

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

Dated: 25.10.2022

**Meeting ID: IA/IND2/13361/21/10/2022
MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE
(INDUSTRY-2 SECTOR PROJECTS)
HELD ON 21st October, 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/IND2/13360/20/10/2022) held on 20th October, 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: -

21st October, 2022 (Friday)

Agenda No. 1

Proposed 200 KLPD Grain based Ethanol plant along with 5.0 MW Co-generation Power Plant at Village Chakparan, Tehsil Budge Budge, District South 24 Parganas, West Bengal by M/s MKR Distilleries Private Limited- Consideration of Environmental Clearance

[IA/WB/IND2/403032/2022, IA-J-11011/456/2022-IA-II(I)]

The Project Proponent and the accredited Consultant J.M. EnviroNet Pvt Ltd. (NABET certificate no. NABET/EIA/2023/SA 0172 and validity till 7th August, 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 200 KLPD Grain based Ethanol plant along with 5.0 MW Co-generation Power Plant at Village Chakparan, Tehsil Budge Budge, District South 24 Parganas, West Bengal by M/s MKR Distilleries 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 KLPD
2.	Co-generation power plant	Power	5.0 MW
3.	DWGS dryer	DDGS	98 TPD
4.	Fermentation unit	Carbon di-oxide	154 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 there is no litigation is pending against the project.

Total land area required is 6.11 hectares. Greenbelt will be developed in total area of 2.02 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 199.90 Crores. Capital cost of EMP would be Rs. 20 Crores and recurring cost for EMP would be Rs. 2.0 Crores per annum. Industry proposes to allocate Rs. 2.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 120 persons as direct.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Reserved Forests (RF)/ Protected Forests (PF), Tiger/ Elephant Reserves, Wildlife Corridors etc. present within 10 km distance. Water bodies: Charial Canal is at a distance of 5.7 km in NNE direction, Hugli River is at a distance of 6.0 km in West direction, Madai Khal is at a distance of 8.5 km in WNW direction, Sankhabhanga Khal is at a distance of 9.5 km in West direction & Kanta Khali Khal is at a distance of 9.5 km in SSW direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.53 $\mu\text{g}/\text{m}^3$, 0.766 $\mu\text{g}/\text{m}^3$ and 0.884 $\mu\text{g}/\text{m}^3$ with respect to PM, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1114 m³/day which will be met from ground water. As suggested by the committee, PP has reduced fresh water requirement to 800 m³/day for the proposed project. NOC has been obtained from State Water Investigation Directorate (SWID), Govt. Of West Bengal vide Permit No. P170805900000021601TME dated 10/04/2015 & Permit No. P170805900000028302TME dated 10/04/2015. Effluent (Condensate/spent lees/blowdown etc.) of 1081 m³/day will be treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 1300 KLPD. Raw stillage (1296 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 5.0 MW and will be met from proposed 5.0 MW Co-generation power plant. 45 TPH Biomass/ Coal fired boiler will be installed. APCE ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. A 500 KVA & 1000 KVA DG set will be used as standby during power failure and stack height (5m & 7m respectively) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- APCE ESP with a stack height of 60 meters will be installed for controlling the particulate emissions within the statutory limit of 30 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 (154 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (98 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (87 TPD) generated during coal based operations will be given to cement manufactures & during biomass based (47 TPD) operations will be given to brick manufacturers in covered vehicles. PP shall install in-house brick manufacturing unit.
- Used oil (0.75 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (1.3 TPD) and STP Sludge (0.01 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 200 KLPD will be used for manufacturing fuel ethanol only.

Total land of 6.11 hectares is completely under the possession of the company out of which 4.1 Ha is already converted for industrial use and remaining 2.01Ha is being converted and under process for establishment of industry. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Revised plant layout wherein dense greenbelt in boiler area shall be provided.
- Fresh water consumption shall not exceed 4 KL/KL of ethanol production including co-generation power plant. Hence, fresh water requirement shall be revised to 800 m³/day.

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 200 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). 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). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production i.e. 800 m³/day which will be met from ground water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (vii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 60 meters will be installed with 45 TPH Biomass/ Coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

- (viii). Boiler ash (87 TPD) generated during coal based operations will be given to cement manufactures & during biomass based (47 TPD) operations will be given to brick manufacturers in covered vehicles. PP shall install in-house brick manufacturing unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ (154 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors.
- (x). 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.
- (xi). 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.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). 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 for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
 - (a) Metering and control of quantities of active ingredients to minimize waste;
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated

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

- (xv). The green belt of at least 5-10 m width shall be developed in nearly 2.02 hectares i.e., 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 development shall be completed before commissioning of the plant. No trees shall be cut as part of construction.
- (xvi). 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, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). 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. Approach road to project site shall be maintained.
- (xviii). 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.

- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xxi). 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 100 KLPD Grain Based Distillery along with 2.5 MW Co-gen under Ethanol Blending Program at Survey No. 148 and 149, Village Malkhed (bk), Taluka Ner, District Yavatmal, Maharashtra by M/s. Chintamani Agrotech (I) Ltd. - Consideration of Environmental Clearance

[IA/MH/IND2/ 402905/2022, IA-J11011/357/2022-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 100 KLPD Grain based Ethanol Plant along with 2.5 MW Co-Generation Power Plant (biomass/coal) located at Survey No. 148 and 149, Village Malkhed (bk), Tehsil Ner, District Yavatmal, State Maharashtra by M/s. Chintamani Agrotech (I) 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	100 KLPD
2.	Co-generation power plant	Power	2.5 MW
3.	DWGS dryer	DDGS	51 TPD
4.	Fermentation unit	Carbon di-oxide	78 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 9.86 hectares. Greenbelt will be developed in total area of 3.451 hectares i.e., 35% of total project area. The estimated project cost is Rs. 148.38 Crores. Capital cost of EMP would be Rs. 29.482 Crores and recurring cost for EMP would be Rs. 2.4642 Crores per annum. Industry

proposes to allocate Rs. 2.22 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 100 persons as direct & indirect.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Eco-sensitive Zone etc. within 10 km distance from the Project Site. Reserve Forests/ Protected Forests: Reserve forest near Pachwad : 3.35 Km in South direction, Londadi Reserve Forest: 4.02 km in NEE direction, Reserve Forest (Open Scrub) Near Nababpur: 3.53 km in NNW direction, Reserve forest patch near Indrathana: 3.3 km in West direction, Dahiphal Reserve Forest: 6.83 km in SW direction, Sonkhas Reserve Forest: 8.86 km in NEE direction. Water Bodies: Ner Reservoir is present at a distance of 4.55 km in NNW direction, Milmili Nala is Present at distance of 5.67 km in NNW direction, Checkdams near Sindkhed is present at a distance of 6.44 km in NNE direction, Checkdam near Shahapur is present at distance of 5.20 km in West direction, A Canal near Shahapur is present at a distance of 6.15 km, Kapsi Talav is present at a distance of 5.80 km in SE direction, A Checkdam Near Sonkhas Village is present at a distance of 7.70 km in SE direction, Goki river is present as a distance of 8.71 km in SSE direction, Aran river is present at a distance of 9.82 Km in SSW direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.06 \mu\text{g}/\text{m}^3$, $0.03\mu\text{g}/\text{m}^3$, $3.06 \mu\text{g}/\text{m}^3$, $1.26\mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 480.23 CMD which will be met from ground water. To abstract Ground Water, application has been submitted to Department of Water Resources, River Development and Ganga Rejuvenation Central Ground Water Authority vide letter no. 21-4/8882/MH/IND/2022 dated 13.09.2022. Total effluent (Condensate, spent lees, boiler blowdown, cooling tower blow down, RO water reject, lab reject, soft water reject) of 736.6 CMD quantity will be treated through Condensate Polishing Unit of capacity 850 CMD. Raw stillage (561 m³/day: spent wash from distillation) will be sent to the decanter followed by MEE and dryer to produce DDGS. STP will be installed to treat domestic sewage. 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 2.195 MW and will be met from proposed 2.5 MW Co-generation Power Plant. 22 TPH biomass/coal fired boiler will be installed. APCE Electrostatic Precipitator with a stack height of 50 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 500 KVA DG set will be used as standby during power failure and stack height (4.5 m above roof level) will be provided as per CPCB norms to the proposed DG sets.

Details of process emissions generation and its management

- APCE: Electrostatic Precipitator with a stack height of 50 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/ MPPCB servers.
- CO₂ (78 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (51 TPD) will be used as cattle feed.
- Boiler ash (Coal Ash: 8.36 TPD or Rice Husk Ash: 20.0 TPD) will be supplied to brick manufacturing unit.
- Used oil (0.10 Kiloliters per annum) will be sold to authorized recyclers.
- Sludge generated from CPU/ETP and STP (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 will be used for manufacturing fuel ethanol only.

The land originally belonged to M/s. Jinbhuvish Power Generations (MP) Pvt. Ltd. & has been given on lease basis to Chintamani Agrotech (I) Ltd. for 25 years for the development of Ethanol (100 KLPD) producing plant along with

2.5 MW Co-generation Power Plant. A copy of registered lease deed is submitted and land use conversion has been applied to revenue department. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- PP shall commit that land use conversion certificate and NOC for ground water withdrawal shall be obtained before start of construction activities.
- Pucca road is passing through the plant site. PP shall obtain NOC from Revenue Department/Panchayati Raj Department for road passing through the project site.
- PP informed that land is bisected by the village road and bisected part will be excluded from the project site. Accordingly, PP will revise their proposal on the PARIVESH portal for reduced land as well as layout plan including greenbelt.

Accordingly, PP shall apply afresh and proposal was returned in present form.

