GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-2 SECTOR)
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Dated: 03.08.2022

Meeting ID: IA/IND2/13295/27/07/2022

MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE

(INDUSTRY-2 SECTOR PROJECTS)

HELD ON 27th - 28th July, 2022

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

(i) Opening Remarks by the Chairman: The Chairman made hearty welcome to the Committee members and appreciated the efforts of the Committee. After opening remarks, the Chairman opened the EAC meeting for further deliberations.

(ii) Confirmation of minutes: The EAC, having taken note that final minutes were issued after incorporating comments received from the EAC members on the minutes of its Meeting (ID: IA/IND2/13281/07/07/2022) held during 07th - 08th July, 2022 conducted through Video Conferencing (VC), confirmed the same. After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

(iii) 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: -

27th July, 2022 (Wednesday)

Agenda No. 1

Expansion of Distillery unit from 120 KLPD to 510 KLPD located at Sy. No. 40/1, 40/2, 40/3, 40/4, 40/5, 40/6, 41/1, 41/2 , 41/3,

41/4, 41/5, 41/6, 42, 47(P), 50/1(P), 41/1, 47/2, 49/1, 49/2, 62/2, 53/5A/2, 53/5B, 53/5K, 53/5D, 53/5E, 53/5G, 53/5, Village Chatnahalli, Taluk Hirekerur, District Haveri, State Karnataka by M/s. GM Sugars & Energy Limited – Re-consideration of Environment Clearance

[IA/KA/IND2/258946/2022, IA-J-11011/77/2017-IA-II(I)]

The proposal was earlier considered by the Expert Appraisal Committee (Industry-2) in its meeting held during 08th - 09th June, 2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13295/27/07/2022) held on 27th -28th July, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

Sl. No.	ADS by MOEFCC	Reply of PP
1	Prior EC is for 120 KLPD molasses based distillery whereas now proposal is for 120 KLPD grain based mode for 170 days and 510 KLPD cane juice/syrup mode for 160 days. As such, total capacity becomes 630 KLPD capacity	The distillery will be operated on cane juice as a feed (for 170 days) only during season when cane is available to produce Ethanol to the maximum capacity of 510 KLD and grain as a feed (for 160 days) during off season to produce ethanol of 120 KLD. Hence, the production capacity can't be total and maximum installed capacity of 510 KLD for producing Ethanol shall be considered as an upper limit. Distillation unit installed for achieving 510 KLD of Ethanol will be utilised for producing 120 KLD of Ethanol on grain mode
2	Commitment that fresh water requirement shall be 4 KL/KL for grain based mode and 2.5 KL/KL for sugarcane juice/syrup.	The water balance has been reworked considering the fresh water demand of 4 KL/KL for Grain based mode and 2.5 KL/KL for Sugarcane juice/Syrup mode. Undertaking to this effect has been submitted and is also updated in Revised EMP report.
3	NOC shall be obtained from	NoC from Karnataka Neeravari

	Irrigation department as canal is passing through the project site.	Nigam Limited has been obtained vide letter No: AEE/KNNL/UTP/SDRH/NOC/2022-23/95 dated 05.07.2022.
4	Clarification regarding surface water monitoring results indicating BOD level of 47 mg/l as discussed in EAC. Latest surface water analysis Results shall be submitted	As per the EAC suggestions the Surface water samples in Tungabhadra River upstream and downstream were collected and analysed. The surface water quality analysis reports and photographs were submitted.
5	Clarify/recheck regarding GLC values without air pollution control equipment, prescribed standards as 50mg/Nm^3 and stack height shall be calculated separately for both the boilers and GLC shall be revised based on recalculated parameters.	Separate stack height calculations are calculated both the boilers and GLC values are revised for without air pollution control equipment, prescribed standards as 50mg/Nm^3.
6	Revised cost earmarked towards CER indicating name of villages. Also, specific activities with villages to be mentioned.	The Industry shall allocate Rs. 11.04 Crores for Existing (120 KLD) and Expansion (510 KLD) proposal. Revised CER Cost breakup with action plan breakup is submitted**.**
7	Revised total cost of EMP and recurring cost per annum as it is too less as per project capacity.	Earlier EMP cost was 780.14 Lakhs as Capital cost and 97.52 Lakhs. Revised EMP Cost is 949.89 Lakhs as Capital cost and 98.52 Lakhs. Breakup details of Revised EMP cost were submitted**.**
8	Details of configuration of ETP, capacity as well as flow diagram.	Water Treatment plant of capacity 1300 KLD with Clari-flocculator followed by Pressure Sand Filter, Activated Carbon Filter followed by Reverse Osmosis (RO) and de-mineralisation plant will be established to treat the River water before taking to the process. The Flow diagram of WTP has been submitted**.**
9	Filter press shall be installed instead of sludge drying beds.	As per the suggestions Filter press will be installed for treatment of sludge from CPU/ETP & STP.
10	Noise data presented in the meeting seems to be wrong.	As per the EAC Observations a fresh Noise monitoring was carried

	Fresh data to be incorporated.	out on 20.06.2022 at 8 locations in the study area and the noise level results & photographs are updated in EMP**.**

EAC found the above information satisfactory.

The Project Proponent and the accredited Consultants M/s. Environmental Health and Safety Consultants Pvt. Ltd. (NABET certificate No. NABET/EIA/1821/SA 0123 and validity 22nd August, 2024) 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 Distillery unit from 120 KLPD to 510 KLPD under EBP Scheme located at Sy. Nos. 40/1, 40/2, 40/3, 40/4, 40/5, 40/6, 41/1, 41/2 , 41/3, 41/4, 41/5, 41/6, 42, 47(P), 50/1(P), 41/1, 47/2, 49/1, 49/2, 62/2, 53/5A/2, 53/5B, 53/5K, 53/5D, 53/5E, 53/5G, 53/5, Village Chatnahalli, Tehsil Hirekerur, District Haveri, State Karnataka by M/s. GM Sugar & Energy Limited.

As per EIA Notification 2006 (Schedule 5 (g) Category A); however, as per in the MoEFCC Notification S.O. 345(E), dated the 17th January, 2019, notification number S.O. 750(E), dated the 17th February, 2020, S.O. 980 (E) dated 02nd March, 2021 & S. No. 2339(E) 16th June, 2021, a special provision in the EIA Notification, 2006 "Expansion of sugar manufacturing units or distilleries for production of ethanol, having Prior Environment Clearance (EC) for existing unit, to be used completely for Ethanol Blended Petrol (EBP) Programme only, as per self-certification in form of an affidavit by the Project Proponent, shall be appraised as category 'B2' projects.

The details of products and capacity as under:

S. No.	**Name of unit**	**Name of the product/by-product**	**Existing Production capacity**	**Additional production capacity**	**Total production capacity**
1	Distillery (Molasses/grain)	Ethanol	120 KLPD (molasses based)	510 KLPD (Syrup based during season) or	510 KLPD (Syrup based during season) or 120 KLPD (Grain

				120 KLPD (Grain based during off season)	based during off season)
2	Co-generation power plant fordistillery	Power	50 MW	-	50 MW
4	DWGS dryer	DDGS	-	98 TPD	98 TPD
5	Fermentation unit	Carbon di-oxide	-	• 315 TPD – Cane Juice/Syrup Mode • 320 TPD – Grain Mode	• 315 TPD – Cane Juice/Syrup Mode • 320 TPD – Grain Mode
6	ATFD	Conc. spent wash powder	-	Potash powder - 110 TPD (Cane Juice/Syrup Mode)	Potash powder - 110 TPD (Cane Juice/Syrup Mode)

**Note: Distillery will be operated on cane juice as a feed (for 170 days) only during season when cane is available to produce Ethanol to the maximum capacity of 510 KLD and grain as a feed (for 160 days) during off season to produce ethanol of 120 KLD. Hence, the production capacity shall not exceed installed capacity of 510 KLD. Distillation unit installed for achieving 510 KLD of Ethanol will be utilized for producing 120 KLD of Ethanol on grain mode.*

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 10000 TCD Sugar Plant, 120 KLD Distillery unit and 50 MW Cogeneration Unit vide file No. J-11011/77/2017-IA-II (I) dated 02.02.2022. The industry is not yet established due to financial reasons on ground hence Certified Compliance report of existing EC & Consent to Operate (CTO) are not applicable to the project.

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021.No litigation is pending against the project.

Total plant area after expansion will be 101.17 Ha (250 Acres) (existing

plant area 94.36 Hectares and additional land required 6.81 Hectares for proposed capacity) out of which 228 Acres 17 Guntas is KIADB allotted land and 21 Acres 23 Guntas of private land is under possession of the company and converted to industrial use. Out of the total plant area 34.13 Hectares i.e. 34% of the total plant area will be developed under greenbelt & plantation within the plant premises. The estimated project cost is Rs. 504.04 Crores. Capital cost of EMP would be Rs. 9.49 Crores and recurring cost for EMP would be Rs. 0.98 Crores per annum. Industry proposes to allocate Rs. 5.04 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 300 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forests/protected forests: Malebennur Reserved Forest is at a distance of 5.71 Kms in South West direction. Water Bodies: Tungabhadra River is at a distance of 1 Km in East direction for which NoC from Karnataka Neeravari Nigam Limited has been obtained vide letter No: AEE/KNNL/UTP/SDRH/NOC/2022-23/95 dated 05.07.2022 stating that "Upper Tunga Main Canal from Chainage 101 Km to Chainage 103 Km is passing within the project site, No Object Certificate issued for utilization of land for industrial purpose with a condition that, the canal should not be affected and there shouldn't be problem for day to day maintenance."

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.68 µg/ m^3, 0.29 µg/ m^3 and 0.86 µg/ m^3 with respect to PM_{10}, SO_2 and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement for Cane Juice/Syrup based Ethanol production @ 160 days will be 1260 KLD @ 2.5 KL/KL and total fresh water requirement for Grain based Ethanol production @ 170 days will be 480 KLD @ 4 KL/KL and will be met from Tungabhadra River. NOC has been obtained from Water Resource Department, Vikasa Souda vide letter no. WRD 67 MMB 2020 dated 25.03.2021. Existing effluent generation is 500 m^3/day from sugar mill which is treated through ETP of capacity 500 m^3/day. Proposed effluent generation will be 5300 m^3/day from cane juice based ethanol production and 1473 m3/day from grain based ethanol production from distillery which will be treated through proposed 2 Nos of

Condensate Polishing Unit of capacity 2000 m^3/day and 3300 m^3/day respectively. In molasses based operation, spent wash generated from the analyzer column during distillation will be concentrated in Multi Effect Evaporator and concentrated spent wash will be bio-methanated and converted into powder form by spray dryer (ATFD) technology. In grain based operation, raw stillage (Decantation + wet cake) of 279 KLPD will be sent to MEE followed by dryer to produce DDGS. Domestic waste water will be treated in STP of capacity 15 KLD. The plant will be based on Zero Liquid discharge system and treated water will not be discharged outside the factory premises.

Total Power requirement after expansion will be 8.98 MW which will be met from the proposed 50 MW co-generation power plant. Excess power of 37.02 MW will be sold to Power grids. 160 TPH & 100 TPH bagasse/ coal fired boilers will be installed. ESP with a stack height of 85 m will be installed with the proposed boilers for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3. Industry has proposed 1 x 1500 KVA & 1 x 250 KVA DG sets which will be used as standby during power failure and stack height (10 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- ESP with a stack of height of 85 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boilers.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2 (310/315 TPD) generated during the fermentation process will be will be collected by utilizing CO_2 scrubbers and sold to authorized vendors/collected in installed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- In molasses based operation, concentrated spent wash (177 m^3/day) will be converted to powder by spray dryer to be used as manure.
- In grain based operation, DDGS (Distilled Dried Grains Stillage) (98 TPD) will be sold as cattle feed.
- Boiler ash (30 TPD) will be supplied to brick manufacturers.

- Used oil (0.3 Kiloliters per annum) will be sold to authorized recyclers.
- CPU sludge (0.030TPD) and STP Sludge (0.06TPDwill be used as manure.
- Bagasse (1843 TPD) will be used as fuel for boilers.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self- certification in the form of notarized affidavit declaring that the proposed expansion capacity of 510 KLPD will be used for manufacturing fuel ethanol only.

During deliberations, EAC discussed following issues:

- As per Karnataka Irrigation dept issued NOC, the canal should not be affected and there shouldn't be problem for day to day maintenance. Also, no discharge shall be done in the canal adjacent to plant site as directed by EAC.
- CER budget shall be spent before commissioning of plant operation.
- PP shall ensure that GLC values submitted are as per prescribed standards of pollutants.
- Filter press shall be installed instead of sludge drying beds

The committee was satisfied with the response provided by PP on above information.

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 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 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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the

issues in the study area. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 510 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(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). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the

premises. STP shall be installed to treat sewage generated from factory premises. As per NOC issued by Karnataka Neeravari Nigam Limited, the canal should not be affected and there should not be problem for day to day maintenance. No discharge shall be done in the canal as per EAC directions.

(iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(v). Total fresh water requirement shall not exceed 4 KL/KL for grain based mode and 2.5 KL/KL for sugarcane juice/syrup and will be met from Tungabhadra River. No ground water abstraction is permitted. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). In molasses based operation, spent wash will be concentrated in Multi Effect Evaporator and concentrated spent wash will be bio-methanated and converted into powder form by spray dryer (ATFD) technology. In grain based operations, the spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP/bag house shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for biomass as fuel. 85 metre high stack shall be provided with both the boilers having 160 TPH and 100 TPH Capacity. Boiler ash will be supplied to nearby brick manufacturers in covered vehicles only. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(vii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. 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. Firefighting system shall be as per the norms. PESO certificate shall be obtained.

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

(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 @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Additional 10 m wide greenbelt development shall be developed on both sides of the canal.

(xiii). PP proposed to allocate Rs. 11.04 Crores for existing and expansion proposal towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking shall be allowed outside on public places. Out of the total project area, 20% shall be allotted solely for parking purposes with facilities like rest rooms etc.

(xv). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvi). 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.

(xvii). 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. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

(xviii). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 2

Proposed Expansion of Sugarcane crushing capacity from 5,000 TCD to 10,000 TCD to augment the molasses/sugarcane syrup requirement of the distillery unit located at Gangapur Village, Mundargi Taluk, Gadag District, Karnataka State by M/s. Vijayanagar Sugars Private Limited - Consideration of Environment Clearance

[IA/KA/IND2/ 277372/2022, J- 11011/366/2 007-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Samrakshan (NABET certificate no. NABET/EIA/1992/SA 0138 (Rev. 01) and validity 20th October, 2022) 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 sugar mill from 5,000 TCD to 10,000 TCD located at Village Gangapur and Shiranahalli, Tehsil Mundargi, District Gadag, State Karnataka by M/s. Vijayanagar Sugar Private Limited.

As per EIA Notification 2006 (Schedule 5 (g) Category A);however, as per MoEF&CC Notification S.O. 345(E), dated the 17th January, 2019, notification number S.O.750(E), dated the 17th February, 2020, S.O. 980 (E) dated 02nd March, 2021 & S. No.2339(E) 16th June, 2021, a special provision in the EIA Notification, 2006 "Expansion of sugar manufacturing units or distilleries for production of ethanol, having Prior Environment Clearance (EC) for existing unit, to be used completely for Ethanol Blended Petrol(EBP) Programme only, as per self-certification inform of an affidavit by the Project Proponent, shall be appraised as category'B2'projects."

3. The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Existing Production capacity	Additional production capacity	Total production capacity
1	Co-generation power plant for sugar mill	Power	30 MW	Nil	30 MW
2	Sugar mill	Sugar	5000 TCD	5,000 TCD	10,000 TCD

Ministry has issued Environmental Clearance to the existing sugar industry for a capacity of 5000 TCD vide File No. J-11011/366/2007-IA-II(I) dated 15.04.2008. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEF&CC, Bangalore vide File no-EP/12.1/548/KAR/1686 dated 31.03.2022. It was noted that all the conditions have been complied as per CCR issued by IRO.

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June,2021. It was informed that no litigation pending against this proposal.

Total existing plant area is 53.8232 Ha. No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area 30.35 Hectares i.e.56.4% of the total plant area has already been developed as greenbelt & plantation and the same will be maintained in and around plant premises. The estimated project cost for expansion of sugar mill is Rs. 100 Crores. Capital cost of EMP for sugar mill expansion would be Rs. 32.76 Crores and recurring cost for EMP would be Rs. 8.77 Crores per annum. Industry proposes to allocate Rs. 1.05 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 310 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forests/protected forests: Kappatagudda Reserve Forest at a distance of 3 km in West direction. Water bodies: Irrigation canal is at a distance of 0.5 Km in west direction, River Tungabhadra is at a distance of 2 km. Irrigation canal is at a distance of 0.5 Km for which NOC has been obtained from State Irrigation Department vide letter no. NIL dated 06/07/2022 stating that "as on today there is no evidence of discharge of treated or untreated effluent into the canal as the company has adequate treated effluent storage facility. However, the industry should make all the necessary plans to recycle and reuse treated effluent for the proposed expansion of plant. We have no objection to proposed expansion of pant in their own premises."

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 14.51 µg/m3,1.38 µg/m3 and 2.98 µg/m3 with respect to PM_{10}, SO_2 and NO_X. The

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

Total fresh water requirement after expansion of sugar mill will be 324 m3/day which will be met from Tungabhadra River and from ground water. NOC has been obtained by Government of Karnataka vide letter no. WRD/151/MTP/2018 dated 24.07.2019 for drawing water from Tungabhadra River and vide letter no. DGO/GD/Gadag/Reg. NOC(NOC)2019.20/356 dated 12/02/2020 for drawing water from borewells. Existing effluent generation is 690 m3/day from sugar mill which is treated through Effluent Treatment Plant of capacity 1000 m3/day. Proposed effluent generation (process cooling tower, co-generation power plant cooling tower, boiler, DM plant and process condensate) will be 2655 m3/day from sugar mill which will be treated through proposed Condensate Polishing Unit of capacity 2700 m3/day. Treated effluent from sugar mill will be recycled to process and cooling tower. The excess treated effluent will be used for greenbelt development and irrigation purpose in sugarcane R&D farm within the premises only. Domestic waste water will be treated in STP of capacity 65 KLPD. The plant will be based on Zero Liquid discharge system and treated water will not be discharged outside the factory premises.

Total power requirement of sugar mill after expansion will be 21 MW which will be sourced from existing 30 MW co-generation power plant in sugar mill and up gradation of distillery captive power plant of 12 MW. During off-season, power will be imported from Hubli Electricity Supply Company Limited (HESCOM) - NOC has been obtained vide letter no. KRED/04/VSL/2009/1402 dated 17.05.2011. Existing sugar mill and distillery has 120 TPH bagasse fired boiler and 32 TPH slop and coal fired incineration boiler. 32 TPH boiler will be upgraded to 40 TPH. One 20 TPH coal/ bagasse fired incineration boiler and one 60 TPH boiler will be installed in sugar mill. Electrostatic Precipitator with a stack of height of 80 m and wet scrubber with a stack height of 45 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3. Electrostatic Precipitator with a stack of height of 30 m will be installed for controlling the particulate emissions with in the statutory limit of 150 mg/Nm3 for the proposed boiler in sugar mill. Industry has existing 2x1250 KVA and 1x 250 KVA DG set and 1x 1250 KVA DG set is proposed which will be used as stand by during power failure and stack height (30 m AGL for 1250 KVA and 5m ARL for 250 KVA) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- Electrostatic Precipitator with a stack of height of 80 m is installed with 120 TPH bagasse fired boiler and wet scrubber with a stack height of 45 m is installed with the existing incineration boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm3. Electrostatic Precipitator with a stack of height of 30 m will be installed for controlling the particulate emissions with in the statutory limit of 150 mg/Nm3 for the proposed boiler in sugar mill.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.

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

- Boiler ash (25 TPD) and fly ash (15 TPD) is being/will be given to brick manufacturers/farmers to be used as manure.
- Used oil (0.4 Kilolitres per annum) and Soaked cotton waste 0.5 TPA is being/will be sold to authorized recyclers.
- Lime sludge (12 TPD)and ETP Sludge (10 TPD) is being/will be used as manure.
- Press mud (300 TPD)will be used as a raw material for composting and supplied to farmers to be used as manure.
- Bagasse(3200 TPD) will be used as fuel in boilers.

As per Notification S.O2339(E),dated 16th June,2021,PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of sugar cane crushing capacity from 5000 TCD to 10,000 TCD to augment the requirement of sugar syrup for production of ethanol of capacity 300 KLPD will be used for manufacturing fuel ethanol only.

During deliberations, EAC discussed following issues:

- Commitment that product from expansion of 5000 TCD to 10000 TCD shall only be used for ethanol production.
- Greenbelt development along the canal and commitment that no discharge will be done in canal. Greenbelt development shall be done

in open area also as shown in plant layout. Additional greenbelt shall be developed towards village. 33% greenbelt shall be maintained and sugarcane cultivation shall not be considered in greenbelt.

- PP reported that sugar mill will be based on "Zero Liquid Discharge". Treated effluent from sugar mill will be recycled to process and cooling tower. The excess treated effluent will be used for greenbelt development and irrigation purpose in sugarcane R&D farm within the premises only.
- The RCC spent wash tank located in the small patch of land south of canal shall be shifted towards the main plant north of canal to dispel any possibility of contamination of canal water.
- The small patch of separate land in South West will be developed as green belt.
- Wet scrubber shall be replaced by ESP in existing 32 TPH boiler which will be upgraded to 40 TPH incineration boiler and this shall be done while doing upgradation only.
- Area for parking shall be increased from 17% to 20%.
- Project cost is Rs. 100 Crores and EMP is less whereas replacing wet scrubber with ESP shall increase the EMP cost. Revised cost earmarked towards EMP shall be submitted. EMP cost is increased to Rs. 32.76 Crores and recurring cost per annum is increased to Rs. 8.77 Crores.
- Increase cost of CER from Rs. 0.6 Crores to Rs. 1.05 Crores. Also include villages name and school upgradation and solar power distribution.
- Species of greenbelt shall be developed after consultation from DFO.
- Incremental increase of all boilers have been considered or not and clarify regarding usage of fuel. Annual average has been considered instead of 24 hourly standards.
- STP shall be installed. PP has agreed to install 65 KLPD STP.
- Filter press shall be installed instead of sludge drying beds.
- EMC head shall report to head of the organisation.
- MOU with brick manufacturers shall be submitted.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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

examined the proposal submitted by the Project Proponent in desired form along with the 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 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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the expansion capacity of sugar cane crushing capacity from 5000 TCD to 10,000 TCD to augment the requirement of sugar syrup for production of ethanol of capacity 300 KLPD will only be used for fuel ethanol manufacturing as per self-certification in form of a

notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(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). Treated effluent from sugar mill will be recycled to process and cooling tower. The excess treated effluent will be used for greenbelt development and irrigation purpose in sugarcane R&D farm within the premises only. Domestic waste water shall be treated in STP. Treated effluent shall not be discharged outside the premises.

