Concentrated spent wash to the tune of 176 m^3/Day (1.6 KL/KL of alcohol against norm of 8 KL/KL of alcohol) shall be incinerated in incineration boiler.

Power requirement for distillery after expansion will be 2.7 MW will be procured from own co-gen plant. Existing unit has 1 DG set of 320 kVA capacity. Additionally, 1 new DG set of 320 kVA capacity will be installed as standby during power failure. Stack of height 6M ARL is provided as per CPCB norms to the DG sets. Industry is having existing 15 TPH boiler. Additionally, 32 TPH incineration boiler will be installed in distillery expansion unit. Spent wash and coal fired boiler will be installed. ESP with a stack of height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boiler.

Details of Process emissions generation and its management: The CO_2 generation shall take place in fermenters of the distillery. CO_2 to the tune of 83 MT/Day shall be released from 110 KLPD distillery plant. CO_2 shall be bottled and supplied to manufacturers of beverages.

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

No	Unit	Type	Quantity (MT/M)		Disposal
			Existing	After Expansion	
1	Distillery	Boiler Ash (Bagasse)	120	--	Supplied to Brick / Cement Industry
		Boiler Ash (sp. wash + coal)	--	1,395	
		Yeast Sludge	150	570	Used as Manure

		CPU Sludge	--	24	

Details of Hazardous waste generated & its management :

No.	Description	Category	Quantity	Storage	Disposal
1	Spent Oil	5.2	1 MT/Yr	HDPE Drums	Forwarded to authorized re-processor
2	Contaminated Cotton Waste	33.3	0.5 MT/Yr	Box	Forwarded to authorized re-processor
3	Empty Containers	33.1			
	Plastic Barrels (Capacity 200 Kg)	--	60 Nos./Yr	Scrap Yard	Forwarded to authorized re-seller
	Plastic Cans (Capacity 50 Kg)	--	200 Nos./Yr		
	Plastic Tins (Capacity 500 gms)	--	60 Nos./Yr		

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and found to be addressing the issues in the study area and certified compliance report of earlier EC. The Committee has suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory.

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

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water

(Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

It was informed that name of the company was changed in January, 2017 from M/s Shree Dhoodhaganga Krishna Sahakari Sakkare Karkhane Niyamit to M/s Chidanand Basaprabhu Kore Sahakari Sakkare Karkhane Niyamit, Chikkodi.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(iii). Total fresh water requirement shall not exceed 461 CMD proposed to be met from Krishna river. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.

(iv). Project Proponent want to install incineration boiler for treatment of spent wash to ensure ZLD. As committed by PP, the spent wash/other concentrates shall be incinerated.

(v). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(vi). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(vii). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix). 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.

(x). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xi). 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.

(xii). 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. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiii). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented. Preference shall be given to local villagers for employment in the unit.

(xiv). Project Proponent shall reduce the quantity of effluents generation in the unit and PP shall install the effective wastewater treatment system. Adequate system shall be in place for controlling the odour and mitigation measures to protect the contamination of ground/surface water.

(xv). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xvi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xvii). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

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

(xix). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.21

Onshore Oil & Gas development drilling and production by M/s Oil India Limited in Tengakhat-Kathaloni-Dikom area in Dibrugarh districts Assam - Consideration of Environment Clearance

[IA/AS/IND2/88258/2018, J-11011/1257/2007- IA II (I)]

The Project Proponent and their accredited M/s ERM India Pvt. Ltd., made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for environmental clearance to the project Onshore Oil & Gas development drilling and production of 198 wells and 7 production installation by M/s. Oil India Ltd. in Tengakhat-Kathaloni-Dikom area in Dibrugarh districts Assam.

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

The details of products and capacity as under:

Details of Wells	Existing Wells	Proposed Wells	Total
Wells and production installation	31 wells	167 wells and 7 production installations	198 wells and 7 production installations

Deliberations in the EAC:

The EAC has deliberated on the proposal. The Committee noted that there are various court cases against the instant proposal and various other proposal of M/s Oil India regarding incident of blowout and subsequent fire that reflects poor safety measures and inadequate Emergency Response Contingency Plan thus endangering the local bio-diversities.

The Committee noted that the proposal is operating without CTE/CTO from the Assam Pollution Control Board subsequently Show Cause Notice and Closure Notice to OIL regarding the same was issued by the Assam Pollution Control Board. The Committee deliberated the soil characteristics of the area and found that pH of soil as acidic, the Committee is of opinion that there may be oil spillage due to poor housekeeping thus affecting the soil fertility and flora of the area. The Committee noted that the well locations are falling in the Bherjan-Borajan-Padumoni Wild Life Sanctuary. It was also noted that the wells/blocks are within 10 km of the National Park, thus drilling activity may have considerable effect on Fauna and biodiversity. The Committee is of the opinion that Forest Clearance/ Wild Life Clearance/ ESZ Clearance should be obtained from the concerned regulatory authority.

The committee noted that Baghjan Well, adjacent to the proposed well location/area had a blow out and has caused severe impact on the environment and biodiversity of the region. subsequently Govt. Authorities have constituted various committees to enquire into the cause of the Blowout and has resulted into court cases.

The Committee was of the view that, if any blow out/leakage, happens as that happened in Baghjan, it shall lead to disastrous effect on the environment, people and associated biodiversity. The Committee has also observed that the soil quality of the region is degraded and is reported to be acidic due to drilling activities and contamination of ground water.

The Committee found that the **Consultant [M/s ERM India Pvt. Ltd.] uploaded blank document in place of conservation plan for Schedule I species in Form-2 and tried to mislead the EAC**. **The Committee is of opinion that Show cause Notice should be issued to Consultant based on OM's issued by the Ministry.** The Committee was of the considered view that the project proponent needs to submit a detailed report on the impact of Baghjan blow out in the study area, proposed action plan for remediation, and the proposed safety and emergency action plan.

The Committee after detailed deliberations, desired for following information/inputs in respect of the following:

(i). Show cause notice to the consultant for submission of misleading information in the Ministry/EAC. The Committee also advised the M/s Oil India to read/check properly the reports before uploading on Parivesh Portal.

(ii). Status of recommendations from the Standing Committee of NBWL.

(iii). Details on the assessment of Biodiversity of the area, as suggested by the Hon'ble Supreme court of India.

(iv). Soil and ground water quality assessment to understand the impact of drilling activities in the region, if any.

(v). Details of court cases along with current status.

(vi). Detailed safety and Emergency contingency plan.

(vii). Details of impact of Baghjan *blow out in the study area.*

(viii). Damage assessment of the blow out, action plan for remediation.

The proposal was accordingly returned in its present form.

Agenda No. 1.22

Grain/Molasses based distillery plant (200 KLPD) and 5MW cogeneration power plant of M/s Nahar Industrial Enterprises Limited at village Salana Jeon Singh Wala, Tehsil Amloh, District Fatehgarh, Sahib, Punjab – Amendment in Environment Clearance

[IA/PB/IND/6318/2012, J-11011/74/2012-IA-II(I)]

The Ministry has granted environmental clearance to the project for 200 KLPD Grain/Molasses based Distillery plant and 5 MW Cogeneration power plant located at Village Salana Jeon Singh Wala, Amloh Khanna Road, Tehsil Amloh, District Fatehgarh Sahib, Punjab by M/s Nahar Industrial Enterprises Ltd (NIEL)

S. No.	Para of EC issued by MoEF&CC	Details as per EC	To be revised/ read as	Justification/Reasons
1.	Date of EC grant	Validity of EC upto 18th May, 2021	Extension in validity of EC by 3 more years i.e. upto 18th May, 2024.	NIEL could not install the project due to the commercial un-viability of the industry. Now, since anhydrous alcohol is purchased by the OMC's and Cane Juice has been allowed by the Govt. of India as raw material for the production

				of anhydrous alcohol, so the implementation of the project has become commercially viable. The industry plans to install and commission the project in the next 24 months.
2.	Para 2 of EC	Grains/molasses based 200 KLPD distillery plant.	Grains/Molasses/Cane Juice based 200 KLPD distillery plant.	As per Govt. of India Notification No. 2879 dated 26th July, 2018, ethanol production from cane juice is allowed by the Sugar Mills. Accordingly, the proposed project should be considered as Grains/Molasses/Cane Juice based 200 KLPD distillery plant.
3.	Para 2 of EC	Process operation for 50 days on molasses and 280 days on grains.	Process operation for 120 days on cane juice, 50 days on molasses and 180 days on grains.	As stated earlier, the company now intends to use cane juice as one of the raw materials for the production of Anhydrous Alcohol (Ethanol), so the number of days of operation of the industry for different raw materials may be changed as - Process operation for 120 days on cane juice, 50 days on molasses and 180 days on grains.
4.	Para 3 of EC	Products to be manufactured are; 1. ENA – 200 KLPD 2. Industrial Alcohol – 15 KLPD 3. Cogeneration of power – 5 MW 4. Bottling of Liquor – 20000 case/day 5. CO2 bottling – 160 MT/day	Products to be manufactured are; 1. ENA/Anhydrous Alcohol – 200 KLPD 2. Industrial Alcohol – 15 KLPD 3. Cogeneration of power – 5 MW 4. Bottling of Liquor – 20000 case/day 5. CO2 bottling – 160 MT/day 6. DDGS – 100 MT/day	Nahar Industrial Enterprises Ltd. intends to supply Anhydrous Alcohol (Ethanol) to Oil marketing Companies for its use as blending component of Gasoline as per Govt. of India Notification. Accordingly, PP requested to add Anhydrous Alcohol (Ethanol) as one of the products along with existing list of products and by-products.

		6. DDGS – 100 MT/day		
5.	Para 4 of EC	Raw Materials to be used are; 1. Grain – 2.5 MT/KL of Alcohol 2. Molasses – 4 MT/KL of Alcohol 3. Enzymes – 400 kgs. /day 4. Sodium Hydroxide – 200 kgs. /day 5. Sulphuric Acid – 100 kgs. /day 6. Urea – 900 kgs. /day 7. Anti-foam agent - 100 kgs. /day 8. Yeast - 400 kgs. /day	Raw Materials to be used are; 1. Grain – 2.5 MT/KL of Alcohol 2. Molasses – 4 MT/KL of Alcohol 3. Cane –2850 MT/day 4. Enzymes – 400 kgs. /day 5. Sodium Hydroxide – 200 kgs. /day 6. Sulphuric Acid – 100 kgs. /day 7. Urea – 900 kgs. /day 8. Anti-foam agent - 100 kgs. /day 9. Yeast - 400 kgs. /day	As stated above, the company now intends to use cane juice as one of the raw materials for the production of Anhydrous Alcohol (Ethanol), so cane juice from cane crushing of 2850 MT/day of cane to be allowed as raw material along with the existing list of raw materials and chemicals.
6.	Para 4 of EC	Primary fuel for boiler – Rice Husk supplemented with coal @ 15 % max.	Primary fuel for boilers – (i) Bagasse and powdered spent wash (ii) Rice Husk supplemented with coal @ 15 % max.	During the cane crushing season, out of the total daily cane crushing of 4000 MT/day, the industry intends to use cane juice from cane crushing of 2850 MT/day of cane. Due to this reason, the steam requirements for the sugar mills will be reduced and the extra steam available (sufficient for distillery operations) will be used for distillery operations.