Agenda No. 3

Proposed Grain Based Ethanol plant having installed capacity of 200 KLD and 5 MW co-generation plant at Plot no. 1 in Industrial area, Mandyapur (Kirpalpur), Tehsil - Nalagarh, District- Solan, Himachal Pradesh by M/s Hygena Life sciences Pvt. Ltd. – Consideration of Environmental Clearance

[IA/HP/IND2/402808/2022, IA-J-11011/445/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Chandigarh Pollution Testing Laboratory -EIA Division (CPTL-EIA), Mohali (NABET Certificate No.: NABET/EIA/2225/RA 0250 Valid till February 12, 2025) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 200 KLPD Grain based Ethanol Plant along with 5.0 MW Co-Generation Power Plant (biomass) located at Plot no. 1 in Industrial area, Village Mandyapur

(Kirpalpur), Tehsil Nalagarh, District Solan, Himachal Pradesh by M/s Hygena Life sciences 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	200 KLPD
2.	Co-generation power plant	Power	5.0 MW
3.	DWGS dryer	DDGS	93 TPD
4.	Fermentation unit	Carbon di-oxide	84 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 11.27 hectares. Greenbelt will be developed in total area of 3.72 hectares i.e., 33% of total project area. The estimated project cost is Rs. 208.32 Crores. Capital cost of EMP would be Rs. 15.5592 Crores and recurring cost for EMP would be Rs. 4.5938 Crores per annum. Industry proposes to allocate Rs. 1.0 Crores towards Extended EMP

(Corporate Environment Responsibility). Total Employment will be 300 persons as direct & indirect.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Eco-sensitive Zone etc. within 10 km distance from the Project Site. Reserve Forests/ Protected Forests: KholNalagarh PF , Palahwala PF , Thakurdwara PF , Shilun PF, Khobla PF, Phoolwala PF and Majura RF. Water Bodies: Sirsa river at a distance of 0.31 km. Letter has been issued vide letter no. JSV-NLG-CB-WA-I-/2022-12721 dated 12.10.2022 by Executive Engineer, Jal Shakti Division stating that the proposed site of the unit was jointly inspected by the officials of the stakeholder departments on 12.10.2022, the observations of the joint inspection team are reproduced as under: "On the basis of Joint Inspection of the proposed land and as per layout submitted, it has been observed that the proposed plant and machinery area is located outside the river flood plain and there is no water body/river running through this proposed plant and machinery area." Thus, it is clear that the proposed plant and machinery is not located in the river flood plain.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $1.13 \mu\text{g}/\text{m}^3$ with respect to PM₁₀. Since the industry proposes to use rice husk and/or paddy straw as fuel in the boiler furnace, therefore, there will be presence of only SPM as pollutant in the flue gas emissions and mathematical modelling of this pollutant has been made to assess the impact on the environment. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 800 KLD which will be met from ground water/ Government own Supply. Application has been submitted to Competent Authority of the State dated 10.10.2022. Effluent of 414 KLD quantity will be treated through Condensate Polishing Unit. Raw stillage of 967 KLPD will be sent to decanter followed by MEE of capacity 50kl/hr (1200 KLD) and dryer to produce DDGS. STP will be installed for treatment of domestic waste. 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 3.75 MW, which will be sourced from the 5.0 MW Co-Generation Power Plant. Surplus power will be exported to State Grid. 40 TPH biomass fired boiler will be installed. Electro Static Precipitator (ESP) 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. 2x1000 kVA DG set will be used as standby during power failure and stack height (3 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 40 m 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 (84 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) (93TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (36 TPD) will be used for brick manufacturing in proposed brick manufacturing plant.
- Used oil will be sold to authorized vendors.

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.

Total area of 11.27 Ha is under possession of the company. Allotment letter has been issued by the Department of Industries, Govt of Himachal Pradesh vide letter dated 01.10.2022. Since the site of the proposed unit is located in

the notified industrial area, as such, no CLU is required. A copy of the notification dated 01.09.2022 declaring industrial area, in which the site of the proposed unit is located, is submitted. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Sirsa Nadi is flowing at a distance of 0.31 Km in South direction. PP shall commit that 60 m buffer area shall be left between the Sirsa River and project site. In which 30 m buffer area thick greenbelt shall be developed along with strong RCC retaining wall along the river side shall be provided.
- PP shall obtain NOC for ground water permission before start of construction activities.
- PP shall reduce fresh water consumption from 972 m³/day to 800 m³/day and submit revised water balance.
- Parking area shall be increased from 3.14% to 15%. PP agreed.
- PP shall ensure that OCEMS is installed for monitoring emissions from stack and the cost of same shall be include in EMP.
- PP shall commit that ESP (5 field) shall be installed.
- PP shall submit incremental GLC of NO₂ by conducting AQ modelling. PP has submitted the incremental GLC of NO_x as 1.75 µg/m³.
- PP shall ensure 2D modelling for risk assessment shall be conducted including no. of storage tanks, distance between storage tanks, threat zone and mitigation measures shall be submitted.
- PP shall ensure that native species shall be planted as part of greenbelt.

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 200 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). 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). Sirsa Nadi is flowing at a distance of 0.31 Km in South direction. As committed, 60 m buffer area shall be left between the Sirsa River and project site. In which 30 m buffer area thick greenbelt shall be developed along with strong RCC retaining wall along the river side shall be provided. State Government should ensure that project site should be away from HFL .
- (v). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (vi). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production i.e. 800 KLPD which will be met from ground water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the

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

- (vii). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (viii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 40 meters will be installed with 40 TPH biomass fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. No coal shall be used as fuel at any circumstances. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (ix). Boiler ash (36 TPD) will be used for brick manufacturing in proposed brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (x). CO₂ (84 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.
- (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. Fire fighting 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 for drying of sludge.
- (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 3.72 hectares i.e., 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 development shall be completed before commissioning of the plant. No trees shall be cut as part of construction.
- (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, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management 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. Approach road to project site shall be maintained.
- (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/effluent 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 directly to Head of Organization/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

Proposed Fuel Ethanol plant, of production capacity of 1 x 150 KLPD under EBP programme under B2 category of grain-based Fuel Ethanol and 1 x 4 MW of captive power plant, to be installed at Survey No: Survey No: 125, 126, 127 & 128, Maqdumpally Village, Bibinagar Mandal, Yadadri District, Telangana. by M/s Sreelakshmi Datta Agriextractss LLP. – Consideration of Environmental Clearance

[IA/TG/IND2/ 403623/2022, IA-J-11011/459/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Pioneer Enviro Laboratories and Consultants Private Limited (NABET / EIA/ 1922 / SA 0148 valid upto 16-12-2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 150 KLPD Grain based ethanol plant and 4 MW co-generation power plant located at Survey No: Survey No: 125, 126, 127 & 128, Village Maqdumpally, Tehsil Bibinagar Mandal, District Yadadri, State Telangana by M/s Sreelakshmi Datta Agriextractss 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	Production capacity
1	Distillery plant	Ethanol	150 KLPD
2	Power plant	Power	4 MW
3	DWGS dryer	DDGS	120 TPD
4	Fermentation unit	Carbon di-oxide	114 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 required is 4.5 Ha. Greenbelt will be developed in total area of 1.5 Ha i.e. 33% of total project area. The estimated project cost is Rs. 226.5 crores. Capital cost of EMP would be Rs. 27.7 crores and recurring cost of EMP would be Rs. 4.17 Crores per annum. Industry proposes to allocate Rs. 2.5 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment will be 120 persons as direct & indirect.

There are no National parks / Wild life sanctuaries, Biosphere Reserves, Tiger / Elephant reserves, Wildlife corridors etc. within 10 Km radius. Chinneru river is flowing at a distance of 1.46 Kms. Few tanks/ ponds are present within 10 Kms radius.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.07 $\mu\text{g}/\text{m}^3$, 0.07 $\mu\text{g}/\text{m}^3$, 3.13 $\mu\text{g}/\text{m}^3$, and 0.5 $\mu\text{g}/\text{m}^3$ 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 600 m^3/day which will be met from Ground water / Surface water. Application has been submitted to SGWB for drawing Ground water & Irrigation Department, Govt. of Telangana for drawing surface water. Effluent (Condensate/spent lees/blow down etc.) of 888 m^3/day quantity will be treated through Condensate Polishing Unit of

capacity 900 KLPD. Raw stillage (900 KLPD quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 8 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 4 MW and will be met from the proposed 4 MW co-generation power plant. 40 TPH Biomass / Coal fired boiler will be installed. APCE Electro Static Precipitator with a stack height of 52 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 2 x 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:

- APCE ESP with a stack height of 52 meters will be provided to boiler for effective dispersion of sulphur dioxide emission into the atmosphere.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ generated (114 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) (120 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (73.6 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (0.3 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (0.4 TPD) and STP Sludge (0.5 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 150 KLPD will be used for manufacturing fuel ethanol only.

Total land of 4.5 Ha. (11.2 acres) taken on lease from M/s Mintech Global Private Limited. Land use conversion has been completed vide proceeding no. A/2649/2016 dated 02-05-2016. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Plant layout shown on kml is different than plant layout shown as image. PP shall submit in writing the final plant layout. Further, PP revised the layout and shown during meeting.
- PP shall commit to obtain NOC for fresh water withdrawal before start of construction activities.
- PP shall ensure that native plant species shall be planted as part of greenbelt.
- CER cost shall be increased to Rs. 2.5 Crores. PP has submitted 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 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 150 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). 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). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from ground water/surface water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (vii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 52 meters will be installed with 40 TPH Biomass / Coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the

event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

- (viii). Boiler ash (73.6 TPD) 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. 20% biomass pellets shall be used as fuel. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ generated (114 TPD) during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.
- (x). 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.
- (xi). 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.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). 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 for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
 - (a) Metering and control of quantities of active ingredients to minimize

waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

- (xv). The green belt of at least 5-10 m width shall be developed in nearly 1.5 Ha i.e. 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 development shall be completed before commissioning of the plant. No trees shall be cut as part of construction.
- (xvi). PP proposed to allocate Rs. 2.26 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, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). 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. Approach road to project site shall be maintained.
- (xviii). 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.

- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xxi). 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 Establishment of 75 KLPD Grain Based Ethanol Plant with Captive power Plant 1.8 MW located at Sy. Nos. 250/8, 250/9, 250/10, 250/11, 252/1, 252/2, Sogal Village, Soundatti Taluk, Belgaum District, Karnataka State by M/s. CF Energy & Biofuels Pvt. Ltd. – Consideration of Environmental Clearance

[IA/KA/IND2/402646/2022, IA-J-11011/457/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Samrakshan (NABET certificate no. NABET/EIA/1922/SA 0138 (Rev.01) and valid up to 17.01.2023) 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 & 1.8 MW Co-generation power plant (rice husk based) located at Sy. Nos. 250/8, 250/9, 250/10, 250/11, 252/1, 252/2, Village Sogal, Tehsil Soundatti, District Belgaum, State Karnataka by M/s. CF Energy & Biofuels 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 all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended with 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. Accordingly, the PP has filed the affidavit.

The details of products and capacity as under:

Sl. No.	Name of Unit	Name of the Product /by-product	Production capacity
1	Distillery (grain)	Ethanol	75 KLPD
2	Co-generation power plant	Power	1.8 MW
3	DWGS dryer	DDGS	48 TPD
4	Fermentation unit	Carbon di-oxide	42 TPD

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

Total land area required is 7.12 hectares. Greenbelt will be developed in total area of 2.30 hectares i.e., 33.13 % of total project area. The estimated

project cost is Rs. 115.6977 Crores. Capital cost of EMP would be Rs. 17 Crores and recurring cost for EMP would be Rs. 1.32 Crores per annum. Industry proposes to allocate Rs. 1.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 131 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km distance. There are patches of reserved forests distributed in the northern part from the project site within 10 km. Water bodies: Malaprabha River & Renuka reservoir 4.2 Km towards South of the project site.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $3.87 \mu\text{g}/\text{m}^3$, $2.73 \mu\text{g}/\text{m}^3$ and $3.11 \mu\text{g}/\text{m}^3$ with respect to PM, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total freshwater requirement will be $398 \text{ m}^3/\text{day}$ which will be met from Malaprabha River. Application is submitted to Karnataka Neeravari Nigam Limited (KNNL) on 16.05.2022 for drawing water $600 \text{ m}^3/\text{day}$ from Malaprabha River through jack well near village Matolli. Effluent (MEE Condensate/Cooling tower bleed/ boiler blowdown/ DM plant rejects/ lab washings etc.) of $543 \text{ m}^3/\text{day}$ quantity will be treated through Condensate Polishing Unit of capacity 500 KLPD. Raw stillage (450 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. A modular STP of capacity 15 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 2300 KW /day and will be met from proposed 1.8 MW cogeneration power plant. 18 TPH biomass/coal fired boiler will be installed. APCE - Electrostatic precipitator with a stack height of 34 m will be installed for controlling the particulate emissions within the statutory limit of $30 \text{ mg}/\text{Nm}^3$ for the proposed boiler. 500 kVA DG set will be used as standby during power failure and stack height (7 m ARL) will be provided as per CPCB norms to the proposed DG set.