(iv). Total Fresh water requirement shall not exceed 324 m3/day and will be met from Tungabhadra River and ground water. Prior permission shall be obtained for ground/surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(v). ESP shall be installed with the boiler for controlling the particulate emissions within the statutory limit. Wet scrubber shall be replaced by ESP in existing boiler of 32 TPH to be upgraded to 40 TPH to achieve 50 mg/Nm^3. The 20 TPH coal/bagasse fired incinerator boiler and the 60 TPH coal /bagasse fired boiler shall have Bag filter as Air pollution control device and stack height of 30 m and 60 m respectively. The boiler using coal as fuel shall meet particulate matter emissions of 30 mg/Nm^3 and emissions of SO_2 and NO_X shall be below 100 mg/Nm^3.Boiler ash is being/will be given to farmers as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement

from solar power by generating power inside plant premises/adjacent/nearby areas.

(vi). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. 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. Firefighting system shall be as per the norms. PESO certificate shall be obtained.

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

(x). 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.

(xi). The green belt of at least 5-10 m width shall be developed in nearly 30.35 Ha (56.39%) of the total project area with tree density of @2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. There is an irrigation canal passing through the plant. 20 m wide greenbelt development shall be developed on both sides of the canal and 20 m wide greenbelt shall be

developed in the NE direction in the plant towards village Gangapur. Sugarcane cultivation shall not be considered in greenbelt.

(xii). The RCC spent wash tank located in the small patch of land south of canal shall be shifted towards the main plant north of canal to dispel any possibility of contamination of canal water.

(xiii). The small patch of separate land in South West shall be developed as green belt.

(xiv). PP proposed to allocate Rs. 1.05 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(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. Out of the total project area, 20% shall be allotted solely for parking purposes with facilities like rest rooms etc.

(xvi). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvii). 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.

(xviii). 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. EMC head shall report to Vice President/Director Operation.

(xix). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 3

Expansion of sugar factory from 3500 TCD to 12,000 TCD, cogeneration plant from 30 MW to 65 MW & molasses distillery from 90 KLPD to 200 KLPD (based on B/C heavy molasses/ Cane Juice) by M/s. Venkateshwara Power Project Ltd – Consideration of Environmental Clearance

[IA/KA/IND2/ 66134/2016, J- 11011/179/2016- IA II(I)]

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET certificate no. NABET/EIA/1821/RA 0135 and validity 04th October, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for Environmental Clearance to the expansion project of sugar mill from 3,500 TCD to 12,000 TCD, Co-generation Power Plant from 30 to 65 MW & molasses based distillery from 90 KLPD to 200 KLPD located at Village-Bedkihal, Tehsil-Chikodi, District- Belgaum , State- Karnataka by M/s. Venkateshwara Power Project Ltd. (VPPL).

As per the provision of "EIA Notification No. S. O. 1533 (E)" dated 14.09.2006 as amended vide Notification No S.O. 3067 (E); dated 13.06.2019, the proposed expansion project is listed as activity 5 (j)& 1(d) - Sugar & Cogen respectively; Category 'B' at State Level & 5(g)(i)(ii)- Distillery at Centre Level. As the Sugar, Cogen & Distillery projects are

located in same premises in integrated project complex, the entire proposal of expansion of Sugar, Cogen and Distillery is being submitted at 'Ministry of Environment, Forests and Climate Change (MoEFCC); New Delhi' for grant of EC.

The details of products and capacity as under:

No.	Unit	Product/By Product	Existing Quantity (MT/D)	Proposed Quantity (MT/D)	Total Quantity (MT/D)
1	Sugar mill	Sugar (12%)	420	1020	1440
		Bagasse (30%)	1050	2550	3600
		Molasses (4%)	140	340	480
		Press Mud (4%)	140	340	480
2	Co-generation Power Plant	Power	30	35	65
3	Distillery Unit	Ethanol/ENA/RS	90	110	200
		Carbon Di-oxide	68	83	151
		Fusel Oil	0.38	0.47	0.85

Ministry has issued Environmental Clearance to the existing capacity of 30 MW Cogeneration Power Plant vide File No. J 13012/34/2009-IA-II(I) dated 09.09.2010 & 90 KLPD Molasses based Distillery vide File No. J-11011/179/2016-IA-II(I) dated 28.11.2017. Certified Compliance report along of existing EC has been obtained from Integrated Regional Office, MoEFCC, Bangalore vide File no- EP/12.1/22/2017-18/KAR&EP/12.1/12/KAR dated 23.06.2022 and status has been reported as satisfactory wherein no partial/non-compliances are observed. Existing 3500 TCD Sugar Factory is operational on the basis of Consent To Operate because Environmental Clearance is not applicable. Latest CTO (Air and Water) has been issued on 23.09.2021 and is valid till 30.06.2026. Certified CTO compliance report has been issued dated 11.04.2022 from RO, KSPCB; Chikodi.

Standard Terms of Reference have been obtained vide F. No. J-11011/179/2016- IA II(I) dated 02.01.2021. It was informed that no litigation is pending against the proposal.

Public Hearing for the proposed project had been conducted by the Karnataka Pollution Control Board on 01.09.2021 at Project Site chaired by

Additional District Magistrate, Belgaum. The main issues raised during the public hearing and their action plan:

Regarding employment, PP informed that about 550 workers are working under existing sugar factory, Cogen plant and distillery unit. Under expansion project, additional 50 workers will be employed.

Regarding fresh water requirement, PP informed that total fresh water requirement after expansion of sugar mill will be 233 CMD and 436 CMD for distillery which will be met from Dudhganga river. Maximum water will be recycled, reused within process to decrease fresh water requirement for both the units.

Regarding waste management, PP replied that in sugar mill, ETP sludge 1 T/D will be used as manure. Boiler ash will be used in brick making unit. In distillery, boiler ash 100 T/D will be used in brick making unit. Yeast sludge and CPU sludge 33 and 40 T/D will be used as manure. Under expansion unit Rs. 10 Lakh shall be spent on solid and hazardous waste management with O & M cost of Rs. 2 Lakh. Timeline- Year 2022-23; after grant of EC.

Regarding air and water pollution, ETP will be installed/upgraded, spent wash will be concentrated and incinerated, for controlling air pollution, ESP shall be installed with the proposed boiler. Under expansion unit - Air Pollution- 40 Cr, Water Pollution -15 Cr.

Total existing plant area is 16.94 Ha. No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area, 4.13 Hectares i.e. 24% has been developed under greenbelt/plantation. Remaining plantation is done on lease land area of 1.52 ha. i.e. 9% adjacent to industry. The estimated project cost is Rs. 280 Crores. Capital cost of EMP would be Rs. 56.40 Crores and recurring cost for EMP would be Rs. 2.27 Crores per annum. Industry proposes to allocate Rs. 2.4 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 600 persons as direct & indirect.

There is no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Reserve forests/protected forests, etc. Water bodies: Vedganga River is at a distance of 4 Km in West direction & Dudhganga River is at a distance of 5 Km in North direction.

Conservation plan for schedule I species has been submitted to Deputy Conservator of Forests, Karnataka dated 17th March, 2022 and a budget of Rs. 50 Lakhs has been earmarked for the same.

Ambient air quality monitoring was carried out at 8 locations during 1st March, 2019 to 31st May, 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (55.5 – 69.2 µg/m^3), $PM_{2.5}$ (18.9 - 26 µg/m^3), SO_2 (18.8 – 30.6 µg/m^3) and NO_X (24.9 – 34.7 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.62 µg/m^3, 0.90 µg/m^3, 10.2 µg/m^3 and 3.78 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2 and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 669 CMD which will be met from Dudhganga River. NOC has been obtained by Irrigation Dept., Karnataka vide letter no. C2/2017-18/1702 dated 26.04.2017. Effluent generated after expansion of sugar & cogeneration power plant will be 915 CMD which is being/will be treated in existing ETP to be upgraded under expansion. Distillery effluent (1628 CMD - lees, MEE condensate, cooling & boiler blowdown, lab & wash effluent) will be treated in CPU. Raw spent wash (1600 CMD) will be concentrated in MEE and concentrated spent wash (334 CMD) will be incinerated in boiler. Domestic effluent generated after sugar, cogeneration power plant & distillery expansion will be 82 CMD and will be treated in proposed STP of 100 KLPD capacity. The plant is being/will be based on Zero Liquid discharge system and treated effluent/water will not be discharged outside the factory premises.

Total power requirement of sugar, cogeneration power plant & distillery after expansion will be 12.5 MW which will be sourced from existing 30 MW co-generation power plant. Existing sugar mill has 70 TPH & 90 TPH bagasse fired boilers. Wet Scrubbers with stack height 65 m & 75 m are installed. Wet scrubbers will be replaced by Electrostatic Precipitator for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3. Existing distillery unit has 30 TPH coal fired boiler. Electrostatic Precipitator with stack height of 70 m is installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3. Under sugar mill expansion new 140 TPH bagasse fired boiler will be installed. Electrostatic Precipitator with a stack height of 80 m will be installed. Under distillery expansion new 30 TPH coal and spent wash fired boiler will be installed. Electrostatic Precipitator

with a stack height of 70 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boiler. Industry has existing 4 nos. of DG sets with capacity 1x200 KVA, 2x250 KVA, 1x 500 KVA which are used as standby during power failure and stack height 6 M (ARL) is provided as per CPCB norms. No new DG set will be installed under expansion unit.

Details of Process emissions generation and its management:

- CO_2 (219 TPD) is being/will be bottled and supplied to manufacturers of beverages /secondary uses.
- ESP is being/will be installed with all the existing and proposed boilers for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.

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

- ETP sludge (1 TPD) is being/will be used as manure.
- Boiler ash (61 TPD from sugar boiler and 100 TPD from distillery boiler) is being/will be used for brick manufacturing in brick manufacturing plant inside plant premises.
- Yeast sludge (33 TPD) & CPU sludge (40 TPD) is being/will be used as manure.
- Used Oil (3 MT/annum) is being/will be given to authorized vendors.

During deliberations, EAC noted that dominant wind direction is NE whereas no station has been taken in SW direction. Correct siting of air quality monitoring stations has not been done. Hence, EAC directed the consultants to conduct air quality monitoring for additional two stations in downwind direction for one month and submit the data for further consideration. Further, EAC discussed following issues:

- Certified compliance report and Greenbelt development was discussed. PP committed to develop greenbelt and complete before 31.12.2022.
- Commitment that Zero liquid discharge shall be maintained for sugar as well as distillery unit.
- Justification to be provided for high concentration of sulphur dioxide

concentration in the background level of ambient air.
Also additional measures to be taken to control SO_2 emissions shall be submitted.

- Revised GLC shall be submitted as predicted concentration of the pollutants are high. Accordingly, pollution control measures such as APCD as well as increase in stack height shall be taken.
- Commitment to be madethat wet scrubbers with existing boilers shall be replaced with ESP to achieve prescribed standards.
- Clarification for all exceeding limits including BOD levels in baseline results of surface water quality.
- Qualitative analysis of ground water samples taken from piezometer wells installed in the plant premises shall be submitted.
- Details of ash management plan taking into account biomass ash, spent wash incineration and coal ash.
- 10% of total power requirement shall be sourced from renewable energy.
- Undertaking for all new updations/modifications done in the proposal after document submission in PARIVESH portal.
- Commitment for uniform greenbelt development in plant premises.
- Undertaking to abide by the commitments given in public hearing. Time bound action plan to be submitted and cover all points in CER activities and budget.

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Agenda No. 4

Proposed 80 KLPD Grain based Ethanol Plant along with 2.0 MW Cogeneration Power Plant located at Village Kokodi, Tehsil Kondagaon, District Kondagaon, Chhattisgarh by M/s. Maa Danteshwari Maize Processing & Marketing Cooperative Society Limited – Consideration of Environment Clearance

[IA/CG/IND2/282175/2022, IA-J-11011/249/2022-IA-II(I)]

The Project Proponent and the accredited Consultant J.M. EnviroNet Pvt Ltd. (NABET certificate no. NABET/EIA/2023/RA 0186 and validity till 7th February, 2023) made a detailed presentation on the salient features of the

project and informed that the proposal is for environmental clearance to the project for proposed 80 KLPD Grain based Ethanol Plant along with 2.0 MW Co-generation power plant (biomass /coal based) located at Village Kokodi, Tehsil Kondagaon, District Kondagaon, State Chhattisgarh by M/s. Maa Danteshwari Maize Processing & Marketing Cooperative Society Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/ by-product	Production capacity
1.	Distillery	Ethanol	80 KLPD
2.	Co-generation power plant	Power	2.0 MW
3.	DWGS dryer	DDGS	37 TPD
4.	Fermentation unit	Carbon di-oxide	61 TPD

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that no litigation is pending against the project.

Total land area required is 7.37 hectares. Greenbelt will be developed in total area of 2.43 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 137.895 Crores. Capital cost of EMP would be Rs. 25.0 Crores and recurring cost for EMP would be Rs. 2.85 Crores per annum. Industry proposes to allocate Rs. 1.3 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 145 persons as direct.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km

distance. Reserve forests: Chikhalputi RF is at a distance of 0.5 km in ENE direction, Baniyagaon RF is at a distance of 2.5 km in SSW direction, Makri RF is at a distance of 6.0 km in ENE direction, North Golawand RF is at a distance of 8.5 km in west direction. Water bodies: Bolari Nala is at a distance of 3.0 Km in SSW direction, Narangi River is at a distance of 7.5 km in WSW direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.420 µg/m3, 0.168 µg/m3, 0.673 µg/m3 and 0.841 µg/m3 with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 480 m^3/day which will be met from ground water. Application has been submitted to CGWA vide letter no. 21-4/6484/CT/IND/2022 dated 20.06.2022. Effluent (Process Condensate/DM Plant reject/CT blowdown etc.) of 430 m3/day will be treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 550 KLPD. Raw stillage (491 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 50 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 1.65 MW and will be met from proposed 2.0 MW co-generation power plant. 20 TPH biomass /coal fired boiler will be installed. ESP with a stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 for the proposed boiler. 1x25 kVA DG set will be used as standby during power failure and stack height (1 m ARL) will be provided as per CPCB norms to the proposed DG set.

Details of Process emissions generation and its management:

- ESP with a stack height of 30 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.

- CO2 (61 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (37 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (21 TPD) will be used for brick manufacturing and supplied to nearby brick manufacturers in covered vehicles only.
- Used oil (0.2 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (0.2 TPD) and STP Sludge (20 kg/day) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 80 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that the total land of 7.37 Hectares is under possession of the company and allotted by Collector and District Magistrate Court, District Kondagaon (CG) vide Letter no. K/Reader/03/A-20(3)/2018-19 dated 20.05.2019 for establishment of industry. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Status of Land use conversion to industrial use. PP informed that land use conversion has been completed.
- Fresh water consumption per KL of ethanol production. PP informed that it will be less than 4 KL/KL for ethanol production.
- Occupational Health & Safety budget. PP informed that 30 lakhs per annum is the OHS budget.
- Commitment that ground water permission shall be obtained before start of construction activities.
- Commitment to allot Rs. 1.3 Crores instead of Rs. 1.0 Crores for CER activities.
- Chikhalputi RF is at a distance of 0.5 km in ENE direction and greenbelt development shall be of width 20 m towards forest side.
- PP shall ensure minimum stack height shall not be less than two times

the nearby building height.

- Reporting of EHS head should be directly to head of organization.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the 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 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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 80 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(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). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP/bag house shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for biomass as fuel and 30 mg/Nm3 for coal as fuel. Emissions of SO_2 and NO_X shall be below 100 mg/Nm^3 .Boiler ash will be used for brick manufacturing and supplied to nearby brick manufacturers in covered vehicles only. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(vii). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors/collected in proposed bottling plant.

(viii). PP shall allocate at least Rs. 30 Lakhs/annum for Occupational Health Safety. 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.

(ix). 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.

(x). 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. PESO certificate shall be obtained.

(xi). Process organic residue and spent carbon, if any, shall be sent to Cement and 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 with tree density @2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Chikhalputi RF is at a distance of 0.5 km in ENE direction and greenbelt development shall be of width 20 m towards forest side.

(xiv). PP proposed to allocate Rs. 1.3 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained and proper safety shall be ensured by installation of proper road safety measures.

(xvi). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvii). 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.

(xviii). 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. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

(xix). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 5

Proposed 75 KLPD Grain Based Distillery under Ethanol Blending Program located at Plot No-A-18, SIPCOT Industrial Park, Tindivanam, Villupuram District (C District), Tamil Nadu by M/s. Tatsavi and Manikanta Ventures Pvt. Ltd. – Consideration of Environment Clearance

[IA/TN/IND2/282591/2022, IA-J-11011/252/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Technogreen Environmental Solutions (NABET certificate no. NABET/EIA/2124/IA0081 and validity 05th July 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 75 KLPD Grain based Ethanol Plant & 2.0 MW Co-generation power plant (biomass/coal) located at Plot No-A-18, SIPCOT Industrial Park, Tehsil Tindivanam, District Villupuram (C District), State Tamil Nadu, India by M/s. Tatsavi and Manikanta Ventures Pvt. Ltd.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries

with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery	Ethanol	75 KLPD
2	Co-generation power plant	Power	2.0 MW
3	DWGS dryer	DDGS	38 TPD
4	Fermentation unit	Carbon di-oxide	58 TPD

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that no litigation is pending against the project.

Total land area required is 5.4106 Ha. Greenbelt will be developed in total area of 1.8943 Ha i.e. 35% of total project area. The estimated project cost is Rs. 137.567 Crores. Capital cost of EMP would be Rs. 22.5532 Crores and recurring cost for EMP would be Rs. 1.69 Crores per annum. Industry proposes to allocate Rs. 2.06 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 100 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Pond in Villuupuram is at a distance of 1.5 Km in NE direction, River Tondi is at a distance of 9.09 km.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.54 µg/m^3, 0.24 µg/m^3, 0.67 µg/m^3 and 1.07 µg/m^3 with respect to PM_{10}, PM2.5, SO2

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

Total fresh water requirement will be 421.8 m^3/day including co-generation power plant which will be met from SIPCOT Industrial Park. SIPCOT Industrial park has granted permission for extraction of ground water to the tune of 330 m3/day vide its letter dated 30th June, 2022. Effluent (Condensate/spent lees/dryer process condensate etc.) of 386 m3/day quantity will be treated through Condensate Polishing Unit of capacity 450 KLPD. Raw stillage (421 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. ETP of capacity 150 KLPD will be installed to treat domestic sewage, blowdowns, WTP backwash and CIP water generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 1.805 MW and will be met from proposed 2.0 MW co-generation power plant. 20 TPH biomass/coal fired boiler will be installed. ESP /bag filter with a stack height of 45 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boiler. 1x500 kVA DG set will be used as standby during power failure and stack height (4.5 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP /bag filter with a stack height of 45 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 (58 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (38 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (45.6 TPD coal as fuel and 24 TPD biomass as fuel) will be supplied to brick manufacturers.

- Used oil (0.25 Kilolitres per annum) will be sold to authorized recyclers.
- ETP sludge (1.70 TPA) will be disposed through CHWTSDF.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 75 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that total land of 5.4106 Hectares is allotted to company by SIPCOT industrial park vide its letter dated 30th June, 2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Land use conversion. It was informed that total land of 5.4106 Hectares is allotted to company by SIPCOT industrial park vide its letter dated 30th June, 2022.
- Rainwater harvesting provision shall be there in plant premises.
- Greenbelt shall be developed in parking area periphery and restroom facilities shall also be provided for drivers.
- Sulphur and nitrogen emissions shall be below 100 mg/Nm^3 and PM emissions shall be below 50 mg/Nm^3.
- Commitment that biomass will be used as main fuel and coal will be used only in case of unavailability.
- PP should ensure that provisions for CEMS be included in the EMP cost.
- 10% of power requirement to be fulfilled from solar power.
- Revised EMC wherein head of EMC will be directly reporting to head of organization.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the 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 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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 75 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(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). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from SIPCOT Industrial Park. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP/bag filter shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for biomass as fuel and 30 mg/Nm3 for coal as fuel. Emissions of SO_2 and NO_X shall be below 100 mg/Nm^3.Boiler ash will be used for brick manufacturing and supplied to nearby brick manufacturers in covered vehicles only. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(vii). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors/ collected in proposed bottling plant.

(viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. 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.

(ix). 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.

(x). 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. PESO certificate shall be obtained.

(xi). Process organic residue and spent carbon, if any, shall be sent to Cement and 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 with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Additional greenbelt to be developed in parking area periphery.

(xiv). PP proposed to allocate Rs. 2.06 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water

Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained and proper safety shall be ensured by installation of proper road safety measures.

(xvi). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvii). 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.

(xviii). 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. EMC head shall report to Managing Director/CEO as per company hierarchy.

(xix). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the

measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 6

Proposed 100 KLPD Grain based distillery along with 3.6 MW Power generation plant at Village Mulhera, Tehsil Sardhana, Meerut District, Uttar Pradesh by M/s. Doghat Organics Pvt. Ltd. – Re-Consideration of Environment Clearance

[IA/UP/IND2/274554/2022, IA-J-11011/61/2022-IA-II(I)]

The proposal was earlier considered by the Expert Appraisal Committee (Industry-2) in its meeting held during 27th -28th June, 2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13295/27/07/2022) held on 27th -28th July, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

S.No.	Observations	Compliance	Remarks by EAC
1.	The Committee suggested that native species shall be developed in consultation with Forest Department. Greenbelt shall be developed within 1 year. As reported by PP, Baparsi Reserve Forest is at a distance of 230 m in North direction. EAC directed that greenbelt shall be developed towards Forest side of	PP has submitted undertaking for the same.	Greenbelt shall consist of tree species not shrubs species. EAC directed to submit revised tree species. PP has submitted the same and EAC found it satisfactory.

	width 30 m.		
2.	Particulate Matter emission norms of 50 mg/Nm3 shall be maintained as well as guidelines issued by Commission for Air Quality Management in NCR and adjoining areas for pollutants shall be followed from time to time.	PP has submitted undertaking for the same. ESP will be proposed as APCE.	EAC found the information satisfactory.
3.	CSR shall be replaced with CER and activities shall be specific to CER not CSR. CER budget shall be utilized before commencement of operations.	The company proposes to spend Rs 1.71 Crore for various activities under Corporate Environmental Responsibility before commencement of operations. Details are submitted.	EAC found the information satisfactory.
4.	OHS budget shall be increased to 60 lakhs/annum from 50 lakhs/annum.	Company proposes to spend Rs 60 lakhs against Occupational Health and Safety (OHS) before commencement of operations.	EAC found the information satisfactory.
5.	Reduce fresh water consumption to 4 KL/KL of ethanol production.	Undertaking stating that total fresh water requirement shall not exceed 4 KL / KL of ethanol production is submitted.	EAC found the information satisfactory.
6.	Distance of incremental GLC is contradictory with stack height. Revise and recalculate emission rate of Particulate Matter in	AERMOD version 18.7.182 is used for Air Quality modelling. Revised Air Quality modelling is submitted**.**	EAC found the information satisfactory.

	gram/seconds. Also, latest version of AERMOD shall be used i.e. version 10 instead of version 3.		
7.	Revised flow diagram of ETP including biological treatment	Revised flow diagram of ETP including biological treatment is submitted**.**	EAC found the information satisfactory.
8.	Ash management. Brick manufacturing facility shall be installed.	Undertaking stating that brick manufacturing unit shall be installed within premises/adjoining area of the proposed plant is submitted.	EAC found the information satisfactory.
9.	15% of power requirement shall be generated from solar energy.	Undertaking stating that 15% of the total power requirement for the proposed project shall be met from solar power is submitted**.**	EAC found the information satisfactory.