				The industry will produce around 22250 MT/year of powdered spent wash having an average calorific value of 3000 Kcal/kg. The powdered spent wash will be mixed with the bagasse and used as fuel in the boiler furnace. Rice husk/coal will be used as fuel only after complete usage of bagasse and powdered spent wash from the industry. Considering the above, we intend the fuel requirements for the distillery operations may be amended as below; Primary fuel for boilers – (i) Bagasse and powdered spent wash (ii) Rice Husk supplemented with coal @ 15 % max.
7.	Para 5 of EC	ESP for rice husk/coal fired boiler	Existing 3 nos. of sugar mills boilers having steam generating capacity of 2 x 35 MT/hour and 1 x 40 MT and cogeneration of power @ 14 MW to be used.	The industry is having 2 x 35 TPH and 1 x 45 TPH boilers in the existing sugar mills. 1 x 45 TPH boiler is already having ESP which will be used for the distillery operations. The primary fuel for the 45 TPH boiler will be (i) Bagasse and powdered spent wash (ii) Rice Husk supplemented with coal @ 15 % max. Accordingly, the industry will not install any separate rice husk/coal fired boiler for the distillery operations.
8.	Para 6 of EC	Total fresh water requirements during grain-based operation will be 2165 m^3/day and during molasses-based operation it will be 1800 m^3/day.	Total fresh water requirements will be as under; (i) During grain-based operation - 1420 m^3/day (ii)During molasses-based operation - 630 m^3/day (iii) During cane juice-based operation - 80 m^3/day Canal water to be used for meeting the requirements of fresh water.	The industry will be using Canal Water for meeting the fresh water requirements. Permission from state Govt. regarding this has already been received to the industry. Due to the up-gradations in the technology, the industry has reduced the fresh water consumption for their proposed industrial operations. The fresh water consumption will be as below; (i) During grain-based operation - 1420 m^3/day (ii) During molasses-based operation - 630 m^3/day (iii) During cane juice-based operation - 80 m^3/day

9.	Specific Condition v	Spent wash will be treated in decanter followed by bio-methanation. Treated effluent will be evaporated in MEE. Evaporated solids will be mixed with agro wastes and burnt in boiler to achieve zero discharge.	Spent wash from molasses/cane juice to be concentrated in MEE followed by its drying in spray drier. Dried spent wash to be used as fuel in combination with bagasse.	**During Grain Based Operations –** Spent wash generated will be passed through decanters for separation of wet solids. The residual liquid will be concentrated in MEE followed by drying of wet solids and concentrated spent wash in DDGS dryers. DDGS will be sold as by-product to cattle feed industry. **During Cane Juice/Molasses Based Operations –** Spent Wash generated will be concentrated in MEE. The concentrated spent wash will be sent to the spray driers for its conversion into powder form. The powdered spent wash will be used as fuel (having calorific value of around 3000 Kcal/kg.) along with bagasse in the boiler furnace.
10.	Specific Condition xiv	Boiler ash should be stored separately as per CPCB guidelines.	Bagasse and powdered spent wash-based ash to be used as Potash Fertilizer in the agricultural fields. Rice husk ash to be disposed off separately as per CPCB guidelines.	The industry will use bagasse and powdered spent wash as primary fuel for their boiler furnaces. Powdered spent wash contains micro nutrients mainly potash as inorganic constituents which would be collected as ash. The ash will be given to farmers for its utilization in their fields substituting commercial Potash. Rice husk/coal will be only used after the complete utilization of bagasse and powdered spent wash generated by the industry. Rice husk/coal ash would be disposed off as per the guidelines issued by the CPCB, time to time.

Deliberations in the EAC:

The EAC has made a detailed deliberation on the proposal. The Committee has noted that the project proponent has not started the project and is seeking further extension for three years. The Committee has observed that the amendment sought by the project proponent requires detailed analysis as it lead to the modernization of the plant and as such it cannot be considered under the amendment category.

The Committee after detailed deliberation was not inclined to accept the proposal under the amendment category. ***The Committee has suggested the project proponent to submit the proposal for EC for modernization of the plant along with complete details of the project, which will provide the regulatory and the monitoring authority comprehensive picture of the project, and the PP shall have sufficient time for implementation of the project.***

The proposal was accordingly returned in its present form.

Agenda No. 1.23

Expansion of molasses based distillery unit from 30 to 60 KLPD and 18 MW Cogeneration plant at Vaishalinagar, Nivali, Tal. & Dist. Latur in Maharashtra by M/s Vikas Sahakari Sakhar Karkhana Limited- Amendment in Environment Clearance

[IA/MH/IND2/179157/2020, J-11011/937/2008-IAII(I)]

The project proponent and their Consultant M/s. Vasantdada Sugar Institute made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter, File No. J-11011/937/2008-IA.II (I), dated. 28/10/2009 for the project Expansion of molasses based distillery unit from 30 to 60 KLPD and 18 MW Cogeneration plant at Vaishalinagar, Nivali, Tal. & Dist. Latur in Maharashtra in favour of M/s Vikas Sahakari Sakhar Karkhana Limited. The details are as under:

S.No	Reference of Approved EC	Description as per Approved EC	Description as per Proposal.	Remarks
1	Page 2, para 2, line 11 (Raw material)	Molasses requirement will be 222.2 MT/day	Molasses 'C': 222.2 TPD or Molasses 'B': 200 TPD	Molasses B and sugarcane juice will be use as additional
2	Product (page 1 para 2 line no 6)	RS/ENA 57 KLPD IS- 3.5 KLPD	RS/ ENA/fuel Ethanol 60 KLPD	Ethanol will be additional product
3	Page 2, para 2, line 12 (Fuel)	Bagasse for distillery and Cogeneration unit	For distillery unit incineration boiler fuel will	Due to installation of incineration boiler
4	Page 2, para 2, line 12 (Power)	For distillery unit only 1.200 MW from cogeneration	For distillery unit only 1.200 MW from cogeneration	New 2MW TG set with incineration boiler

Deliberation by the EAC

It was informed to the EAC that the Ministry has issued Notification dated 23rd November, 2016, which states that any change in product-mix, change in quantities within products or

number of products in the same category for which environmental clearance has been granted shall be exempt from the requirement of prior environmental clearance provided that there is no change in the total capacity sanctioned in prior environmental clearance granted earlier under this notification and there is no increase in pollution load.

In order to expedite production of Ethanol for its limited purpose of blending with petrol for its usage as bio-fuel the MoEF&CC has issued a Notification dated 17th January, 2019 for appraisal of expansion projects of sugar manufacturing or distilleries, having ECs for their present industrial operations and intended to produce Ethanol for its limited purpose of blending with petrol exclusively for its usage as bio-fuel, as per the procedure applicable to category B2 projects specified in the EIA Notification, 2006 by the sectoral EAC/SEAC for grant of EC. The extension of validity of the said notification, which was initially for one year, has been further issued on 17.02.2020 and extended for one year more i.e. upto 16.02.2021.

The EAC, after detailed deliberation, suggested **that there is no requirement of amendment of EC and PP shall approach the concerned SPCB for taking necessary CTE/CTO under the provisions of the Air/water Act.** The Committee therefore **returned** the proposal.

Agenda No. 1.24

Expansion of molasses based distillery from 120 KPD to 300 KLPD and Co-generation plant from 3.5MW to 12 MW by M/s Vijaynagar Sugar Pvt. Ltd. located at village Gangapur and Shiranahalli, Taluk Mundargi, District Gadag, Karnataka - Amendment in Environment Clearance
[IA/KA/IND2/179494/2020, J-11011/366/2007–IA II(I)]

The proposal is for amendment in the Environmental clearance granted by the Ministry vide letter J – 11011/366/2007 – IA II (I) dated 30th July, 2020 for expansion of Molasses based distillery from 120 KLPD to 300 KLPD at Survey No. 32, 33, 34 of Gangapur and Survey No.13, 14, 19, 20,21,22,23 of Shiranahalli, Mundargi Taluk, Gadag District-582118 in favour of M/s. Vijayanagar Sugar Pvt. Ltd., (VSPL).

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

Sl No	Para of ToR/EC issued by MoEF & CC	Details as per the ToR/EC	To be revised/read as	Justification /reasons
1	**No 13, Page 3**	Environmental clearance to the project for expansion of molasses based distillery from 120 KLPD to 300 KLPD and Co-generation plant	Amendment is sought to include the Multi Feed Stocks as under: • Expansion of existing 120 KLPD molasses-based distillery to 150 KLPD distillery using multi feed stock (such as C-Heavy molasses, B-	The application is made for use of multi feed stocks viz., C Heavy molasses, B heavy Molasses / sugar cane syrup and grains with different configuration

		from 3.5 MW to 12 MW ….	Heavy molasses, Sugar syrup, Grain,) • Installation of new 150 KLPD grain/sugar juice syrup-based distillery. • Total capacity after proposed expansion of distillery will be 300 KLPD and Co-generation plant will be 12 MW and also to include grain based sweeteners like Dextrose /Glucose	
2	**Specific Condition No. (x) page no. 4**	• Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, Process inorganic and evaporation salt shall be disposed off to TSDF".	Specific condition (x) requires modification to include only Yeast sludge and ETP sludge shall be disposed along with sugar plant press mud for conversion to compost. The type of solid wastes generated is not hazardous. Hence, disposal to TSDF or for co-processing is to be deleted.	• Only organic solid waste generated is yeast sludge and ETP sludge from secondary clarifier of CPU. It is composted along with press mud from the sugar factory. • Spent carbon is not generated. The spent wash concentrate from MEE is incinerated.
3	**Specific condition No. (xvi) page no. 4**	Solar power shall be generated within the premises @ 30% of the total power requirement'.	Request to delete the condition	• Distillery is already generating incidental captive power of 3.5 MW from renewable energy source i.e. spent wash. An additional 8.5 MW of incidental power is proposed in the expansion. In sugar plant a co-generation plant of 30 MW capacity is already in operation. • Excess power generation is

				incidental to the manufacture of Ethanol (2.5 MW power is required for distillery). Post expansion unit is expected to produce 10 MW of excess power. Due to the steep fall in prices, the unit is finding difficulty in selling 15 MW per hour renewable energy. • Installation of Solar Power would only add to the surplus power and aggravate the problem of selling and add further to the losses and may render the unit economically unviable

The EAC, after detailed deliberations, **recommended** the amendment in environmental clearance as proposed by the project proponent with all other terms and conditions stipulated in the environmental clearance dated 30.07.2020 shall remain unchanged.

Agenda No. 1.25

Expansion/modernization of Gujarat refinery from 13.7 to 18 MMTPA by M/s Indian Oil Corporation Limited at Koyali, District Vadodara, Gujarat - Amendment in Environment Clearance

[IA/GJ/IND2/134702/2018, J-11011/93/2018-IAII(I)]

The proposal is for amendment in the EnvironmentalClearance granted by the Ministry vide letter dated 14 Jul 2020 for the project Capacity Expansion of J-18/Lab Revamp/N-Butanol Project for IOCL Gujarat Refinery At Koyali, Vadodara -District, Gujarat-391320 located at Vadodara -District, Gujarat in favour of M/s Indian Oil Corporation Limited (IOCL)

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

Sr. No.	Para of ToR/EC issued by	Details as per the ToR/EC	To be revised/ read as	Justification/ reasons

	MoEF&CC			
1	(a) **MoEF&CC / SEIAA File No:** J-11011/93/2018-IA-II(I) (b) **Date of issue of EC:** 14 Jul 2020	**Project name mentioned in Granted EC:** Capacity Expansion of J-18/Lab Revamp/N-Butanol Project for IOCL Gujarat Refinery At Koyali, Vadodara - District, Gujarat-391320	**Project name required after amendment:** "Capacity Expansion of Gujarat Refinery from 13.7 to 18 MMTPA - Lube & Petro chemical Integration (LuPech)/ LAB REVAMP/N-BUTANOL Project for M/s IOCL Gujarat Refinery at Koyali, Vadodara -District, Gujarat-391320"	Project configuration has been revised to reduce the cost and improve the Petrochemicals & Specialty products (Gr-II/III LOBS) integration index of Gujarat Refinery to improve the economics of the Project.
2		**Project Cost-** 22210 Crores **Break up:** 20682 (J-18) +328 (LAB revamp) +1200 (NBA).	**Project Cost**- 19353 Crores. **Break up:** 17825 (LuPech) +328 (LAB revamp) +1200 (NBA).	Project Cost will decrease by 2857 Cr due to change in configuration.
3		**EMP Cost & Plan-** 295.9 Crores **1.** Effluent Treatment Plant (ETP): Rs. 159.00 Cr. **2.** Zero Liquid Discharge (ZLD) Plant: Rs. 113.00 Cr. **3.** Stack Analyzers (14 nos.) : Rs. 21 Cr. **4.** CAAQMS Stations (2 nos.) : Rs. 2.90 Cr.	**EMP Cost & Plan-** 300.7 Crores **1.** Effluent Treatment Plant (ETP) : Rs. 159.00 Cr. **2.** Zero Liquid Discharge (ZLD) Plant : Rs. 113.00 Cr. **3.** Stack Analyzers (17 nos.) : Rs. 25.80 Cr **4.** CAAQMS Stations (2 nos.): Rs. 2.90 Cr.	EMP cost will increase by 4.8 Cr due to increase in 03 no. of stack analyzers.
4		**CER Cost Detail-** 55.52 Crores (0. 25 % of Project cost as per EC condition).	**CER Cost Detail-** 48.38 Crores	CER Cost will decrease by 07.13 Cr due to project cost reduction.