Details of Process emissions generation and its management

- APCE Electrostatic precipitator with a stack height of 34 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 (42 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be collected in proposed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (48 TPD) will be sold as cattle feed.
- Boiler ash (1.5 TPD) will be utilized for brick making in proposed in-house brick manufacturing plant.
- Used oil (0.15 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (0.5 TPD) and STP sludge (10 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 75 KLPD will be used for manufacturing fuel ethanol only.

Total land of 7.12 Hectares is under possession of the company and application is filed for conversion of land for industrial use on 12.09.2022, the approval is awaited. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- CLU certificate & surface water withdrawal permission shall be obtained before start of construction activities.
- PP shall commit that fresh water consumption shall not exceed 4 KL/KL of ethanol production including co-generation power plant i.e. 300 KLPD and separate requirement for domestic activities.

- Commitment to install own brick manufacturing unit inside/adjacent to plant premises.

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). 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). NOC from the Concerned Local authority for surface water supply shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production i.e. 300 KLPD which will be met from Malaprabha River. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (vii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 34 meters will be installed with 18 TPH biomass/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (viii). Boiler ash (1.5 TPD) will be utilized for brick making in proposed in-house brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ (42 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be collected in proposed bottling plant.

- (x). 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.
- (xi). 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.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). 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 for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 2.30 hectares i.e., 33.13 %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 development shall be completed before commissioning of the plant. No trees shall be cut as part of construction.

- (xvi). 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, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). 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. Approach road to project site shall be maintained.
- (xviii). 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.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be

set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/ Director/CEO as per company hierarchy.

- (xxi). 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 Expansion of Existing Sugar factory from 5000 TCD to 6000 TCD and Distillery from 90 KLPD to 150 KLPD at Sundernagar, Post-Talegaon, Tal. Dharur, Dist. Beed by M/s. Loknete Sunderraoji Solanke Sahakari Sakhar Karkhana Limited – Consideration of Environmental Clearance.

[IA/MH/IND2/ 401020/2022, IA-J11011/439/2 022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. MITCON Consultancy and Engineering Services Ltd. (NABET certificate no. NABET/EIA/2124/RA 0229_Rev 02 and validity 05.02.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of existing distillery unit from 90 KLPD to 150 KLPD, sugar mill from 5000 TCD to 6000 TCD located at Village Sundernagar Post Talegaon, Tehsil Dharur, District Beed, State Maharashtra by M/s. LokneteSunderraojiSolankeSahakariSakharKarkhana 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 capacities are as under:

S. No.	Name of unit	Name of the product and by-product	Existing production capacity	Additional Production capacity	Total Production capacity
1	Distillery (B-Molasses, Sugar syrup, etc.)	Ethanol	90KLPD	60KLPD	150KLPD
2	Sugar Mill (Sulphur, caustic soda, etc.)	Sugar	5000TCD	1000TCD	6000TCD
3	Fermentation unit	Carbon di-oxide	66.6TPD	44.4TPD	111TPD

Ministry/SEIAA has issued Environmental Clearance to the existing Industry for a capacity of 45KLPD to 90KLPD vide File No. SIA/MH/IND2/61556/2018 dated 21.12.2021. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Nagpur vide File no- EC-1710/RON/2022-NGP/10307 dated 15TH September 2022. Action Taken Report has been submitted to IRO, MOEFCC, Nagpur dated 10.10.2022 for 2 partial compliances.

Ministry/SEIAA has issued Environmental Clearance to the existing Industry for a capacity of 3500 to 5000TCD vide File No.J-11011/204/2011-IA dated 19.12.2013. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Nagpur vide File no- EC-1719/RON/2022-NGP/10306 dated 15TH September 2022. Action Taken Report has been submitted to IRO, MOEFCC, Nagpur dated 10.10.2022 for 2 partial compliances

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 plant area after expansion will be 48.37 Ha which is under possession of the company and 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 17.27 Hectares (existing 8.0ha and proposed 9.27ha.) i.e. 35% of the total plant area has already been developed as greenbelt & plantation and the same will be maintained/ will be developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 47.96 Crores. Capital cost of EMP would be Rs. 9.17 Crores and recurring cost for EMP would be Rs.1.14 Crores per annum. Industry proposes to allocate Rs. 1.44 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 25 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: Surnarwadi, Kasari and Bodka at a distance of 5.33 km. Water bodies: Kundalika river is at a distance of 3.58 Km in W direction. River Kundalika is at a distance of 3.58 for which NOC has been obtained from Irrigation Department vide letter no. TK 729712 dated 20.08.2018 and permission has been obtained.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.15 $\mu\text{g}/\text{m}^3$, 0.027 $\mu\text{g}/\text{m}^3$, with respect to SO_2 , SPM. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total freshwater requirement after expansion will be 881 CMD(sugar mill 347CMD and distillery 534 CMD) which will be met from Kundalika river. NOC has been obtained from Irrigation Department vide letter no. TK 729712 dated 20.08.2018 and permission has obtained permission.Total effluent generation from distillery is 1131 CMD which is treated through Condensate Polishing Unit of 1200CMD and ETP of 1200CMD. Total effluent generation from sugar is 1141 CMD which is treated through Condensate Polishing Unit of 1200CMD. 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 plant is being/will be based on Zero Liquid discharge system and treated effluent/water is being/will not be discharged outside the factory premises.

Total power requirement of distillery after expansion will be 2.7 MW which will be sourced from proposed 2.7MWco-generation power plant of distillery (2.7MW TG will be installed to 30TPH Boiler). Total power requirement of sugar mill after expansion will be 8.5 MW which will be sourced from existing 22MW co-generation power plant of distillery. Existing sugar mill has 120TPH

bagasse fired boiler. No additional boiler will be installed for proposed sugar expansion. Existing distillery mill has 25TPH spent wash/coal/biomass fired boiler. No additional boiler will be installed for proposed sugar expansion. It will be upgraded to 30TPH. APCE ESP with a stack of height of 76 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Industry has 500 KVA DG set which will be used as standby during power failure and stack height (12m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- APCE Electro Static Precipitator with a stack height of 76 m is installed with the existing boiler (25TPH boiler will be upgraded to 30TPH) for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (111 TPD) generated during the fermentation process is being/will be collected by utilizing CO₂ scrubbers and will be collected in proposed bottling.

Details of solid waste/Hazardous waste generation and its management

- Boiler ash (Bagasse, Spent wash and coal ash -2.6 TPD) is being/will be used as manure.
- Used oil (2TPA) is being/will be sold to authorized recyclers.
- CPU sludge (2.5TPD) and STP Sludge (0.4 TPD) is being/will be used as manure.
- Yeast sludge (20TPH) is being/will be used in factory farm.
- STP sludge (0.4TPD) is being/will be used as a 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 150 KLPD & 1000 TCD will be used for manufacturing fuel ethanol only.

During deliberations, EAC discussed following issues:

- CCR and partial compliances of certified compliance report were discussed along with action plan.

- As per the submitted document, water balance of sugar unit indicates that treated water is used for gardening purpose. Accordingly, the Committee asked to recycle entire water for process and also revise the fresh water requirement of distillery @ 3.5 KL/KL including co-generation power plant for ethanol production.
- Air cooled condensers shall be installed in sugar mill.
- PP shall submit affidavit stating that the integrated unit of distillery and sugar mill will be complete ZLD.
- Recalculate stack height as there is a common stack for upgraded boiler and coal must be considered as fuel.
- The Committee observed that there is no greenbelt provided around the plant boundary. Accordingly, the Committee suggested them to provide three layer greenbelt around the boundary. Action plan for greenbelt development and revised native tree species shall be submitted.

The Committee further examined the additional information submitted by the PP and it was observed that the PP has not submitted the following information:

- (i) Affidavit stating that the integrated unit of distillery and sugar mill will be complete based on ZLD.
- (ii) No information has been provided regarding three layer greenbelt around the boundary in the submitted action plan. Even Layout map is showing one layer of greenbelt.

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. 7

Proposed 60 KLPD Grain based Ethanol Plant (Biofuel Production) and Power Cogeneration of 2 MW at Village: Salaiya, Tehsil & District: Katni (Madhya Pradesh) by M/s. Venus Agro Fuels Pvt. Ltd. – Consideration of Environmental Clearance

[IA/MP/IND2/401721/2022; IA-J-11011/422/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Ecomen Laboratories Pvt. Ltd., Lucknow (NABET Certificate No.: NABET/EIA/2023/RA 0203 Valid till September 21, 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 60 KLPD Grain based Ethanol Plant along with 2.0 MW Co-Generation Power Plant (biomass) located at Village Salaiya, Tehsil & District Katni, State Madhya Pradesh by M/s. Venus Agro Fuels 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	60 KLPD
2.	Co-generation power plant	Power	2.0 MW
3.	DWGS dryer	DDGS	30 TPD
4.	Fermentation unit	Carbon di-oxide	30 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 4.26 hectares. Greenbelt will be developed in total area of 1.41 hectares i.e., 33.22% of total project area. The estimated project cost is Rs. 84.69 Crores. Capital cost of EMP would be Rs.15.00 Crores and recurring cost for EMP would be Rs. 1.20 Crores per annum. Industry proposes to allocate Rs. 0.85 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 80 persons as direct & indirect.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Eco-sensitive Zone etc. within 10 km distance from the Project Site. Reserve Forests/ Protected Forests: Midra PF is at a distance of approx. 12.94 km in NE direction, Gopalpur RF is at a distance of approx. 10.85 km in NE direction, Manpur PF is at a distance of approx. 8.97 km in NE direction, Ponri PF is at a distance of approx. 8.05 km in NE direction, Bijauri RF is at a distance of approx. 9.03 km in NNE direction, Majhgawan RF is at a distance of approx. 9.68 km in NNE direction, PF is at a distance of approx. 12.80 km in NNE direction, Bandora PF is at a distance of approx. 13.63 km in NNE direction, PF is at a distance of approx. 8.01 km in NE direction, PF is at a distance of approx. 6.29 km in NE direction, Jorapahar RF is at a distance of approx. 8.81 km in SE direction, Bijhota RF is at a distance of approx. 7.09 km in SSW direction and Lakhapateri RF is at a distance of approx. 12.15 km in W direction. Water Bodies: Jaranagar Nala is at a distance of approx. 3.21 km in NE direction, Datla Reservoir is at a distance of approx. 9.82 km in ESE direction, NiwarNadi is at a distance of approx. 10.87 km in SSW direction, Ametha Tank is at a distance of approx. 9.79 km in SW direction, Niwar Nala is at a distance of approx. 11.11 km in SW direction, Bijaunra Nala is at a distance of approx. 11.10 km in WSW direction, Canal is at a distance of approx. 8.08 km in SW direction, Sumrar Tank is at a distance of approx. 2.37 km in W direction and Sumrar Nala is at a distance of approx. 5.22 in NW direction. There is no river/ river flood plain near the site and the proposed plant and machinery area is located outside the river flood plain.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.085 to 0.26 $\mu\text{g}/\text{m}^3$, 0.14 to 0.42 $\mu\text{g}/\text{m}^3$ with respect to PM and SO_2 . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 350 CMD which will be met from ground water. To abstract Ground Water, application has been submitted to Department of Water Resources, River Development and Ganga Rejuvenation Central Ground Water Authority vide letter no.21-4/1497/MP/IND/2022 dated 27.08.2022. Effluent (Condensate/spent lees) of 336 CMD quantity will be treated through Condensate Polishing Unit of capacity 500 CMD. Raw stillage (spent wash from distillation) will be sent to the decanter followed by MEE and dryer to produce DDGS. ETP of 500 CMD & STP of capacity 15 KLD will be installed to treat boiler blowdown cooling tower blow down, RO water reject, lab reject, soft water reject and domestic 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 1.8 MW and will be met from proposed 2.0 MW Co-generation Power Plant. 18 TPH biomass/coal fired boiler will be installed. APCE Electrostatic Precipitator with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 500 KVA DG set will be used as standby during power failure and stack height (14 m above roof level) will be provided as per MPPCB norms to the proposed DG sets.