The Project Proponent and the accredited Consultant M/s. Enviro Infra Solutions Pvt. Ltd. (NABET certificate no. NABET/EIA/1922/RA0157 and validity 13th November, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 100 KLPD Grain based Ethanol Plant & 3.6 MW Co-generation power plant (Biomass) located at Village Mulhera, District Meerut, State Uttar Pradesh by M/s Doghat Organics Pvt. Ltd.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity are as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery	Ethanol	100 KLPD
2	Co-generation powerplant	Power	3.6 MW
3	DWGS dryer	DDGS	43 TPD
4	Fermentation unit	Carbon di-oxide	75 TPD

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that no litigation is pending against the proposal.

Total land area required is 4.9 hectares. Greenbelt will be developed in total area of 1.68 hectares i.e., 34.29% of total project area. The estimated project cost is Rs. 85.66 Crores. Capital cost of EMP would be Rs. 16.264 Crores and recurring cost for EMP would be Rs. 1.55 Crores per annum. Industry proposes to allocate Rs. 1.71 Crores towards Corporate Environment Responsibility. Total Employment will be 121 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forest: Baparsi Reserve Forest is at a distance of 230 m in North direction. Water bodies: Hindon River is at a distance of 1.8 km in North direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.27 µg/m3, 0.6 µg/m3, 0.7 µg/m3 with respect to PM10, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 398 m3/day which will be met from ground water. Ground water NOC is obtained vide certificate No: NOC042254 dated 07.11.2021 and valid till 06.11.2026. Effluent (Condensate/spent lees/blowdown etc.) of 358 m3/day quantity will be treated through Condensate Polishing Unit of capacity 550 KLPD. Raw

stillage (603 TPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 30 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3.0 MW and will be met from proposed 3.6 MW co-generation power plant. 32 TPH (2x16 TPH) biomass fired boiler will be installed. ESP with a stack of height of 42 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 for the proposed boiler. 1x750 and 1x150 KVA DG set will be used as standby during power failure and stack height (10 m ARL) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- ESP with a stack height of 65 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 (75 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (43 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (54 TPD) will be used for brick manufacturing in proposed brick manufacturing plant in adjoining area of the proposed plant.
- Used oil (16.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (1.5 TPD) and STP Sludge (0.05 TPD) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self- certification in the form of notarized affidavit declaring that the proposed capacity of 100 KLPD Grain based distillery will be used for

manufacturing fuel ethanol only.

PP informed that total land of 4.9 Hectares is under possession of the company and land use conversion has been completed vide letter no. 723 dated 16th June, 2022. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Commitment that coal shall not be used as fuel.
- Revised fresh water balance for 4KL/KL fresh water consumption.
- Revised plant layout if brick manufacturing facility is being proposed.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The Committee noted that inspite of their suggestions in the last meeting regarding greenbelt species, the Environmental Consultant has again presented list of shrubs to be planted as greenbelt. The Committee took serious note of this and suggested to inform their activities to the QCI NABET for taking corrective action.

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 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 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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(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). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for biomass as fuel. Coal shall not be used as fuel. Boiler ash will be used for brick manufacturing in proposed brick manufacturing plant in adjoining area of the proposed plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(vii). Particulate Matter emission norms of 50 mg/Nm3 shall be maintained as well as guidelines issued by Commission for Air Quality Management in NCR and adjoining areas for pollutants shall be followed from time to time. Coal shall not be permitted as fuel to be used.

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

(ix). PP shall allocate at least Rs. 60 Lakhs/annum for Occupational Health Safety. 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.

(x). 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.

(xi). 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. PESO certificate shall be obtained.

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement and 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 with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Greenbelt shall be developed within 1 year. Greenbelt shall be developed towards Baparsi Reserve Forest side of width 30 m.

(xv). PP proposed to allocate Rs. 1.71 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.

(xvii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(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. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

(xx). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 7

Expansion of Molasses/Grain Based Distillery capacity from 220 KLPD to 400 KLPD (manufacturing of Ethanol) located at Village- Alhaipur , Tehsil- Dhampur , District- Bijnor, Uttar Pradesh by M/s. Dhampur Sugar Mills Ltd. – Re-consideration of Environment Clearance

[IA/UP/IND2/278832/2017, J-11011/586/2017-IA-II(I)]

The proposal was earlier considered by the Expert Appraisal Committee (Industry-2) in its meeting held during 07th -08th July, 2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13295/27/07/2022) held on 27th -28th July, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

S.No	ADS	Reply of PP
1.	During deliberations, the Committee was informed about the NGT case against the project which is pending. As per court case orders, *"A committee may be constituted to make detailed study. However, no further steps shall be taken by the Committee for a period of six weeks*". EAC was of the view to understand the associated environmental issues w.r.t court case before	The Hon'ble Supreme Court vide its order dated 08.10.2021 in our C.A. 5975 of 2021 has passed the following order; *"Issue notice, returnable in six weeks, In the meanwhile there will be a stay of the order to the extent of payment of compensation of Rs. 5 crores which has been imposed against each unit and the cost of Rs. 10,00,000/- to be paid by Respondent No. 1 to 3.* *A Committee may be constituted to make a detailed study. However, no further steps shall be taken by the Committee for a period of six weeks."* Accordingly, CPCB had constituted a Committee and to the best of our knowledge the Committee has made

	considering the project proposal. It was desired that PP should submit the committee's report for further consideration.	detailed study around our Unit. The report of the Committee has still not been communicated to us. We had submitted during the course of proceedings before EAC in its Meeting held during 07/07/2022 that it is incumbent upon CPCB to file the Committee Report before the Hon'ble Supreme Court and prior to that the report cannot be served on us or provided to us. Further, we are submitting an undertaking to the affect that we shall comply with the final orders of the Hon'ble Court as and when the orders are passed.

EAC noted that as per PP response to ADS, committee's report has not been filed before the Hon'ble SC so they are not in the position to submit the said report to the EAC. During deliberations, EAC discussed the case pending in NGT and Hon'ble Supreme Court and directed that PP shall abide by the orders of Supreme Court and Environmental Clearance granted will be subject to decision from NGT & Hon'ble Supreme court. Further, PP has reported that there is no stay against the order. PP also agreed that they will abide by the orders and decision which will be pronounced by Hon'ble Supreme Court & NGT.

The Project Proponent and the accredited Consultant M/s. Enviro Infra Solutions Pvt. Ltd. (NABET certificate no. NABET/EIA/1922/RA0157 and validity 13th November, 2022) 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 distillery unit from 220 KLPD to 400 KLPD & co-generation power plant from 7.5 MW to 13 MW (concentrated spent wash/ bagasse based) located at Village Alhaipur, Tehsil Dhampur, District Bijnor, State Uttar Pradesh by M/s. Dhampur Sugar Mills Ltd.

As per EIA Notification 2006 (Schedule 5 (g) Category A); however, as per

in the MoEFCC Notification S.O. 345(E), dated the 17th January, 2019, notification number S.O. 750(E), dated the 17th February, 2020, S.O. 980 (E) dated 02nd March, 2021 & S. No. 2339(E) 16th June, 2021, a special provision in the EIA Notification, 2006 "Expansion of sugar manufacturing units or distilleries for production of ethanol, having Prior Environment Clearance (EC) for existing unit, to be used completely for Ethanol Blended Petrol (EBP) Programme only, as per self-certification in form of an affidavit by the Project Proponent, shall be appraised as category 'B2' projects.

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Existing Production capacity	Additional production capacity	Total production capacity
1	Distillery (Molasses/grain)	Ethanol	220 KLPD	180 KLPD	400 KLPD
2	Co-generation powerplant for distillery mill	Power	7.5 MW	5.5 MW	13 MW
3	DWGS dryer	DDGS	0	20 TPD	20 TPD
4	Fermentation unit	Carbon dioxide	30 TPD	50 TPD	80 TPD
5	ATFD	Conc. spent wash powder	462 TPD	378 TPD	841 TPD

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 350 KLPD vide File No. J-11011/586/2017-IA-II(I) dated 20.03.2019. Industry is operational at capacity 220 KLPD currently. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Lucknow vide File no- IV/ENV/UP/IND-34/106/97/56 dated 25.05.2022. Action Taken Report has been submitted to IRO, MOEFCC,

Lucknow dated 26.05.2022 for 5 non-compliances related to development of greenbelt, uses of PPE, uploading of Compliance report on company website, civil work (foundation work) has already been completed, submission of Environmental Statement Report. EAC was satisfied by the above information provided by PP.

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. As informed by PP, litigation is pending against the proposal and details are as follows;

An application was filed being OA No. 539 of 2019 In Re: Adil Ansari Vs. Dhampur Sugar Mills Ltd., and Others. In the said application Hon'ble NGT vide its order dated 1st September 2021 imposed an Environmental Compensation of Rs. 20 Crores including Rs. 5 Crores on Dhampur Distillery. Hon'ble NGT then constituted a Committee to assess the damage caused, if any to the Environment, which includes contamination of the soil, underground water, loss to the agricultural crops etc. However, while imposing the Environmental Compensation there was no evidence on record before Hon'ble NGT about the damage caused to the Environment. The said order of Hon'ble NGT was challenged by the Company before Hon'ble Supreme Court vide Civil Appeal No. 5975 of 2021 wherein the Hon'ble Supreme Court granted stay of the order of imposition of Environmental Compensation vide order dated 08.10.2021. Hon'ble Supreme Court at the same time stated "A committee may be constituted to make detailed study. However, no further steps shall be taken by the Committee for a period of six weeks". The study by the said Committee is under process but the report is yet to be submitted before Hon'ble Supreme Court.

Total existing plant area is 16 Hectares. No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area 5.44 Hectares i.e. 34% of the total plant area is being/will be developed as greenbelt & plantation as reported in CCR. The estimated project cost is Rs. 160.27 Crores. Capital cost of EMP would be Rs. 66.312 Crores and recurring cost for EMP would be Rs. 2.62 Crores per annum. Industry proposes to allocate Rs. 2.0 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 200 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere

Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Khoh River is at a distance of 3.2 Km in East direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.9 $\mu g/m^3$ and 14.7 $\mu g/m^3$ with respect to PM_{10} and SO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 3000 m3/day which is being / will be met from ground water. CGWA NOC for 2400 m3/day has been obtained vide NOC no. CGWA/NOC/IND/REN/2/2020/5654 and valid from 08.04.2019 to 06.04.2024. Existing effluent generation is 1600 m3/day which is treated through Condensate Polishing Unit of capacity 4500 m3/day. Proposed effluent generation will be 1164 m3/day from distillery which will be treated through existing Condensate Polishing Unit. In molasses based operation, spent wash generated from the analyser column during distillation will be concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt in incineration boiler (The Company also proposes to keep option for adopting any new Technology for achieving ZLD including Spent Wash dryer. In case of Dryer the residual mass to be disposed of as Manure). In grain based operation, raw stillage (222 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. Domestic waste water is being/will be treated in STP of capacity 220 KLPD (common for both distillery and sugar unit). The plant will be based on Zero Liquid discharge system and treated effluent/water shall not be discharged outside the factory premises.

Total power requirement after expansion will be 13 MW which will be sourced from existing 7.5 MW & proposed 5.5 MW co-generation power plant. Existing unit has 75 TPH bagasse/conc. spent wash fired boiler and 55 TPH bagasse/conc. spent wash fired boiler is proposed after expansion. Bag filter with a stack of height of 84 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3. ESP with a stack of height of 82 m will be installed with the proposed boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3. No DG sets are proposed as part of expansion.

Details of Process emissions generation and its management

- ESP with a stack of height of 82 m will be installed with the proposed 55 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- Carbon di-oxide generated during the fermentation process is being/will be collected by utilizing CO2 scrubbers and sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- Concentrated spent wash (1164 TPD) is being/will be burnt in incineration boiler.
- DDGS (Distilled Dried Grains Stillage) (20 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Ash (350 TPD) generated from the boiler is being/will be supplied to brick/cement manufacturers.
- Used oil (0.5 kilolitres per annum) is being/will be sold to authorized recyclers.
- CPU Sludge (30 TPD) and STP sludge (0.077 TPD) is being/will be reused as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of 180 KLPD will be used for manufacturing fuel ethanol only.

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 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 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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. 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 project proponent shall abide by all orders and judicial pronouncements made from time to time in the case filed in NGT & Supreme Court.

(ii). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed expansion capacity of 180 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(iii). 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.

(iv). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). In molasses based operation, spent wash will be concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt in incineration boiler or concentrated spent wash will be subject to ATFD. In grain based operation, spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP/bag house shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for biomass as fuel. Boiler ash is being/will be supplied to brick/cement manufacturers in covered vehicles only. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas. Coal shall not be used as fuel in boiler.

(vii). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors/ collected in proposed bottling plant.

(viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. 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.

(ix). 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.

(x). 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. PESO certificate shall be obtained.

(xi). Process organic residue and spent carbon, if any, shall be sent to Cement and 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 with tree density@ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.

(xiv). PP proposed to allocate Rs. 2.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained and proper safety shall be ensured by installation of proper road safety measures.

(xvi). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvii). 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.

(xviii). 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. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

(xix). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 8

Proposed Coal to Poly- vinyl Chloride (PVC) Project located at Village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat by M/s. Adani Enterprises Limited – Re-consideration of Environmental Clearance

[IA/GJ/IND2/ 230862/2021, IA-J-11011/149/2021-IA-II(I)]

The proposal was earlier considered by the EAC (Ind-2) in its agenda no.2 of meeting ID IA/IND2/13281/07/07/2022 held during 7th – 8th July, 2022, wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent on PARIVESH portal, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13295/27/07/2022) held on 27th -28th July, 2022. Information desired by EAC and responses in brief submitted by the project proponent, which was discussed in meeting are as follows:

S.No.	ADS by MOEFCC	Reply
1.	Submit the documentary evidence that the total land is in notified industrial estate.	Undertaking that whole of land is in APSEZL is submitted through AEL vide letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022. Notification of APSEZL is also submitted.
2.	As per PH proceedings, right wind direction has not been taken into account. Effect of coastal region on air emissions due to temperature difference of day and night.	PP has submitted site-specific IMD station wind-rose along with annual and summer season wind-rose generated based on data available on CALPUFF through AEL letter vide no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022. For the effect of coastal region, the thermal internal boundary layer calculations are handled in CALPUFF.
3.	Cement plant and copper plant which will be releasing high Sulphur emissions. Details of mitigation	The proposed PVC project by M/s. AEL has planned the best Air pollution control devices. The stack emission concentration from the PVC project will meet the applicable emission standards for

	measures to be undertaken to avoid increase in ambient air cumulatively and reduce impact towards villages to be submitted.	respective process. Details has been submitted in ADS reply as uploaded in PARIVESH portal.
4.	Detailed action plan to be submitted to take precautionary measures as distance of impact in air quality modelling will be 2.5 km and it will be bypassing greenbelt.	The resultant predicted cumulative GLC is found within the AAQ standards and permissible limits. The proposed PVC project by M/s AEL has planned the best Air pollution control devices. The stack emission concentration from the PVC project will meet the applicable emission standards for respective process. Accordingly, emission load from the stacks has been arrived and modelling has been done using AERMOD and CALPUFF model to predict the incremental GLC. The sufficient budget of Rs 2874.59 Cr. for CAPEX (which is ~8% of total project cost) and Rs 1494.55 Cr.
5.	Dominant wind direction on the basis of yearly data shall be taken. EAC suggested to take historical data of complete one year and then take dominant wind direction. PP shall submit wind rose of complete one year.	Annual as well as summer season wind-rose has also been derived based on the data available in the CALPUFF model purchased from software vendor, Lakes Environmental, Canada. PP has also submitted the comparative wind-rose through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022 that contains the Site-Specific summer season wind-rose, Mandavi IMD summer as well as annual wind-rose and summer and annual wind-rose based on CALPUFF model.
6.	As per wind rose diagram details, minimum velocity is 3.3.m/s and maximum velocity is	Meteorological data has been collected from 22nd March 2021 to 22nd June 2021. Max wind speed during monitoring period was 12.9 m/s (46.44 km/hr), Minimum wind speed was 0.2 m/s (0.72 km/hr).

	3.9 m/s which is contradictory, and variation is very less during summer season. PP to explain the same.	Also, average of hourly maximum and minimum wind speed during study period, which was 3.3 m/s (11.88 km/hr) and maximum 3.9 m/s (14.04 km/hr). Details are submitted in ADS reply uploaded on PARIVESH portal.
7.	Total Sulphur emissions from the project indicating each stack shall be provided and details of measures to be taken to control Sulphur emissions.	Total SO_2 emission from the project (39 Flue Gas Stacks) will be 149 gm/sec at full capacity. SO_2 emission from coal fired steam boilers within the projects is proposed to be within 100 mg/Nm^3 that will be achieved by dosing Limestone for reduction of SOx emissions.
8.	Undertaking stating that VCM incinerators shall be as per CPCB guidelines.	Incinerator of VCM Plant will be Constructed as per regulatory requirements under The Environment (Protection) Rules, 1986 for incinerator facility. Undertaking has already been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022**.**
9.	Post project monitoring plan for VCM in ambient air to be submitted.	VCM monitoring in ambient air shall be conducted online at 3-4 needful locations within plant and at AAQM monitoring locations within the study area also. Undertaking has already been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022**.**
10.	Details regarding pollutants from VCM plant and mitigation measures.	Pollutant emission from VCM plant with mitigation measures is submitted. Also, Incinerator of VCM Plant will be Constructed as per regulatory requirements under The Environment (Protection) Rules, 1986 for incinerator facility. Dioxin and furan emissions will be controlled by installing rapid quench system and running the process as per the

		CPCB guidelines.
11.	Nagamati river TDS is very high. Clarify and include photographs also in order to confirm location from where sample has been taken i.e. check dam.	Samples were collected in summer season. The rivers present in study area are seasonal and samples have been taken of river from the check dams. Photographs of the surface water samples were submitted.
12.	Details of total wastewater generation and recycle/reuse quantity as it is contradictory as discussed. Please clarify.	Details have been submitted.
13.	EAC suggested to recycle water in respective units instead of collecting it in one ETP as it will be voluminous in quantity. Submit action plan for water conservation. Details of waste water treatment shall be submitted along with commitment to achieve ZLD.	There will be separate ETP & STP in each pocket and no effluent will be transferred from pocket to pocket. Effluent will be treated in effluent treatment plant which is 100% Zero liquid Discharge unit, hence there will no effluent going outside the premises.
14.	Submit the copy of HTL/LTL CRZ demarcation map superimposing of the project site prepared by authorized institute.	Copy of HTL/LTL CRZ demarcation map superimposing of the project site prepared by NCSCM is submitted. The same report has also been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022. The proposed project land in all 3 pockets is outside the CRZ area which is proved by the superimposition of project boundary on approved CRZ Maps.

15.	10% power generation (industry 2 requirement) shall be from renewable energy within or outside premises. Submit action plan for the same.	10% of total power requirement with respect to PVC, VCM, & Ethylene glycol process in overall PVC project will be met by purchasing renewable energy through DISCOM from suitable renewable energy generator or alternate sources. Undertaking for the same has already been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022.
16.	Commitment that all public hearing issues shall be addressed.	M/s AEL has planned extended EMP for social initiatives (CER) with a budget of Rs. 75 Cr i.e. allocated for focused areas of Education, Community Health, Rural Infrastructure, Sustainable Livelihood including Women Empowerment and mass plantation to address the social needs assessment conducted during EIA and issues raised during Public Hearing. M/s AEL undertake to spend the above amount within project period. Undertaking for the same has already been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022.
17.	Ammonia stripping is allowed or not as company will be adding ammonia also to air.	Free Ammonical Nitrogen present in the effluent increases the BOD load and size of the aeration system, causing more energy consumption and higher CO2 emission in the upstream of electricity supply chain. Hence, free Ammonical Nitrogen stripping is provided in the ETP system. M/s AEL commits to provide extended aeration system also in the ETP scheme for removal of total Ammonical nitrogen in biological treatment scheme submitted in EIA. The existing ammonia tower in ETP scheme shall be used only for removal of free ammonia from incoming effluent.
18.	Revised EMC shall be	PP has submitted the revised EMC.

	submitted as Env. Head shall report to Plant CEO and CEO reporting to Board.	
19.	Land preparation/land filling/levelling details of the project site shall be given.	The present project by M/s AEL is proposed in the industrial land that belongs to Special Economic Zone of APSEZ Ltd. APSEZ Ltd has valid Environmental Clearance and will provide the ready land for the project after Environment Clearance is obtained by M/s AEL and commercial transaction with APSEZ Ltd accordingly. The same has already been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022.
20.	Controlling of NOx and methyl nitrite mitigation. Long length of material transfer through pipeline and mentioning of sensors, SCADA etc. shall be detailed.	Majority of the NO and NO2 generated in the system will be recycled in the Esterification section after processing in the tail gas reactor. The tail gas discharged will have very minimal NOx (within permissible limits).Undertaking for the same has already been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022.
21.	Mud flats are present in project site and turtle species are also present. Detailed Conservation plan shall be submitted for the same.	Project site is outside of CRZ area hence outside of any mud flat area. The boundary of the proposed project is superimposed by NCSCM, Chennai. Conservation plan for Schedule I species observed in study area has been approved by Chief Wildlife Warden, Gandhinagar vide letter no. WLP/32/C/297-298/2022-2023 dated 18/06/2022. The approved conservation plan has already been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022.
22.	Conservation plan for	Schedule I species are not reported at

	schedule –I species shall include escape plan for species from the project site. Details of the same to be submitted.	project site. However, conservation plan for Schedule I species observed in study area (10 km radius) has been approved by Chief Wildlife Warden, Gandhinagar vide letter no. WLP/32/C/297-298/2022-2023 dated 18/06/2022. The approved conservation plan has already been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022.
23.	Desalination plant capacity in APSEZ and fresh water requirement will be sourced from there only, so is it adequate or not. PP informed that it will be adequate.	The requirement of desalinated water is estimated to be ~ 160.053 Million Liters per day (MLD). M/s. APSEZL will be supplying the total water requirement for this plant for which willingness letter has been provided and the same has already been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022.
24.	Ash management plan to be submitted.	The entire fly ash generated from the coal fired boilers will be utilized in proposed inhouse cement manufacturing unit and fly ash generated from the existing steam Boilers of Adani Power Ltd will also be utilized in the same manner. The assurance letter for utilization of fly ash in Cement Plant is submitted. The same has already been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022.
25.	Chapter 5 alternative technology shall be modified as discussed. Submit the revised information.	The technology descriptions with salient features of the "vertical type semi-coke furnace" is provided in Chapter-2 of the EIA report. A detailed study has been conducted by CSIR- Central Institute of Mining and Fuel Research on "Technical feasibility in Environment Prospective of proposed vertical Semi-coke oven technology", which confirms that the proposed technology is latest and best

		available technology, meets the existing environmental standard. The same report has already been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022.
26.	Safety measures for transfer of anhydrous hydrochloride through pipelines. SCADA system shall be installed with the pipeline. Monitoring mechanism shall be detailed. Interlocking system shall be installed and all process units shall be connected. PP informed that there will be SCADA system, frequent monitoring regularly, leak detection measures will be undertaken. Interval of HCL gas detectors shall be given. 3D modelling study shall be done for HCL leakage. Action plan for the same shall be submitted.	For safety and control of risk of any leakage from Anhydrous HCl pipeline, the same will be designed and operated with world class standards. It will be built using a seamless pipe with no flanges in between. periodic Leak check with ammonia torch and detect the leak point along the pipeline. Toxic Leak detectors will be installed and regularly tested at appropriate detection levels as per industry norms. Regular pipeline thickness measurements and maintenance will be ensured. Continuous monitoring of pressure of HCl pipeline with high priority alarms Pressure drop detection will be monitored for promptly addressing of any leak, should it ever happen. Undertaking for the same has already been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022. It is submitted that 3D studies of risk assessment shall be carried out and provided to MoEF&CC within six months. We humbly request that suitable condition for this may be included in EC. Undertaking for the same has already been submitted through AEL letter no. AEL/MPL/ENV/MoEF&CC/2022-July/03 dated 15/07/2022.