<table>
<tr>
<td>5</td>
<td></td>
<td>Man Power-
<table>
<tr><td colspan="2">As per approved EC</td></tr>
<tr><td>Construction Phase</td><td>145</td></tr>
<tr><td>Operation Phase</td><td>125</td></tr>
<tr><td>Temporary Employment</td><td>500</td></tr>
</table></td>
<td>Man Power-
<table>
<tr><td colspan="2">After amendment</td></tr>
<tr><td>Construction Phase</td><td>279</td></tr>
<tr><td>Operation Phase</td><td>259</td></tr>
<tr><td>Temporary Employment</td><td>800</td></tr>
</table></td>
<td>Man power increasing after the change in configuration.</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Energy Consumption-
1) The power requirement for the J-18 unit is 122 MW

2) The power requirement for the LAB Revamp is 1.441 MW

3) The power requirement for the N-Butanol + HGUII revamp for syngas production is 4.36 MW.

4) Additional Total power requirement envisaged is 127.7 MW.

5) Additional steam requirement has been envisaged for 3 x 150 TPH utility boilers. No CPP is envisaged</td>
<td>Energy Consumption-
1) The power requirement for the Jis LuPech Project will be 109 MW

2) The power requirement for the LAB Revamp is 1.441 MW

3) The power requirement for the N-Butanol + HGU-II revamp for syngas production is 4.36 MW

4) Additional Total power requirement envisaged is 114.8 MW.

5) Additional steam requirement has been envisaged for 3 x 150 TPH utility boilers. No CPP is envisaged.</td>
<td>1) 13 MW less power required after EC amendment.

2) No change in use of power.

3) No change in use of power.

4) 13 MW less power required.

5) No change in use of steam requirement.</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Lay out plan</td>
<td>Change in lay out plan is attached</td>
<td>Change in Lay out plan refers Image</td>
</tr>
</table>

				No-1, but there is no extra land requirement.
8		Changes in details of product mention in **Table No.-1**	Changes in details of product mention in **Table No.-1**	Product profile has changed due to change in configuration of Project
9		Changes in details of Configuration mention in **Table No.-2**	Changes in details of Configuration mention in **Table No.-2**	Project configuration has been revised to reduce the cost and improve the Petrochemicals & Specialty products (Gr-II/III LOBS) integration index of JR to improve the economics of the Project

Table No-01-Details of Product

Sr. No.	Product Details	Quantity as per EC (TMT/Year)	Quantity after EC Amendment (TMT/Year)	Mode of Transport/ Transmission of Product
1	LPG	1045	814	Pipeline
2	Propylene		80	Pipeline, Road TTL
3	PolyPropylene	402	462	Road TTL
4	Naphtha Export	0	665	Pipeline, Road TTL, Rail TWL
5	LAB	162	162	Pipeline, Road TTL
6	FGH	14	4	Pipeline, Road TTL
7	MS	4727	3339	Pipeline, Road TTL, Rail TWL
8	Reformate	0	0	
9	Kerosene	0	0	
10	MTO	120	0	
11	ATF	650	659	Pipeline, Road TTL, Rail TWL

12	PCK	140	148	Pipeline, Road TTL, Rail TWL
13	LABFS Nirma		61	Pipeline, Road TTL
14	HSD	8013	8274	Pipeline, Road TTL, Rail TWL
15	LOBS		238	Road TTL, Rail TWL
16	Sulphur	200	179	Pipeline, Road TTL
17	Bitumen	480	275	Pipeline, Road TTL, Rail TWL
18	FO/LDO	408	997	Pipeline, Road TTL, Rail TWL
19	Coke	993	683	Road TTL, Rail TWL
20	HAB	8	8	Pipeline, Road TTL
21	Normal Butanol	90	90	Pipeline, Road TTL
22	Iso Butanol	2.6	2.6	Pipeline, Road TTL
	Total	17454.6	17140.6	

Table No-02- Details of Configuration

Sr.No.	Plant/ Equipment/ Facility	Configuration as per EC (MMTPA)	Configuration After EC amendment (MMTPA)	Remarks
1	INDMAX GDS	0.65	0	
2	LAB REVAMP	162 KTPA	162 KTPA	
3	CR LPG TREATER	1.073	1.073	
4	NHT/NSU	2.4	NHT -0.36 & NSU -0.8	
5	SWS	330 TPH	330 TPH	
6	N-BUTANOL	90 KTPA	90 KTPA	
7	ISOM	0.925	0.36	
8	INDMAX	2.7	2.7	
9	KHDS	0.7	0	
10	SR LPGTU	0.2	0.065	
11	SRU	400 TPD	400 TPD	
12	PRU	0.580	0.580	
13	CCRU	1.6	0	
14	AVU	15	0	
15	PP	0.420	0.500	
16	ARU	350 TPH	350 TPH	
17	REVAMP OF HGU-	4300	4300	

	II FOR HYDROGEN	$Nm^3/Hr.$	$Nm^3/Hr.$	
18	REVAMP OF HGU-II FOR SYN GAS	8500 $Nm^3/Hr.$	8500 $Nm^3/Hr.$	
19	AU-5 Capacity Revamp		3 to 7.3	**Note:-** Sr. No. 19 to 24 Previously not included. Now added in this amended part.
20	New VDU		2.5	
21	Octa Max		0.11	
22	Prime G Quality revamp		Quality revamp of Prime G unit	
23	HCU Capacity revamp		1.2 to 1.55	
24	CIDW (LOBS)		0.270	

Unit	Considered for EC	Current Proposal
Cooling Water	CT-1: New 5 nos. of cooling tower cells (4 operating +1 spare cell) of 4000 m3/hr each and associated CW pumps. CT-2: New 9 nos of cooling tower cells (8 operating +1 spare c.ll) each of 4000 m^3/hr and associated CW pumps.	No Change
Compressed air system	A new compressed air system of capacity 14500 Nm^3/hr and associated facilities.	New compressed air system 8200 Nm^3/hr X 3 (2W + 1SB)
DM Water	Three DM water trains of 250 m^3/hr each (2W+1S)	No Change
Power	Estimated 114 MW requirements for overall J-18 Project shall be met from the upcoming 220 KV grid import facility.	115 MW for Lupech + LAB revamp + N Butanol & HGU-II Project)
Steam	3X150 TPH	No Change
Raw Water	New bore well of 10.0 MGD	No Change
Nitrogen	A new Nitrogen plant of estimated capacity 5000 Nm^3/hr with liquid N_2 storage of 500 m^3.	No Change
Flare System	New flare to cater additional estimated load of 1080 TPH.	No new Flare. Existing BS-VI Flare revamp from 1200 TPH to 1550 TPH.

Effluent Treatment Plant (ETP)	New integrated ETP of estimated capacity 385 m^3/hr.	No Change
Condensate Polishing Unit (CPU)	New CPU of capacity 250 TPH.	No Change
Storage Tanks	Storage Tank	NHT Feed Tank – 2 X 12 TKL MTO Product – 1 X 5 TKL
	Lube Feed Storage Tank	New Tanks: 2 X 2TKL, 2 X 4TKL
	Lube Product Storage Tanks	New Tanks: 4 X 3 TKL (500N), 3 X 6.5 TKL (150N) , Existing Tanks utilized (70N): 2 X 3 TKL, 2 X 1 TKL
Bullets	Propylene Bullets	4 X 3500 m^3
	LPG Bullets	4 X 3000 m^3

Deliberations in the EAC:

The EAC has made a detailed deliberation on the proposal. The Committee noted that the project proponent has proposed to change the project configuration to reduce the cost and improve the Petrochemicals & Specialty products (Gr-II/III LOBS) integration index of Gujarat Refinery to improve the economics of the Project. The project cost will be decreased by 2857 Cr due to change in configuration. **The Committee observed that the amendment sought by the project proponent requires detailed analysis of each and every aspect and as such project requires appraisal as a modernization project, and cannot be considered under the amendment category. The Committee has opined that there is urgent requirement of increasing the refining capacity in India and as such the project requires urgent consideration.**

The Committee after detailed deliberation was not inclined to accept the proposal under the amendment category. The Committee has suggested the project proponent to submit the proposal for Modernization of the Refinery along with complete details of the project, which will provide the regulatory and the monitoring authority comprehensive picture of the project. The Committee has suggested that, considering the importance of the project, proposal submitted by the PP shall be placed in the next meeting of the Committee to be held in December 2020.

The proposal was accordingly returned in its present form.

Agenda No. 1.26

Exploratory drilling in NELP-VII Block CB-ONN-2005/4 at District Ahmedabad and CB-ONN-2005/10, at District Bharuch in Western Onshore Basin, Vadodara by M/s Oil and Natural Gas Corporation Limited- Amendment in Environment Clearance

[IA/GJ/IND2/180165/2020, J-11011/470/2009- IA II (I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 26 February 2013 to the project for Exploratory drilling in NELP-VII Block CB-ONN-2005/4 at District Ahmedabad and CB-ONN- 2005/10, located at Bharuch in Western Onshore Basin, Vadodara in favour of M/s ONGC limited.

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

S. No	Para of EC issued by MoEF&CC	Details as per the ToR/EC		To be revised/ read as		Justification/ reasons
1	3.0	B-Anor-3	Longitude 72°54′49.571″ Latitude 21°55′48.316″	ANOR-B	Longitude 72°52′14.50″ Latitude 21°56′13.60″	Based on the Geological and Geophysical interpretation, the location of three exploratory wells have shifted. Anor-B, Anor-C and Anor-D are finalized for their Geological objective. The shift of well coordinate are as below: 1. The 4.5 Km Shift of B Anor-3 well to released well ANOR-B location 2. The 6.0 Km Shift of B Anor-2 well to released well ANOR-C location 3. The 5.0 Km Shift of B-Argema-1 well to released well ANOR-D location In view of above, EC amendment is required
2	3.0	B-Anor-2	Longitude 72°55′ 9.165″ Latitude 21°53′13.197″	ANOR-C	Longitude 72° 53’49.50″ Latitude 21°56’13.90″	
3	3.0	B-Argema 1	Longitude 72°55′6.33″ Latitude 21°50′24.833″	ANOR-D	Longitude 72°56'02.50" Latitude 21°53'12.70″	

						for shifting of well coordinate.

Deliberations in the EAC:

The EAC has made detailed deliberations on the proposal. The PP has informed the Committee that the location of three exploratory wells have been proposed to be shifted based on the Geological and Geophysical interpretation. It was also informed that the after the changes in the well location, the wells are falling within 10km of the study area, with which the EIA/EMP report has been prepared earlier. It was also informed to the Committee that, at present the exploratory activities are Categorized as B2 and there is no requirement of PH/EIA.