Details of process emissions generation and its management

- APCE: Electrostatic Precipitator 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/ MPPCB servers.
- CO₂ (30 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) 30 TPD will be used as cattle feed.
- Boiler ash (25 TPD) will be supplied to brick manufacturing unit.
- Used oil (0.40 Kiloliters per annum) will be sold to authorized recyclers.

- Sludge generated from CPU/ETP and STP 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 60 KLPD will be used for manufacturing fuel ethanol only.

Total land of 4.26 Hectares land is under possession of the company and the land to be used for Industry/mining purpose as per land record on Khasra. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- EAC noted that dominant wind direction is NW to SE whereas maximum concentration is in NW as per isopleths submitted. PP shall submit revised isopleths. As per submitted information, PP has submitted only wind rose. However PP has not elaborated Wind Rose diagram as well as and not submitted revised isopleths for air quality prediction as desired by the committee.
- Fresh water consumption shall not exceed 4 KL/KL of ethanol production including co-generation power plant. PP shall submit revised water balance for the same. PP submitted that revised fresh water requirement is 240 m³/day.
- Revise list of native species shall be submitted. PP submitted the revised list of greenbelt species.
- CER action plan including villages name shall be submitted.

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

Agenda No. 8

Greenfield Project of 180 KLD Grain Based Ethanol Plant along with 4.5 MW Co-generation Power Plant located at Village- Changmaji Mikir Gaon, Circle- Dobaka, District- Hozai, Assam by

M/s Opulent Biofuel Private Limited– Consideration of Environmental Clearance.

[IA/AS/IND2/401540/2022, IA-J-11011/408/2022-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 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 180 KLD Grain Based Ethanol Plant along with 4.5 MW Co-generation Power Plant (biomass/coal) located at Village Changmaji Mikir Gaon, Circle Dobaka, District Hozai, State Assam by M/s Opulent Biofuel 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	4.5 MW
3	DWGS dryer	DDGS	82 TPD
4	Fermentation unit	Carbon di-oxide	134 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 8.29 hectares. Greenbelt will be developed in total area of 2.82 hectares i.e. 34% of total project area. The estimated project cost is Rs. 148.75 Crores. Capital cost of EMP would be Rs. 22.68 Crores and recurring cost for EMP would be Rs. 6.35 Crores per annum. Industry proposes to allocate Rs. 2.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 133 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/Protected Forest: Dabaka RF is at a distance of 1.85 km in N direction, Lutamai RF is at a distance of 10.5 km in South West direction, Kopili River 6 km in SW Direction. Water bodies: Jamunar River is 4 km in SE direction from the project site, Khakau River is at a distance of 1.6 km in SW direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.91 \mu\text{g}/\text{m}^3$, $0.36 \mu\text{g}/\text{m}^3$, $1.31 \mu\text{g}/\text{m}^3$, $2.5 \mu\text{g}/\text{m}^3$ and $0.88 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, 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 $1021 \text{ m}^3/\text{day}$ which will be met from Ground water. Committee suggested to reduce fresh water consumption @ 4 KL/KL i.e. 720 KLPD. Application for permission for NoC has been obtained vide letter No. 21-4/2383/AS/IND/2022 dated 13.10.2022. Effluent (Condensate/spent lees/blowdown etc.) of $823 \text{ m}^3/\text{day}$ quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 1000 KLD. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 10 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 4.5 MW and will be met from proposed 4.5 MW co-generation power plant. 38 TPH rice husk/coal fired boiler will be installed. ESP & a stack height of 65 m will be installed for controlling the particulate emissions within the statutory limit of $30 \text{ mg}/\text{Nm}^3$ for the

proposed boiler. 750 kVA DG sets 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 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 (134 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) (82 TPD) will be sold as cattle feed/fish feed/ prawn feed.
- Boiler ash (105 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises of capacity approx. 5.19 Cr. bricks per annum.
- Used oil (2.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (106 kg/day) and STP Sludge (0.52 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 8.29 Hectares which is under the possession of company and current land use is industrial land. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- CLU application shall be applied to Department of Town and Country Planning for land use conversion.
- CER cost shall be increased from Rs. 1.48 Crores to Rs. 2.0 Crores. PP has submitted revised CER cost to Rs. 2.0 Crore with break up.

- PP shall commit that fresh water consumption shall not exceed 4 KL/KL of ethanol production. PP has submitted the revised water balance stating that fresh water requirement will be restricted to 527 m³/day.

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 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.
- (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). 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). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from ground water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (vii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 65 meters will be installed with 38 TPH coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (viii). Boiler ash (105 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises of capacity approx. 5.19 Cr. bricks per annum. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

- (ix). CO₂ (134 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.
- (x). 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.
- (xi). 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.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). 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 for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 2.82 hectares i.e. 34% 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 development shall be completed before commissioning of the plant. No trees shall be cut as part of construction.

- (xvi). 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, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). 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. Approach road to project site shall be maintained.
- (xviii). 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.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xxi). 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

Establishment of 75 KLPD Grain based distillery along with 2.5 MW Electricity Generation at: Survey no 652, 697, 698, 700, 701 Village Shinawad, Tal: Modasa, Dist: Aravalli, Gujarat State by Agronex Bio Fuels Pvt. Ltd. (ABFPL) – Consideration of Environmental Clearance.

[IA/GJ/IND2/402519/2022, IA-J11011/442/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET certificate no. NABET/EIA/2124/SA 0177 and validity 10.10.2024) 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 along with 2.5 MW co-generation power plant located at Village Shinawad, Tehsil Modasa, District Aravalli, State Gujrat by M/s. Agronex Bio Fuels Pvt. Ltd. (ABFPL).

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	Cogeneration Power Plant	Power	2.5 MW
3	DWGS dryer	DDGS	60 TPD
4	Fermentation unit	Carbon di-oxide	56 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 7.91 hectares. Greenbelt will be developed in total area of 2.56 hectares i.e., 33% of total project area. The estimated project cost is Rs. 120 Crores. Capital cost of EMP would be Rs. 24.20 Crores and recurring cost for EMP would be Rs. 2.44 Crores per annum. Industry proposes to allocate Rs. 2.1 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 85 persons as direct & indirect.

There is no presence of National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve Forest/ Protected Forest is at a distance of 0.20 km in East Direction. Water bodies: Mazum River is at a distance of 4.6 Km from site in West direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.284 $\mu\text{g}/\text{m}^3$, 0.073 $\mu\text{g}/\text{m}^3$, 2.11 $\mu\text{g}/\text{m}^3$ and 0.353 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO₂ and

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

Total fresh water requirement will be 228 m³ /day which will be met from Mazam Reservoir. NOC has been obtained by Irrigation Department vide letter no. CB/Mazam/2007/year2022 dated 26.08.2022. Effluent (Condensate/spent lees/blowdown etc.) of 467 m³ /day quantity will be treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 600 KLPD. Raw stillage (379 T/D: quantity of raw spent wash from distillation) 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 electricity generation plant. 25 TPH Coal/Briquette fired boiler will be installed. APCE ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 750 KVA DG set will be used as standby during power failure and stack height (3 m) will be provided as per CPCB norms to the proposed DG set.

Details of Process emissions generation and its management

- APCE ESP 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 (56 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be collected in bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (60 TPD) will be sold as cattle feed.
- Boiler ash (15 TPD) will be used for brick manufacturing in proposed brick manufacturing unit inside plant premises.
- CPU sludge (0.4 TPD) and STP Sludge (0.003 TPD) will be used as manure.
- Used oil will be sold to authorized recyclers.

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.

Total land of 7.91 Hectares is under possession of the company and land use conversion application has been submitted to District Collector; Arvalli dated 25.08.2022.EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Village road/approach road shall be maintained by industry.
- PP shall obtain CLU certificate before start of construction activities.
- During discussion, the committee asked the PP whether fresh water requirement is less. Accordingly, PP responded that they have verified and fresh water requirement is 720 CMD as per submitted information on the website.

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). 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). NOC from the Concerned Local authority for surface water supply shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from Mazam Reservoir. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.

- (vii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 60 meters will be installed with 25 TPH Coal/Briquette fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (viii). Boiler ash (15 TPD) 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. 20% biomass pellets shall be used as fuel. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ (56 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be collected in bottling plant.
- (x). 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.
- (xi). 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.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.

- (xiii). 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 for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
 - (a) Metering and control of quantities of active ingredients to minimize waste;
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 2.56 hectares i.e., 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 development shall be completed before commissioning of the plant. No trees shall be cut as part of construction.
- (xvi). 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, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). 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/approach road to project site shall be maintained.

- (xviii). 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.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xxi). 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

Greenfield Project of "Grain Based Distillery Plant of 100 KLD along with Co-Generation Power Plant of 3 MW" located at Village- Ezengo, Town- Roing, District- Lower Dibang Valley, State- Arunachal Pradesh by M/s North East Ethanol Energy Private Limited. – Consideration of Environmental Clearance.

[IA/AR/IND2/401964/2022, IA-J-11011/412/2022-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 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 100 KLD Grain Based Ethanol Plant along with 3 MW Co-generation Power Plant located at Village Ezengo, Town Roing, District Lower Dibang Valley, State Arunachal Pradesh by M/s North East Ethanol 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	100 KLD
2	Co-generation power plant	Power	3 MW
3	DWGS dryer	DDGS	50 TPD
4	Fermentation unit	Carbon di-oxide	60 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 8.0 hectares. Greenbelt will be developed in total area of 3.2 hectares i.e., 40% of total project area. The estimated project cost is Rs. 132.5 Crores. Capital cost of EMP would be Rs. 19.82 Crores and recurring cost for EMP would be Rs. 4.05 Crores per annum. Industry proposes to allocate Rs. 1.32 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 250 persons as direct & indirect.