The Committee discussed the above information and was satisfied with the response.

The Project Proponent and the accredited Consultant M/s. Kadam Environmental Consultants (NABET certificate no. NABET/EIA/2023/SA 0164 and validity 19th March 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project of VCM, PVC, Ethylene Glycol and other petrochemical based processing (other than cracking and reformation) activities located at industrial area of APSEZ, Tehsil- Mundra, District-Kutch, State Gujarat by Adani Enterprises Ltd. (as a part of Coal to Poly-Vinyl Chloride (PVC) Project comprising of Industry-I projects i.e. Semi Coke – 2030 KTPA, Calcium Carbide–2900 KTPA (Not Specified in Any Industrial Committee), Cement–6 MTPA; Clinker–4 MTPA, Industry-II projects i.e. VCM–2002 KTPA, PVC–2000 KTPA, Ethylene Glycol– 400 KTPA and Industry-III projects i.e. Acetylene–860 KTPA and Caustic Soda–1310 KTPA).(Where, KTPA: Kilo Tonne Per Annum; MTPA: Million Tonne Per Annum).

VCM, PVC and Ethylene Glycol and other petrochemical based processing (other than cracking and reformation) activities are listed at S.N. 5(e) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC). This project is interlinked and integrated as this consist of 3 activities as listed below:

1) Industry-I activity i.e. Semi Coke – 2030 KTPA (S.No.4-b), Calcium Carbide–2900 KTPA (Not Specified in Any Industrial Committee), Cement–6 MTPA (S.No.3-b); Clinker–4 MTPA (S.No.3-b),
2) Industry-II activity i.e. VCM–2002 KTPA (S.No.5-e), PVC–2000 KTPA (S.No.5-e), Ethylene Glycol– 400 KTPA (S.No.5-e) and
3) Industry-III activity i.e. Acetylene–860 KTPA (S.No.5-f) and Caustic Soda–1310 KTPA (S.No.4-d)"

The details of products and capacity w.r.t. industry –II sector are as under:

S. No.	Unit	Product/by-product	Proposed Capacity
1	PVC process	Polyvinyl Chloride (PVC Grades: Suspension, Mass Emulsions, Chlorinated PVC etc.)	2000 KTPA
2	VCM process	Vinyl Chloride Monomer	2002 KTPA
3	Ethylene Glycol	Ethylene Glycol (EG)	400 KTPA

	process	(Superior Grade EG, Qualified Grade EG, MEG, DEG, TEG)	
4		Dimethyl Carbonate	13 KTPA
5		Crude Ethanol	10 KTPA
6		Alkanol	7 KTPA

Standard Terms of Reference (ToR) have been obtained vide letter no. IA-J-11011/149/2021-IA-II(I) dated 29/09/2021 for the activities as above falling in the scope of EAC Industry - 2. Further, as this project is integrated and interlinked project, TOR for the activities falling under EAC Industry– 1 and EAC Industry – 3 have been obtained vide letter no. IA-J-11011/423/2021-IA-II (IND – I) dated 03/12/2021 and vide letter no. IA-J-11011/149/2021-IA-II(I) dated 10/12/2021, respectively.

PP informed that litigation is pending against the proposal. One PIL has been filed by Kheti Vikas Seva Trust. PIL is registered as No. 36 of 2022. Respondents are (1). Union of India, (2). State of Gujarat, (3). Central Pollution Control Board-New Delhi, (4). Gujarat Pollution Control Board-Gandhinagar, (5). District Collector-Kutch, (6). Regional Officer, IRO MOEF&CC- Gandhinagar, (7). Adani Enterprises Ltd.-Ahmedabad. Kheti Vikas has raised objections on conducting one Public Hearing for various projects. Kheti Vikas has prayer to the court for stay on Public Hearing. Matter was posted in Gujarat High court on dated 18.04.2022. Matter was heard by court and next date posted on 20th June and as per the court order which reads that *"Issue notice through RPAD returnable by 20.6.2022. Learned counsel appearing for the petitioner is permitted to serve notice on Mr. Devang Vyas, learned Additional Solicitor General of India for respondent No.1. Mr. K.M. Antani, learned AGP accepts and waives notice for respondent Nos.2 and 5 and Mr. Sandeep Singhvi, learned counsel who is present in Court accepts and waives notice for respondent No.7. Any decision taken by the respondents would be subject to result of this petition".* Matter could not come for hearing on 20th June, 2022 and it is further posted on 05th July, 2022.

Public Hearing for the proposed project had been conducted by the Gujarat Pollution Control Board on 30th April 2022 at Community premises, (Samajvadi) Centre, Opp. Tunda Primary School, Village Tunda, Tehsil Mundra, District Kachchh chaired by Resident Additional Collector & Additional District Magistrate, Bhuj- Kachchh.

The main issues raised during the public hearing and their action plan:

Regarding employment, Total Employment will be ~12000 numbers during construction phase (i.e. ~5000 direct and ~7000 indirect) and ~11,600 numbers during operation phase (i.e. ~3600 on direct and ~8000 indirect) and local people will be given preference based on skills. Also, in nearby villages a group of women can be formed so that they can work in Gruhudhyogs (Home-based business). M/s. AEL shall provide employment to women as per their skills and qualification.

Regarding Corporate Environmental Responsibility (CER) / Solar panels, company will provide facilities for drip irrigation, in consultation with farmers AEL will help farmers through its different schemes like ground water recharge, water harvesting, zero chemical farming, drip irrigation etc., Rs. 123 Cr. CESR fund are committed during project stage to focus on Education , Community Health Initiatives, Sustainable Livelihood, Women Empowerment and Community Plantation, Community Rural Infrastructure Development, village development committee etc.

Regarding Air Pollution, requisite height of the stacks will be provided and Modern technology equipment's like Cyclone Electrostatic Precipitator, Scrubber will be installed, greenbelt development will be undertaken. **Regarding land (This land was first mangrove area, and then this land was passed for APSEZ, AEL will establish a project on the land which is muddy, The land of Pocket 3 is outside APSEZ and the same shall be noted),** Permission has been granted to APSEZ to create a special economic zone. Land belongs to APSEZ. This land will be given to Adani Enterprise Limited by APSEZ. The 182 acres land of Pocket 3 falls in un-surveyed land of Tunda village which is part of reserve forest. This land falls under SEZ, for which necessary clearances has been granted by Ministry of Environment and Forest, Government of India. So, in the proposed project there is no land which is outside APSEZ.

Regarding Cumulative impact of industries in Study area as sulphur emissions have been exhausted and FGD needs to be installed, company will take all appropriate measures to reduce sulphur emissions.

Regarding source of water, Groundwater will not be used for proposed project. The required water (160 MLD) for the proposed project will be sourced through de-salination plant and no Groundwater will be used.

Regarding safety related issue/accident, AEL will setup primary sub centre for health check-up at a common place around villages and if there is a major accident, ambulance will be arranged to take them to Adani hospital where all specialist doctors are available and medical facilities will be upgraded. (Rs. 75 Crores under CER)

Regarding health related problems, AEL will ensure that there will be no leakage and therefore, there will not be occupational health issues for workers or villagers working in the plant. Moreover, AEL will also provide PPE kits to workers for their safety. OHS budget- Rs. 6 Crores estimated for medical check-up cost of all employees.

Regarding Wastewater treatment and disposal, the plant will be based on Zero liquid discharge.

Regarding TSDF membership/ disposal of waste, hazardous as well as non-hazardous waste will be disposed as per the statutory norms.

Total land area required for Coal to PVC project is 323.69 hectares. Greenbelt will be developed in total area of 107.04 - hectares i.e., 33.07% of total project area. The estimated project cost is Rs.34,900 Crores which includes Rs.13,000 crores for the proposed activities within the domain of EAC Industry – 2. For the Coal to PVC project, capital cost of EMP would be Rs.2874.59 Crores and recurring cost for EMP would be Rs. 1494.55 Crores per annum. Industry proposes to allocate Rs. 75 Crores towards Extended EMP (Corporate Environment and Social Responsibility). Total Employment will be ~12000 numbers during construction phase (i.e. ~5000 direct and ~7000 indirect) and ~11,600 numbers during operation phase (i.e. ~3600 on direct and ~8000 indirect).

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Reserve forests/protected forests: Mundra Mangrove Forest at a distance of 0.01 km in SE direction. Conservation plan for schedule I species in study area i.e. *Gazella Bennettii, Varanus bengalensis, Lissemus punctatea, Pavo cristatus, Acipiter Badius, Circus aeruginosus and Platalea leucordia* has been approved by The Chief Wildlife Warden, Gandhinagar vide letter no. WLP/32/C/297-298/2022-2023 dated 18/06/2022 and a budget of

Rs.24,50,000 has been earmarked for the same. Water bodies: Kotadi Creek is flowing at a distance of 2.48 km in East direction from Pocket 1 & 2.

Ambient Air Quality monitoring was carried out at 12 Locations during 22nd March, 2021 to 22nd June, 2021 and base line data indicates the ranges of average concentrations as: PM_{10} (63-81µg/m^3), $PM_{2.5}$ (17-40 µg/m^3), SO_2 (6.5 – 11.4 µg/m^3) and NO_2 (12.1-19.1 µg/m^3). AAQ modelling study for point source emissions indicates that maximum incremental GLCs after the proposed project would be 8.8 µg/m^3, 6.2µg/m^3, 5.8µg/m^3, 11.7 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_x and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

There will be no groundwater extraction for this project. The total water requirement for PVC, VCM, Ethylene Glycol process will be 29040 m3/day and other common utilities will be 65948 m3/day, as part of Coal to PVC project total water requirement 2,22,875 m3/day including 1,60,053 m3/day of continuous make-up water will be met from APSEZL Seawater Desalination plant and rest will be met from internal recycling of water. Willingness letter from APSEZ for supply of water is received for 15 MLD fresh water requirement during construction phase and 220 MLD fresh water requirement during operations phase. Proposed effluent generation will be 54254 m3/day which will be treated through Effluent Treatment Plant of capacity 56250 KLD. Domestic waste water will be treated in STP of capacity 1225 KLD. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

During the construction phase, the power requirement of 30 MW will be provided by DISCOM within APSEZL. During operation phase, the power requirement of 2000 MW will be provided by DISCOM within APSEZL. To meet the steam requirement of Coal to PVC project, common utilities includes 3 Coal fired boilers of 240 TPH each (2 working + 1 standby) and 1 natural gas fired boiler of 240 TPH. Adequate APCE ESP/Bag Filters, Limestone (CaCO3) and hydrated lime (CaO) as desulphurizing agent @ 12 TPH with a stack of height of 50 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boilers. DG sets of 20,000 KVA total capacity (1250 KVA – 10 Units and 750 KVA – 10 units) are being proposed for the Proposed Project in case of emergency/power failure. Stack (height – 30 mtr of each) will be provided as per CPCB norms to the proposed DG Sets.

Details of Process emissions generation and its management:

Name of Plant	Vent Attached to	Nos. of vent per unit	Vent height (m)	Emission	Pollutants Emitted	Air Pollution Control Measures Attached
PVC Plant	Unit - I - Vent gas of dryer Unit	2	50	Continuous	Particulate Matters	Wet Scrubber
	Unit - I - Vent gas of PVC Bagging System	6	50	Continuous	Particulate Matters	Bag Filters
	Unit - II - Dryer Unit	2	50	Continuous	Particulate Matters	Wet Scrubber
	Unit - II - Bagging System	6	50	Continuous	Particulate Matters	Bag Filters
	Unit - III - Dryer Unit	2	50	Continuous	Particulate Matters	Wet Scrubber
	Unit - III - Bagging System	6	50	Continuous	Particulate Matters	Bag Filters
	Unit - IV - Dryer Unit	2	50	Continuous	Particulate Matters	Wet Scrubber
	Unit - IV - Bagging System	6	50	Continuous	Particulate Matters	Bag Filters
VCM Plant	Unit 1 &2 - VCM condenser	2	50	Continuous	Particulate Matters, VCM	Caustic Scrubber followed by Incinerator
	Unit 3 & 4 - VCM condenser	2	50	Continuous	Particulate Matters, VCM	Caustic Scrubber followed by Incinerator
Ethylene	Tail Gas	3	50	Intermittent	HC	Dilution

Glycol Unit	Absorption					with steam
	Hydrogenation system	3	50	Intermittent	HC	Hydrogen Recovery through PSA

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

S. No.	Plant / Unit	Waste Description	Qty. in (TPA)	Category as per Hazardous waste management rule 2016	Collection Method	Mode of Transport	Distance from site (km)	Treatment / Disposal Mode
1	Handling of hazardous chemicals and waste	Empty barrels, containers, liners contaminated with hazardous chemicals Empty	6000 Nos (20 MT)	33.1	Drums / Containers / Bags	By Road	70	Disposed to authorized TSDF / recycler / co-processing
2	VCM plant	Spent catalyst and molecular sieves	900	1.6	Barrel / Drums	By Road	70	To be sent to an approved / authorized vendor for recovery / Disposal

								to authorized TSDF / recycler / co-processing
3	MEE Area	MEE Salt	99681	35.3	Bags	By Road	70	Disposal to authorized TSDF / recycler / co-processing
4	ETP Area	Chemical Sludge	5840	35.3	Bags	By Road	70	Disposal to authorized TSDF / recycler / co-processing
5	Industrial Operation using mineral or Synthetic Oil as lubricant in hydraulic system or other applications,	Used Oil / Spent Oil	200	5.1	Barrels / Drums	By Road	60	Sent to registered oil re - processor

	e.g. workshop / Heavy m/c							
6	DM plant	Ionic Membranes / Resin	17	35.2	Barrels / Drums / Bags	By Road	70	Disposal to authorized TSDF / recycler / co-processing
7	Ethylene Glycol Plant	Spent catalyst and molecular sieves	665	1.6	Drums / Tank / IBC	By Road	70	Send to approved vendor for recovery / Disposal to authorized TSDF / recycler / co-processing

As informed by PP, proposed project boundary is outside CRZ. Project boundary has been superimposed on approved CZMP map by National Centre for Sustainable Coastal Management (NCSCM), Chennai. There is no new forest clearance required for the land for this proposed project. Forest clearance is already obtained by M/s APSEZ Ltd and entire land is already notified as industrial area. Proposed Project land is already notified industrial land of M/s APSEZ Ltd. M/s APSEZ Ltd has provided willingness letter to allocate the land to M/s AEL after Environmental Clearances for the proposed project is obtained by M/s AEL.

During deliberations, EAC discussed the following issues:

- Dominant wind direction considered and details in writing regarding AQ modelling software considered. Supporting data for wind speed/velocity and supporting data for cement plant wind velocity shall be given. PP has submitted that the two models also consider utilization of meteorological inputs in different ways whereby AERMOD uses site specific meteorology and CALPUFF uses calculated regional meteorology supplied by the vendor. Between the two models and their meteorological inputs, wide variety of conditions get covered and therefore, by considering both air dispersion modelling systems, we can say that the higher results as well as different possible Ground Level Concentration at various locations get covered.
- Undertaking that winter season study shall be done after project commissioning as area of impact is wide. PP has submitted that as desired by the EAC, Project proponent undertake to conduct the monitoring of site specific meteorological data & air quality modelling for the winter season after commissioning also.
- No land fill site shall be made at project site.
- Fresh water withdrawal balance about the agreement done from APSEZL (desalination plant) including fresh water requirement for other units also. PP has submitted that for proposed project, water requirement will be fulfilled by desalination water and that will be supplied by M/s APSEZ Limited after augmentation of its existing approved capacity of desalination plan.
- Response to the E-mail dated 27.07.2022 of MoEF&CC with subject "Concerns received pertaining to the proposed Coal to Poly-Vinyl Chloride (PVC) project at Adani Ports & Special Economic Zone". PP has submitted the point wise reply for the same. PP informed that all comments/concerns pertaining to the proposed project raised by all the stakeholders were well responded during the public hearing process and the PP responses to all the comments are included in the minutes of the meeting of the public hearing prepared by GPCB. They informed that the technical issues have already been addressed in the EIA/EMP report and also referred the sections of EIA report, where such issues have been addressed.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with 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 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 is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. 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 project proponent shall abide by all orders and judicial pronouncements made from time to time in the case related to Public hearing and land which is pending with Gujarat High court.

(ii). 3D studies of risk assessment shall be carried out for all hazardous chemicals and submitted to MoEF&CC within three(03) months. Recommendations of mitigation measures from possible accident shall be implemented based on advanced risk Assessment studies conducted for worst case scenarios using latest techniques.

(iii). PP shall conduct monitoring of site specific meteorological data & air quality modelling for winter season after commissioning of plant and submit the report to the Regional Office of MoEF&CC.

(iv). SO2 emission standard from coal fired steam boilers within the projects is proposed to be within 100 mg/Nm3 that shall be achieved by installing suitable APCD such as Flue Gas Desulphurization for reduction of SOx emissions. The National Emission Standards for Petrochemical (Basic & Intermediates) issued by the Ministry vide G.S.R. 820 (E) dated 9th November, 2012 as amended time to time shall be followed.

(v). Incinerator of VCM Plant shall be constructed as per regulatory requirements under The Environment (Protection) Rules, 1986 for incinerator facility. VCM monitoring in ambient air shall be conducted online at 4-5 locations within plant and at AAQM monitoring locations within the study area also. Dioxins and furan emissions shall be controlled by providing proper control systems including chillers carbon and lime dosing and running the process as per the CPCB guidelines. Monthly VOC monitoring shall be done at vulnerable points.

(vi). Properly designed and appropriate air pollution control equipment shall be attached to flue gas stacks of PVC plant, VCM plant and Ethylene Glycol Unit and flare stacks as mentioned in the environment management plan. Emission control measures shall be taken to ensure air emission standards and norms as prescribed by CPCB and SPCB are strictly followed.

(vii). The company/PP shall ensure that there will be no impact on mangroves plantation present in study area due to the construction and operation phase of the project activties.

(viii). 10% of total power requirement with respect to PVC, VCM, & Ethylene glycol process in overall PVC project will be met by purchasing renewable energy through DISCOM from suitable renewable energy generator or alternate sources.

(ix). Company shall provide extended aeration system in the ETP scheme for removal of total Ammonical nitrogen. The existing ammonia tower in ETP scheme shall be used only for removal of free ammonia from incoming effluent.

(x). For safety and control of risk of any leakage from Anhydrous HCl pipeline, the pipeline shall be built using a seamless pipe with no flanges in between. Periodic Leak check with ammonia torch shall be carried out to detect the leak point along the pipeline. Toxic Leak detectors shall be installed and regularly tested at appropriate detection levels as per industry norms. Regular pipeline thickness measurements and maintenance shall be ensured. Continuous monitoring of pressure of HCl pipeline with high priority alarms, Pressure drop detection shall be monitored for promptly addressing of any leak. SCADA system shall be installed for the pipelines and interlocking shall be done. Chlorine storage tank shall be provided with safety measures such as level indicators with alarm, chlorine gas detector, chlorine sensors and emergency blower suction hoods with storage tank, rupture disc and remotely operated auto valves.

(xi). Conservation plan as submitted and approved by Chief Wildlife Warden, Gandhinagar vide letter no. WLP/32/C/297-298/2022-2023 dated 18/06/2022 shall be followed and budget earmarked shall be invested within the given time frame.

(xii). The total ash generated from the coal fired boilers shall be utilized in proposed inhouse cement manufacturing unit.

(xiii). Public Hearing issues raised by the local people shall be addressed as per the budget and timeline submitted.

(xiv). 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.

(xv). There will be no groundwater extraction for this project. The total water requirement for PVC, VCM, Ethylene Glycol process will be 29,040 m3/day and for other common utilities will be 65,948 m3/day and will be met from APSEZL Seawater Desalination plant. Necessary permission in this regard shall be obtained from the concerned regulatory authority. The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be

discharged outside the premises. Also, company shall explore possibility of optimizing and reducing the water consumption during detailed engineering and operational stage to reduce the OPEX for De-saline water.

(xvi). Industrial waste water shall be treated in ETP followed by RO and MEE. Treated water shall be reused back as cooling tower make up water and boiler feed water. Domestic sewage shall be treated in STP and treated water shall be reused in gardening. No any untreated water shall be disposed of outside the plant area to avoid impact on surface water quality and Zero effluent Discharge concept shall be followed. Online flow meters shall be installed at inlet and outlet of the ETPs. Use of PPE's shall be mandatory while handling the chemicals in ETP to avoid spillage.

(xvii). Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme. Performance assessment of pollution control systems/ devices shall be done annually.

(xviii). Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

(xix). Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.

(xx). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.

(xxi). The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system.

(xxii). Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.

(xxi). The company shall undertake waste minimization measures as below:

(a) Metering and control of quantities of active ingredients to minimize waste.
(b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
(c) Use of automated filling to minimize spillage.

(d) Use of Close Feed system into batch reactors.
(e) Venting equipment through vapour recovery system.
(f) Use of high pressure hoses for equipment cleaning etc. to reduce wastewater generation.

(xxii). The green belt of 5-10 m width shall be developed in atleast 33% of the total project area of Pocket 1, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Total 33% of the greenbelt shall be design so that thickness of the greenbelt is increased on downwind side of the project in comparison to other sides. Additionally 20 metre wide shall be developed in the plant side adjacent to the Mangrove Forest.

(xxiii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.

(xxiv). The project proponent shall ensure 70% of the employment to the local people, as per the applicable law. The project proponent shall set up a skill development centre/provide skill development training to village people.

(xxv). 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. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

(xxvi). 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.

(xxvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants

concentration, and the data to be transmitted to the CPCB and SPCB server. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.

(xxviii). PP to set up occupational health Centre for surveillance of the worker's health within and outside the plant on a regular basis. 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.

(xxix). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 9

Greenfield project of 500 KLD Grain Based Ethanol Plant along with 9.0 MW Co-generation Power Plant located at Village-Salna, Nimchhod under Bheden Tehsil, District- Bargarh, Odisha by M/s. M/s Greentech Bio Energy LLP. – Consideration of Environment Clearance

[IA/OR/IND2/281008/2022, IA-J-11011/37/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. GRC India Pvt Ltd (NABET certificate no. NABET/EIA/2124/RA0213 and validity 15th February, 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the 500 KLD Grain Based Ethanol Plant and 9.0 MW Co-generation Power Plant (biomass based) located at Village Salna, Tehsil Nimchhod under Bheden, District Bargarh, State Odisha. M/s Greentech Bio Energy LLP.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered

under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S.No	Name of Unit	Name of the product/by-product	Production capacity
1	Distillery	Ethanol	500 KLD
2	Co-generation power plant	Power	9 MW
3	DWGS dryer	DDGS	215 TPD
4	Fermentation unit	Carbon di-oxide	250 TPD

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that no litigation is pending against the project.