The Committee, after detailed deliberations, having taken note that, at present the exploratory activities are Categorized as B2 and there is no requirement of public hearing and preparation of EIA for undertaking exploratory drilling for oil and gas, and the wells are falling in the block and are within 10km of the study area, has recommended for amendment in the EC, for shifting the location of three wells (B-Anor-3, B-Anor-2 & B-Argema1).

*The proposal was accordingly **recommended** by the Committee.*

Agenda No. 1.27

Proposal for manufacturing of API products at Plot No. A-13, MIDC Chincholi, Solapur Maharashtra by M/s Levantex Pharmaceuticals- Consideration of Environmental Clearance.

[IA/MH/IND2/153163/2020, IA-J-11011/279/2020-IA-II (I)]

The Project Proponent and the accredited Consultant M/s. Enviro Resources, made a detailed presentation on the salient features of the project and informed that**:**

The proposal is for environmental clearance to the project Manufacturing of API Products at Plot No. A-13, MIDC Chincholi, Mohol taluka, Solapur district, Maharashtra by M/s Levantex Pharmaceuticals.

The details of products and capacity are as under:

SN	Product Details	Existing Quantity (TPA)	Proposed Quantity (TPA)	Total Quantity (TPA)
1	Losartan Potassium	0	120	120
2	Telmisartan	0	120	120
3	Gabapentin	0	120	120
4	Meteprolol Succinate	0	120	120
5	Paroxetine	0	90	90
6	Pregabilin	0	120	120
	Total	**0**	**690**	**690**

All proposals for projects or activities in respect of Active Pharmaceutical Ingredients (API), received upto the 30th September 2020 and further extended up to March 2021, shall be appraised, as Category "B2". All Active Pharmaceutical Ingredients (API), are listed at schedule 5(f)–Synthetic, Organic Chemicals Industry under category 'B2' as per S.O. 1223(E) dated 27.03.2020 and are appraised by SEIAA/SEAC. Due to general condition of the presence of the Great Indian Bustard Sanctuary within 3.38 km and ESZ of The Great Indian Bustard Sanctuary is within 1.68 km from the project location, the proposed project is appraised at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 14650 m^2. Industry will develop greenbelt in an area of 5582.79 m^2 which is 38.11% out of the total project area. The proposed project cost is about Rs. 9.55 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 2.79 crores and the recurring cost (operation and maintenance) will be about Rs. 1.185 crore per annum. Total Employment under proposed project would be 50 persons. Industry proposes to allocate Rs. 0.191 crores towards Corporate Environmental Responsibility within five years.

The Great Indian Bustard Sanctuary is located within a distance 3.38 km. ESZ of the Great Indian Bustard Sanctuary is located within a distance 1.68 km. Sina River is flowing at a distance of 4.0 km in SW direction.

The total water requirement is 214.5 m^3/day of which fresh water requirement of 127.06 m^3/day and will be met from MIDC Chincholi. Effluent of 66 m^3/day quantity will be treated by segregating high COD & Low COD Streams, HCOD effluent will be treated by using Stripper MEE followed by ATFD; however low COD effluent will be treated in conventional ETP consist of Primary, Secondary and Tertiary treatment facility. The plant will be based on Zero Liquid discharge system.

Power requirement of proposed project will be 1000 kVA and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Additionally, 1x500 kVA DG set is used as standby during power failure. Stack (4.5 m above roof) will be provided as per CPCB norms to the proposed DG sets. One 2.0 TPH & 4.0 TPH Boiler and one Thermic Fluid Heater of 2 Lac Kcal per Hour will be installed. Multi Cyclone Separator followed by Bag Filter with a stack of height of 32 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed boilers.

The process emission from process activity will be subjected to Acid/Alkali Scrubber of 3 nos x 1000 CFM capacities.

Details of Solid waste & Hazardous waste generation and its management:

Solid waste

S.No	WASTE	QUANTITY	DISPOSAL
1	Dry Garbage	2 Kg/day	Hand over to authorized recyclers

2	Wet Garbage	2 Kg/day	Vermi Composting (off-site)
3	Ash	2.57 TPD	Sold to Brick Manufacturers

Hazardous waste

CATEGORY.	TYPE OF WASTE	SOURCE	QTY.	METHOD OF DISPOSAL
35.3 Sch–I	ETP Sludge	Primary & Secondary Treatment	22 MTA	CHWTSDF @ Ranjangaon
5.1 Sch–I	Used Lubricants	Plant & Machineries	1 KL/A	CHWTSDF @ Ranjangaon
33.1 Sch–I	Used Containers (Metal & Plastic)	Raw Material Storage	500 (Nos/A)	Decontamination & Re-use or sell to Scrap vendors
	HDPE/ LDTE/ Gunny Bags	Raw Material Storage	2000 (Nos/A)	Decontamination & Re-use or sell to Scrap vendors
37.3 Sch–I	MEE Residue	Effluent Evaporation	8.6 MTD	CHWTSDF @ Ranjangaon
28.1 Sch–I	Process Residue	Reactor waste	417.9 MTA	CHWTSDF @ Ranjangaon
36.1 Sch-I	Distillation Residue	Solvent distillation	1329.6 MTA	CHWTSDF @ Ranjangaon
36.2 Sch-I	Spent Carbon	Waste carbon in reactor	24 MTA	CHWTSDF @ Ranjangaon

Public hearing is not required since the proposed project falls under category B2, the proposed project is located in industrial area. It was informed that no litigation is pending against the proposal.

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

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

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

The Committee noted that the PFR report reflects the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance subject to approval of conversion of land use for industrial purpose certificate.

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.

(iii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(iv). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(v). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(vi). 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.

(vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(viii). Total fresh water requirement shall not exceed 127.06 cum/day, proposed to be met from MIDC Chincholi. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(ix). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

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

(xi). 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xiii). 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.

(xiv). 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. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented. Preference shall be given to local villagers for employment in the unit. Preference shall be given to local villagers for employment in the unit.

(xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.28

Establishment of API Manufacturing Unit. by M/s Lifetech Sciences at Plot No. C-222, MIDC, Chincholi, Tal.: Mohol Dist ; Solapur, Maharashtra State- Consideration of Environmental Clearance

[IA/MH/IND2/174906/2020, IA-J-11011/217/2020-IA-II(I)]

The project proponent M/s Lifetech Sciences, neither submitted any request nor submitted any documents to the EAC as per compliance of Agenda. The Ministry has tried to call the PP but there is no response from PP side.

The EAC had put the best efforts to appraise the proposal. But as the PP had not even submitted the pre-requisite information as per compliance of Agenda and therefore the Committee RETURNED the proposal and is of the view that PP shall revise the Report as per provisions of the EIA Notification, 2006 so as to appraise by the EAC adequately.

Agenda No. 1.29

Field Development for Setting up of Surface Facilities, Group Gathering Station (GSS), Development Drilling and Interconnecting Pipeline between wells for 'Kathalchari Field Development Block AA-ONN-2 by M/s JUBILANT OIL AND GAS PVT LTD- Reconsideration of Environmental Clearance

[IA/TR/IND2/57350/2013, J-11011/248/2013-IA-II (I)]

The Committee noted that the PP has not submitted the application in Form 2 on Parivesh Portal.

The Member Secretary informed that the processing of EC proposal in the Ministry is through Parivesh Portal only, therefore providing all requisite information/documents shall be in compliance as per Form 2 and accordingly the PP/Consultant are kindly requested to submit the application in the Form 2 along with EIA/EMP Report. The EIA/EMP Report shall match with the information as filled in Form 2 for further appraisal before the EAC. It is also mentioned that after acceptance the Proposal, EIA/EMP report/Form 2 cannot be revise.

PP requested the EAC that he will revise the application as per Form 2 and upload all requisite documents on Parivesh Portal immediately. The Committee instructed Member Secretary to place this proposal, after uploading by PP, in next EAC to be held during December 2020. The proposal was accordingly **RETURNED the proposal for revision of application** in Form 2.

Agenda No. 1.30

Onshore Oil and Gas Development Drilling and Production Involving Onshore drilling of 179 wells, production facilities and laying of assorted oil & gas flowlines/delivery lines by M/s OIL INDIA LIMITED in District Tinsukia, Assam - Reconsideration of Environmental Clearance [IA/AS/IND2/165606/2007, J-11011/375/2016-IA II (I)]

The proposal was earlier placed before the EAC in its meeting held on 18th September, 2020 wherein EAC deferred the proposal and desired for certain requisite information/inputs. Information desired by the EAC and response submitted by the project proponent is as under:

Sl. No.	Additional information/inputs	Reply of PP	Observation of EAC
1.	Action taken report on non-complied points to be forwarded by the Ministry's Regional Office.	Detailed Action taken report on non-complied points is submitted.	EAC deliberated the Action Taken report in detail and found the reply to be addressing the concerns of the Committee.
2.	Justification, if any, for start of development/production of wells without prior environmental clearance.	The Baghjan PML was granted in 2003 and development/production of wells started since then. With the implementation of EIA Notification, 2006, OIL had applied TOR for development of fields in the year 2006 & 2008. PP hereby inform that OIL is producing hydrocarbon only from the wells which have been granted Environment Clearance.	EAC deliberated the issue and found the reply to be addressing the concerns of the Committee.

3.	Details of existing NBWL permission and status of NBWL clearance for the proposed project	Dibru Saikhowa National Park: The proposed drilling locations and production installations are outside the Dibru Saikhowa National Park ESZ boundary, reference gazette notification dated 30.01.2020. Hence, Wildlife clearance for DSNP is not applicable for this block. Bherjan-Borajan_Padumoni WLS: As per the draft notification for Bherjan-Borajan_Padumoni WLS submitted by State Govt. on 08.05.2020 to MoEF&CC, New Delhi all the proposed sites are falling outside the boundary of each of the three distinct Bherjan-Borajan_Padumoni WLS. However, as assured during EAC meeting, "OIL will drill the locations only after finalization of ESZ of Bherjan-Borajan_Padumoni WLS or obtaining Wildlife Clearance from Standing Committee of NBWL". OIL submitted the NBWL application on 27.10.2020	EAC deliberated the issue and found the reply to be addressing the concerns of the Committee.
4.	Public hearing issues, response and detailed action plan	PP submitted detailed action plan for issues raised in the Public Hearing.	EAC deliberated the issue and found the reply to be addressing the concerns of the Committee.

The Project Proponent and their accredited M/s ERM India Pvt. Ltd., made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for environmental clearance to the project Onshore Oil and Gas Development Drilling and Production Involving Onshore drilling of 179 wells, production facilities and laying of assorted oil & gas flowlines/delivery lines by M/s OIL INDIA LIMITED in District Tinsukia, Assam.