There are no national parks, Wildlife Corridors etc. within 10 km distance. Reserve Forest: Deopani Reserve forest is approx. 2.6 km towards West. Eze River is passing 170 m away from the project site in the N direction for which NOC has been obtained from Water Resource Division, Roing. Sally Lake is at approx. 0.9 km towards NE direction. Emmer River is at approx. 2.1 km, E direction. Mehao Wildlife Sanctuary is at approx. 0.60 km towards NE from the project site as per the OM dated 08 August 2019, the site falls under the ESZ of Mehao Wildlife Sanctuary by default as the ESZ notification is at Draft Stage for which NBWL application has been applied having proposal no. WL/AR/IND/402221/2022 dated 17.10.2022.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.035 $\mu\text{g}/\text{m}^3$, 0.023 $\mu\text{g}/\text{m}^3$, 0.598 $\mu\text{g}/\text{m}^3$, 0.289 $\mu\text{g}/\text{m}^3$ and 0.54 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO₂, NO₂ 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 580 m³/day which will be met from surface water. The recommendation for drawing water from river has been forwarded by Department of Water Resources, Roing dated 28/09/2021. Effluent (Condensate/spentlees/blowdown etc.) of 491 m³/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 600 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 3 MW and will be met from proposed 3 MW co-generation power plant. 25 TPH Coal and Rice Husk fired boiler will be installed. ESP & a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 1250 kVA DG sets 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 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 (60 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) (50 TPD) will be sold as cattle feed/fish feed/ prawn feed.
- Boiler ash (24 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises of capacity approx. 1.2 Cr. bricks per annum.
- Used oil (2 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (67.02 kg/day) and STP Sludge (2.05 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.

Total land of 8.0 Hectares has been taken on lease basis for 99 years for industrial purpose. Change of land use certificate has been obtained from

Office of the Deputy Commissioner Dated: 15th September 2021 and 2nd November 2021. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- PP shall commit that fresh water consumption shall not exceed 4 KL/KL of ethanol production i.e 400 KLPD.
- Revised list of native tree species shall be submitted. Further, PP has submitted revised tree species.
- Report on status of conservation plan, conservation plan and schedule 1 species reported. PP informed that 50 m buffer area will be provided towards Eze river and Maheo WLS
- PP informed that there are 90 trees are present at project site. Out of which 50 will be retained and remaining will be cut. The Committee suggested that trees can not be cut without prior approval of Concerned State Forest Department.

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 for the proposed expansion project 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). 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). 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). NOC from the Concerned Local authority for surface water supply shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (vii). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from surface water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

- (viii). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for makeup water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (ix). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 60 meters will be installed with 25 TPH Coal and Rice Husk fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (x). Boiler ash (24 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises of capacity approx. 1.2 Cr. bricks per annum. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (xi). CO₂ (60 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.
- (xii). 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.

- (xiii). 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.
- (xiv). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xv). 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 for drying of sludge.
- (xvi). 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.
- (xvii). The green belt of at least 5-10 m width shall be developed in nearly 3.2 hectares i.e., 40% 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 development shall be completed before commissioning of the plant. trees shall be cut only after approval of concerned Forest Department.
- (xviii). PP proposed to allocate Rs. 1.32 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, potable

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

- (xix). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Approach road to project site shall be maintained.
- (xx). 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.
- (xxi). Continuous online (24x7) monitoring system for stack emissions/effluent 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.
- (xxii). 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/Director/CEO as per company hierarchy.

- (xxiii). 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

Onshore exploratory and Development drilling wells and production in Dibrugarh & Sibsagar districts under Dibrugarh, Dibrugarh Extn., Hugrijan, Naharkatiya, Sapkaint, Dumduma, Dholiya and Moran, Moran Extn., Borhat PMLs. Assam by M/s. Oil India Limited – Re-consideration of Environmental Clearance

[IA/AS/IND2/187643/2007, J-11011/1254/2007-IA II (I)]

The proposal was earlier considered by the EAC (Ind-2) in its 45th meeting (Agenda 45.13) held on 30 November 2021 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/IND2/13360/20/10/2022) held on 20th October, 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 by MoEF&CC	Reply by PP
1.	1.PH related issue as per attachment to be addressed. and 2.ATR are to be submitted as per attachment.	Public Hearing freshly conducted for Dibrugarh district during 24.08.2022
2.	The proposal has been considered by the Ministry and after due examination it	Public Hearing for the Dibrugarh district freshly conducted on 24.08.2022.

	<p>has been observed that Public Hearing was conducted by an officer below ADM rank (Circle Officer). It is evident that there is no precedence regarding relaxing the provision of authority for presiding the PH below the rank of ADM. In this regard, it may be informed that public hearing presided by Circle Officer will not be considered for appraisal of the project. Therefore, you are requested to get conducted Public Hearing again as per provisions of EIA Notification, 2006 and subsequent amendments. Also, PP shall submit EIA/EMP Report to SPCB for conduction of Public Hearing followed by submission of revised final EIA/EMP report incorporating public hearing issues along with time-bound action plan for further consideration by Ministry. This issues with the approval of the competent authority.</p>	<p>The PH meeting chaired by ADC, Dibrugarh district.</p>
<p>3.</p>	<p>Letter dated 02.06.2022 issued by MoEF&CC is attached for necessary action please.</p>	<p>Same as above</p>

4.	Proceedings of fresh public hearing have not been uploaded. Please submit proceedings of fresh public hearing alongwith list of participants and covering letter issued by SPCB to MoEF&CC.	Proceedings of fresh public hearing conducted during 24.08.2022 along with list of participants and covering letter issued by SPCB to MoEF&CC submitted on 13.10.2022
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EAC was satisfied with the response provided by PP.

The Project Proponent and the accredited Consultant M/s. ERM India Pvt. Ltd. (NABET certificate no. NABET/EIA/1922/RA 0177 and validity 30.10.2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project Onshore exploratory and Development drilling wells and production in Dibrugarh & Sibsagar districts under Dibrugarh, Dibrugarh Extn., Hugrijan, Naharkatiya, Sapkaint, Dumduma, Dholiya and Moran, Moran Extn., Borhat PMLs located in villages Telpani, Teloibari, Rajgarh, Tinkhong, Paniyabura villages in Tehsils Dibrugarh East, Moran, Tinkhong and Naharkatiya of District Dibrugarh, , State Assam by M/s. Oil India Ltd.

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

The details of products and capacity as under:

PP informed that Oil India Ltd. (OIL) is planning to drill 68 onshore developmental wells, 9 nos. of production installations and laying of approximately 180 km of pipelines including different sizes (6" to 30") of oil/gas pipelines including the some portion of gas pipeline from Sapkaint to MRN-Kasalupathar gas line (200mm), assorted oil & gas flowlines/delivery lines from 50 mm to 300mm in Khowang Shalmari area (KSA) under Dibrugarh and Charaideo districts of Assam.

S. No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1.	Wells and production installations	5 wells	68 wells and 9 production installations	73 wells and 9 production installations

The Khowang Shalmari Area (KSA) is located in Dibrugarh and Charaideo districts (carved out of Sibsagar district) of Assam on the depositional plain of the Brahmaputra River. Total area of KSA is 1073 sq. km. N

Coordinates of Proposed wells and production installations

Production Installations

At the production installation the well fluid would be processed where oil, associated gas and water would be separated. Nine Production installations planned within the KSA. The production installation may include Oil Collection System (OCS), Gas Compressor Station (GCS), Field Group Gathering Station (FGGS) or Quick Production System (QPS). Planned oil storage and handling capacity at each production installation based on anticipated production from proposed drilling wells in vicinity of respective production installations. The formation water generated in production installation would be treated in an ETP and would be reused in the system or injected in water injection/water disposal wells. Flare system shall be installed as per the recommended practices of OISD and CPCB.

Sl. No	Well Name	Geographical Coordinates
1.	7	27° 8'34.66"N; 95° 8'16.58"E
2.	5	27°10'53.33"N 95° 3'47.34"E
3.	7	27°12'36.87"N 95° 3'35.07"E
4.	8	27°13'12.51"N 95° 2'29.02"E
5.	12	27°13'30.06"N

Sl. No	Well Name	Geographical Coordinates
		95° 1'49.18"E
6.	MFH	27°13'21.12"N 95° 3'40.07"E
7.	MFR	27°11'13.03"N 95° 7'58.75"E
8.	10	27°11'23.29"N 95° 7'53.18"E
9.	DGD	27°12'14.56"N 95°10'2.74"E
10.	DGK	27°12'36.92"N 95° 9'38.99"E
11.	DGM	27°12'37.24"N 95° 9'39.14"E
12.	218	27°13'29.85"N 95° 9'53.96"E
13.	217	27°13'12.90"N 95°10'57.22"E
14.	216	27°13'26.49"N 95°11'28.92"E
15.	DHS	27°13'50.26"N 95°11'17.10"E
16.	215	27°13'57.51"N 95°11'30.30"E
17.	DGN	27°13'57.84"N 95°10'39.39"E
18.	DGV	27°13'57.46"N 95°10'40.01"E
19.	DGW	27°13'57.21"N 95°10'40.59"E
20.	231	27°13'49.66"N 95°10'35.08"E
21.	DGB	27°15'3.91"N 95°10'32.49"E
22.	DGC	27°15'16.10"N 95°10'37.93"E

Sl. No	Well Name	Geographical Coordinates
23.	214	27°14'48.57"N 95°11'19.77"E
24.	213	27°15'3.99"N 95°11'46.07"E
25.	212	27°15'27.50"N 95°12'14.56"E
26.	230	27°15'32.19"N 95°11'34.51"E
27.	SPC	27°12'28.69"N 95°13'37.30"E
28.	229	27°15'28.07"N 95°11'12.37"E
29.	210	27°15'35.77"N 95°10'39.78"E
30.	211	27°15'51.13"N 95°11'53.65"E
31.	219	27°16'0.01"N 95°11'33.92"E
32.	DGX	27°15'9.89"N 95° 9'17.29"E
33.	224	27°15'7.38"N 95° 8'37.77"E
34.	225	27°14'43.59"N 95° 8'16.60"E
35.	227	27°14'27.56"N 95° 7'21.02"E
36.	226	27°14'50.67"N 95° 7'14.71"E
37.	208	27°15'7.41"N 95° 7'50.21"E
38.	206	27°14'27.84"N 95° 6'26.15"E
39.	109	27°14'49.68"N 95° 6'11.83"E
40.	205	27°14'45.76"N

Sl. No	Well Name	Geographical Coordinates
		95° 5'41.20"E
41.	5	27°14'24.16"N 95° 5'5.53"E
42.	404	27°14'44.18"N 95° 4'21.53"E
43.	DHP	27°14'52.21"N 95° 6'42.11"E
44.	DHP-1	27°14'52.28"N 95° 6'41.66"E
45.	207	27°15'4.44"N 95° 6'55.19"E
46.	MET	27°12'23.63"N 95° 6'24.32"E
47.	G	27°20'8.40"N 95° 1'5.71"E
48.	H	27°18'55.67"N 94°53'45.32"E
49.	J	27°20'21.25"N 95° 0'16.55"E
50.	K	27°18'45.49"N 95° 2'38.81"E
51.	11	27°12'56.21"N 95° 5'8.47"E
52.	108	27°15'35.64"N 95° 6'3.49"E
53.	DIC-H	27°15'52.99"N 95° 7'23.53"E
54.	NLD	27°20'56.20"N 95°14'33.54"E
55.	NLB	27°20'46.24"N 95°14'28.46"E
56.	DGE	27°15'24.61"N 95° 7'7.97"E
57.	DIB	27°15'22.94"N 95° 7'20.99"E