Total land area required is 12.79 hectares. Greenbelt will be developed in total area of 4.24 hectares i.e., 33.15 % of total project area. The estimated project cost is Rs. 299 Crores. Capital cost of EMP would be Rs. 25.0 Crores and recurring cost for EMP would be Rs. 5.6 Crores per annum. Industry proposes to allocate Rs. 3.5 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 405 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forests/protected forests : Papanga RF is at a distance of 8.2 km in SW direction, Tabloni Degan RF is at a distance of 7.8 km in ESE. Jhaun river is at a distance of 0.50 km in SW direction for which NOC has been issued by Superintending Engineer, Bargarh Irrigation Division, Bargarh vide letter no. 116 dated 2nd July, 2022 stating that local enquiry about the project is found to be satisfactory, hence they have no objection for the proposed project.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.05 µg/m^3, 0.03 µg/m^3, 0.53 µg/m^3 and 0.08 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2 and

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

Total fresh water requirement will be 2775 m^3/day which will be met from surface water. PP informed that application has been submitted to Department of Water Resources dated:-26.05.2022, Application No. 2022052541000383. Effluent (Condensate/spent lees/blowdown etc.) of 2450 KLD quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 3000 KLD. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 25 KLD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 9 MW and will be met from proposed 9 MW co-generation power plant. 85 TPH biomass fired boiler will be installed. ESP/bag filter with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 for the proposed boiler. 1x500 kVA DG set will be used as standby during power failure and stack height of 30 m will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP/bag filter with a stack height of 60 meters will be installed for controlling the particulate emissions from the 85TPH rice husk fired boiler.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2 (250 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (215 TPD) will be sold as cattle feed/fish feed/ prawn feed.

- Boiler ash (567 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (3 Kiloliters per annum) will be sold to authorized recyclers.
- CPU sludge (243 KG/day) and STP Sludge (85 KG/day) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 500 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that total land of 12.79 Hectares land has been taken on lease basis by company and land use conversion application has been submitted to competent authority. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Land use conversion certificate shall be obtained before start of construction activities.
- Only surface water shall be withdrawn and no ground water shall be allowed to be extracted. PP has committed the same.
- Approach road to project site shall be clarified. Connecting road is passing through the school and additional measures shall be detailed. EAC suggested constructing a bypass road of 500 m. Thick Greenbelt development/avenue plantation on road and maintenance of road passing nearby school.
- Greenbelt development of width 20 m towards school side i.e. SE direction within plant premises. PP submitted that the Panchayat School is 400 m from the project site, has entry from the opposite side of the road connecting to Project site. Therefore, chances of any mishappening are minimal.

  Additionally, we propose to follow the following safety measures during operational phase of our project:
  - Vehicle speed will be restricted to 20 km/hr while passing through the village roads.
  - Speed breakers will be constructed.
  - Vehicle movement will be done during non-peak hours
  - No "U" turn will be allowed.
- Coal shall not be used as fuel.

- Increase CER cost to Rs. 3.5 Crores from Rs. 2.99 Crores and submit revised CER plan including villages around the project site. PP has submitted the same.
- Include CEMS (water quality monitoring) and revise Environment Management Plan cost as discussed. Revised capital EMP cost is Rs. 25 Crores and recurring cost per annum is Rs. 5.6 Crores.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the 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 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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 500 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(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). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from surface water. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water abstraction shall be done. No ground water

recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3. Boiler ash will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

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

(viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. 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.

(ix). 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.

(x). 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. PESO certificate shall be obtained.

(xi). Process organic residue and spent carbon, if any, shall be sent to Cement and 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 with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Greenbelt development/avenue plantation on road. Greenbelt development of width 20 m towards school side i.e. SE within the plant premises. Additional thick greenbelt /avenue plantation on the road passing nearby school shall be done.

(xiv). PP proposed to allocate Rs. 3.5 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. PP shall construct a bypass road avoiding the school for movement of vehicles coming and going from the plant. Road passing nearby the school shall be maintained and proper safety shall be ensured by installation of proper road safety measures.

(xvi). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be

interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvii). 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.

(xviii). 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. EMC head shall report to Managing Director/CEO as per company hierarchy.

(xix). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 10

Proposed 500 KLPD grain based distillery at Plot No. 825/2 of GIDC, Jhagadia & Survey No 181,182 & 183 of Village Dadheda, Tal. Jhagadia & Dist. Bharuch, Gujarat by M/s. UPL Limited – Consideration of Environmental Clearance

[IA/GJ/IND2/ 279271/2022, IA-J- 11011/215/2 022-IA-II(I)]

The Project Proponent M/s. UPL Limited and the accredited Consultant M/s. MITCON Consultancy and Engineering Services Ltd. (NABET certificate no. NABET/EIA/2124/RA 0229_Rev 02 and validity 5.02.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 500 KLPD Grain Based Ethanol Plant & 10 MW Captive/Cogeneration power plant (Natural Gas/biomass/Coal) located at Plot No. 825/2 of

GIDC, Jhagadia & Survey No 181, 182 & 183 of Village Dadheda, Tehsil Jhagadia & District Bharuch, State Gujarat by M/s. UPL Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery	Ethanol	500 KLPD
2	Captive/Cogeneration power plant	Power	10 MW
3	DWGS dryer	DDGS	233 TPD
4	Fermentation unit	Carbon di-oxide	379 TPD
5	Corn Oil Plant	Corn Oil	80 TPD

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that no litigation is pending against the proposal.

Total land area required is 19.28 hectares. Greenbelt will be developed in total area of 6.68 hectares i.e., 34.7% of total project area. The estimated project cost is Rs. 480.9 Crores. Capital cost of EMP would be Rs. 52.65 Crores and recurring cost for EMP would be Rs. 4.55 Crores per annum. Industry proposes to allocate Rs. 7.2 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment will be 250 persons as direct & indirect.

There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km

distance. Reserve forests: Ratnapur Forest at a distance of 9.14 km in NE direction. Conservation plan for schedule I species has been submitted to Assistant Conservator of Forest, Bharuch dated 16.6.2022 and a budget of Rs. 10 Lakhs has been earmarked for the same. Water bodies: Kaveri River is 3.73km towards North East, Amravati River is 4.42km towards South West and Narmada River is 9.81 km towards North of the project site.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.5002 $\mu g/m^3$, 47.5 $\mu g/m^3$, and 6.62 $\mu g/m^3$ with respect to PM, SO_2 and NO_X respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1995.4 m^3/day which will be sourced from GIDC, Gujarat. Permission for the same has been obtained dated 12.1.2022. Effluent (Total Condensate/spent lees/blowdowns/ CO2 Scrubber/ Misc. etc.) of 3089 m^3/day quantity will be treated through Condensate Polishing Unit of capacity 3100 CMD. Raw stillage (4199 CMD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 20 CMD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 9.24 MW and will be met from proposed 10 MW Cogeneration power plant. 100 TPH Natural Gas/biomass/Coal fired boiler will be installed. Electro Static Precipitator (ESP) with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boiler. 3 x 900 kVA DG sets will be used as standby during power failure and stack height (12 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- Electro Static Precipitator (ESP) with a stack height of 60 meters will be installed with the 100 TPH capacity boiler for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.

- CO2 (379 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (233 TPD) will be sold as cattle feed / fish feed /prawn feed.
- Boiler ash (Coal ash: 42 TPD) will be sent to brick manufacturer / road construction and Rice Husk & Agri Waste ash (100.5 TPD) will be used as Manure or to be sent to brick manufacturer / road construction.
- Used oil (16.43 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (18.6 TPD) will be used as Manure / to be sent for composting and STP Sludge (1.8 TPD) will be used as manure.

As per Notification S.0 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 500 KLPD will be used for manufacturing fuel ethanol only.

Total land of 19.28 Hectares is under possession of the company. PP has submitted land sale deed via document number 387 dated 27.7.2020 and GIDC allotment number: GIDC/ANK/RM-III/3324 dated 08.09.2021. EAc found the information satisfactory.

During deliberations, EAC discussed following issues:

- Revised EMP cost including CEMS and cost shall be increased. EMP cost has been revised as Rs. 52.65 Crores.
- MOU with brick manufacturers shall be submitted. PP has submitted MOU with brick manufacturers.
- 10% power requirement shall be sourced from renewable energy. PP has agreed for the same.
- CER budget to be invested before commissioning of plant. PP agreed for the same.
- Native species shall be developed after consultation with DFO. Revised species shall be submitted. PP has submitted revised list of native tree species.
- Fuel to be clarified as natural gas is available in the area. PP has submitted that agro waste fuel will be used and coal will be used only in case of non-availability of biomass.
- Recalculate and revalidate stack emission concentrations.

- Efforts to be made for reducing PM emissions, gaseous emissions from boiler stack as predicted concentrations are on higher side.
- As informed, OHS budget is Rs. 70 Lakhs/annum.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the 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 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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 500 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(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). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from GIDC, Gujarat. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and

the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP/bag house shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for biomass as fuel and 30 mg/Nm3 for coal as fuel. Emissions of SO_2 and NOx shall be below 100mg/Nm3.Boiler ash supplied to brick manufacturers/ road construction/given to farmers as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall explore possibility of using natural gas as fuel. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

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

(viii). PP shall allocate at least Rs. 70 Lakhs/annum for Occupational Health Safety. 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.

(ix). 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.

(x). 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. PESO certificate shall be obtained.

(xi). Process organic residue and spent carbon, if any, shall be sent to Cement and 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 with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.

(xiv). PP proposed to allocate Rs. 7.2 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained and proper safety shall be ensured by installation of proper road safety measures.

(xvi). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvii). 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.

(xviii). 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. EMC head shall report to Managing Director/CEO as per company hierarchy.

(xix). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No.11

Greenfield project for Grain based Bio Ethanol 35000 KLA (100 KLD); Animal feed grade protein 28000 TPA DDG, Bio CNG 3000 TPA and CO2-17500 TPA, Power (coal based co-generation) 3 MW co-Generation at Village - Dhamni, Tehsil - Patharia, District - Mungeli, State Chattisgarh by M/s. Kusum Smelters Pvt. Ltd – Consideration of Environmental Clearance

[IA/CG/IND2/198531/2021, F. No.: IA-J-11011/64/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s Anacon Laboratories Pvt Ltd (NABET certificate no. NABET/EIA/1922/RA 0150 and validity 30thSeptember, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the Greenfield project for Implementation of product facilities for Ethanol division which comprises of "Grain based Bio Ethanol 35000 KLA (100 KLD); Animal feed grade protein 28000 TPA, Bio CNG 3000 TPA, CO2-17500 TPA and 3 MW co-generation power plant" proposed to be implemented along with Steel Division comprising of Sponge Iron (245000

TPA); Mild Steel Billet (179550 TPA); Rerolled Steel products through Hot Charging (131970 TPA); Rerolled Steel product through Reheating Furnace (42194 TPA); Ferro Alloys (75000 TPA) and/or Pig Iron (150000 TPA), Captive Power 56 MW (16 MW through WHRB and 40 MW through AFBC) and Fly Ash Brick (150000 TPA) located at Village Dhamni, Tehsil Patharia, District Mungeli, State Chhattisgarh by M/s. Kusum Smelters Pvt. Ltd. The MOEFCC EAC1 has granted EC to the steel division for this project vide EC Identification No. EC22A008CG158594 and File No. J-11011/197/2020-IA.II(I) dated 20th June, 2022.

All Distilleries are listed at S.N 5(g) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC). The projects with less than 200 KLD Capacity are categorized as B1 thus are appraised at State Level and projects proposed for EBP are Categorized as B2 but are required to be appraised at Central level. The facilities proposed in ethanol division are proposed in same premises along with steel division are categorized under S.N. 3(a) for sponge iron; steel and Ferro Alloys and S.N. 1(d) for Power generation in Schedule of EIA Notification Under Category A. Since proposed Distillery is being set up in same premises and some of the utility based facility will be common to Steel and Distillery Division, thus applied at Central Level for consideration.

The details of products and capacity for Ethanol division are as under:

S. No	Unit	Product/by- product	Total Quantity
1.	Grain Based Distillery	Ethanol	100 KLD (35000 KLA)
2.	DWGS dryer	DDGS	28,000 MTA
3.	Effluent Treatment Anaerobic Digesters	Bio-CNG	3,000 MTA
4.	CO2 Recovery Plant	CO_2(Carbon Di-oxide)	17,500 MTA
5.	Coal/Biomass Based Co- generation power Plant	Power	3 MW

The project proposal was considered by the Expert Appraisal Committee (Industry-II) in its 33rd meeting held during 07th- 08th April, 2021 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter No. IA-J-11011/64/2021-IA-II(I); dated

04.05.2021. It was informed that no litigation is pending against the project.

Public Hearing for the proposed project has been conducted by the Chhattisgarh Environment Conservation Board on 07.10.2021 at Primary School Building Premises (Village Khamhardih, Tehsil Patharia, District Mungeli, State Chattisgarh) chaired by Additional District Magistrate, Mungeli. The main issues raised during the public hearing and their action plan:

Regarding intimation about Public Hearing, PP informed that Public Hearing has been conducted as per EIA Notification, 2006 and all guidelines have been followed.

Regarding water pollution, The proposed industry will be based on zero liquid discharge. Therefore there is no effluent likely to be flown outside premises. In accordance to law the company will adopt online effluent monitoring system, therefore the company herewith assure no discharge of effluent outside premises. The company has proposed to adopt rain water harvesting and rain water collection measures which will have positive impact on ground water table.

Regarding air pollution, the proposed project has voluntarily proposed to control PM emission within 30 mg/Nm3 against the prevailing law of 50 mg/Nm3. It is also proposed to provide online emission monitoring system.

Regarding employment, The company will follow the norms of Chhattisgarh State Government which requires that in account of unskilled worker 100% employment will be given to local peoples, and in Admin Staff 40% people will be local. In addition to the priority for employment the company will support the self-help groups in the three villages to promote the Cottage Industry as well as offer training to the youth for vocational jobs. For this a sum of Rs 60 Lakhs will be provided and all these sum will be spent by second year of the project or by December 2025. This will involve the following Physical works Skill development Centre with Building and Equipment and Furniture and Fixtures.

Regarding road construction, a sum of Rs 100 Lakhs will be spent for improvement of Road in Dhamni; Khamhardih and Rambod villages.
Regarding Mahamaya Temple development, Rs 30 Lakhs will be spent for construction of Solar Power for Temple. This will be completed by end of December 2023.

Regarding impact on nearby agricultural fields, The company will provide Organic Microbial Inputs for improvement in agriculture productivity to the farmers to reduce the use of Chemical fertilizers and also it will support in getting training to the farmers to adopt to organic farming and produce Vermi Compost and Bio Compost. A sum of Rs 30 Lakhs Will be provided for this. This sum will be spent in first 3 years of project start and will be taken up in the five villages; Dhamni, Khamhardih; Rambod; Lohda and ; Umaria and complemented by March 2025.

Regarding impact on human health due to air and water pollution, the company will extend support in making the village internal Roads Pucaa with proper drainage to reduce the fugitive dust emission. Also the Gauthan will be improved to reduce the fugitive dust due to Cattle Hoof strikes on Dusty Roads.

Regarding impact on Drinking Water quality, The company will help the Village Panchayat to construct the Village Community Toilets with Sewage treatment system in 5 villages. For this a sum of Rs 25 Lakhs will be provided and the work will be completed by December 2025. Company will support for setting up community drinking water sources at Panchayat Villages of Dhamni, Khamhardih; Rambod; Lohda; Umaria. A sum of Rs 75 Lakhs will be provided for the same the work will be completed by June 2025.

Regarding Panchayat Villages of Dhamni, Khamhardih; Rambod; Lohda; Umaria villages to be adopted, The company will set up Solar Power panels in the schools of all these villages and set ug green Belt and Rain water harvesting system in the schools of these three villages and Panchayats. The Village development works will be planned in consultation with respective Panchayat and District administration. A sum of Rs 25 Lakhs each will be spent in all these five villages. The company will get the present socio economic conditions surveyed before starting the project construction at site and then it will reevaluate after 3 years of starting commercial production.

Total land area acquired by the combined project of the company is 17.14 hectare out of which the area required for ethanol division is 6.54 Ha. Greenbelt will be developed in an area of 2.16 Ha i.e. 33% of total project

area alotted for ethanol division. The estimated project cost for ethanol division is Rs. 116.10 Crores. Capital cost of EMP would be Rs. 9.0 Crores and recurring cost for EMP would be Rs. 3.40 Crores per annum. Industry proposes to allocate Rs. 1.2 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 105 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Turturia Nala is at a distance of 0.8 Km in NE direction, Maniyari River is at a distance of 1.0 Km for which NOC has been obtained from Tehsildar dated 07.03.2022 stating that the site is having no record of flood in past 30 year and there will be no impact of flood envisaged. The Committee noted that few old ponds are located within the existing land. PP clarified that ownership of the ponds is with them as located in their premises. It was suggested that land of the existing pond will be reclaimed by filling soil or can be used as water reservoir after making concrete lining.

Ambient air quality monitoring was carried out at 8 locations during 1st October 2020 to 31st December 2020 and the baseline data indicates the ranges of concentrations as: PM_{10} (43-89.3 µg/m^3), $PM_{2.5}$ (15 - 33.8 µg/m^3), SO_2 (13 - 25.2 µg/m^3) and NO_2 (13.5 - 29.4 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs for the proposed project would be 0.75 µg/m^3, 0.24 µg/m^3, 0.75 µg/m^3 and 0.23 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2 and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement for Ethanol Division will be 550 m^3/day which will be met from Maniyari River. Application has been submitted to Water Resource Department, Government of Chhattisgarh dated 08.03.2021. Effluent of 534 m^3/day quantity will be treated through Condensate Polishing Unit of capacity 600 KLPD. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 30 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3 MW and will be met from proposed 3 MW co- generation power plant. 25 TPH coal/biomass fired boiler will be installed.

Electro Static Precipitator with a stack of height of 48 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3 for the proposed boiler. 2x 1000 KVA DG set will be used as standby during power failure and stack height (30 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- Electro Static Precipitator with a stack height of 48 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3 for the proposed boiler.
- Online Contentious Emission Monitoring System will be installed with stack and data will be transmitted to CPCB/SPCB servers.
- CO2 generated during the fermentation process will be collected by utilizing CO_2 scrubbers and bottling plant.

Details of Solid waste/ Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (75 TPD) will be sold as cattle feed / fish feed /prawn feed.
- Boiler ash (60 TPD or 17690 TPA Coal Ash) with waste media will be used in captive brick plant / brick makers / Cement Plants/ back filling of Mined out land area.
- Mud generated from Bio Methane Plant will be composted and given to the farmers for application in crops.
- 673 TPA ETP Mud generated from treatment of water treatment ETP will be used for Brick making /given to Cement plants / land fill.
- 953 TPA Bio Methane sludge will be used for firing in Boiler of Co Gen Plant by mixing with Coal.
- 15 TPA STP Sludge from Human Sewage treatment and Food waste will be used in composting and then applied on green Belt.

PP has reported that total land is under possession of the company and land use conversion for the same has been completed and SDM has issued NOC vide letter no. 202203250500001 dated 07.03.2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Surface water permission shall be obtained before start of construction activities.
- Ash management shall be submitted.
- Revised EMC hierarchy wherein EMC head will directly report to Head of Organization.
- Environment policy shall be submitted.
- 10% of total power consumption shall be sourced from renewable energy.
- Cost of EMP shall be revised wherein CEMS shall also be included.
- CER activities.
- Greenbelt development shall consist of native species only and after discussion of DFO shall be developed.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. 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 is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. 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 and 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. All public hearing issues shall be properly addressed as per timeline and budget submitted.

(ii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(iii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(iv). Total Fresh water requirement shall not exceed 550 m3/day which will be met from Maniyari River. No ground water abstraction is permitted.Prior permission shall be obtained for surface water withdrawal before start of

construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(v). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP/bag house shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for biomass as fuel and 30 mg/Nm3 for coal as fuel and SO_2 and NO_x emissions less than 100mg/Nm^3. Boiler ash will be used in captive brick plant or sent to brick manufacturing units by operationalizing through MoU. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only as 15% auxiliary fuel. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

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

(vii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. 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. Firefighting system shall be as per the norms. PESO certificate shall be obtained.

(x). Process organic residue and spent carbon, if any, shall be sent to Cement and 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 with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Green belt Development shall be completed by October 2023.

(xiii). PP proposed to allocate Rs. 1.2 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(xiv). 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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.

(xv). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvi). 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.

(xvii). 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. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

Agenda No. 12

Development Drilling of 6 Wells in Tichna Gas Field and Tichna Manifold/EPS, laying of Associated Flow lines in Tripura by M/s Oil and Natural Gas Corporation Limited (ONGC) at South Tripura District, Tripura – Consideration of Environmental Clearance

[IA/TR/IND/3403/2008, IA-J-11011/64/2017-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Vimta Labs Limited (NABET certificate no. NABET/EIA/RA/ 0226 and validity 27th may, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for development drilling of 6 Wells in Tichna Gas Field and Tichna Manifold/EPS, laying of Associated Flow lines in Tripura at South Tripura District, Tripura by M/s Oil and Natural Gas Corporation Limited (ONGC). The initial scope of TOR included conversion of 9 exploration wells into development wells. However, conversion of these 9 exploration wells has been kept in abeyance for 3-4 years for operational constraints. Out of 9 development drilling wells 3 wells namely TIAC, TIAG belongs to Category B2 and TIAF well has been rejected by ONGC. The current proposal stands for 6 development drilling wells and Tichna well manifold/EPS.

All Offshore and onshore oil and gas exploration, development & Production are listed at S.N. 1(b) Of Schedule of Environmental Impact Assessment (EIA) Notification under Category 'A' and are appraised at Central Level by Expect Appraisal Committee (EAC).

The details of production and capacity as under:

S.No	Unit	Product/by - product	Existing Quantity	Proposed Quantity	Total Quantity
1	MMSCMD	Natural Gas	-	5.0	5.0

The Proposed Well Co-Ordinates are mentioned below:

Sr.No	Well Code	Well Coordinates (WGS-84)	
		Latitude	Latitude
1	TIDC	23^0 23' 10.64" N	91^0 21' 51.16" E
2	TIDA	23^0 23' 32.57" N	91^0 21' 53.20" E
3	TIDD	23^0 23' 12.57" N	91^0 22' 07.26" E
4	TIDE	23^0 23' 45.80" N	91^0 21' 48.06" E
5	TIDF	23^0 23' 58.15" N	91^0 22' 01.46" E
6	TIDG	23^0 23' 12.62" N	91^0 22' 00.75" E
7	Tichna Manifold/EPS	23^0 23' 20.62" N	91^0 18' 23.04" E

The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 21st meeting held during 27th to 29th March 2017 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide F. no: J-11011/64/2017-IA.II (I) dated 31st May 2017. It was informed that no litigation is pending against the project.