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

The details of products and capacity as under:

S. No	Details of Wells	Existing Wells	Proposed Wells	Total Number of Wells
1.	179 wells and 9 production installations	41 wells	179 wells	220 wells

The Standard ToR has been issued by Ministry vide letter No. J-11011/375/2016-IA II (I); dated 8th September, 2017. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 12th March, 2020. Public Hearing was presided over by Additional Deputy Commissioner. The main issues raised during the public hearing are related to environmental pollution, developmental activities, employment, infrastructure development for schools, public health. It was also informed that there are various court cases against the instant proposal and various other proposal of M/s Oil India Limited in the nearby area as under:

S. No	Case No. & Parties	Court/ Tribunal	Details of court case	Current Status
1.	PIL No. 35/2020, Mrinmoy Khataniar Vs. The Union of India and 13 Ors	Hon'ble Gauhati High Court	The Petitioners have filed the Public Interest Litigation of the environmental clearance dated 11.05.2020 granted to OIL by Union Ministry of Environment, Forest and Climate Change for Extension Drilling and testing of Hydrocarbons at 7 (seven) locations under the Dibru-Saikhowa National Park.	As directed by Court, OIL has filed Addl. Affidavit.
2.	PIL No. 39/2020, Gautam Uzir Vs The Union of India and 5 Ors	Hon'ble Gauhati High Court	The Public Interest Litigation has been filed by one Senior Advocate of Gauhati High Court as Petitioner-in-Person.	The Court has fixed the matter on 20.10.2020.
3.	O.A. no. 43/2020/EZ ,Bonani Kakkar Vs OIL & Ors	Hon'ble National Green Tribunal, Kolkata (Eastern Zone Bench)	An application has been filed before the Hon'ble NGT by an environmentalist i.e. Bonani Kakkar.	The Tribunal has deferred the hearing as the committee could not submit the final Report and fixed the next dated for hearing on 15.12.2020.
4.	O.A. No. 44/2020/EZ	Hon'ble National	An application has been filed before the Honble NGT	The Tribunal has deferred the hearing as the

	,Wildlife and Environmen t Conservatio n Organisatio n Vs. Union of India &Ors	Green Tribunal, Kolkata (Eastern Zone Bench)	by a Non-Governmental Organisation (NGO). i.e. Wildlife & Environment Conservation Organisation against the OIL.	committee could not submit the final Report and fixed the next dated for hearing on 15.12.2020.
5.	O.A. no. 41/2020/EZ , Sayyan Banerjee Vs. OIL &Ors	Hon'ble National Green Tribunal, Kolkata (Eastern Zone Bench)	An Application has been filed before the Hon'ble NGT by Sri Sayyan Banerjee pertaining to blowout at the Baghjan Oil Well no. 5.	The case is now listed on 03.11.2020. (Case tagged along with O.A. No. 43/2020/EZ, O.A. No. 44/2020/EZ, O.A. 50/2020/EZ)
6.	O.A. 50/2020/EZ , SoneswarNa rah & Ors vs. OIL &Ors	Hon'ble National Green Tribunal, Kolkata (Eastern Zone Bench)	An Application has been filed before the Hon'ble NGT by Soneswar Narah and others pertaining to blowout at the Baghjan Oil Well no. 5.	The case is now listed on 03.11.2020. (Case tagged along with O.A. No. 41/2020/EZ, O.A. No. 43/2020/EZ, O.A. No. 44/2020/EZ)
7.	Appeal No. 04/2020/EZ ,(I.A. No. 34/2020) Bimal Gogoi & Anr. Vs. Union of India & Ors.	Hon'ble National Green Tribunal, Kolkata (Eastern Zone Bench)	An Appeal has been filed by the Appellant i.e. Sri Bimal Gogoi before the Hon'ble NGT to challenge the Environmental Clearance (EC) dated 11.05.2020 granted by Ministry of Environment, Forest & Climate Change in favour of OIL for drilling seven wells for Hydrocarbon exploration under the Dibru-Sikhowa National Park.	Court has fixed the next dated for hearing on 15.12.2020.
8.	W.P. no. (Civil) 835/2020, Rituraj Phukan Vs. Union of India & ors.	Hon'ble Supreme Court of India	PIL was filed before the Hon'ble Supreme Court by the Petitioner i.e. Rituraj Phukan	The Hon'ble Supreme Court vide its order dated 16.09.2020 issued notice and tag this Writ Petition with W.P. (Civil) no. 625/2020.

The Ministry had issued EC earlier vide letter no. J-11011/1255/2007 - IA II (I); dated 1st November, 2011 to the existing project Drilling of Development Well (26 Nos.) and Exploratory Well (15 Nos.) at N. Hapjan-Tinsukia-Dhola Area in District Tinsukia Assam by M/s Oil India Limited in favour of M/s Oil India Ltd.

Certified compliance by Shillong Regional Office vide letter No. RO-E/E/IA/AS/MI/59/169-71. RO, MoEF&CC, Shillong planned during 9-12 December 2019, but was cancelled due to Citizenship Amendment Act (CAA) protests and later due to COVID-19 pandemic. Undertaking of self-certified compliance of EC conditions submitted to MoEF&CC.

Additional 6000000 m^2 land will be used for proposed expansion. Industry will develop greenbelt in an area of 157500 m^2 out of total area of the project. The estimated project cost is Rs.3500 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.4.41 crore and the Recurring cost (operation and maintenance) will be about Rs.5.01 crore per annum. Total Employment will be 60 persons as direct & 120 persons indirect after expansion. OIL proposes to allocate Rs.877 lakhs @ of 0.25% of the total project cost towards Corporate Environmental Responsibility.

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

Ambient air quality monitoring was carried out at 8 locations during 5.10.2017 to 30.12.2017 and the baseline data indicates the ranges of concentrations as: PM10 (52-136 µg/m^3), PM2.5 (25-74 µg/m^3), SO2 (4.2-8.6 µg/m^3) and NO2 (12.2-29.6 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 12.3 µg/m^3, 0.43 µg/m^3, 0.06 µg/m^3 and 0.08 µg/m^3 with respect to NOx, SO2, PM10 and HC. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS) except PM10 and PM2.5. PP justified that the higher GLCs values are due to the interference of erstwhile local conditions.

Total water requirement is 50 m^3/day of which fresh water requirement of 39 m^3/day which will be met from groundwater. Effluent of 21.8 KLD quantity will be treated through ETP and Septic tank. The project will be based on Zero Liquid discharge system. It is anticipated that two DG sets with a power rating of 1250 kVA each will be required for drilling purposes of which one will be kept standby. Stack height of 7 m will be provided as per CPCB norms to the proposed DG sets.

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

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

PP informed that in Baghjan Well No. 5 cement plug job was being carried out as per the program on 26.05.2020. The Well suddenly became very active and has resulted into a blowout at around 10.30 AM on 27.05.2020. Consequent upon incident of blowout and subsequent fire, various Govt. Authorities have constituted various committees to enquire into the cause of the Blowout. OIL is yet to receive Committee's report, except the Report of Oil Industry Safety Directorate (OISD). It is pertinent to mention that the Hon'ble HC in PIL No. 93/2020 (Gautam

Uzir) has directed the Committee constituted by Govt. of Assam and MoPNG as well as OIL India Ltd. to submit their respective reports before the Court in sealed cover as the Court was of the opinion that the findings of these Committee's may be overlapping. Nevertheless, OIL shall implement recommendations of the Committee's unless recommendations are overlapping or contradictory. The Committee deliberated the details and is of the view that there may be condition that this instant EC is subject of Order of Hon'ble Court.

PP informed that Application for NBWL clearance submitted for 138 Nos of well & 7 Nos of Production installation falling within in 10 KM of ESZ of BBP. However, Eco-Sensitive Zone proposed by the State Govt. of Assam for Borjan Bherjan and Podumoni(BBP) ESZ boundary is 0 km from the boundary of the Wildlife Sanctuary, around each of the three distinct entities namely Bherjan, Borjan and Podumoni(BBP). OIL's proposed drilling locations are located outside of the State Govt. of Assam's proposed BorjanBherjan and Podumoni ESZ boundary. OIL will drill the locations only after finalisation of the ESZ of Bherjan Borjan Podumoni(BBP) WLS or obtaining Wildlife Clearance from Standing Committee of NBWL whichever is earlier.

It is submitted that Wildlife Conservation Plan is submitted to Chief Wildlife Warden, Assam. EMP cost has been earmarked. Budget will be utilized after receiving of approved Wildlife management plan from State forest department. Detailed conservation plan is prepared for 35 No of Schedule I species reported/recorded within the Block.

Deliberation in the EAC

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

The committee noted that Baghjan Well, adjacent to the proposed well location/area had a blow out and has caused severe impact on the environment and biodiversity of the region. subsequently Govt. Authorities have constituted various committees to enquire into the cause of the Blowout and has resulted into court cases. The committee has deliberated the action plan for safety measures and Emergency contingency plan.

The Committee observed that the block area is falling within 10 km of the National Park and Wildlife sanctuary and such requires permission/clearance on Forest/Wildlife angle. The project proponent has in turn informed that none of the wells are falling within 10 km of the protected areas. The Committee was of the view that, if any blow out/leakage, happens as that happened in Baghjan, it shall lead to disastrous effect on the environment, people and associated biodiversity. The project proponent has informed that lessons have been learned from the blowout and assured that all the safety and precautionary measures shall be taken to avoid any such disaster.

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards except PM10 & PM2.5. The Committee has also deliberated on the action plan of pollution mitigation measures and found to be addressing the issues in the study area and public hearing issues. Additional information submitted by the project proponent found to be satisfactory and addressing the concerns of the Committee.

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

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

(i). This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, as may be applicable to this project.

(ii). The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, as applicable, as per the Ministry's OM dated 8th August, 2019. Grant of environmental clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposal for Wildlife Clearance will be considered by the respective authorities on its merit and decision taken.

(iii). The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

(iv). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the

EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(v). The activities and the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented.

(vi). No pipelines or its part shall be laid in the Forest land/Protected Area without prior permission/approval from the Competent Authority.

(vii). Forest Clearance/ Wild Life Clearance/ ESZ Clearance shall be obtained from the concerned regulatory authority, if applicable to the project. Drilling in the forest area and area beneath it shall not be carried out without prior permission.

(viii). As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land. Mobile ETP along with RO plant shall be installed to treat the waste water.

(ix). During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.

(x). The project proponent also to ensure trapping/storing of the CO_2 generated, if any, during the process and handling.

(xi). Approach road shall be made pucca to minimize generation of suspended dust.

(xii). The project proponent 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.

(xiii). Total fresh water requirement shall not exceed 39 m^3/day. Prior permission shall be obtained from the concerned regulatory authority. Mobile ETP coupled with RO shall be installed to reuse the treated water in drilling system. Size of the waste shall be equal to the hole volume+ volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.

(xiv). The company shall construct the garland drain 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.

(xv). 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 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.

(xvi). 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.

(xvii). The project proponent shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At fixed installations or plants use of 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.

(xviii). The project proponent 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.

(xix). Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.

(xx). On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable DGH / Indian Petroleum Regulations.

(xxi). No lead acid batteries shall be utilized in the project/site.

(xxii). Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xxiii). Oil content in the drill cuttings shall be monitored and report & shall sent to the Ministry's Regional Office.

(xxiv). The project proponent 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.

Agenda No. 1.31

Integrated Sugar Industry (Sugar 5000 TCD, Co-generation 29.5 MW, Grain based distillery 45 KLPD & Molasses/sugarcane juice/ Sugar Beet based distillery 60 KLPD) located at A/P Pande, Tal. Karmala, Dist. Solapur, Maharashtra by M/s VITTHAL REFINED SUGARS LTD- Reconsideration of Environmental Clearance

[IA/MH/IND2/82830/2018, IA-J-11011/335/2018-IA-II(I)]

The proposal was earlier considered by the 9th EAC in its meeting held during 26-28 June, 2019. The additional information desired by the Committee and response from the project proponent is as under:

S. No.	Information sought by the EAC	Reply of PP	Remarks by EAC
1.	Base line air quality not consistent in terms of the core parameters namely PM_{10}, SO_2 & NO_X and needs to be checked with ambient air quality data of CPCB.	Baseline study was conducted in Dec 2018 to Feb 2019. Maximum part of the study are comprises 83.23 % agricultural land. The probable cause for inconsistence results due to activities like burning of waste, biomass, and crop residue, few small brick kilns within the study area and considering winter season. Range of PM_{10}, $PM_{2.5}$, SO_2 and NO_X observed are as follows: PM_{10} :29.6 to 49.5 µg/m^3 $PM_{2.5}$: 20.1 to 39.3 µg/m^3 SO_2 : 6.2 -13.2 µg/m^3 NOx : 10.3 to 16.5 µg/m^3 Air monitoring results are within the ambient air quality standards of CPCB. PP have also referred CPCB/ MPCB published report in that area. The monitoring results of ambient air quality was rechecked with Laboratory.	The EAC found the reply to be satisfactory.
2.	Incremental values for SO_2 & NOx (8.27 µg/m^3 & 5.3 µg/m^3) are reported to be on higher side, and needs to be confirmed.	PP have re-run the AERMOD software for rechecking incremental values of SO_2 & NOx. Fuel used in boiler will be Coal, Concentrated spent wash and Bagasse. Incremental values are ranging from SO_2 0.61- 8.27 µg/m^3 NOx 0.39 - 5.3 µg/m^3 PM_{10} 0.05- 0.6 µg/m^3	The EAC found the reply to be satisfactory.