Sl. No	Well Name	Geographical Coordinates
58.	DGS	27°15'39.43"N 95° 7'55.73"E
59.	201	27°12'53.75"N 94°54'8.65"E
60.	202	27°12'6.62"N 94°54'48.73"E
61.	203	27°13'39.80"N 94°54'49.00"E
62.	204	27°13'7.22"N 94°56'22.73"E
63.	209	27°15'17.64"N 95° 9'11.16"E
64.	220	27°17'11.52"N 95° 4'47.17"E
65.	221	27°16'53.08"N 95° 4'13.43"E
66.	222	27°16'50.08"N 95° 3'18.40"E
67.	223	27°16'55.09"N 94°54'28.92"E
68.	228	27°15'10.55"N 95° 6'20.70"E

S No.	Production Installation Name	Coordinates
1.	QPS4	27°12'14.33"N 95°10'3.13"E
2.	QPS5	27°11'2.34"N 95° 7'56.14"E
3.	QPS6	27°12'35.13"N 95° 3'23.67"E
4.	FGGS1	27°22'28.92"N 95° 1'43.67"E
5.	FGGS2	27°20'43.71"N

		95° 3'21.83"E
6.	FGGS3	27°19'18.36"N 95° 7'47.87"E
7.	FGGS4	27°17'19.19"N 95° 4'11.81"E
8.	FGGS5	27°13'48.58"N 95°11'13.13"E
9.	FGGS6	27°19'8.10"N 94°59'53.40"E

Ministry had issued Environmental Clearance for the existing 5 wells vide letter no. J-11011/1254/2007-IA-II(I); dated 1st November 2011. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Guwahati vide RO-NE/E/IA/AS/MI/61/1069-1071 dated 3rd September 2021. Action Taken Report has been submitted to IRO, MOEFCC, by Oil India dated 27.10.2021 for partial compliances or Certified Action Taken Report has been obtained by IRO, MOEFCC, No. RO-NE/E/IA/AS/MI/61/1857-1859 dated 24th January 2022.

EC condition reference	EC condition description	OIL's Compliance Statement	Observation by IRO, on OIL's compliance Statement	Action item
Specific Condition , No. (xxxi)	Company shall have own Environment Management Cell having qualified persons with proper background. Full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.	OIL has full-fledged Environment Cell along with laboratory facilities at our location having desired experience.	It was stated that Project have fully fledged Environment Cell along with laboratory facilities at our location having desired experience. However, as per submitted documents and the Educational background of the team members, it was found that no person from Environment Science/Zoology/Ecology/Wild life Science background included in the team. Person from above mentioned background should be included in the team.	Complied We have full fledged Environment Cell along with laboratory facilities at our location having desired experience. Details of Environment Cell is enclosed as Annexure-2. Further, process of recruitment of qualified person from Environment Background has already initiated. The copy of recruitment advertisement is enclosed as Annexure-2A.

Specific Condition , No. (vi)	The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The stack height shall be provided as per the regulatory requirements and emissions from stacks will meet the MOEF/CPCB guidelines.	AAQ Monitoring was carried out as per the EC conditions. CAAQMS was not a requisite EC condition and therefore, the same was not done.	As per the submitted documents by project proponent stated that AAQ Monitoring was carried out as per the EC conditions. CAAQMS was not a requisite EC condition and therefore, the same was not done. However, project should have installed continuous ambient air quality monitoring system (CAAQMS) nearby flare system to monitor the continuous ambient air quality.	Complied. OIL carried out AAQ Monitoring as per EC conditions only. CAAQMS was not a requirement of the EC conditions.
Specific Condition , No. (xxviii)	Base and side of Drill cutting storage pits and supernatant storage pit shall be provided with HDPE lining. Overflow channel and oil grease trap facility shall be provided.	As per company practice all pits are provided with HDPE lining. Since the as visited site are completed in the year 2015-2016, no activity lining were visible at the time of inspection.	As per company practice all pits are provided with HDPE lining. Since the as visited site are completed in the year 2015-2016, no activity lining were visible at the time of inspection. On the date of well site visit i.e. 26th and 27th July, 2021, HDPE lining was not observed in the disposed pit.	Complied. As per company practice all pits are provided with HDPE lining. Since the visited site are completed in the year 2015-2016, no active lining were visible at the time of inspection. Present Photographs having HDPE lining is enclosed as Annexure-1 for reference.
Specific Condition , No. (xxiii)	In case the commercial viability of the project is established, the Company shall prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.	The project sites under reference were executed with due EC from the MoEF &CC and sites are located within the PML areas allotted to OIL by the MoPNG, GoI for development and extraction of Hydrocarbons from the area. In case of completion of the activities as per granted EC condition, OIL applies for Expansion EC for execution of additional wells/establishments in the area as per Ministry's guideline.	Project proponent informed that the project sites under reference were executed with due EC from the MoEF &CC and sites are located within the PML areas allotted to OIL by the MoPNG, GoI for development and extraction of Hydrocarbons from the area. In case of completion of the activities as per granted EC condition, OIL applies for Expansion EC for execution of additional wells/establishments in the area as per Ministry's guideline. However, as per submitted documents by project proponent it is observed that there are two wells (well no DKG and well no DGM) which comes under commercial production stage. Project authorities should obtain fresh EC from Ministry in cases wells come under commercial productions as per stipulations	Complied OIL obtained EC in the year 2011 for total 05 Nos of well (02 Development well & 03 Exploratory well). The drilling of all 02 Development well & 03 Exploratory well has been completed by the year 2015-2016. After 2016 no extra well was drilled in this block. On finding the commercial viability in the project area, OIL applied for TOR of expansion EC 14.06.2017 and Application for Expansion EC has already been applied Vide Online Proposal No IA/AS/IND2/187643/2007, dated 08.03.2021. Now OIL will drill additional wells after obtaining of expansion

				EC as referred above and which is under process.
Specific Condition , No. (xii)	Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF should be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Shillong.	As per company practice all pits are provided with HDPE lining. As there is no TSDF in the North Eastern Region, therefore membership could not be obtained. Drill cuttings are stored in the designated pits lined with HDPE sheet and testing of the same are also carried out. Regarding specific time frame of restoration, project authorities ensured that in case of fully abandoned well where economically viable hydrocarbons are not available, the pits are fully restored to its original condition. However, OIL has made a policy to restore of the pits after completion of the project site with proper treatment of the effluents in its incoming project sites.	As per submitted documents by project proponent, stated that as per company's practice all pits are provided with HDPE lining. As there is no TSDF in the North Eastern Region, therefore, membership could not be obtained. Drill cuttings are stored in the designated pits lined with HDPE sheet and testing of the same are also carried out. Regarding specific time frame of restoration, project authorities ensured that in case of fully abandoned well where economically viable hydrocarbons are not available, the pits are fully restored to its original condition. However, OIL has made a policy to restore of the pits after completion of the project site with proper treatment of the effluents in its incoming project sites. On the day of well site visit 26th and 27th July, HDPE lining was not observed in the disposed pit. Pits were yet to be restored with soil and native plants species. As per submitted restoration plan there is no specific time frame for restoration of drilled pit area. There is no clear specific calendar year for declaration of abandoned well after commence in operation. Project proponent should ensure to have restored the drilled pits area within the stipulated time bound manner.	Complied As clarified earlier, there is no TSDF in the entire North Eastern Region of India and therefore, TSDF Membership could not be obtained. As per company practice all pits are provided with HDPE lining. Since the visited site are completed in the year 2015-2016, no active lining were visible at the time of inspection/visit.
Specific Condition , No. (iii)	Permission shall be obtained from the State Forest Department regarding the impact of the proposed drilling on the surrounding reserve forest viz. Namdang, Telpani and Jokai RF as well as the Khowang-Shalmari area is also a part of the Indo-	All the drilled wells were located outside forest area. Therefore, no forest clearance as well as forest impact certificate was taken from the forest department. Authentication of the PML areas were taken from the concern DFO at the time of grant of PML. No Wildlife Sanctuary/ESZ falls within the vicinity of the block.	It is stated that all the drilled wells were located outside forest area. Therefore, no forest clearance as well as forest impact certificate was taken from the forest department. Authentication of the PML areas were taken from the concern DFO at the time of grant of PML. No Wildlife Sanctuary/ESZ falls within the vicinity of the block. Project authorities have to be submitted as certificate from state forest department or DFO that all drilled wells are outside these forest areas and no significant impact has been envisaged on the surrounding Reserve Forest as per stipulation.	Being Complied As per the advice of IRO-MoEF&CC, Guwahati, OIL applied for impact certificate to the concerned DFO vide OIL letter Reference no Ref. No. S&E/E/88(D)/342 dated 17.03.2022 and same will be submitted to your good office once obtained from Forest Department. OIL is continuously pursuing the matter with concerned DFO's for impact certificate. OIL again wrote a letter to DFO's vide letter dated

	Burma Biodiversity Hotspot.			16.08.2022 for providing the impact certificate
Specific Condition , No. (xv)	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.	Solid waste like drill cuttings are collected in HDPE lined pit and covered with native soil once site is declared as abandoned.	The project proponent stated that Some of the site is not completely restored as same is under production. At the drilled site restoration has not been done by project proponent as yet.	Being Complied OIL has formed a multidisciplinary team to complete the restoration work of the drilled plinths by filling the pits and providing with new boundary fencing. Necessary survey of the areas are already completed and budgeting is in process. The complete restoration work by filling back of plinths with native soil and installing of new fencing for the existing drilling plinth will be completed in two years of time. An undertaking has been submitted in this regard
Specific Condition , No. (xxi)	The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored the area in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.	Fencing is provided during time of drilling as well during production period. However, because of miscreant activities most of the fencing are regularly missing. The drilling of the wells were completed during the year 2015-2016. In some of the site there is rainwater accumulation in the pits. No contaminated water is allowed to spillage to nearby area.	Fencing is provided during time of drilling as well during production period. However, because of miscreant activities most of the fencing are regularly missing. The drilling of the wells were completed during the year 2015-2016. In some of the site there is rainwater accumulation in the pits. No contaminated water is allowed to spillage to nearby area. Project proponent should take restoration of sites immediately and secured enclosures around wells be ensured for safety.	Being Complied Fencing around the well plinths are provided in each of the wells. However, as stated earlier, because of miscreant activities the fencing are removed/not available in some of the wells. However, the fencings are provided regularly. Meantime, OIL has formed a multidisciplinary team to complete the restoration work of the drilled plinths by filling the pits and providing with new boundary fencing. Necessary survey of the areas are already completed and budgeting is in process. The complete restoration work by filling back of plinths with native soil and installing of new fencing for the existing drilling plinth will be completed in two years of time. An undertaking has been submitted in this regard
Specific Condition , No. (xxiv)	Restoration of the project site shall be carried out satisfactorily and report shall be sent to	Fencing is provided during time of drilling as well during production period. However, because of miscreant	Fencing is provided during time of drilling as well during production period. However, because of miscreant activities most of the fencing are regularly missing. The drilling of the wells were completed during the year 2015-2016. In some	Being Complied Fencing around the well plinths are provided in each of the wells. However, as stated earlier, because of miscreant activities the

	<p>the Ministry's Regional Office at Guwahati.</p>	<p>activities most of the fencing are regularly missing. The drilling of the wells were completed during the year 2015-2016. In some of the site there is rainwater accumulation in the pits. No contaminated water is allowed to spillage to nearby area.</p>	<p>of the site there is rainwater accumulation in the pits. No contaminated water is allowed to spillage to nearby area. Project proponent should take restoration of sites immediately and secured enclosures around wells be ensured for safety.</p>	<p>fencing are removed/not available in some of the wells. However, the fencings are provided regularly. Meantime, OIL has formed a multidisciplinary team to complete the restoration work of the drilled plinths by filling the pits and providing with new boundary fencing. Necessary survey of the areas are already completed and budgeting is in process. The complete restoration work by filling back of plinths with native soil and installing of new fencing for the existing drilling plinth will be completed in two years of time. An undertaking has been submitted in this regard</p>
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The project Standard Terms of Reference have been obtained vide F. no. J-11011/323/2017-IA.II (I); dated 29 September 2017. It was informed that no litigation is pending against the proposal.