Public Hearing for the proposed project had been conducted by the Tripura State Pollution Control Board on 1.10.2019, 10.10.2019, 14.10.2019, 16.10.2019 at (1) Gojalia GCS, Near Kalachara Market, Kalachara, South Tripura, Tripura, (2) Shyamnagar Village, Garbardi, Sepahjala District, Tripura, (3) Jupuijala community centre (opposite to SDM office), Sepahjala District, Tripura, (4) Kathalia Community Hall, Kathalia, Sepahjala District, Tripura chaired by Additional District Magistrate & Collector. The main issues raised during the public hearing and their action plan:

Regarding health Camps, Solar Street Lights, Overhead Water Tank, Drinking Water facilities, Infra development at Schools, Sewing machines and dustbins etc., PP has informed that after the receipt of complete proposal from the local/district authorities allocation of funds will be done as per ONGC CSR policy / Guidelines. Further, PP has allocated

tentative fund of Rs. 74 Lakhs and timeline will be 3 Years from the date of receipt of complete proposal from local/district authorities.

Total land area required is 15.09 Ha out of which 7.815 Ha is required for 6 well sites and 7.276 Ha for Tichna manifold/EPS. The estimated project cost is Rs. 60 Crores. Capital cost of EMP would be Rs. 3 Crores and recurring cost for EMP would be Rs. 0.6 Crores per annum. Total Employment will be about 35 persons/well as direct & indirect.

All the proposed 6 development drilling wells are falling within Trishna Wild Life Sanctuary and Tichna manifold/EPS is located outside Trishna ESZ boundary. Trishna ESZ is notified vide Notification No. S.O 4077 (E) dated 8th November 2019. The Eco-sensitive Zone is spread over an area of 194.708 square kilometres with an extent varying from 0 kilometres to 0.5 kilometres around the boundary of Trishna Wild Life Sanctuary. The Tichna EPS site is located 1.0 Km away from notified ESZ boundary. Conservation plan for schedule I species has been submitted to PCCF, Govt. of Tripura dated 1.04.2022 and a budget of Rs. 3.7 Crores has been earmarked for the same. There are no water bodies present in Tichna block. River Gomati is at a distance of 8.3 Km from the nearest TIDC well location.

The status of NBWL and Forest clearance for 6 wells and Tichna EPS are mentioned below:

<table>
<tr><th>Sr. No.</th><th>Well Code</th><th>NBWL Status</th><th>FC Status</th></tr>
<tr><td>1</td><td>TIDC</td><td>Presently under consideration of SBWL, Tripura.</td><td>FC proposal is under RO, Shillong consideration</td></tr>
<tr><td>2</td><td>TIDA</td><td rowspan="3">NBWL applicable and Cleared by NBWL in 52nd and 65nd Meeting</td><td>Proposal pending RO-HQ, Delhi for Stage-I approval</td></tr>
<tr><td>3</td><td>TIDD</td><td>Approval for Stage-I & Stage-II forest obtained vide letter no. 3-TR B 070/2018-SH1/1421-45 dated 4th October 2021.</td></tr>
<tr><td>4</td><td>TIDE</td><td>Proposal pending RO-HQ, Delhi for Stage-I approval</td></tr>
</table>

5	TIDF		Proposal pending RO-HQ, Delhi for Stage-I approval
6	TIDG	Presently under consideration of SBWL, Tripura.	FC proposal is under RO, Shillong consideration
7	Tichna EPS	NBWL not applicable	Not Applicable

Ambient air quality monitoring was carried out at 15 locations during 1st March 2018 to 31st May 2018 and the baseline data indicates the ranges of concentrations as: PM_{10} (30.1-56.3 µg/m^3), $PM_{2.5}$ (15.2-26.6 µg/m^3), SO_2 (10.1- 19.2 µg/m^3) and NO_2 (10.1-25.9 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.22 µg/m^3, 14.37 µg/m^3 and 27.1 µg/m^3 with respect to PM_{10}, SO_2 and NO_x occurring within 120 m from the proposed drilling sites. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Further, latest baseline data has been generated for 15 days (i.e. from 25th May 2022 to 8th June 2022). Ambient air quality monitoring was carried out at 15 locations and the baseline data indicates the ranges of concentrations as: PM_{10} (30.1-43.5 µg/m^3), $PM_{2.5}$ (15.9-27.1 µg/m^3), SO_2 (10.3- 16.5 µg/m^3) and NO_2 (13.5-20.7 µg/m^3).

For each drilling site, the total fresh water requirement is about 25 m^3/day and will be met through Tankers Supply. PP informed that No drilling activities shall be carried out within 500 m from the water bodies.

The power requirement at each well site is expected to be 4325 KVA and will be met from DG sets. For each drilling site 3x1400 KVA capacity DG sets will be installed and 1 no. DG set will be stand by. For Tichna manifold/EPS facility, 25 KW power will be sourced from Tripura Electricity Board and 1 no. of DG set of 125 KVA capacity will be installed at processing plant.

Details of Process emissions generation and its management:

Appropriate management measures will be undertaken to minimize the emissions from the DG sets to achieve fuel efficiency and therefore reduce emissions;

- Use of low sulphur diesel oil (<0.05% sulphur content) if available;
- Environmental monitoring during drilling and well testing to ensure compliance to the standards;
- Flaring towards any standing vegetation will be avoided. In case if it is inevitable, a suitable barrier will be erected to prevent any vegetation scorching due to direct heat radiation; and
- Prior to flaring, the critical equipment such as burners, anti-glare accessories will be thoroughly tested.

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

Hazardous waste details: Any wastes, which cannot be dealt with on site, will be removed to a suitable location for further handling and/or disposal. All off-site transportation and disposal of hazardous waste (as per the Hazardous Waste Rules, 2016) shall be done after obtaining necessary authorization from TSPCB. Wastes will be clearly labelled according to Non-hazardous wastes mentioning type of waste and Hazardous wastes as per Hazardous Waste Management & Handling Rules.

Solid Waste details and disposal methods:

- Drill cuttings and sludge from drilling mud to be buried within the impervious lined pit and covered with soil as part of the site restoration plan.
- Small amounts of solid wastes will be generated during normal operation at the drilling rig. The wastes will be disposed on compliance with local and national legislations.
- Spent waste oil to be stored in a secure paved area and disposed to MoEF&CC/ TSPCB approved waste oil recyclers.
- Biodegradable waste arising from kitchen and canteen activities to be scientifically composted and the bio-manure so generated to be used for green belt development.

As reported, Certified Compliance Report has been submitted by PP which was monitored on 2nd February, 2012. PP informed that earlier proposal included conversion of 9 exploration wells into development wells. However,

conversion of these 9 exploration wells has been kept in abeyance for 3-4 years for operational constraints. Out of 9 development drilling wells 3 wells namely TIAC, TIAG belongs to Category B2 and TIAF well has been rejected by ONGC. The current proposal stands for 6 development drilling wells and Tichna well manifold/EPS. The Committee noted that since conversion of 9 exploration wells has been kept in abeyance for 3-4 years for operational constraints, latest CCR was not submitted by ONGC. The Committee noted that PP has uploaded very old certified compliance report of the project area on the portal in which most of the conditions are complied. The Committee asked them to comply with all the conditions stipulated in the environmental clearance and suggested them to use acoustic fitted DG sets in the project site. Accordingly, PP vide letter no. ONGC/AGT/C-01/2022-23/EAC dated 27th July, 2022 has informed that all non –compliances by IRO, MoEF&CC Shillong Office have been duly complied with. Further with reference to observation raised regarding DG sets, it is submitted that all DG sets employed during drilling are equipped with acoustic enclosures duly evidenced by the photographs from drilling locations. The Committee was satisfied with the response of M/s ONGC.

During deliberations, the Committee noted that OM dated 8th June, 2022 prescribes at the time of application for EC, in case baseline data is older than three years, but less than 5 years old in case of River Valley and HEP projects or less than four years old in the case of other projects, the same shall be considered, subject to the condition that it is revalidated with one season fresh non-monsoon data collected after three years of the initial baseline data. In this regard, EAC noted that application for EC has been received before the issuance of Notification dated 8th June, 2022 and fresh baseline data has been carried out for 15 days after recommendation of the Ministry before accepting the proposal. So EAC was opined that there is no need to revalidate with one season monitoring data again. Further, EAC discussed following issues:

- Fresh baseline data for 15 days conducted during May to June.
- Undertaking regarding dropping wells from 9 to 6 and no development proposed of existing wells.
- Undertaking that no work will be started before getting NBWL clearance & Stage II Forest Clearance.
- Non-compliances for three points in CCR submitted and action taken report by PP shall be submitted. Photographs of DG sets and acoustic and written clarification for DG sets. PP has submitted the clarification

regarding the same.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. 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 is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. 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 and 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 and Stage II Forest Clearance, as per the Ministry's OM dated 8th August, 2019 and 16th July, 2020. 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. PP shall also strictly follow the conditions mentioned in existing NBWL clearance.

(ii) The project proponent shall prepare a site specific conservation plan and wildlife management plan in case of the presence of Schedule-1 species in the study area, as applicable to the project, and submit to Chief Wildlife Warden for approval. The recommendations shall be implemented in consultation with the State Forest/Wildlife Department in a time bound manner.

(iii) No drilling activities shall be carried out within 500 m from the water bodies.

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

(vi) Total fresh water requirement shall not exceed 25 m3/day and will be met through Tankers Supply. Prior permission shall be obtained from the concerned regulatory authority.

(vii) The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. 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.

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

(ix) The project proponent also to ensure trapping/storing of the CO2 generated, if any, during the process and handling.

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

(xi) 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.

(xii) 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.

(xiii) 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.

(xiv) 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.

(xv) 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.

(xvi) The project proponent shall develop a contingency plan for H2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H2S detectors in locations of high risk of exposure along with self-containing breathing apparatus.

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

(xviii) 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.

(xix) As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility (Rs. 74 Lakhs), and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.

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

(xxi) 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.

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

(xxiii) 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.

(xxiv) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 13

Greenfield Project of 750 KLD Grain Based Ethanol Plant along with 20 MW Co-generation Power Plant located at - Chakai, District-Jamui, Bihar by M/s. Ankur Biochem Private Limited – Consideration of Environment Clearance

[IA/BR/IND2/281942/2022, IA- J-11011/247/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. GRC India Pvt Ltd (NABET certificate no. NABET/EIA/2124/RA0213 and valid till 15th February, 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project 750 KLD Grain Based Ethanol Plant and 20 MW co-generation power plant (biomass/coal based) located at Village Chakai, Tehsil & District Jamui, State Bihar by M/s. Ankur Biochem Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S. No.	Name of Unit	Name of the product /by-product	Production capacity
1	Distillery	Ethanol	750 KLD
2	Co-generation power	Power	20 MW

	plant		
3	DWGS dryer	DDGS	413 TPD
4	Fermentation unit	Carbon di-oxide	375 TPD

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that no litigation is pending against the project.

Total land area required is 27.92 hectares. Greenbelt will be developed in total area of 9.22 hectares i.e., 33.03 % of total project area. The estimated project cost is Rs. 904.0 Crores. Capital cost of EMP would be Rs. 16.9 Crores and recurring cost for EMP would be Rs. 2.105 Crores per annum. Industry proposes to allocate Rs. 9.04 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 400 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Hirnatanr dam is at a distance of 2.5 km towards ENE Direction, Ajay River which is at a distance of 2.1 km in SE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.24 µg/m^3, 0.1 µg/m^3, 1.16 µg/m^3 and 1.59 µg/m^3, 0.56 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2, NO_2 and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement including co-generation power plant will be 4307 m^3/day which will be met from surface water. The permission for surface water has been obtained for 10 MLD vide letter no. 1/1-10168/21/1715 dated 30.10.2021. Effluent (Condensate/spent lees/blowdown etc.) of 3082 m^3/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 3700 KLD. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 15 KLD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 17 MW and will be met from proposed 20 MW co-generation power plant. 2 x 150 TPH coal/biomass fired boiler will be

installed. ESP/bag filter with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boiler. 1 x 2000 kVA DG set will be used as standby during power failure and stack height will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP/bag filter with a stack height of 60 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 (375 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (413 TPD) will be sold as cattle feed/fish feed/ prawn feed.
- Boiler ash (290 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (0.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (3918 KG/day) and STP Sludge (2 KG/day) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 750 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that total land of 27.92 Ha is under possession of the company and land use conversion for the same has been completed vide letter NIL dated 24.03.2022 and 22.07.2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Constructing 20 m wide road for approaching nearest highway under CER. Provide a road outside plant premises for villagers to pass. PP has agreed for the same. NOC from revenue department shall be obtained. PP has submitted that a kaccha road is passing through the site which is not a revenue road as per Govt. records, hence NOC is not required.
- Prescribed norms for PM, NOx and SO2 emission shall be followed i.e. 30mg/Nm^3 for PM and 100 mg/Nm^3 for NOx and SO2. Additional measures to be detailed. PP has submitted the mitigation measures to control air pollution.
- OHS budget to be increased to Rs. 1 Crore from Rs. 40 Lakhs.
- Revised CER details including length of road to be constructed, villages and people to be considered for skill training. PP has submitted the same.
- Revised EMP cost to be submitted. EMP cost has been increased to Rs. 16.9 Crores and recurring cost per annum is Rs. 2.105 Crores.
- Recovery of carbon di-oxide and calculation of carbon di-oxide generated & recovered. PP has submitted that the recoverable CO2 quantity will be 375 TPD instead of 338 TPD.
- Rainwater harvesting scheme and storage for 60 days.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the 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 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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 750 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(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). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from surface water. No ground water abstraction is permitted. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP/bag house shall be installed with the 150 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for biomass as fuel and 30 mg/Nm3 for coal as fuel and SO_2 and NO_x emissions shall not exceed 100 mg/Nm^3. Boiler ash will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas. Coal shall not be used as permitted fuel.

(vii). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors/collected in proposed bottling plant.

(viii). PP shall allocate at least Rs. 1 Crores/annum for Occupational Health Safety. 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.

(ix). 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.

(x). 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. PESO certificate shall be obtained.

(xi). Process organic residue and spent carbon, if any, shall be sent to Cement and 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 with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Additional 10 metre wide greenbelt shall be provided within the plant in SW direction, to abate impact of air pollution on Shiv Temple.

(xiv). PP proposed to allocate Rs. 9.04 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like construction of 20 m wide road outside plant premises, up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. PP shall construct an alternative village road outside plant premises for villagers to pass.

(xvi). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvii). 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.

(xviii). 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. EMC head shall report to Managing Director/CEO as per company hierarchy.

(xix). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

28th July, 2022 (Thursday)

Agenda No. 1

Grass root Green Needle Coker Unit (GNCU) with Needle Coke Calcination Unit (CCU) at Paradip Refinery cum Petrochemical Complex – Amendment in Terms of Reference.

[IA/OR/IND2/ 282460/202 2, IA-J-11011/121/2017-IA-II(I)]

The proposal is for amendment in the Terms of Reference (ToR) granted by the Ministry vide proposal no. IA/OR/IND2/175618/2020 dated 09th October, 2020 for the project Grass root Green Needle Coker Unit (GNCU) with Needle Coke Calcination Unit (CCU) located at Village Abhayachandrapur, Tehsil Kujang, District Jagatsinghpur (Odisha) by M/s Indian Oil Corporation Ltd., Paradip Refinery cum Petrochemical Complex.

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

S. No.	Para of ToR issued by MoEF&CC	Details as per the ToR	To be revised/ read as	Justification/ reasons
1	General points no. ix	The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the	PH is exempted under para 7(ii)(a) and in line with MoEFCC OM .No. IA3-22/10/2022-IA.III	• Project is for 'Modernization' (as there is no change in Refinery capacity and only product mix change) • There will be **no additional land**

		Public Hearing/public consultation, districtwise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate.	[E177258] dt. 11th April 2022.	**acquisition** and the proposed unit will be within the existing Refinery premises only. • **Previous Public Hearing was conducted in March'2021** by IOCL Paradip Refinery for PX-PTA project coming up within the existing Refinery complex and EC has been granted by MoEF&CC on 09th Aug'2021. • All the conditions [4 (i) to 4 (ix)] of MoEFCC OM F. No. IA3-22/10/2022-IA.III [E 177258] dt. 11th Apr'2022 have been complied.

During deliberations, EAC noted that the proposed unit located in critically polluted area. Further, EAC sought discussed following issues:

- Change in pollution load post expansion considering environmental parameters such as air emissions, effluent generation, hazardous waste generation etc.
- PP has informed that there will be change in product mix but no change in production capacity i.e pet coke production shall decrease and needle coke production will be increase. In this regard, EAC sought existing & proposed Products of Paradip Refinery cum Petrochemical Complex and Material balance of Green Needle Coker Unit (GNCU) & Coke Calcination Unit (CCU).

PP has informed that SO2 emissions shall increase from 647 kg/hr to 650 kg/hr. Total treated effluent after discharge shall increase from 277 m3/hr to 290 m3/hr and there shall be no increase in hazardous waste generation and frsh water requirement. The committee noted that there is minute increase in pollution load. The committee was satisfied with the response provided by PP on above information and recommended amendment in ToR waiving PH under para 7(ii) (a) as per OM dated 11th April, 2022.

Accordingly, EAC ***recommended for amendment in ToR*** waiving PH under para 7(ii) (a) as proposed by PP. PP shall submit latest certified compliance report while submitting EIA-EMP Report for consideration of Environmental Clearance.

Agenda No. 2

Expansion of Molasses or Sugar syrup or Sugarcane juice based distillery from 80 KLPD to 200 KLPD of M/s. Shreenath Mhaskoba Sakhar Karkhana Ltd. – Consideration of Environmental Clearance

[IA/MH/IND2/279125/2022, J11011/189/2016-IA- II(I)]

The Project Proponent and the accredited Consultant M/s. Vasantada Sugar Institute, Pune (NABET certificate no. NABET/EIA/2023/RA 0208 and validity 19th December, 2023) 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 distillery unit from 80 KLPD to 200 KLPD located at Village Shreenathnagar, Patethan, Post-Rahu, Tehsil Daund, District Pune, State Maharashtra by M/s. Shreenath Mhaskoba Sakhar Karkhana Ltd.

As per EIA Notification 2006 (Schedule 5 (g) Category A); however, as per in the MoEFCC Notification S.O. 345(E), dated the 17th January, 2019, notification number S.O. 750(E), dated the 17th February, 2020, S.O. 980

(E) dated 02nd March, 2021 & S. No. 2339(E) 16th June, 2021, a special provision in the EIA Notification, 2006 "Expansion of sugar manufacturing units or distilleries for production of ethanol, having Prior Environment Clearance (EC) for existing unit, to be used completely for Ethanol Blended Petrol (EBP) Programme only, as per self-certification in form of an affidavit by the Project Proponent, shall be appraised as category 'B2' projects.

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Existing Productioncapacity	Additional production capacity	Total productioncapacity
1	Distillery (Molasses or Sugar syrup or Sugarcane juice)	Ethanol	80 KLPD	120 KLPD	200 KLPD
2	Fermentation unit	Carbon di-oxide	62 TPD	94 TPD	156 TPD
3	Dryer (ATFD/spray dryer)	Conc. spent wash powder	NA	73.4 TPD	73.4 TPD

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 55 KLPD vide File No. J-11011/189/2016-IA-II (I) dated 22.02.2019 and expansion under NIPL from 55 KLPD to 80 KLPD [PARIVESH portal application No.: IA/MH/IND2/81299/ 2017 (SW/1509/2021) Consent No.: Format1.0/CAC/UAN No. MPCB-CONSENT-0000121173/CO/2203001262 Date: 24.03.2022]. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Nagpur vide File no. EC-992/RON/2019-NGP/9303 dated 15.03.2022. Action Taken Report has been submitted to IRO, MOEFCC, Nagpur dated 04.03.2022 for partial compliances and non- compliances. EAC found the compliance status to be satisfactory.

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. PP informed that no litigation is pending against the proposal.

Total plant area after expansion will be 12.72 Ha. No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area 4.2 Hectares i.e. 33% of the total plant area has already been developed as greenbelt & plantation and the same will be maintained. The estimated project cost is Rs. 149 Crores. Capital cost of EMP would be Rs. 45.22 Crores and recurring cost for EMP would be Rs. 2.43 Crores per annum. Industry proposes to allocate Rs. 2.43 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 66 persons as direct & indirect.

There are no any national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forests/protected forests: Near village Patethan at a distance of 2.5 km in North-West direction. Water bodies: River Bhima is at a distance of 2.3 Km in North-west direction and River Mula-Mutha is at a distance of 8.0 Km in South-East direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.2 µg/m^3 and 0.258 µg/m^3 with respect to PM and SO_2. The resultant concentrations arewithin the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 828 m^3/day which will be met from River Bhima. NOC has been obtained by irrigation department vide letter no. PID/admin-1/NI/8583 dated 22.12.2014. Existing effluent generation is 451 m3/day from distillery which is treated through Condensate Polishing Unit of capacity in 500 m^3/day. Total effluent generation will be 1576 m^3/day from distillery including existing and proposed expansion, which will be treated through upgraded Condensate Polishing Unit of capacity in 1600 m3/day. In molasses based operation, spent wash generated from the analyser column during distillation will be treated in bio-methanation unit and concentrated in Multi Effect Evaporator and concentrated spent wash will be converted into powder form by spray dryer (ATFD) technology and will be sold to farmers or fertilizer manufacturer in packed form. Domestic waste water will be treated through sewage treatment plant. The plant will be based on Zero Liquid discharge system and treated effluent will not be discharged outside the factory premises.

Total power requirement of distillery after expansion will be 3.5 MW which will be sourced from existing 4 MW co-generation power plant in sugar mill. Existing sugar mill has 32 TPH bagasse fired boiler, which will be upgraded to 40 TPH capacity. ESP with a stack of height of 65 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 and same will be used after expansion. Industry has 750 KVA DG set installed in sugar unit which will be used as standby during power failure and stack height (5m) will be provided as per CPCB norms to the proposed DG sets same will be used for distillery unit.

Details of Process emissions generation and its management

- ESP with a stack of height of 65 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 same will be continued after expansion.
- Online Continuous Emission Monitoring System is installed with the stack and data is transmitted to CPCB/SPCB servers.
- CO2 (156 TPD) generated during the fermentation process is being/will be collected by utilizing CO_2 scrubbers and sold to authorized vendors/collected in installed bottling plant.
- Biogas (36400 m3/day) will be generated during treatment of spent wash in bio-methanation unit being converted into CBG (Compressed-biogas), existing CBG plant will be upgraded for proposed expansion.

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

- Concentrated spent wash (124.4 m3/day) is being/will be converted to powder by ATFD or spray dryer to be used as manure.
- Boiler ash (7.86 TPD) is being/will be given to farmers to be used as manure.
- CPU and fermenter sludge (0.3 TPD) is being/will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self- certification in the form of notarized affidavit declaring that the proposed expansion capacity of 120 KLPD will be used for manufacturing fuel ethanol only.

During deliberations, EAC discussed following issues:

- Action taken report shall be complied within 3 months.
- Bio-composting shall be phased out within 2 years as committed by

PP.

- Fresh water consumption shall not exceed 4 KL/KL of ethanol production.
- PP is operating wet scrubber as air pollution control device for boiler. The Committee noted that the same is highly in efficient method to control particulate emission from the boiler. Therefore, it was advised to upgrade air pollution control device by replacing the existing wet scrubber with ESP to achieve 50 mg/Nm^3 particulate emissions.
- Install STP and no septic tank to be used for treatment of domestic waste water.
- 10% power requirement shall be sourced from renewable energy. PP has committed the same.
- Surface water permission has expired. PP shall submit renewal application for surface water withdrawal.
- CER budget shall be clearly specified along with villages and activities to be included. Main activities to be school upgradation and installation of solar power appliances.
- Coal shall not be used as fuel.