		Details of the same is submitted.	
3.	Fresh water requirement on regular basis vis-à-vis effluent generation needs to be confirmed.	Total start up water requirment for integarated project is 9094 m3/d Total recyled water is 7601 m3/d hence, daily fresh water requirement is 1493 m3/d	The committed suggested that water requirement for 60 KLPD molasses/Sugarcane juice/Sugar Beet based Distillery shall be 6 KL/KL and Water requirement for 45 KLPD grain based Distillery shall be reduced to 6 KL/KL.
4.	Prior approval shall be obtained from the Petroleum & Explosives Safety Organization (PESO) for the site and layout plan submitted to this Ministry along with the proposal for EC. In case of any change therein post PESO approval, the proposal shall require fresh appraisal by the sectoral EAC.	Application made for PESO licening is submitted. Plant layout and storage tanks locations are submitted to PESO as per the EC proposal and considering PESO guidelines.	The EAC found the reply to be satisfactory.
5.	In view of concerns raised during public hearing on 17th June, 2017 regarding damage to Kamala Bhawani temple, acceptance of Gram Sabha for the proposed project.	Gramsabha NOC/acceptance for proposed integrated Sugar, Cogen and Distillery is submitted.	The EAC found the reply to be satisfactory.

The details of products and capacity are as under:

Products	Unit	Quantity
Sugar Unit (5000 TCD)		
Sugar (sugar recovery@11.5%)	TPD	575
Total Power Plants Capacity (29.5 MW)		
Co-generation/Spent wash Incineration Boiler	MW	26/3.5

Molasses based distillery Unit (60 KLPD)		
R S & IS / ENA & TA /Fuel Alcohol	KLPD	60
Fuel oil	KLPD	0.18
Grain based distillery Unit (45 KLPD)		
Rectified Spirit & IS/ENA &TA	KLPD	45
Fusel oil	KLPD	0.135
Malt Spirit	KLPD	5
Grape Spirit	KLPD	5
Distillery CO_2 Recovery Plant	TPD	50
Cyclodextrin Plant	TPD	2.5
IMFL Bottling plant	Cases/M	One lakh
Country liquor bottling plant	Cases/M	Two lakh

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

The ToR has been issued by Ministry vide letter No. J-11011/335/2018-IA-II (I); dated 24 December 2018. Public hearing was conducted by the State Pollution Control Board on 17th June, 2017 presided by Additional District Magistrate, Solapur. The main issues raised during the public hearing are related to queries on Air, Noise, odour, and water pollution and its management etc.

Total available plot area 443300 m^2. Existing land area is 224976.05 (sugar built up) additional 19634.89 m^2 (built up) land will be used for proposed project. Industry will develop greenbelt in an area of 44 % i.e. 195000 m^2 (19.5 Ha) out of total area of the project. The estimated project cost is Rs.305.86 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs. 12.95 Cr. and the recurring cost (operation and maintenance) will be about Rs. 47.35 lakhs per annum. Total employment will be 460 persons as direct >1000 persons indirect. Industry proposes to allocate Rs 4.5 crore towards Corporate Environment Responsibility.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc. within 10 km distance from the project site. Sina River flows at 4.5 km in North East.

Ambient air quality monitoring was carried out at nine locations during Dec 2018 to Feb 2019 and the baseline data indicates the ranges of concentrations are as: PM10 (29.6 to 49.5 µg/m3), PM2.5 (20.1 to 39.3 µg/m3), SO2 (6.2 to 13.2µg/m3) and NO2 (10.3 to 16.5 µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.6 µg/m3, 8.27 µg/m3 and 5.3 µg/m3 with respect to PM 10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 9094 m^3/d of which fresh water requirement of 1493 m^3/d will be met from Mangi Lake. Industry has obtained permission from Maharashtra Krishna Valley Development Corporation, Pune in vide letter dated 18.07.2017 for the same. Total Effluent of ~1704.5 m3/day [from Sugar-Cogen (330 CMD), Distillery-Molasses and Grain (1155 CMD), other (39.5 CMD) and sewage 180 CMD] quantity will be treated through Sugar ETP (500 CMD),

Condensate polishing Unit (1200 CMD). The plant shall be based on zero liquid discharge system.

Power requirement of 11.5 MW shalll be met from own cogeneration power plant (29.5 MW). Existing unit has 500 kVA X 3. Proposed 1 X 500 kVA DG sets are used as standby during power failure. Stack height of 3 m shall be provided as per CPCB norms to the proposed DG sets. Existing unit has 150 TPHX1 and additionally 35 TPH (Incineration boiler- Distillery) shall be installed. Electrostatic precipitator with 85 m and 70 m stack respectively shall be installed for controlling of particulate emission within statutory limit of 115 mg/Nm3 for the proposed boilers.

Details of Process emissions generation and its management is given below in table:

Air pollution	Stack, Fugitive emissions, material handling, process emission	PM_{10}, $PM_{2.5}$, NOx, SO_2	Existing: Electrostatic precipitator Proposed: Electrostatic precipitator Existing stack height: 85 m and new stack of 70 m with ESP will be installed. Proposed Stack height: 70 m

Details of Solid waste/ Hazardous waste generation and its management

No.	Unit	Waste & Quantity, TPD		Treatment	Disposal
1.	Sugar Unit	ETP sludge	0.325	Drying beds & compost	Own garden
		Press mud	200	Compost	As soil conditioner
2.	Co-gen Units (sugar)	Bagasse ash	20.81	Mixed with PMC	As soil conditioner
3.	Co-gen Units (Distillery)	Incineration Boiler Ash	84.06	-	To brick manufacturer
4.	Distillery Units (Molasses & Grain)	Yeast sludge	15	Compost	Factory farm
		Grain Grit	45-50	Drying (DWGS)	As cattle, fish & poultry feed
		ETP Sludge	0.25	Compost	Own garden
5.	Malt Spirit based (5KLD)	Residue feed	3.90	-	As cattle feed
6.	Grape Spirit based (5KLD)	Grape residue	19.5	Compost	Factory farm/ Own garden
7.	Cyclodextrin Plant	Grain residue	0.750	-	as cattle feed
8.	Office	Waste Papers	0.50 kg/d	Sale	Non – Hazardous
9.	Packing section	Waste papers	0.50 kg/d	Sale	Non – Hazardous

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan along with activities for addressing the socio-economic issues and found to be addressing the issues in the study area.

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(iii). Total fresh water requirement shall not exceed 1493 m^3/day proposed to be met from Mangi lake. Prior permission shall be obtained from the concerned regulatory authority.

(iv). Project Proponent want to install incineration boiler for treatment of spent wash to ensure ZLD. As committed by PP, the spent wash/other concentrates shall be incinerated.

(v). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(vi). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(vii). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.

(x). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xi). 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.

(xii). 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. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiii). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented. Preference shall be given to local villagers for employment in the unit.

(xiv). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xv). Project Proponent shall reduce the quantity of effluents generation in the unit and PP shall install the effective wastewater treatment system. Adequate system shall be in place for controlling the odour and mitigation measures to protect the contamination of ground/surface water.

(xvi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xvii). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

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

(xix). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.32

Expansion of Chemical Manufacturing unit located at PACL Campus, Naya Nangal, Tehsil- Anandpur Sahib, District- Ropar, Punjab by M/s Flowtech Chemicals Pvt. Ltd- Reconsideration of Environmental Clearance

[IA/PB/IND2/145121/2018, J-11011/335/2012-IA II (I)]

The proposal was earlier considered in the EAC (Industry-2) meeting held on September 15-17, 2020. The additional information desired by the Committee and response of the PP are as under:

S. No	Observations	Reply
1	Detailed action plan for management of emissions from the unit.	Normal Paraffin/ Heavy Normal Paraffin/ Light Normal Paraffin/Waksol/Olefins are saturated &unsaturated Hydrocarbons. Chlorination process of Paraffin is exothermic which releases heat. The released heat is cooled by water. Constant pressure and temperature is required for Chlorination process. Due to number of factors like variation in pressure, power failure, variation in temperature, change in feed rate of Chlorine or un-reacted Chlorine gets carried away with HCL vapors, that may cause air pollution but effective steps will be taken to check these emissions and utmostcare will be taken to avoid such happenings. For chlorine tonners, following control/containment measures are recommended. • Auto chlorine leak absorption system has been provided to absorb the leaked chorine from the tonners/system. • To prevent the large release of chlorine to atmosphere, monitoring and feedback facilities for early detection leaks and emergency shutdown is being provided. • There are facilities in the form of water curtain for absorption of chlorine released during an emergency as chlorine is highly soluble in water. • Flow control valves at key points have been installed to prevent excess chlorine flow from the tonner with multiple level safety per line. • All the persons handling chlorine are being trained for all the safety measures to be taken at chemical alkalis plants.

		• Air pollution control system is adopted so that ambient air pollution is not more than 3mg/nm^3 permitted by pollution control board. • HNP (Heavy Normal Paraffin) storage tank has been kept at least 25 ft. away from chlorine header and reactor. • Chlorine toners are kept under shed so that no exposure is made to any source of direct heat. • Ammonia torch is kept ready for detection of any leakage of chlorine. • HCl is strong corrosion medium. All the equipments are being painted from time to time for any possible corrosion. • In case of valve leak in tonner, the tonner should be rolled, so that the valves are in vertical plane with leaking valve above. However, following additional safety measures will be taken to mitigate the impact: ➢ Two primary and secondary graphite absorber will be provided as HCL gases get almost absorbed in these blocks and balance if any, in the Acid Circulation Tanks. ➢ In order to avoid fugitive emission from material storage points, dust collectors are provided at material transfer points. ➢ The roads within the premises are concrete / paved to avoid emissions due to vehicular activity. ➢ All transportation vehicles carry valid PUC (Pollution under Control) Certificate. ➢ Proper servicing and maintenance of vehicles are being carried out. ➢ Regular sweeping of all the roads and floors is being done. ➢ Adequate green belt has been developed in the plant area. Green belt act as surface for settling of dust particle and thus reduces the particulate matter in air. ➢ Ambient air quality is regularly monitored and effective control is exercised so as to keep emission within the limits.

<table>
<tr>
<td>2</td>
<td>Incremental GLC due to the proposed project needs to be justified.</td>
<td>AAQ modeling has been done for the said project to evaluate maximum incremental GLCs after the expansion of project.

The 24 hourly average ground level concentration (GLC) values of the project have been computed for parameters such as PM, CO, NOx. The incremental concentration due to proposed project would be 0.24µg/m^3 for PM_{10}, 7.91µg/m^3or 0.00791 mg/$m^3$for CO and 3.37µg/m^3 for NO_2.The values are due to topographical featured around the project and applicable stability classes as well as vehicular emissions. GLC maps in respect to PM, CO, NO_x is submitted.

The ambient air quality around the project site will remain well within the NAAQS limit. The air emissions from the proposed expansion project would not affect the ambient air quality of the region in any significant manner.