Public Hearing for the proposed project had been conducted by the Pollution Control Board of Assam on 24th August, 2022 at Zilla Parishad Bhawan Rajgarh for Dibrugarh district, 08th December, 2020 in Sibsagar District at Jyoti Bishnu Cultural Centre, Demow, 7th November, 2020 at Sapekhati Tai Cultural Centre, Sapekhati, Charaideo District. The Public Hearing was chaired by Additional Deputy Commissioners in all the three districts. The main issues raised during the public hearing and their action plan:

PH conducted on 24.08.2022 in Dibrugarh District

Regarding developmental project for the uplifting of the social-economic condition of locals, Development of neighbouring school, colleges, drinking water facilities, bus sheds, plantation of evacuated drilling sites etc., PP informed that budget allocated for CER plan INR 1.70 crores for 7 years (2022-23 to 2028-29).

Regarding conditions of the abandoned rigs in the area which are unattended & in which various instances of accidents, PP informed that barricading of abandoned drill sites Restoration of abandoned drill sites within 1 year of declaration as abandoned, Barricading the abandoned KSA well sites Rs. 1 lakh per well x 2 wells= Total Rs. 2 lakhs.

Regarding proper barricading of the drill sites to be undertaken, PP informed that barricading the abandoned well sites Rs. 1 lakh per well x 2 wells= Total Rs. 2 lakhs (included in CER plan).

Regarding inadequate compensation to the affected people and effective fencing around the abandoned rigs, PP informed that compensation to the affected community will be paid as per Govt. rules upon discussion with local panchayat, Budget included in cost of drilling.

Regarding proper implementation of CSR fund. Rajgarh AASU has submitted many memorandum to M/S OIL Authorities, which has been deliberately ignored, CSR fund in the area will be spend as per Govt. rule.

Regarding Only 10% of expected work has been completed by M/S OIL and they want a positive response from M/S OIL within 10 days, PP informed that CSR budget is earmarked as follows: Mobile health services- Rs. 2 lakhs per year for 7 years = Total 14 lakhs • Development of 4 sheds at bus stops in the area= Rs. 4.5 lakhs per bus shed; Total Rs. 18 lakhs • Drinking water facilities Rs. 0.2 lakh per hand pump x 100 pumps= Total Rs. 20 lakhs • Infrastructure improvement work across schools in 15 schools Rs. 1 lakh per school= Total Rs. 15 lakhs • Training support for skill development among women Rs.1 lakh per training program x 5 training programs= Total Rs. 5 lakhs, Industrial training for students Rs. 0.5 lakh per student x 30 selected students = Rs. 15 lakhs • Desilting and infrastructure development of ponds at the peripheral villages to promote pisciculture.Rs.1 lakh per pond x 10 ponds= Total 10 lakhs • Contributing to sericulture development 0.1 lakh per family x 50 families working in sericulture= Total Rs. 5 lakhs • Fund for horticulture development for locals 0.1 lakhs per family x 50 families working in horticulture= Total Rs. 5 lakhs • Plantation at abandoned drill sites= Rs. 10 lakhs.Barricading the abandoned KSA well

sites Rs. 1 lakh per well x 2 wells= Total Rs. 2 lakhs • Provision for street light at major traffic intersections Rs. 20 lakhs

Regarding economic sanction for Tingkhong college and development of library in the area, PP informed that fund to be allocated for development of Tingkhong College, Rs. 10 lakhs (included in CER plan).

Regarding Concerned about soil, air, noise pollution and water pollution, waste management from drill sites, PP informed that detail of cost breakup of implementation of Environmental Conservation measures for each well would be INR 0.1 crore and for each production installation would be INR 0.062 crore per annum.

Regarding strict monitoring regarding pollution by the officials of PCBA., PP informed that Half yearly monitoring of air, noise, water, soil will be conducted in proximity to the drill sites. OIL will submit 6 monthly environmental monitoring report and report on compliance to the Environmental Clearance conditions to MOEF&CC and PCBA. Budget for monitoring included in EMP.

Regarding Protection of flora and fauna in the area, OIL prepared Wildlife Conservation plan for Schedule-I species. INR 58 lakhs for 7 years (2022-23 to 2028-29).

Regarding an incident about hand pump, pumping out water mixed with oil. When complain was lodged M/S OIL took the sample of it some 7 months ago but the people of the area still awaits the report. If PCBA is unable to sort problems related to pollution then he asked PCBA to direct them to that department which can actually solve their problems, OIL will develop a grievance management cell for management of public grievances. Environmental monitoring from NABL accredited laboratories will be conducted and if presence of pollution is established then specific action plan will be developed engaging a reputed university/research institute. Budget for monitoring and study will be allocated as and when necessary

Regarding Noise pollution in drilling sites which affects the neighbouring village, PP informed that noise barrier will be used. Regular noise monitoring will be conducted. Cost of noise barrier included in drilling budget.

Regarding initiative to control the pollution in the flares is the Oil Installation which produce high noise during stormy season and also cause air pollution. Due to which the silk worm farm near the college has been adversely affected and production has been reduced.

Regarding Silk worm farms are also affected due to the air pollution caused from these drilling site, PP informed that A complaint was lodged earlier, investigation conducted by OIL through Assam Agricultural University; however no conclusive evidence of impact on silkworms from drilling was established. OIL has earmarked budget as per CER plan for sericulture development in the area, Contributing to sericulture development 0.1 lakhs per family x 10 families per year x 7 years= Total Rs. 7 lakhs (included in CER plan).

Regarding Use of noise barriers made scientifically to control the noise pollution, OIL will provide noise barriers at drill site to control noise pollution, Cost of noise barrier included in drilling budget.

Total plant area after expansion will be 282 Ha (existing plant area 15 Hectares and additional land required 267 Hectares for proposed capacity). Land for the drill sites will be procured prior to drilling. Oil India Ltd. will develop greenbelt at the proposed production installations having total area of 157500 m². The estimated project cost is Rs 2751.40 Crores. Capital cost of EMP would be Rs. 0.90 Crores and recurring cost for EMP would be Rs. 2.14 Crores per annum. Industry proposes to allocate Rs. 1.54 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 180 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of proposed wells and production installations. Diroi RF, Jokai R.F., Telpani R. F., Sapekhati R.F. and Namdang RF located within the Block, however, no wells or production installation locate in forest land. The Bherjan Borjan

Podumoni Wildlife Sanctuary is located at a distance of 12.1 km from nearest proposed well. ESZ for same is not finalized yet. Conservation plan for schedule I species has been submitted to PCCF & Chief Wildlife Warden Assam dated 13.03.2021 and a budget of 0.51 Crores has been earmarked for the same. Buri Dehing River is present within the Block, however, the well sites will be located away from Burhi Dehing River. Brahmaputra River is located 6.65 km northwest of the Block.

Ambient air quality monitoring was carried out at 8 locations during 05.10.2017 to 31.12.2017 and the baseline data indicates the ranges of average concentrations as: PM₁₀ (55.08-85.38 µg/m³), PM_{2.5} (29.46-45.38 µg/m³), SO₂ (5.77-6.35 µg/m³) and NO₂ (17.35-21.73 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 16.12 µg/m³, 0.1118 µg/m³, 0.08 µg/m³ and 0.11 µg/m³ with respect to NO_x, SO₂, PM₁₀ and HC. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Additional two weeks ambient air quality monitoring conducted during February 2022. The average values ranged between PM₁₀ (59.6-87.0 µg/m³), PM_{2.5} (30.1-45.5 µg/m³), SO₂ (7.1-13.8 µg/m³) and NO₂ (14.1-20.3 µg/m³).

Total fresh water requirement after expansion will be 39 CMD for each well which will be met from groundwater. NOC has been obtained from CGWA vide letter no. CGWA/NOC/MIN/ORIG/2021/11925 dated 18.05.2021. Existing effluent generation is 21.8 CMD (8 CMD domestic wastewater and 13.8 CMD drilling and wash wastewater). Drilling and wash wastewater will be treated through effluent treatment plant. Domestic waste water will be treated in septic tank and soak pits. Committee suggested to treat domestic waste water in STP instead of septic tank. During the drilling phase, wastewater will be generated as a result of rig wash and dewatering of spent mud and washing of drill cuttings. The wastewater will be treated in an Effluent Treatment System (ETP) at site. The treated water would be reused. In production facilities, produced formation water will be disposed to the shallow wells after necessary treatment; surface Runoff after treatment through Oil Water Separator (OWS) and sedimentation tank. The project will be based on Zero Liquid discharge system.

Power requirement of the drill sites will be met through two Diesel Generator Sets of 1250 kVA each. Another 1250 kVA DG set will be kept as standby. Stack height of 7 m will be provided as per CPCB norms to the proposed DG sets. Power requirement for the production installations will be met through Gas Generator (GG) sets of 216 KW capacity.

Details of Process emissions generation and its management

- Operation of DG sets,
- Movement of vehicles and machineries during construction and drilling,
- Flaring of natural gas will result in the generation of air pollutants,
- Stacks will be used with DG sets and flare system as per CPCB norms.

Details of Solid waste/ Hazardous waste generation and its management

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

During deliberations, EAC discussed following issues:

- PP informed that the venue of the Re-PH was Zila Parishad Bhawan falling within the overlapping of the area of project site in Dibrugarh district. Separate sets of Drat EIA Report was prepared and shared with concerned Govt. Official and local residents of the site. During the PH, two separate presentation were made for each project one after the another. The concerns raised in PH was found similar and therefore

SPCB has prepared single common Minutes.