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 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 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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed expansion of 120 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(ii). Action taken report as submitted to IRO, MOEFCC for partial/non-compliances shall be complied within three (03) months as committed by PP.

(iii). 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.

(iv). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(v). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(vi). Total Fresh water requirement shall not exceed 4.0 KL/KL of ethanol production which will be met from River Bhima. No ground water abstraction is permitted. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vii). The spent wash shall be concentrated and subject to ATFD to form powder. Bio-composting shall be phased out within 2 years as committed. PP while enhancing the boiler capacity from 32 TPH to 40 TPH shall upgrade air pollution control device by replacing the existing wet scrubber with ESP (99.9 % efficiency) to achieve 50 mg/Nm^3 particulate emissions. Boiler ash is being/will be given to farmers to be used as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas. Coal shall not be used as permitted fuel.

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

(ix). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. 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.

(x). 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.

(xi). 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. PESO certificate shall be obtained.

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement and 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 with tree density@ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.

(xv). PP proposed to allocate Rs. 2.43 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained and proper safety shall be ensured by installation of proper road safety measures.

(xvii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to

trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(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. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

(xx). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 3

Proposed Fuel Ethanol plant, of production capacity of 1 x 100 KLPD under EBP programme under B2 category of grain-based Fuel Ethanol and 2.5 MW of captive power plant, to be installed at Plot No. 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 71, 72, 73, 74, 101, 103, 112, 161, 167, 168, 169, 170 Mouza -Laharapara, Block-Suti-1, District -Murshidabad, West Bengal by M/s. O2 Chemicals Private Limited- Consideration of Environment Clearance

[IA/WB/IND2/279474/2022, IA-J11011/219/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Pioneer Enviro Laboratories and Consultants Private Limited (NABET / EIA/ 1922 / SA0148 valid upto 21-09-2022), made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for proposed Fuel Ethanol plant, of production capacity of 1 x 100 KLPD under EBP programme under B2 category of grain-based Fuel Ethanol and 2.5 MW of captive power plant, to be installed at Plot No. 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 71, 72, 73, 74, 101, 103, 112, 161, 167, 168, 169, 170 Mouza -Laharapara, Block-Suti-1, District -Murshidabad, West Bengal by M/s. O2 Chemicals Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S. No.	Name of unit	Name of the product	Production capacity
1	Distillery plant	Ethanol	100 KLPD
2	Captive Power plant	Power	2.5 MW
3	DWGS Dryer	DDGS	80 TPD
4	Fermentation unit	Carbon di-oxide	57 TPD

Standard ToR and public Hearing conduction is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that no litigation is pending against the project.

Total land required is 5.6 Ha. (13.85 acres). Greenbelt will be developed in total area of 1.94 Ha. (4.8 acres) i.e 34.6% of total project area. The estimated project cost is Rs. 105 acres. Capital cost of EMP would be Rs. 12.5 crores and recurring cost of EMP would be Rs. 1.5 Crores per annum. Industry proposes to allocate Rs. 1 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment will be 120 persons as direct & indirect.

Ahiran Beel Bird Sanctuary is located at a distance of 4.3 Kms in the North direction from the Project site. NBWL application has been submitted dated

17-05-2022. There are no Reserve forests/protected forests within 10 Km radius. River Pagla is at a distance of 0.35 Kms for which NOC is under process.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.07 µg/m^3, 0.13 µg/m^3, 0.45 µg/m^3 and 0.45 µg/m^3 with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 410 m^3/day which will be met from ground water and Surface water (Bhagirathi river). Application has been submitted to State Ground water Board dated 28-01-2022 & Irrigation department dated 13-06-2022. Effluent (Condensate/spent lees/blow down etc.) of 597 m^3/day quantity will be treated through Condensate Polishing Unit of capacity 600 KLPD. Raw stillage (600 KLPD quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 10 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

The power requirement will be 2.5 MW and will be met from the proposed 2.5 MW captive power plant. 25 TPH Biomass / Coal fired boiler will be installed. Electro Static Precipitator with a stack height of 45 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boiler. 1000 KVA DG set will be used as standby during power failure and stack height (3 m above building) will be provided as per the CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP with a stack height of 45 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 generated (57 TPD) during the fermentation process will be collected by utilizing CO2 scrubbers and sold to authorized vendors

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

- DDGS (Distilled Dried Grains Stillage) (80 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (46 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (0.5 Kilolitres per annum) will be sold to authorized recyclers.

- CPU sludge (0.2 TPD) and STP Sludge (0.8 Kg/day) will be used as manure.

As per Notification S.O 2339(E), dated 16 June, 2021, PP has submitted self certification in the form of notarized affidavit declaring that the proposed capacity of 100 KLPD will be used for manufacturing fuel ethanol only.

Total land of 5.6 Hectares is under possession of the company and land use conversion has been completed vide letter no. 4459 / X-33 / C / 2021 dated 27-12-2021.

During deliberations, EAC discussed the following issues:

- 34.6% of the total project area i.e., 4.8 Acres will be developed with greenbelt (4800 nos. of plants) within the plant premises with 5-10 m width greenbelt peripherally before commissioning of the plant. Industry will develop indigenous plant species in consultation with Local DFO.
- Waste water will be treated and reused within the plant premises. STP will be provided to treat domestic wastewater. PP committed that they will adhere to Zero Liquid Discharge (ZLD) and no effluent will be discharged outside the premises.
- The water requirement will not exceed 4.0 KL/KL of Ethanol produced.
- Industry shall obtain NOC from Irrigation Department that the project site is not falling in Pagla river flood plain before start of construction activities.
- 15% of the total power will be from renewable energy means such as solar power/wind power/Biogas, etc.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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

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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(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. PP shall also strictly follow the conditions mentioned in existing NBWL clearance.

(iii). The project proponent shall prepare a site specific conservation plan and wildlife management plan in case of the presence of Schedule-1 species in the study area, as applicable to the project, and submit to Chief Wildlife Warden for approval. The recommendations shall be implemented in consultation with the State Forest/Wildlife Department in a time bound manner.

(iv). NOC for River Pagla as located at a distance of 0.35 Kms shall be obtained from State Irrigation Department as per OM dated 14th Feb., 2022 before start of construction activities.

(v). 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.

(vi). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(vii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(viii). Total Fresh water requirement shall not exceed 4.0 KL/KL of ethanol produced which will be met from ground water and Surface water (Bhagirathi river). Prior permission shall be obtained for ground/surface water withdrawal before start of construction activities. No ground water

recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(ix). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP/bag house shall be installed with the 25 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for biomass as fuel and 30 mg/Nm3 for coal as fuel $Nm^3$and SO_2 and NO_X emissions of less than 100mg/ Nm^3. Boiler ash will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas. Coal shall not be used as permitted fuel.

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

(xi). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. 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.

(xii). 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.

(xiii). 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. PESO certificate shall be obtained.

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

(xv). 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.

(xvi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area with tree density@ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.

(xvii). PP proposed to allocate Rs. 1.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(xviii). 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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained and proper safety shall be ensured by installation of proper road safety measures. PP shall strengthen and maintain the village road connecting NH114.

(xix). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided

to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

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

(xxi). 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. EMC head shall report to Managing Director/CEO as per company hierarchy.

(xxii). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 4

Establishment of 100 KLPD Grain based Distillery along with Electricity Generation of 3 MW located at Khasra No. 1400, 1400/2553, 1401, 1402 (under the Khata No. 605, 606, 16) Badakhera Village, Tal.: Inderagarh, Dist.: Bundi, Rajasthan by M/s. Orple Green Fuel Limited (OGFL) – Consideration of Environment Clearance

[IA/RJ/IND2/270759/2022, IA-J-11011/269/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET certificate no. NABET/EIA/1821/RA 0135 and validity 04.10.2022) made a detailed presentation on the salient features of the project and informed that the proposal is for Environmental

Clearance to the project for 100 KLPD Grain based Ethanol Plant & co-generation power plant of 3 MW (biomass/coal based) located at Village Badakhera, Tehsil Inderagarh, District Bundi, State Rajasthan by M/s. Orple Green Fuel Limited (OGFL).

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery	Ethanol	100 KLPD
2	Cogeneration Power Plant	Power	3 MW
3	DWGS dryer	DDGS	85 TPD
4	Fermentation unit	Carbon di-oxide	45 TPD

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that no litigation is pending against the project.

Total land area required is 6.47 hectares. Greenbelt will be developed in total area of 2.14 hectares i.e., 33% of total project area. The estimated project cost is Rs. 112 Crores. Capital cost of EMP would be Rs. 20.30 Crores and recurring cost for EMP would be Rs. 0.9 Crores per annum. Industry proposes to allocate Rs. 2.1 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 150 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Protected forests: Unnamed protected forest are at a distance of 2.2 Km & 4 Km in North-West direction. Water bodies: River Mez is at a distance of 0.8 Km in South West direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.527 µg/m^3, 0.133 µg/m^3, 4.65 µg/m^3 and 0.64 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 396 m^3 /day which will be met from Mez River. Application has been submitted to Water Resource Dept.; Bundi dated 20.04.2022. Effluent (Condensate/spent lees/blowdown etc.) of 619 m^3 /day quantity will be treated through Condensate Polishing Unit of capacity 850 m^3 /day. Raw stillage (503 TPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 10 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3 MW and will be met from proposed 3 MW co-generation power plant. 30 TPH coal/ biomass fired boiler will be installed. ESP with a stack height of 55 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boiler. 1x500 kVA DG set will be used as standby during power failure and stack height (5 m ARL) will be provided as per CPCB norms to the proposed DG set.

Details of Process emissions generation and its management:

- ESP with a stack height of 55 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2 (45 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be collected in bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (85 TPD) will be sold as cattle feed.
- Boiler ash (18 TPD) will be used for brick manufacturing in proposed brick manufacturing unit inside plant premises.
- Used oil (0.8 Ton per annum) will be sold to authorized recyclers.
- CPU sludge (0.6 TPD) and STP Sludge (0.001 TPD) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 100 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that the total land of 6.47 Hectares is under possession of the company and land use conversion to industrial use application has been submitted to Revenue Department; Government of Rajasthan dated 24.06.2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Commitment that Land use conversion certificate shall be obtained before commencement of construction activities.
- Commitment that Surface water permission shall be obtained before start of construction activities.
- 15% parking area shall be allotted in total land area proposed. PP has committed the same.
- Existing temporary structures and sheds must be demolished and the waste to be disposed of as per C& D guidelines. PP has committed the same.
- As informed by PP, 20 trees will be cut during start of construction activities, hence, EAC suggested realigning the layout so that no trees shall be cut. PP informed that it is not possible and 20 trees will be cut and 60 trees will be planted as compensation. EAC directed to submit details of trees to be cut including height, species etc. in inventory form and NOC shall be obtained before cutting of trees.
- Entry point should not be directly on village road as traffic load will increase. PP informed that industry will maintain wider area for turning and movement of vehicles transporting raw materials & ethanol product. Also. PP will maintain the village road.
- Prescribed norms shall be achieved as bagasse is being used as fuel. This may be done by increasing transformer rating /fields in ESP or replacing with bag filter. PP has submitted the undertaking that ESP of 99.9% efficiency will be installed for controlling PM emissions.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in

writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the 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 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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(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). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Mez River. No ground water abstraction is permitted. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP/bag house shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for biomass as fuel and 30 mg/Nm3 for coal as fuel Nm^3 and SO_2 and NO_x emissions of less than 100 mg/Nm^3. Boiler ash will be used for

brick manufacturing in proposed brick manufacturing unit inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas. Coal shall not be used as permitted fuel.

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

(viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. 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.

(ix). 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.

(x). 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. PESO certificate shall be obtained.

(xi). Process organic residue and spent carbon, if any, shall be sent to Cement and 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 2.14 Ha nearly 33.08% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species

shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. 20 trees will be cut during construction phase, for which compensatory 60 trees shall be planted. Also, NOC must be obtained for cutting of trees before start of construction activities.

(xiv). PP proposed to allocate Rs. 2.1 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained and proper safety shall be ensured by installation of proper road safety measures.

(xvi). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvii). 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.

(xviii). 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. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

(xix). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 5

Greenfield Project of 200 KLD Grain Based Ethanol Plant along with 5.0 MW Co-generation Power Plant located at Village- Kandeikala, Tehsil-Lakhanpur, District- Jharsuguda, Odisha by M/s. Energy Intro Private Limited – Consideration of Environment Clearance

[IA/OR/IND2/281461/2022, IA-J-11011/120/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. GRC India Pvt. Ltd. (NABET certificate no. NABET/EIA/2124/RA0213 and validity 15th February, 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project 200 KLD Grain Based Ethanol Plant along with 5 MW co-generation power plant located at Village Kandeikala, Tehsil Lakhanpur, District Jharsuguda, State Odisha by M/s. Energy Intro Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal

Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S. No.	Name of Unit	Name of the product /by-product	Production capacity
1	Distillery	Ethanol	200 KLD
2	Co-generation power plant	Power	5 MW
3	DWGS dryer	DDGS	85 TPD
4	Fermentation unit	Carbon di-oxide	115 TPD

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that no litigation is pending against the project.

Total land area required is 9.73 hectares. Greenbelt will be developed in total area of 3.22 hectares i.e., 33% of total project area. The estimated project cost is Rs. 205.0 Crores. Capital cost of EMP would be Rs. 6.64 Crores and recurring cost for EMP would be Rs. 1.17 Crores per annum. Industry proposes to allocate Rs. 2.05 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 300 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. It was informed that Debrigarh Wildlife Sanctuary is falling out of 10 km at approx. 10.70 km distance in SE direction. Conservation plan for schedule 1 species i.e. peacock has been submitted to Regional Chief Conservator of forests, Sambalpur, Odisha on 21.04.2022. Water bodies: Hirakund Reservoir is at a distance of 14.6 km in NE Direction, River Mahanadi is at a distance of 520 m in SW direction for which application has been submitted to the Executive Engineer, Minor Irrigation Department, Jharsuguda, Odisha on 22.04.2022 for obtaining the NOC.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.35 $\mu g/m^3$, 0.14 $\mu g/m^3$, 1.17 $\mu g/m^3$, 2.33 $\mu g/m^3$ and 1.23 $\mu g/m^3$ with respect to PM_{10}, $PM_{2.5}$,

SO_2, NO_2 and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement including co-generation power plant will be 1120 m^3/day which will be met from surface water. The application for permission of withdrawal of surface water has been submitted to Department of Water Resources vide letter no. GM/SLNA/EIPL/370/21 dated 16th Dec., 2021. Effluent (Condensate/spent lees/blowdown etc.) of 847 m^3/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 1000 KLPD. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 15 KLD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 5 MW and will be met from proposed 5 MW co-generation power plant. 2 x 25 TPH biomass/coal fired boiler will be installed. ESP/bag filter with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boiler. 1 x 500 kVA DG set will be used as standby during power failure and stack height will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP/bag filter with a stack height of 60 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 (115 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (85 TPD) will be sold as cattle feed/fish feed/ prawn feed.
- Boiler ash (81.43 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (0.007 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (900 KG/day) and STP Sludge (1.53 KG/day) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 200 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that the total land of 9.73 Hectares and CLU has been applied to competent authority on 23.06.2022. EAC found the information satisfactory.

During deliberations, EAC noted that land documents were not complete and ownership of some land is not with the PP as reported. **EAC also advised that the same should not be repeated in future as such activities are treated as concealment of facts.** EAC suggested to submit valid land ownership documents for further consideration.

Accordingly, proposal was returned in present form.

Agenda No. 6

Proposed Grain Based Distillery 75 KLPD & 2.5 MW Co-generation Power Plant located at Block/Survey No.: 360, Village: Asta, Taluka: Hansot, District: Bharuch, Gujarat by M/s. K S K Bioenergy Private Limited – Consideration of Environment Clearance

[IA/GJ/IND2/278620/2022, IA-J-11011/217/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd. (NABET certificate No.: NABET/EIA/2023/IA0062 (Rev.03) and validity 7th October, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 75 KLPD Grain Based Ethanol Plant & 2.5 MW Co-generation Power Plant (biomass / Imported Coal based) located at Block/Survey No.: 360, Village Asta, Taluka Hansot, District Bharuch, State Gujarat by M/s. KSK Bio Energy Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries

with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S. No.	Name of Unit	Name of the product/by-product	Production capacity
1.	Distillery	Ethanol	75 KLPD
2.	Co-generation power plant	Power	2.5 MW
3.	DWGS dryer	DDGS	48.78 TPD
4.	Fermentation unit	Carbon di-oxide	50 TPD

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that no litigation is pending against the project.

Total land area required is 6.8963 hectares. Greenbelt will be developed in total area of 2.2757 hectares i.e., 33% of total project area. The estimated project cost is Rs. 114 Crores. Capital cost of EMP would be Rs. 15.87 Crores and recurring cost for EMP would be Rs. 13.06 Crores per annum. Industry proposes to allocate Rs. 1.71 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 100 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Kim River is at a distance of 13 Km in South direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.88 µg/m3, 1.88 µg/m3, 3.29 µg/m3 and 1.18 µg/m3 with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 355 m3/day which will be met from ground water. Application has been submitted to Central Ground Water Authority (CGWA) dated 06/07/2022. Effluent (Condensate/spent lees/ blow down etc.) of 489 m3/day quantity will be treated through Effluent Treatment Plant / Condensate Polishing Unit of capacity 500 KLPD. Raw stillage (64 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 5 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 2.5 MW and will be met from proposed 2.5 MW cogeneration power plant/state grid. 20 TPH biomass / Imported Coal fired boiler will be installed. ESP with Dry Scrubber with a stack height of 40 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 for the proposed boiler. 2x250 KVA DG set will be used as standby during power failure and stack height (15 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP with dry scrubber with a stack height of 40 m meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 (50 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (48.78 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (10.84 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises/supplied to brick manufacturers.
- Used oil (0.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (0.19 TPD) and STP Sludge (0.05 TPD) will be collected, stored, transported and disposed to Common TSDF Site.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 75 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that the total land of 6.8963 Hectares is under possession of the company and land use conversion has been completed vide letter no. 32107202200927 dated 08/06/2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Commitment that Greenbelt percentage shall be 33% and not 32.92% as given in Form-2.
- Ground water permission shall be obtained before start of construction activities.
- Connectivity of plant site to state highways. Village road is there from project site to State Highway -64. PP committed to maintain the village road.
- Clarification regarding stack height and type of scrubber to be provided. PP has submitted that stack height will be 40 metres and dry scrubber will be installed.
- Parking area to be 15% and own brick manufacturing unit to be proposed.
- 10% of power requirement to be sourced from renewable energy.
- Revise EMC hierarchy wherein environment head will report directly to head of company.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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

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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 75 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(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). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP/bag filter shall be installed with the 20 TPH rice husk/ bagasse/coal fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for biomass as fuel and 30 mg/Nm3 for coal as fuel. The SO_2 and NO_X emissions shall be less than 100 mg/$Nm^3$for coal as fuel. Boiler ash will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises/supplied to brick manufacturers. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(vii). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors/collected in proposed bottling plant.

(viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. 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.

(ix). 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.

(x). 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. PESO certificate shall be obtained.

(xi). Process organic residue and spent carbon, if any, shall be sent to Cement and 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 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.

(xiv). PP proposed to allocate Rs. 1.71 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply

etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained and proper safety shall be ensured by installation of proper road safety measures.

(xvi). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions.All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvii). 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.

(xviii). 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. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

(xix). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the

measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 7

Development Drilling of 110 wells and establishment of Madnam CPF, Cauvery Asset, located at Tamil Nadu by M/s. Oil & Natural Gas Corporation Ltd., (ONGCL) – Extension in validity of Terms of Reference.

[IA/TN/IND2/282977/2022, IA-J-11011/230/2017-IA-II(I)]

The proposal is for extension in the validity of TOR granted by the Ministry vide letter no. F.No.J-11011/23O/2O17-IA II (I) dated 19.07.2O17 for the project Development Drilling of 110 wells and establishment of Madnam CPF, Cauvery Asset, located at Tamil Nadu by M/s. Oil & Natural Gas Corporation Ltd., (ONGCL).

The project proponent has requested for extension in the validity of TOR in the ToR with the details are as under:

Sl. No.	Date of ToR issued by MoEF&CC	Extension of Validity Sought till	Justification/ reasons
1.	19.07.2O17	18.07.2023	To conduct the pending public hearing. Request for conducting PH was submitted to Tamil Nadu Pollution Control Board (TNPCB) since 11.12.2018. TNPCB is yet to take up proposal for conducting PH. The public hearing is delayed due to election code of

			conduct during General Elections-2019, COVID-19 pandemic and Tamil Nadu State Assembly Elections-2021.

During deliberations, it has been informed to the PP that as per S.O. 751(E) dated 25.02.2022 the validity of ToR for the proposed activity is four years from the date of issuance. The Committee noted that as per S.O. 221(E) dated 18th Jan, 2021 for calculating validity of ToR, the ToR dated 19.07.2017 has expired on 18.07.2022. There is no extension of validity of ToR as per extant rules.

Accordingly, the proposal is returned in present form.

Agenda No. 8

Proposed 100 KLD Grain Based Ethanol Plant along with 4.5 MW Co-generation Power Plant located at Village-Kakwara Tola Paharidih, Tehsil/Block-Banka, Distt.-Banka, Bihar by M/s. Bhagalpur Biorefinery Private Limited – Consideration of Environment Clearance

[IA/BR/IND2/282627/2022, IA-J-11011/337/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. GRC India Pvt. Ltd. (NABET certificate no. NABET/EIA/2124/RA0213 and validity 15th February, 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project 100 KLD Grain Based Ethanol Plant along with 4.5 MW co-generation power plant located at Village Kakwara Tola Paharidih, Tehsil/Block-Banka, District Banka, State Bihar by M/s. Bhagalpur Biorefinery Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal

Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S. No.	Name of Unit	Name of the product/by-product	Production capacity
1	Distillery	Ethanol	100 KLD
2	Co-generation power plant	Power	4.5 MW
3	DWGS dryer	DDGS	44 TPD
4	Fermentation unit	Carbon di-oxide	55 TPD

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that no litigation is pending against the project.

Total land area required is 5.26 hectares. Greenbelt will be developed in total area of 1.74 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 140.0 Crores. Capital cost of EMP would be Rs. 15.2 Crores and recurring cost for EMP would be Rs. 1.73 Crores per annum. Industry proposes to allocate Rs. 1.4 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 125 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Dense forests: Fairly Dense Jungle at approx. 7.5 km towards NE direction, Dense mixed Jungle at approx. 7.7 km towards SW direction, Dense Jungle at approx. 8.3 km towards North direction and Dense mixed Jungle at approx. 8.5 km towards WNW direction are existing within study area. Water bodies: Hira Nadi is at a distance of 1.0 Km towards East Direction, tributary of Hira Nadi (Dry) is at 170 m from the project site towards East direction, and Kudar Nadi is at 9.4 km towards ESE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.017 µg/m^3, 0.01

$\mu g/m^3$, 0.6 $\mu g/m^3$ and 0.25 and 0.78 $\mu g/m^3$ with respect to PM_{10}, $PM_{2.5}$, SO_2, NO_X and CO respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement including co-generation power plant will be 1495 KLD which will be met from ground water. Application has been submitted to CGWA vide File No-21-4/894/BR/IND/2021 dated 28.08.2021. Effluent (Condensate/spent lees/blowdown etc.) of 439 KLD quantity will be treated through two Condensate Polishing Unit/Effluent Treatment Plant of capacity 525 KLD. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 6 KLD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3.5 MW will be met from proposed 4.5 MW co-generation power plant. 40 TPH biomass fired boiler will be installed. ESP/bag filter with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boiler. 1x750 kVA DG set will be used as standby during power failure and stack height will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP/bag filter with a stack height of 60 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2 (55 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (44 TPD) will be sold as cattle feed/fish feed/ prawn feed.

