

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

Dated: 20.04.2023

**Meeting ID: IA/IND2/13482/17/04/2023
MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE
(INDUSTRY-2 SECTOR PROJECTS)
HELD ON 17th April, 2023**

**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/IND2/13477/08/04/2023) held on 08th April, 2023 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: -

17th April, 2023 (Monday)

Agenda No. 01

Proposed Project of Poly Vinyl Chloride (PVC) Paste Resin Plant of 70,000 TPA Plant located at Cuddalore, Tamilnadu in favour of M/s. Chemplast Sanmar Limited – Consideration of amendment in Environmental Clearance.

[IA/TN/IND2/290035/2022, IA-J-11011/132/2020-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter no. IA-J-11011/132/2020-IA-II(I), EC Identification No. EC21A020TN119228 dated 16.11.2021 for Proposed Project of Poly Vinyl Chloride (PVC) Paste Resin Plant of 70,000 TPA Plant located at Cuddalore, Tamilnadu in favour of M/s. Chemplast Sanmar Limited.

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

S. No.	EC issued by MoEF&CC	Details as per EC Letter	EC To be revised/ read as
1.	EC21A020TN119228 Sr. No. 6 dated 16.11.2021	The land area available for the project is 48,543 m ² . Industry will develop greenbelt in an area of 33% i.e. 16,428 m ² , out of total area of the project. The estimated project cost is Rs. 450 crores. Total capital cost earmarked towards environmental pollution control	The land area available for the project is 60,157 m ² . Industry will develop greenbelt in an area of 33% i.e. 19,866 m ² , out of total area of the project. The estimated project cost is Rs. 450 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 10.50 crore and the Recurring cost

		measures is Rs. 10.50 crore and the Recurring cost (operation and maintenance) will be about Rs. 1.90 crore per annum. Total Employment will be 450 persons as direct & 820 persons indirect during operation phase. Industry proposes to allocate Rs. One crore fifty lakhs (Rs. 1.50 crores) towards Corporate Social Responsibility.	(operation and maintenance) will be about Rs. 1.90 crore per annum. Total Employment will be 450 persons as direct & 820 persons indirect during operation phase. Industry proposes to allocate Rs. One crore fifty lakhs (Rs. 1.50 crores) towards Corporate Social Responsibility.
2.	EC21A020TN119228 Sr. No. 13 dated 16.11.2021	During deliberations, EAC Directed that Greenbelt shall be increased to 40% and monitoring of compliance of EC conditions shall be submitted with third party audit every year as the project is located in a Severely Polluted Area.	The land area available for the project is 60,157 m ² . Industry will develop greenbelt in an area of 33% i.e. 19,866 m ² , out of total area of the project
3.	EC21A020TN119228 Specific Condition - xiv dated 16.11.2021	The green belt of 5-10 m width shall be developed in more than 40% of the total project area, mainly along the	Green belt of 5 m width will be developed along the plant periphery. The land area available for the project is 60,157

		plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.	m ² . Industry will develop greenbelt in an area of 33% i.e. 19,866 m ² , out of total area of the project. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
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During deliberations, EAC discussed following issues:

- EAC noted that PP intends to drop land area from the proposed project which falls under CRZ area. However, the same information is not mentioned in the application submitted on parivesh portal. The committee suggested to provide complete details of area that is intended to be deducted and inclusion of additional area; greenbelt earmarked in the existing EC and proposed amendment. Applicability of the greenbelt requirement for the proposal falls under CPA may also be seen.
- Demarcation of CRZ boundary w.r.t to proposed additional land area shall be submitted after superimposing the map prepared by approved agencies.
- PP shall submit detailed engineering drawing, layout plan after inclusion of additional land with clear demarcation of greenbelt.
- EAC opined that PP should also apply for amendment in existing EC of its sister company i.e M/s. Chemplast Cuddalore Vinyls Limited (CCVL) from where land is acquired for the amendment sought.
- Further, it was also noted that land added is only for the lease period of 14 years. In this regard, EAC informed that PP should submit an undertaking that PP shall revise lease period to at least 20 years.
- Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of

greenbelt. Saplings 4-6 feet high shall be planted. PP shall submit revised greenbelt time bound plan for development of greenbelt along with budgetary provisions.