- EAC noted that there are many partial compliances. Time bound action plan for partial compliances reported shall be submitted by PP. PP has submitted the same.
- Details of flare system shall be submitted. Flaring system will be developed within the production installation to flare the excess gas that cannot be stored or transported. Non-luminous ground flaring as per applicable OISD will be installed.
- PP shall submit details of produced water, treatment and management. PP informed that ETP of 50 KLPD will be installed. It is planned to develop 3 new water injection wells at 3 production installation. Water injection wells will be drilled once the installation is in operation.

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 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.
- (ii) No drilling activities shall be carried out within 500 m from the water bodies.
- (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) No pipelines or its part shall be laid in the Forest land/Protected Area without prior permission/approval from the Competent Authority.
- (v) Total fresh water requirement shall not exceed 39 m³/day and will be met through Tankers Supply. Prior permission shall be obtained from the concerned regulatory authority.
- (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. Mobile ETP coupled with RO shall be installed to reuse the treated water in drilling system. Mobile STP shall also be installed. The size of the waste pit 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 rainwater. There shall be separate storm water channel and rainwater shall not be allowed to mix with wastewater. Level of the Drilling site shall be constructed in such way that outside rainwater should not enter into the drilling site. Alternatively, if possible, pit less drilling be practiced instead of above.
- (vii) 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.
- (viii) As proposed, produced formation water is stored in formation water tanks shall be disposed to the abandoned wells of OIL after necessary treatment. Separated water from phase separation system will be treated in an ETP and will be reused. Treated effluent shall meet the water quality standards for re-injection well as per the CPCB/SPCB guidelines. PP shall monitor water quality of treated effluent regularly and maintain records.
- (ix) During production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/

appropriate technology.

- (x) The project proponent also to ensure trapping/storing of the CO₂ generated, if any, during the process and handling.
- (xi) Approach road shall be made pucca to minimize generation of suspended dust.
- (xii) The project proponent shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.
- (xiii) 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. Ground flaring system with all measures (Protected by a shield or embankment/ enclosed flaring) instead of elevated flare as wildlife sanctuary is located at a distance of 12.1 km.
- (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. After completion of drilling of any well, the owner or operator shall restore the well site, remove or fill all pits used to contain produced fluids or industrial waste and remove all drilling supplies and equipment not needed for production.
 - (xix) As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility (Rs. 4.36 Crores), 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 1 year 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. 12

Subject: Grain Based 200 KLD Fuel Ethanol Plant & 5.5 MW Co-Generation Power Plant (By Product: 100 TPD of CO₂ Generation & DDGS : 120-140 TPD at Plot No D-13, Chandrapur (Tadali), Industrial Growth Centre, MIDC Chandrapur (MS) by M/s Vishvaraj Environment Pvt Ltd- Consideration of Environmental Clearance

[IA/MH/IND2/ 400501/2022, IA-J11011/419/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Creative Enviro Services (NABET certificate no. NABET/EIA/2023/SA-0162 and validity 22.03.2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 200 KLPD Grain based Ethanol Plant & 5.5 MW Co-generation power plant (biomass/coal) located at Plot No D-13, Village Chandrapur (Tadali), Industrial Growth Centre, MIDC Chandrapur (MS), Tehsil & District Chandrapur, State Maharashtra by M/s. Vishvaraj Environment 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:

Sr No	Name of Unit	Name of the product/by product	Production Capacity
1	Grain Based Fuel ethanol Unit	Ethanol	200 KLPD
2	Co-Generation Power Plant	Power	5.5 MW
3	DDGS Dryer	DDGS	120-140 TPD
4	Fermentation Unit	Carbon Di Oxide	100 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 8.3952 hectares. Greenbelt will be developed in total area of 3 hectares i.e., 36% of total project area. The estimated project cost is Rs. 179.67 Crores. Capital cost of EMP would be Rs. 33.305 Crores and recurring cost for EMP would be Rs. 0.864 Crores per annum. Industry proposes to allocate Rs. 1.80 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 150 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors / Reserve forest/Protected forest etc. within 10 km distance.. Water bodies: River Vardha is at a distance of

7.50 Km in Western South direction and Nalla and water body is located 100 mtrs and 750 mtrs away from the site.

Chandrapur District earlier came under CPA as per the NGT order dated 10th July 2019. As per the Supreme Court of India Order dated 22-09-2020 "there shall be a stay of the operation of the impugned orders dated 10.07.2019, 23.08.2019 and 14.11.2019 passed by the National Green Tribunal, Principal Bench, New Delhi". PP shall comply of all the conditions given in MOEF&CC issued letter No-Q-16017/38/2018-CPA dated 24th October 2019.

AQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.98 µg/m³ , 0.295 g/m³ , 3.28 µg/m³ and 3.28 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 784 m³ /day which will be met from MIDC Chandrapur for which consent has been obtained from water resource department of Govt of MP vide no IFMS/No./DE/CHD/C-85562/2022 dated 25.08.2022. Effluent (Condensate/spent lees/blow-down etc.) of 1177 m³ /day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 1200 KLPD. Raw stillage (1200 KLPD :quantity of raw spent wash from distillation) 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 3.290 MW and will be met from proposed 5.5 MW cogeneration power plant. 50 TPH rice husk fired boiler will be installed. APCE of ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 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

- APCE of ESP 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 (100 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) (120-140 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (90 TPD) will be used for brick manufacturing in proposed brick manufacturing plant.
- Used oil (1 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (0.2 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 200 KLPD will be used for manufacturing fuel ethanol only.

Total land of 8.3952 Hectares is under possession of the company and is allotted by MIDC Chandrapur , hence land use conversion is not required. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- The Committee discussed the compliance report w.r.t. MOEF&CC issued letter No-Q-16017/38/2018-CPA dated 24th October 2019. PP also submitted in writing.
- 40% greenbelt shall be developed in and around plant premises.
- Covered storage of rice husk and installation of brick manufacturing plant within premises.
- CER amount shall be doubled i.e. Rs. 3.6 Crores.
- PP shall ensure that coal shall not be used as fuel.

- PP shall commit that fresh water consumption shall not exceed 3.9 KL/KL of ethanol production.

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). PP shall comply with the action plan submitted by them as per OM No-Q-16017/38/2018-CPA dated 24th October 2019.
- (ii). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 200 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). 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). NOC from the Concerned Local authority for MIDC Chandrapur water supply shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of

Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

- (vi). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from MIDC Chandrapur supply. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vii). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (viii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 60 meters will be installed with 50 TPH rice husk fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall not exceed 100 mg/Nm³. No coal shall be used as fuel at any circumstances. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (ix). Boiler ash (90 TPD) will be used for brick manufacturing in proposed brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

- (x). CO₂ (100 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.
- (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. Fire fighting 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 for drying of sludge.
- (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 3 hectares i.e., 36% 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 development shall be completed before commissioning of the plant. No trees shall be cut as part of construction.

- (xvii). PP proposed to allocate Rs. 1.80 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, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management 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. Approach road to project site shall be maintained.
- (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/effluent 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 directly to Head of Organization/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. 13

Proposed 60 KLPD Grain Based Distillery Plant (Ethanol) along with 2.5 MW Cogeneration Power Plant at Gat No. 188,189,194 Rampur, Tal: Sinnar, Dist : Nashik, Maharashtra by M/s Bhagyalaxmi Biofuels Private Limited- Consideration of Environmental Clearance

[IA/MH/IND2/400493/2022, IA-J11011/436/2 022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Techno Green Solution (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 project for Proposed 60 KLPD Grain Based Ethanol Plant along with 2.5 MW Cogeneration Power Plant at Gat No. 188,189,194, Village Rampur, Tehsil Sinnar, District Nashik, State Maharashtra by M/s Bhagyalaxmi Biofuels 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:

Sr No	Name of Unit	Name of the products /by products	Production capacity
1	Distillery	Ethanol	60 KLPD
2	Power Plant	Power	2.5 MW
3	DWGS Dryer	DDGS	30 TPD
4	Fermentation	Carbon Dioxide	48 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 4.88 hectares. Greenbelt will be developed in total area of 1.61 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 66.63 Crores. Capital cost of EMP would be Rs. 7.10 Crores and recurring cost for EMP would be Rs. 0.581 Crores per annum. Industry proposes to allocate Rs.2.18 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 70 persons as direct & 100 Persons indirect.

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Water bodies: Putalwadi tank is at a distance of 0.66 Km in south direction. NOC obtained from Nashik Irrigation Division.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.37 µg/m³, 0.19

$\mu\text{g}/\text{m}^3$, $0.60 \mu\text{g}/\text{m}^3$ and $0.62 \mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO₂&Nox. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement is 299 m³/day which will be met from Godavari Right Bank Canal. Application submitted to Executive Engineer, Nashik Irrigation Division, Nashik dated 17th August 2022. Effluent (Condensate/ Spent lees /blowdown) of 326 M³/day quantity will be treated through Condensate polishing unit of capacity 400 M³/day. Raw Stillage (401KLPD: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP will be installed for domestic sewage treatment. 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 2.0 MW and will be met from proposed 2.5 MW cogeneration power plant. 22 TPH bagasse fired boiler will be installed. APCE ESP with a stack height of 45 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 1000 kVA DG set will be used as standby during power failure and stack height (6 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 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 (48 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors/collected in installed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (30 TPD) will be sold as cattle feed / fish feed / prawn feed.

- Boiler ash 3.98 TPD will be used for brick manufacturing in supplied to brick manufacturers/ given to farmers to be used as manure.
- Used oil will be sold to authorized recyclers
- CPU & STP sludge 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 100KLPD will be used for manufacturing fuel ethanol only.

Total 4.88 ha land is in possession of M/s Bhagalaxmi Biofuels Private Limited & land use conversion application submitted on 19th August 2022. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- PP shall commit that no trees will be cut as part of construction.
- PP shall submit that the 4.88 Ha land does not include residential area and is only reserved for distillery. PP has committed the same.
- Revised native species shall be submitted. Revised native species have been 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 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). 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). NOC from the Concerned Local authority for surface water supply shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from Godavari Right Bank Canal. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (vii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 45 meters will be installed with 22 TPH bagasse fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Coal shall not be used as fuel in the boiler at any circumstances. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed

standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

- (viii). Boiler ash 3.98 TPD will be used for brick manufacturing in supplied to brick manufacturers/ given to farmers to be used as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ (48 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors/collected in installed bottling plant.
- (x). 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.
- (xi). 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.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). 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 for drying of sludge.

- (xiv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 1.61 hectares i.e., 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 development shall be completed before commissioning of the plant. No trees shall be cut as part of construction.
- (xvi). PP proposed to allocate Rs. 2.18 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, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). 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. Approach road to project site shall be maintained.
- (xviii). 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.

- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xxi). 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.

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.	Shri J. S. Kamyotra	Member
4.	Prof. Y. V. Rami Reddy	Member
5.	Dr. Onkar Nath Tiwari	Member
6.	Dr. Rahul Rameshrao Mungikar	Member
7.	Dr. Seshagiri Rao Ambati	Member
8.	Dr. Sanjay V Patil	Member
9.	Dr. Siddhartha Singh	Member
10.	Shri A.N. Singh, Scientist 'E'	Member Secretary
MoEFCC		
11.	Mr. Kanaka Teja	Research Assistant
12.	Ms. Meetika Gupta	Research Associate