- Boiler ash (42 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (2.5 Kilolitres per annum) will be sold to authorized recyclers.
- ETP/CPU sludge (140 KG/day) and STP Sludge (0.55 KG/day) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 100 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that the total land of 5.26 Hectares land has been taken on lease basis by company and land use conversion application has been submitted to competent authority dated 28.06.2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- NOC from State Irrigation Department shall be obtained before start of construction activities as tributary of Hira Nadi (Dry) is at 170 m from the project site. Commitment that no discharge will be done in the distributary as informed.
- CLU certificate shall be obtained before start of construction activities.
- Undertaking for solar power installation.
- Provision of web camera and effluent discharge monitoring for water pollution control and include the same in EMP cost. Revised EMP cost submitted is Rs. 15.2 Crores as capital cost and Rs. 1.73 Crores as recurring cost per annum.
- Maintenance of kuccha road nearby project site. Construction of metalled road passing from project site to highway.
- Justification for selection of site.
- Domestic waste water shall be treated in STP not soak pit.
- Emission norms shall be 50 mg/Nm3 as rice husk will be used as main fuel.
- Greenbelt shall be of width 20 m towards south west.
- Ash shall be utilized in-house brick manufacturing facility only.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in

writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the 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 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 EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(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). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises. As tributary of Hira Nadi (Dry) is at 170 m from the project site, no discharge shall be done in the distributary adjacent to project site and NOC shall be obtained from State Irrigation department before start of construction activities.

(iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP/bag filter shall be installed with the boiler for

controlling the particulate emissions within the statutory limit of 50 mg/Nm^3. Boiler ash will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas. Coal shall not be used as permitted fuel.

(vii). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors/collected in proposed bottling plant.

(viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. 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.

(ix). 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.

(x). 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. PESO certificate shall be obtained.

(xi). Process organic residue and spent carbon, if any, shall be sent to Cement and 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 1.74 Ha i.e. 33.08% of the total project area with tree density@ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species

shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Greenbelt shall be of width 20 m towards south west.

(xiv). PP proposed to allocate Rs. 1.4 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained and metalled and proper safety shall be ensured by installation of proper road safety measures.

(xvi). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvii). 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.

(xviii). 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. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

(xix). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 9

Expansion of Distillery unit 50 KLPD to 150 KLPD (By addition of 100 KLPD Ethanol) located at S. No 90, 92, Krishnanagar, Hosur post, Vijayapur Taluk & district, Karnataka State by M/s Nandi Sahakari Sakkare Karkhane Niyamit – Consideration of Amendment in Environmental Clearance
[IA/KA/IND2/282551/2022, IA-J-11011/110/2017-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide EC Identification No. EC21A022KA180789 (File No IA-J-11011/110/2017-IA-II(I) dated 16th December, 2021 for the Project Expansion of Distillery unit 50 KLPD to 150 KLPD (By addition of 100 KLPD Ethanol) located at S. No 90, 92, Krishnanagar, Hosur post, Vijayapur Taluk & district, Karnataka State in favor of M/s Nandi Sahakari Sakkare Karkhane Niyamit.

2. The project proponent has requested for amendment in the EC with the details areas under;

Sr No	Para of EC issued by MOEF &CC	Details as per EC	To be Revised /read as	Justification/ Reason

1	-	-	Addition of Raw material Sugar Cane Juice/ B-Heavy Molasses /C-Molasses	While applying for CFE and NIPL certificate, Karnataka Pollution Control Board enquired for the raw material to be used for ethanol production. PP informed that, raw material for expansion of distillery (50 KLPD to 150 KLPD) will be Sugar Cane Juice/ B-Heavy Molasses /C-Molasses which is not included in the EC.

After deliberations, EAC **recommended** for amendment in EC as proposed by the project proponent. However, all other terms and conditions mentioned in EC vide EC Identification No. EC21A022KA180789 (File No IA-J-11011/110/2017-IA-II(I) dated 16th December, 2021 shall remain unchanged.

Agenda No. 10

Proposed 400 KLPD Grain/Molasses based Distillery along with 15 MW Co-Generation Power Plant at Village Kanduni & Jagdishpur, Tehsil Biswan & Sidhauli, District Sitapur, Uttar Pradesh by M/s. Radico Khaitan Limited – Consideration of Environment Clearance [IA/UP/IND2/253256/2022, IA-J-11011/33/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. J.M. EnviroNet Private Limited (NABET certificate no. NABET/EIA/2023/RA 0186 and Validity till 07th February, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project 400 KLPD Grain/Molasses based Distillery along with 15 MW Co-Generation Power Plant at Village Kanduni & Jagdishpur, Tehsil Biswan & Sidhauli, District Sitapur, Uttar Pradesh by M/s. Radico Khaitan Limited.

As per EIA Notification dated 14th Sep, 2006 and as amended on 13th June, 2019, the project falls under Category "A", Project or Activity '5(g)' Distilleries [Molasses based distilleries>100 KLPD & Non-Molasses based distilleries >200 KLD].

The details of products and capacity as under:

S. No.	Units	Product & By-product	Proposed Capacity
1	Grain/Molasses based Distillery	Rectified spirit (RS), Extra Neutral Alcohol (ENA) and Anhydrous Alcohol (AA)	400 KLPD
2	Co-generation power plant	Power	15 MW
3.	DWGS dryer	DDGS	215 TPD
4.	Fermentation unit	Carbon di-oxide	295 TPD

Standard ToR has been issued by Ministry vide letter No. IA-J-11011/33/2022-IA-II(I) dated 1st February, 2022. It was informed that no litigation pending against the proposal.

Public Hearing for the proposed project has been conducted by Uttar Pradesh Pollution Control Board on 12th May, 2022 at 01:00 pm at Project site, Village Kanduni & Jagdishpur, Tehsil Biswan & Sidhauli, District Sitapur, Uttar Pradesh chaired by Additional District Magistrate (Judicial), District Sitapur (UP). The main issues raised during public hearing and their action plan:

Regarding employment, total manpower required for operation of the plant is around 500 employees (350 temporary & 150 permanent) and 250 persons during construction phase which will be provided to the local people and will be employed as per their skills and abilities.

Regarding health facilities, the company will be spending a budget of Rs. 70 Lakhs for providing proper healthcare facilities for the nearby Villages like Kanduni. As a part of the socio-economic developmental activities, the company will be spending on Distribution of medical equipment, wheelchairs, oxygen cylinders in health centre, Medical health checkup camps, Blood donation & provision of 2 nos. Ambulance (24x7).

Regarding Education facilities, the company will upgrade educational & school facilities like provide Interactive smart class equipment /solar panels/ gadgets like laptops, desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, water bottles, sports equipment etc. to students and Construction & maintenance of clean &

sanitized toilets in schools for which a budget of 75 Lakhs has been allocated which will be spent in Villages Kanduni & Jagdishpur.

Regarding Contribution to children's sports activities, the company will be organising sports activities for the children/youth like cricket, football, kabaddi, etc. in Villages Kanduni & Jagdishpur for which a budget of 25 Lakhs has been allocated.

Total land area required is 30.589 Ha. Greenbelt will be developed in total area of 10.1 Hectares, i.e., 33% of total project area. The estimated project cost is Rs 370.0 Crores. Capital cost of EMP would be Rs. 37.0 Crores and recurring cost for EMP would be Rs. 3.15 Crores per annum. Industry proposes to allocate Rs. 2.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 500 persons as direct & indirect.

PP informed that there is no National Park, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km radius. Protected Forest: Daudpur Protected Forest is at a distance of 8.5 km in WNW direction. Water bodies: Dariyabad Branch is at a distance of 1.0 km in SW direction, Bhandia Distributary is at a distance of 1.5 km in West direction, Malethu Distributary is at a distance of 4.5 km in ENE direction, Kheri Branch (Sarda Canal) is at a distance of 6.5 km in NW direction, Biswan Distributary is at a distance of 7.5 km in NE direction.

Ambient air quality monitoring was carried out at 8 locations during Post-Monsoon season (October, 2021 to December, 2021) and the baseline data indicates the ranges of concentrations as: PM10 (44.5 to 74.2 μg/m3), PM2.5 (25.2 to 44.6 μg/m3), SO2 (5.2 to 11.08 μg/m3) and NO2 (10.21 to 26.17 μg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.731 µg/m3, 0.293 µg/m3, 1.14 µg/m3 and 1.42 µg/m3 with respect to PM10, PM2.5, SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The total fresh water requirement will be 1993 m3/day for Grain based operations or 1989 m3/day for Molasses based operations which will be sourced from Groundwater. Application has been submitted to Groundwater Department (Namami Ganga & Rural Water Supply Dept.), Ministry of Jal Shakti, Government of Uttar Pradesh, for the withdrawal of 1994 m3/day

fresh water vide Application No. STPR0622NIN0040, STPR0622NIN0041 & STPR0622NIN0042 dated 07.06.2022. Effluent generated during Grain based operation will be 2467 KLPD or 1871 KLPD during Molasses based operation and will be treated through CPU/ETP of Capacity 3400 KLPD. In molasses based operation, raw spent wash will be concentrated in MEE and concentrated spent wash will be burnt as fuel in proposed incineration boiler and in grain based operation, raw spent wash will be treated in MEE followed by dryer to produce Distilled Dried Grains Stillage (DDGS) which will be sold as cattle feed / fish feed / prawn feed. STP of capacity 50 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid Discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 9.5 MW which will be met from proposed 15 MW co-generation power plant. 100 TPH biomass/concentrated spent wash fired boiler will be installed. ESP with stack height of 72 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 for the proposed boiler. 4 x 1500 KVA DG Set will be used as standby during power failure and stack height (8 m) will be provided as per CPCB norms to the proposed DG Sets.

Details of Process emissions generation and its management:

- ESP with a stack height of 72 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 (295 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and proposed bottling plant (200 TPD).

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

- In grain based operations, DDGS (Distilled Dried Grains Stillage) (215 TPD) will be sold as cattle feed / fish feed / prawn feed.
- In molasses based operations, concentrated spent wash (1028 TPD) will be burnt as fuel in proposed boiler.
- Ash (103 TPD) will be supplied to brick manufacturers/bio-fertilizer companies/farmers in covered vehicles only.
- Used oil & grease (1.0 Kilolitres per annum) generated from plant

machinery/gear boxes as hazardous waste will be sold out to the CPCB authorized recyclers.

PP has reported that total land of 30.589 Ha is under possession of the company. Application for land use conversion to industrial use has been submitted before the competent Authority and partial land use conversion has been completed whereas remaining land use conversion is in process. EAC found the information satisfactory.

During deliberations EAC discussed following issues:

- Commitment that no discharge will be done in nearby canal. PP has submitted the undertaking stating that unit will be based on ZLD and no discharge will be done outside plant premises.
- Commitment that construction work will start only after obtaining CLU certificate.
- Village road is falling in proposed project site. PP informed that pucca road has already been constructed for villagers adjacent to project site as village road is coming in proposed project site. Undertaking shall be submitted for the same. PP has submitted the undertaking.
- Ash should be stored in silos and raw material/fuel shall be stored in covered sheds.
- OHS budget to be increased from Rs. 60 lakhs to Rs. 1 Crores.
- Employment shall be as per the state policy.
- MOU with brick manufacturers for supply of fly ash and mention quantity of fly ash.
- EAC suggested to install air cooled condensers for reducing fresh water consumption. PP agreed to explore the possibility.
- Commitment that no coal shall be used. PP informed that coal will be used as auxiliary fuel only.
- Greenbelt development shall be completed before commissioning of the plant.
- CER activities shall include skill development, school upgradation etc.
- Head of EMC shall report to head of organization.
- Traffic management plan was discussed. Village road strengthening shall be done by the company.

Committee was satisfied with the response of project proponent. Further, Committee desired to submit the above information in writing. Accordingly,

PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. 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 is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC directed that the project proponent will treat and use the treated water within the industry. 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 and 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. All public hearing issues shall be properly addressed as per timeline and budget submitted.

(ii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(iii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(iv). Total Fresh water requirement shall not exceed 1993 m3/day for Grain based operations or 1989 m3/day for Molasses based operations and will be met from ground water. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(v). In grain based operations, spent wash shall be concentrated and dried to form DDGS to be used as cattle feed or in molasses based operations, spent wash will be concentrated in MEE and burnt as fuel in incineration boiler. ESP/bag house shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3. SO_2 and NO_x emissions shall be less than 100 mg/Nm^3. Boiler ash will be used for brick manufacturing and supplied to nearby brick manufacturers in

covered vehicles only. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only as 15% auxiliary fuel. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

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

(vii). PP shall allocate at least Rs. 1.0 Crores/annum for Occupational Health Safety. 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. Firefighting system shall be as per the norms. PESO certificate shall be obtained.

(x). Process organic residue and spent carbon, if any, shall be sent to Cement and 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 10.1 Ha i.e. 33.03% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree

canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.

(xiii). PP proposed to allocate Rs. 2.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(xiv). 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. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained and proper safety shall be ensured by installation of proper road safety measures.

(xv). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvi). 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.

(xvii). 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. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

(xviii). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 11

Greenfield Grain Based Ethanol Plant of Total Capacity of 400 KLD (200 KLD in Phase-1 + 200 KLD in Phase-2) along with 14 MW (7 MW in in Phase-1 + 7 MW in in Phase-2) Co- generation power plant located at Village- Gudrughat, Tehsil- Khairlanji, District- Balaghat, State -Madhya Pradesh by M/s Hindustan Green Energy Limited – Consideration of Environmental Clearance
[IA/MP/IND2/283206/2022, IA-J-11011/260/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. GRC India Pvt Ltd (NABET certificate no. NABET/EIA/2124/RA0213 and validity till 15.02.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 400 KLD (200 KLD in Phase-1 + 200 KLD in Phase-2) grain based ethanol plant & 14 MW (7 MW in Phase-1 + 7 MW in Phase-2) co-generation power plant (biomass/coal) located at Village Gudrughat, Tehsil Khairlanji, District Balaghat, State Madhya Pradesh by M/s Hindustan Green Energy Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S.No	Name of Unit	Name of the product/by-product	Production capacity
1	Distillery	Ethanol	400 KLD (200 KLD in Phase-1 + 200 KLD in Phase-2)
2	Co-generation power plant	Power	14 MW (7 MW in Phase-1 + 7 MW in Phase-2)
3	DWGS dryer	DDGS	187 TPD
4	Fermentation unit	Carbon di-oxide	298 TPD

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that no litigation pending against the proposal.

Total land area required is 14.02 hectares. Greenbelt will be developed in total area of 4.62 hectares i.e. 33 % of total project area. The estimated project cost is Rs. 450.17 Crores. Capital cost of EMP would be Rs. 47.15 Crores and recurring cost for EMP would be Rs. 15.23 Crores per annum. Industry proposes to allocate Rs. 4.501 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 103 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forests: Mohgaonghat RF is at a distance of 1.0 km in SE direction, Kaporwihiri RF is at a distance of 3.2 km in SW direction, Chikla RF is at a distance of 4.5 km in E direction, Garra South RF is at a distance of 5.5 km in W direction, Garra North RF is at a distance of 6 km in WNW direction, Phulchur RF is at a distance of 6 km in S direction, Garraghat RF is at a distance of 8 km in WNW direction and Chandpur North RF is at a distance of 9.1 km in SSW direction. Water bodies: Bawanthari river is at distance of 7.7 km in SW direction and Chandan river is at distance of 9.7 km in NNE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.08 $\mu g/m^3$, 0.03 $\mu g/m^3$, 2.31 $\mu g/m^3$ and 1.1 $\mu g/m^3$ with respect to PM_{10}, $PM_{2.5}$, SO_2 and NO_X. The resultant concentrations are within the National Ambient Air Quality

Standards (NAAQS).

Total fresh water requirement including co-generation power plant will be 1600 m^3/day which will be met from ground water. Application has been submitted to CGWA vide Application. No. 21-4/1454/MP/IND/2022 dated 09th July, 2022.Effluent (Condensate/spent lees/blowdown etc.) of 1,820 m^3/day quantity from Phase-1 & Phase-2 will be treated through two Condensate Polishing Unit/Effluent Treatment Plant of capacity 2000 KLPD each. Raw stillage (2412 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 50 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 11 MW for both phase and will be met from proposed 14 MW co- generation power plant. 2 x 50 TPH Coal/biomass fired boiler will be installed. ESP/bag filter with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boiler. 1x1000 kVA DG set will be used as standby during power failure and stack height (30 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- ESP/bag filter with a stack height of 60 meters will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boiler.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2 (298 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (187 TPD) will be sold as cattle feed/fish feed/ prawn feed.
- Boiler ash (95 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (2.5 Kilolitres per annum) will be sold to authorized recyclers.
- ETP/CPU sludge (154.52 Kg/day) and STP Sludge (224 Kg/day) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self- certification in the form of notarized affidavit declaring that the proposed capacity of 400 KL/day (200 KLD Phase-1+ 200 KLD Phase-2) will be used for manufacturing fuel ethanol only.

Total land of 14.02 Hectares land is under Industrial department, Madhya Pradesh and land allotment is still under process. EAC found the information satisfactory.

During deliberations, EAC noted that land allotment has not been completed yet. **EAC also advised that the same should not be repeated in future as such activities are treated as concealment of facts.** EAC suggested to submit valid land ownership documents for further consideration.

Accordingly, proposal was returned in present form.

Agenda No. 12

Proposed 180 KLPD Grain based Ethanol Plant along with 4.0 MW Cogeneration Power Plant at Village Biana & Randauli, Tehsil Indri, District Karnal, Haryana by M/s. Iris Fuel India Private Limited – Consideration of Environmental Clearance

[IA/HR/IND2/283834/2022, IA-J-11011/264/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. J.M. EnviroNet Private Limited (NABET certificate no. NABET/EIA/2023/RA 0186 and validity till 7th February, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for proposed 180 KLPD Grain based Ethanol Plant & 4.0 MW Co-generation power plant (Biomass based) located at Village Biana & Randauli, Tehsil Indri, District Karnal, State Haryana by M/s. Iris Fuel India Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/ by-product	Production capacity
1.	Distillery	Ethanol	180 KLPD
2.	Co-generation power plant	Power	4.0 MW
3.	DWGS dryer	DDGS	88 TPD
4.	Fermentation unit	Carbon di-oxide	138 TPD

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that no litigation pending against the project.

Total land area required is 8.44 hectares. Greenbelt will be developed in total area of 2.8 hectares i.e. 33 % of total project area. The estimated project cost is Rs. 220 Crores. Capital cost of EMP would be Rs. 22.0 Crores and recurring cost for EMP would be Rs. 3.63 Crores per annum. Industry proposes to allocate Rs. 2.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 200 persons as direct & indirect.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forest: Baragaon RF is at a distance of 9.0 km in SSW direction. Water bodies: Hanauri Drain is at a distance of 3.5 km in West direction, Nanhera Garnpur Drain is at a distance of 4.5 km in NW direction, Khera Drain is at a distance of 8.0 km in NW direction, Murad Nagar Drain is at a distance of 9.0 km in NNW direction, Augmentation Canal is at a distance of 3.5 km in NW direction, Western Yamuna Canal is at a distance of 9.5 km in WNW direction, Purani Nadi is at a distance of 1.5 km in East direction, Yamuna River is at a distance of 3.0 km in East direction, Saindli Nadi is at a distance of 6.5 km in East direction, Budhi Nadi is at a distance of 8.5 km in ENE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.329 µg/m3, 0.13 µg/m3, 0.65 µg/m3 and 0.82 µg/m3 with respect to PM10, PM2.5, SO2 and

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

Total fresh water requirement will be 990 m3/day which will be sourced from Ground water. Application has been submitted to Haryana Water Resource Authority (HWRA) vide letter no. HWRA/IND/N/2022/3798 dated 07.07.2022. Effluent (Process Condensate/DM plant reject/ CT blowdown etc.) of 952 m3/day quantity will be treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 1200 KLPD. Raw stillage (1167 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 20 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 4.0 MW and will be met from proposed 4.0 MW Cogeneration power plant. 40 TPH biomass fired boiler will be installed. ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 for the proposed boiler. 2 x 1010 kVA DG set will be used as standby during power failure and stack height (9 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- ESP with a stack height of 60 meters will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 for the proposed boiler.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 (138 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (88 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (40 TPD) will be used for brick manufacturing & will be supplied to nearby brick manufacturers in covered vehicles only.
- Used oil (0.6 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (0.3 TPD) and STP Sludge (40 kg/day) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 180 KLPD will be used for manufacturing fuel ethanol only.

Total land of 8.44 Hectares is under possession of the company. Letter from Directorate of Town & Country Planning, Haryana via Memo No. E-Diary-171335/2022/TCP-OFA/1325/2022 dated 06/07/2022, the project site for proposed Ethanol plant falls outside the boundary of the Controlled Area or Urban Area. EAC found the information satisfactory.

During deliberations, EAC noted that PP was not able to show land documents as desired by EAC members. Therefore, proposal was deferred due to non availability of land ownership/land lease agreement on the date of meeting. Further, EAC discussed the following issues:

- Coal shall not be used as fuel as project lies in NCR region. Prescribed emission standard of PM will be 50 mg/Nm3.
- Commitment to maintain village road near to project site.
- MOU with brick manufacturers adjacent to project site shall be submitted.
- Native plant species shall be developed in project premises.
- Commitment that raw material shall be stored in covered sheds and ash shall be stored in silos.
- Commitment that 15% parking area shall be allotted in total area.
- Rain water harvesting details. Storage shall be for 60 days.

During deliberations, EAC noted that land allotment has not been completed yet. It is noted that lease agreement for which stamp paper was purchased on 29.07.2022 after the meeting date and lease agreement has been done on 26.07.2022 and notarised on 29.07.2022, which was not registered with revenue department also. **EAC also advised that the same should not be repeated in future as such activities are treated as concealment of facts.** EAC suggested to submit valid land ownership documents for further consideration.

Accordingly, proposal was returned in present form.

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ANNEXURE

GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

(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.

List of the Expert Appraisal Committee (Industry-2) members participated during Video Conferencing (VC) meeting

S. No.	Name and Address	Position
1.	Shri S. C. Mann	Chairman
2.	Dr. J. S. Sharma	Member
3.	Prof. Y. V. Rami Reddy	Member
4.	Dr. Sanjeev Chaudhari (28.07.2022; one day)	Member
5.	Dr. Onkar Nath Tiwari	Member
6.	Shri J. S. Kamyotra	Member
7.	Dr. Rahul Rameshrao Mungikar	Member
8.	Dr. Sanjay V. Patil (VSI)	Member
9.	Dr. Siddhartha Singh (IMD)	Member
10.	Shri A.N. Singh, Scientist 'E'	Member Secretary
MoEFCC		
11.	Dr. Mahendra Phulwaria	Scientist 'C'
12.	Kanaka Teja	Research Assistant
13.	Ms. Meetika Gupta	Research Associate

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