<table>
<tr><th>S. No</th><th>Pollutant</th><th>Baseline Max. conc.</th><th>Incremental GLC</th><th>Total conc. After proposed expansion</th><th>CPCB Standards</th></tr>
<tr><td>1</td><td>PM_{10}</td><td>82.2 µg/m^3</td><td>0.24 µg/m^3</td><td>82.44 µg/m^3</td><td>100 µg/m^3</td></tr>
<tr><td>2</td><td>CO</td><td>0.67 mg/m^3</td><td>0.00791 mg/m^3</td><td>0.68 mg/m^3</td><td>4.0 mg/m^3</td></tr>
<tr><td>3</td><td>NO_2</td><td>22 µg/m^3</td><td>3.37 µg/m^3</td><td>25.37 µg/m^3</td><td>80 µg/m^3</td></tr>
</table>
The resultant concentration thus obtained along with background level is given below:</td>
</tr>
<tr>
<td>3</td>
<td>Details of protected/ESZ area within 10 km of the project site.</td>
<td>Nangal Wildlife Sanctuary is situated at a distance of 2.6 km from the project location. No National Parks, Biosphere Reserves exist within 5 km radius of project site.</td>
</tr>
<tr>
<td>4</td>
<td>Copy of notification of ESZ details of the sanctuary and distance of theproject from the sanctuary and the ESZ.</td>
<td>The notification for Nangal Wildlife Sanctuary was published on 16th March, 2017.The eco-sensitive zone is spread over an area of 1.26 Sq.kms with an extent upto 100 meters around the boundary of Nangal Wildlife Sanctuary.</td>
</tr>
<tr>
<td>5</td>
<td>CER plan is based on the public hearing issues.</td>
<td>Revised CER plan incorporating the Public Hearing issues is submitted.</td>
</tr>
</table>

<table>
<tr><td>6</td><td>Details of freshwater requirements along with the source.</td><td>
<table>
<tr><th>Description</th><th>Existing</th><th>Proposed</th><th>Total</th></tr>
<tr><td>Domestic</td><td>3.0 KLD</td><td>4.0KLD</td><td>7.0KLD</td></tr>
<tr><td>Cooling (makeup water)</td><td>2.0 KLD</td><td>1.0 KLD</td><td>3.0 KLD</td></tr>
<tr><td>Process</td><td>85.0 KLD</td><td>85.0 KLD</td><td>170KLD</td></tr>
<tr><td>Total</td><td>90.0 KLD</td><td>90.0 KLD</td><td>180.0 KLD</td></tr>
</table>
Total fresh water requirement for the project after expansion will be 180 KLD which will be supplied by PACL. Source of water supply is surface water (Sutlej river) to PACL. PACL has already agreed to supply water to M/s Flowtech chemicals; copy of letter from PACL is submitted.</td></tr>
<tr><td>7</td><td>Detailed effluent management plan along with quantity.</td><td>Proposed project is based on Zero discharge. There is no generation of trade effluent from process. Only domestic waste water of 5.6 KLD is generated which is treated in septic tank of 2.5 m x 1.5 m x 3.0 m which has already been provided. The treated water is being used for plantation within the premises.</td></tr>
<tr><td>8</td><td>Details of conservation plan submitted to the Chief Wildlife Warden</td><td>Wildlife conservation plan has already been prepared by PACL and submitted to Govt. of India and Wildlife Clearance for the same has been accorded by Chief Wildlife Warden, Punjab vide Ref. no. 65536 dated 30.01.2019. M/s Flowtech Chemicals Pvt. Ltd. is an expansion unit located within PACL and have the same zone of influence and affected protected area. Therefore, no separate detailed Conservation plan is required for M/s Flowtech Chemicals Pvt. Ltd. Letter in this regard from Divisional Forest Officer is submitted. However, additional activity with financial provision of Rs. 7.5 Lakhs has been proposed to be included in the existing conservation plan of PACL.</td></tr>
<tr><td>9</td><td>Details regarding the operation of the Unit without NBWL clearance.</td><td>MoEF&CChas issued a clarification with respect to distance of the Nangal Wetland from the project site vide F.No. 5-731/2014-RO(NZ) dated 14.11.2014. According to which, it was made clear thatNangal wetland was not declared as wildlife sanctuary by State Govt. of Punjab till that date. Later on, EC was granted by MoEF&CC vide F.No. J-11011/335/2012-IA II (I) dated January 30th, 2015.

The final notification for Nangal Wildlife Sanctuary was published on 16th March, 2017. According to which, eco-sensitive zone is spread over an area of 1.26 sq.km. with an extent upto 100meters around the boundary of Nangal wildlife sanctuary. Project is located at a distance of 2.6 km from the Nangal Wildlife sanctuary. Thus, project is located outside eco-sensitive zone of Nangal Wildlife sanctuary. Therefore, NBWL clearance is not required for the earlier EC as well as for proposed expansion.</td></tr>
</table>

The Project Proponent and the accredited Consultant M/s Eco Laboratories & Consultants Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

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

The details of products and capacity asunder:

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

The project/activities are covered under category B of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006. Due to the applicability of general condition i.e. location of project site within 5Km of Himachal Pradesh State, the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Standard TORs were issued vide TOR letter no. - IA-J-11011/335/2012-IA-II (I) on dated 13th May, 2018. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on dated 19.06.2019. The main issues raised during the public hearing are Benefits to locals, Implementation of pollution control measures and control of water pollution and Occupational health & safety. It has been informed by the project proponent that there is no litigation pending against the proposal.

The Ministry had issued EC earlier vide letter no. F.No.-J-11011/335/2012-IA II (I) dated 30th January, 2015 to the existing project in favour of M/s Flowtech Chemicals Pvt. Ltd. Certified compliance report from RO, MOEF&CC has been obtained vide File no. - 5-731/2014/RO (NZ)/308 dated 26.06.2020.

Total land area is 12000m^2. No additional land is required for proposed expansion. Industry will develop greenbelt in an area of 33% i.e 3983.27m^2(33%) out of total area as per MOEF&CC stipulated norms. The proposed green belt will be developed in two phases such as Phase-I during June, 2020 & Phase-II during June, 2021. A total of 597 trees will be planted. 200 trees have already been planted. Hence, 397 plants have to be planted. Existing tree species are Shisham, Mango, Safeda, Kachnar. Tree species Mulberry, Bungania and false ashok will be planted. Phase I (June, 2020): 200 no. of saplings have already been planted. Phase-II (June, 2021): 197 no. of saplings will be planted. Budgetary allocation: Rs. 17 Lakhs under EMP cost.

The estimated project cost is Rs. 7.60 Crores including existing cost of Rs. 3.46 Crore and proposed cost of Rs. 4.14 Crore. Total capital cost earmarked towards an environmental pollution control measure is Rs. 54.0 Lakh and the Recurring cost (operation and maintenance) will be about Rs. 10 Lakh per annum. For expansion additional 50 persons will be required. Total number of manpower after expansion will be 100. Industry proposes to allocate Rs. 8.00 Lakh

@ of 1 % of project cost towards Corporate Environmental Responsibility.

The Nangal Wildlife Sanctuary is at a distance of 2.6Km from project site. NBWL application has already been filed vide proposal no. - FP/PB/IND/4959/2020. Satluj river is flowing at a distance of 3.5Km. Palsad PF, Thapal PF, Ramgarh Parla PF, Ramgarh Awarla PF are located with 10 km of the study area.

Ambient air quality monitoring was carried out at 8 locations during January, 2020 to March, 2020 and the baseline data indicates the ranges of concentrations as: PM10 (64.5-82.2µg/m^3), PM2.5 (27.1-45.2µg/m^3), SO2 (6.4-8.2µg/m^3), NO2 (19.2-25.7µg/m^3), CO (0.40-0.67µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.24µg/m^3 for PM10, 0.00791mg/m^3 for CO and 3.37µg/m^3 for NO2.

Total fresh water requirement is 180m^3/day which will be met through PACL pipeline. The proposed plant is based on Zero Liquid Discharge. No process waste water is/will be generated. The waste water generated from domestic purpose is/will be treated through septic tank and used for plantation within the premises. Power requirement after expansion will be for the plant will be 350KW including existing 200KW and will be met from PSPCL (Punjab State Power Corporation Limited). The existing unit has no boiler. Further, no boiler is being proposed for expansion.

The process emission due to HCL vapours will be collected as Dil. HCL through water scrubber and sold as dilute acid. The unreacted Cl_2 gas will be sent back to M/s PACL for neutralization and recovery as NaOCl. No Solid waste/Hazardous waste is being/ will be generated.

The company has earmarked Rs. 8.0 lakh towards the Corporate Environmental Responsibility. CER activities as per public hearing proceeding are detailed as hereunder:

S.No.	Activity	Village	Public Hearing Proceeding	Amount (Rs. Lac)	Timeline
1.	Helping Poor people by providing blankets, quilts and mattresses to the needy	Village Binewal, District-Roop Nagar	10. Sh. Bhupinder Singh, r/o Village Binewal, District- Roop Nagar	1.0	Within one year of grant of EC.
2	Pay school fee and necessary stationary to poor people			2.0	
3	Spending money on Girl's marriage			3.0	
4.	Awareness campaign regarding industrial safety to local people	Nearby areas	11. Sh. Pawan Malhotra, residing in the Colony, near the project site	1.0	Within one year of grant of EC

5.	Plantation/ Green belt development– 500 trees will planted every year.	Village Binewal, District- Roop Nagar	13. Sh. Paramjit Singh, r/o Village Binewal, District- Roop Naga	1.0	Monsoon season of 2021-2023

Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan along with activities for addressing the socio-economic issues and found to be addressing the issues in the study area. The Committee noted that the project proponent has proposed conservation plan with Rs. 7.5 lakhs. The Committee has noted that the project site is located outside the ESZ of the Sanctuary. The project proponent has also submitted and presented detailed action Plan for minimizing release and environmental safety implication of chlorine. The additional details submitted by the project proponent to be satisfactory by the Committee.

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

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water

(Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(iii). 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.

(iv). The project proponent shall submit a comprehensive plan to control the incremental GLC due to the project to the SPCB. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.99% with effective chillers/modern technology.

(v). The project proponent shall ensure the mechanism for controlling and management of chlorine gas. Adequate safety measures has to be placed in the unit.

(vi). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(viii). 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.

(ix). 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.

(f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(x). As proposed, total fresh water requirement shall be 180 cum/day, proposed to be met through PACL supply. Prior permission shall be obtained from the concerned regulatory authority in this regard, and renewed from time to time.

(xi). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

(xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiv). The activities and the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented.

(xv). The site specific conservation plan and wildlife management plan for the Schedule-1 species in the study area shall be submitted to the Chief Wildlife Warden. The conservation plan proposed with Rs. 7.5 lakhs shall be implemented in consultation with State Forest/Wildlife Department.

(xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.33

Expansion of existing project for manufacture of mining explosives and proposed high energy defence products located at Village Mouza - Talegaon (S.P), Taluka - Ashti, Dist-Wardha, Maharashtra. by M/s CDET EXPLOSIVE INDUSTRIES PVT. LTD.- Amendments in Environmental Clearance

[IA/MH/IND2/74917/2018, IA-J-11011/166/2018-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter, File No. IA-J-11011/166/2018-IA II (I), dated. 19/08/2020 for the project ''Expansion of existing project for manufacture of mining explosives and proposed high energy defence products" located at Village Mouza - Talegaon (S.P), Ashti taluka, Wardha district, Maharashtra in favour of M/s. CDET Explosive Industries Pvt. Ltd.

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

Sr. No.	EC Point No.	EC Point	Justification/reasons	*Desired Correction in EC*	*Remarks of the committee*
1	Point No. 5	There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Reserve forests within 10 km from the project site. The AR Nadi is flowing at 6.08 km in SSE direction.	There is Reserve Forest within 10 km of the Project Site as detailed in Table 2.2 of the EIA Report. PP therefore request that this point may be suitably changed.	There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors within 10 km from the project site. Reserves Forests are located within 10 km from the project site. The AR Nadi is flowing at 6.08 km in SSE direction.	The committee **accepted** the amendment since it was a minor factual error. However desired that PP shall submit a study within 3 months regarding impact of the project on the reserve forests.
2	Point No. 6	Total water requirement is estimated to be 839 cum/day, which includes fresh water requirement of 799 cm/day, proposed to	PP beg to submit that during the presentation and ADS submission, the Industry had informed that it has obtained permission from CGWB for existing project fresh water use of 327.4 KLPD,	***Post expansion*** total water requirement is estimated to be 839 cum/day, which includes fresh water requirement of 799 cm/day, proposed to be met from	The committee **has not agreed for** the amendment and suggested to for alternative storage measures.

Sr. No.	EC Point No.	EC Point	Justification/reasons	*Desired Correction in EC*	*Remarks of the committee*
		be met from ground water. Effluent of 262 cum/day will be treated through ETP. The plant will be based on Zero Liquid discharge system. It was informed that making suitable rainwater harvesting system in the project area, fresh water requirement shall be brought down to zero and thus there is no fresh water requirement in the project.	and sought permission for additional fresh water of 471.6 KL/day for the proposed project while making additional efforts to harvest rain water for use and for ground water recharging. We also submitted that land area available for water harvesting is not enough for storage of water (surface water pond within plant is not possible) for use throughout the year. Further, since the plant is manufacturing explosives, it is necessary to have enough water always for any contingency as per PESO norms. The Committee kindly agreed during presentation to let the proponent continue to draw existing ground water requirement, and advised to minimize additional groundwater requirement for new proposed project. We have accordingly worked to limit fresh make up water requirement for proposed project to 155 KPLD instead of earlier proposed 471.6 KPLD. In addition as	ground water. Effluent of 262 cum/day will be treated through ETP. The plant will be based on Zero Liquid discharge system. It was informed that making suitable rainwater harvesting system in the project area, ***additional*** fresh water requirement shall be brought down. ***Post expansion total fresh make up water requirement 482.4 KLPD. Source of water, ground, CGWB permission obtained.***	The Committee was of the considered view that decision in this regard has been taken by the earlier EAC based on detailed deliberations. The PP shall undertake a detailed techno feasibility study and submit report to Ministry/EAC for reconsideration, if required.

Sr. No.	EC Point No.	EC Point	Justification/reasons	*Desired Correction in EC*	*Remarks of the committee*
			per CGWB regional scenario the area is in safe zone from ground water point of view. We have already submitted CGWB NOC renewal for ground water use in compliance of ADS. PP have already made this submission vide our letter in reference (3) above. PP therefore request that this point may be suitably changed to reflect permission to use ground water as per existing CGWB NOC as on date of Environmental Clearance i.e 482.4 KLPD.		
3	Point No. 13(ii)	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. All the waste water to be collected and	The condition mentions that "All the waste water to be collected and to be reused after treatment". We submit that some water contaminated with explosives needs to be evaporated as per safety requirements. MPCB have enforced this condition of evaporation of waste water. Same process	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. ***Earlier consent condition regarding evaporation of explosive contaminated waste water***	The committee noted that there is no deterrence for the PP to evaporate the water to achieve ZLD. No waste/treated water shall be discharged outside the premises. As such there is no requirement

Sr. No.	EC Point No.	EC Point	Justification/reasons	*Desired Correction in EC*	*Remarks of the committee*
		to be reused after treatment.	will be continued in future. We request that the condition may be suitably changed.	***where required will be continued post expansion.***	of amendment in this regard.
4	Point No. 13(xi)	As proposed, fresh water requirement shall be met through rain water harvesting. No water shall be drawn from the tube well/ground water for Industrial purpose.	PP have already made submission regarding this in Sr. No. 2 of this letter. PP therefore request that this point may be suitably changed to reflect permission to use ground water as per existing CGWB NOC as on date of Environmental Clearance.	As proposed, ***maximum additional*** fresh water requirement shall be met through rain water harvesting. No water ***above existing CGWB NOC on date of EC*** shall be drawn from the tube well/ground water for Industrial purpose. ***Post expansion total fresh make up water requirement 482.4 KLPD. Source of water, ground, CGWB permission obtained.***	The committee has not accepted the amendment proposed and suggested for alternative storage measures. The Committee was of the considered view that decision in this regard has been taken by the earlier EAC based on detailed deliberations. The PP shall undertake a detailed techno feasibility study and submit report to Ministry/EAC for reconsideration, if required.
5	Point No. 13(xiv)	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame	The point requires Spent Acid to be sent to TSDF. However, we submit that most Spent Acid can be reused, hence reuse / recycling of spent acid	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank	The committee has **accepted** the amendment as it encourages reuse/recycle of spent acid

Sr. No.	EC Point No.	EC Point	Justification/reasons	*Desired Correction in EC*	*Remarks of the committee*
		arresters shall be provided on tank farm, and solvent transfer through pumps. Raw material and products should be stored in leak proof containers. Spent acid to be stored over the ground tank and to be sent to TSDF.	should be allowed. Forced disposal of usable acid to TSDF will lead to increase in environmental load. PP therefore request that the condition may be suitably amended.	farm, and solvent transfer through pumps. Raw material and products should be stored in leak proof containers. ***Reuse/recycle of spent acid is permitted.***	
6	Point No. 13(xxi)	As committed, proper road network shall be made available for the use of villages outside the unit.	PP are willing to meet the expenses of laying road which could be used by the villagers to access their agricultural field. However the laying of road outside the factory area would require the approval of appropriate Statutory authority. PP have already made this submission vide our letter in reference 3 above. PP therefore request that the condition may be suitably amended.	As committed, proper road shall be made available for the use of village outside the unit *subject to permission from local authorities.* ***Necessary funds should be earmarked in CER budget.***	The committee **accepted** the amendment.

Deliberations in the EAC;

The EAC has made detailed deliberations on the proposal. The committee showed its strong displeasure over the PP/Consultant for delay in submission of the request for reconsideration of the conditions suggested by the earlier EAC. It was noted the earlier EAC has considered the proposal during February, 2020, and the PP has waited till receipt of EC, for submission of amendments in the earlier EACs recommendations.

The Committee was of the considered view that decision regarding reduction in fresh water, utilization of rain water etc have been taken by the earlier EAC based on detailed deliberations. The PP shall undertake a detailed techno feasibility study and submit report to Ministry/EAC for reconsideration, if required. Further, considering location of the Reserve forest in the study area, PP shall submit a study within 3 months on the impact of project on the reserve forests. The committee noted that there is no deterrence for the project proponent to evaporate the water to achieve Zero Liquid Discharge. However, no waste/treated water shall be discharged outside the premises.

The Committee after detailed deliberations recommended for amendment in the EC as under, subject to following, with all other terms and conditions remain unchanged:

(i) The PP shall undertake a detailed techno feasibility study regarding reduction in fresh water, utilization of rain water etc and submit report to the Ministry/EAC.

(ii) The PP shall submit a study report within 3 months on impact of project on the reserve forests.

(iii) Para 5 shall be read as:

> *"There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors within 10 km from the project site. Reserves Forests are located within 10 km from the project site. The AR Nadi is flowing at 6.08 km in SSE direction".*

(iv) Para 13(xiv) shall be read as:

> *"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. Raw material and products should be stored in leak proof containers. Spent acid to be stored over the ground tank and to be sent to TSDF or to be reused/recycled".*

(v) Para 13(xxi) shall be read as:

> *"As committed, proper road network shall be made available for the use of villages outside the unit, with permission from local authorities".*

The meeting ended with thanks to the Chair.

*****

ANNEXURE

GENERAL CONDITIONS

(i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

(ii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

(iii) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

(iv) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

(v) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.

(vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

(vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

(viii) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.

(ix) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.

(x) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.

(xi) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

***

Annexure-I

List of the Expert Appraisal Committee (Industry-3) members participated meeting during Video Conferencing (VC)

S.No.	Name of Members	Designation
1.	**Dr. Rajashekar P. Mandi** Director, School of Electrical & Electronics Engineering, REVA University, Bangalore - 64 E-mail: rajashekarmandi@yahoo.com	Chairman
2.	**Dr. Ashok Kumar Saxena, IFS** Bunglow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	**Prof. (Dr.) A.B. Pandit** Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Member
4.	**Prof. (Dr.) S. N. Upadhyay** Research Professor (Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail: snupadhyay.che@iitbhu.ac.in	Member
5.	**Prof. (Dr.) Suneet Dwivedi,** Professor in K Banerjee Centre of Atmospheric and Ocean Studies, University of Allahabad, Allahabad - 02 Uttar Pradesh, E-mail:dwivedisuneet@rediffmail.com /suneetdwivedi@gmail.com	Member
6.	**Prof. (Dr.) Arvind K. Nema** Professor, Department of Civil Engineering Indian Institute of Technology, Delhi, Hauz Khas, New Delhi -110 016 Email: aknema@civil.iitd.ac.in / aknema@gmail.com	Member
7.	**Shri Santosh Gondhalkar** 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
8.	**Prof. (Dr.) Pradeep Kumar Mishra** Department of Chemical Engineering & Technology, Indian Institute of Technology (BHU) Varanasi, Varanasi - 221005 Email: pkmishra.che@itbhu.ac.in / drpkm18@gmail.com	Member
9.	**Prof. (Dr.) Vijay S. Moholkar** Professor in Department of Chemical Engineering, Block-K (Academic complex), Room No. 111, Inidia Institute of Technology Gawahati, Gawahati – 781039 E-mail: vmohalkar@iitg.ernet.in	Member
10.	**Dr. Suresh Panwar** House No.4, Gayateri Green Society, NH 58 Bypass,Kankerkhera, Meerut, Uttar Pradesh Email-spcppri@gmail.com	Member

11.	**Shri Dinabandhu Gouda** Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032 E-mail: dinabandhu.cpcb@nic.in	Member
12.	**Shri Tukaram M Karne** Nagpur, Maharashtra E-mail: tmkarne@gmail.com	Member
13.	**Shri Sanjay Bisht** Scientist 'E', Room No. 517, Office of the Director General of Meteorology, Indian Meteorological Department, Musam Bhawan, Lodhi Road, New Delhi -110003 E-mail: sanjay.bist@imd.gov.in	Member
14.	**Dr. Uma Kapoor** Regional Director, CGWA, 18/11, Jamnagar House, Mansingh Road, New Delhi E-mail: Uma-cgwb@nic.in	Member
15.	**Dr. R. B. Lal,** Scientist 'E'/Additional Director Indira Paryavaran Bhawan, Ministry of Environment, Forest and Climate Change Room No. V-304, Vayu Wing, Jor Bag Road, New Delhi-110003 Telefax: 011-24695362 E-mail: rb.lal@nic.in	Member Secretary
MoEFCC		
16	**Dr. E.P. Nobi**	Research Officer
17	**Mr Ritin Raj**	Research Assistant
18	**Mr Kanika Teja**	Research Assistant

*****

Annexure-II

Approval of EAC Chairman

From: rajashekarmandi@yahoo.com
To: "Additional Director MoEFCC Dr R B LAL" <rb.lal@nic.in>
Sent: Saturday, November 28, 2020 2:02:57 PM
Subject: Re: Minutes Corrected with inputs of Chairman

Dear Dr. R.B. Lal,

The minutes is in order and approved.

With warm regards,

Dr. Rajashekar P. Mandi
Chairman, EAC (Industry -3)
Director,
School of Electrical & Electronics Engineering,
REVA University,
Rukmini Knowledge Park,
Kattigenahalli, Yelahanka,
Bangalore - 560 064,

***