Accordingly, proposal was returned in present form for want of above additional information.

Agenda No. 02

Greenfield Project of 200 KLD Grain Based Distillery Plant along with 4.5 MW Co-generation Power Plant located at Village-Kandeikala, Tehsil-Lakhanpur, District-Jharsuguda, Odisha by M/s. Energy Intro Pvt. Ltd. - Consideration of Environmental Clearance.

[IA/OR/IND2/423703/2023, IA-J-11011/120/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. GRC India Pvt Ltd (NABET certificate no. NABET/EIA/2124/RA0213 and 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 Greenfield Project of 200 KLD Grain Based Ethanol Plant along with coal/biomass based 4.5 MW Cogeneration Power Plant located at Village-Kandeikala, Tehsil-Lakhanpur, District-Jharsuguda, Odisha by M/s Energy Intro 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	Production capacity
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		/by-product	
1	Distillery	Ethanol	200 KLPD
2	Co-generation power plant	Power	4.5 MW
3	DWGS dryer	DDGS	85 TPD
4	Fermentation unit	Carbon di-oxide	136TPD

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 there is no litigation is pending against the project.

Total land area required is 8.96 hectares. Greenbelt will be developed in total area of 3.38 hectares i.e., 37.74% of total project area. The estimated project cost is INR Rs.205 Crores. Capital cost of EMP would be INR Rs.29.1 Crores and recurring cost for EMP would be INR Rs. 4.40 Crores per annum. Industry proposes to allocate Rs. 3.00 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, and Wildlife Corridors etc. within 10 km distance. Reserve forest or protected area is present within 10 km study area. Holsari Dungri RF is at a distance of 5.6 km in ESE direction. Dechua RF is at a distance of 9 km in East direction. Mahanadi river is 0.3 km from the project site in SW direction for which NOC has been obtained from Office of Chief Engineer & Basin Manager, Sambalpur, Odisha vide letter no. CE&BM/MB/W/M/377(592)/2022 dated 24.08.2022. Amery River is at a distance of 1.5km in SSW direction. Keloriver is at a distance of 9.2 km in NNE direction and Banaspali Pond is at a distance of 9.2 km in NNE direction from the project site. DFO, Jharsugoda, Forest Division vide letter no Memo No 2069/4F (Misc) dated 11.04.2023 has informed that proposed plant is not falling within any eco-sensitive zone, national park or wildlife sanctuary. Debrigarh Wildlife Sanctuary is located approx. 10.76 km distance in South East direction and ESZ of Debrigarh Wildlife Sanctuary is 6.38km towards SE direction. Project falls outside of the ESZ boundary. Hence, NBWL is not applicable. Conservation plan for Schedule I species along with a budget of 20 lakhs has been submitted to RCCF, Sambalpur, Odisha vide letter no. EIPL/22 dated 09.12.2022.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.10\mu\text{g}/\text{m}^3$, $0.07\mu\text{g}/\text{m}^3$, $2.47\mu\text{g}/\text{m}^3$, $0.39\mu\text{g}/\text{m}^3$ and $1.82\mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 , NO_2 and CO . As per advise of Committee, PP has submitted revised AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.03\mu\text{g}/\text{m}^3$, $0.02\mu\text{g}/\text{m}^3$, $0.13\mu\text{g}/\text{m}^3$, $0.82\mu\text{g}/\text{m}^3$ and $0.61\mu\text{g}/\text{m}^3$ 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 CPP will be 800 KLD which will be met from surface water (Mahanadi River). The permission of allocation of surface water has been obtained from IPICOL vide letter no GM/SLNA/EIPL/370/21 dated 16.12.2021. Effluent (Condensate/spent lees/blowdown etc.) of 845 KLD 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 capacity of 20KLD 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 4.5MW cogeneration power plant 50 TPH Coal based and Biomass fired boiler will be installed. ESP with 30 m high stack will be installed for controlling the particulate matter emissions within the statutory limit of $30\text{ mg}/\text{Nm}^3$ with the proposed boiler. 500 kVA DG set will be used as standby during power failure and stack height (10 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP with 30 meters high stack will be installed for controlling the particulate matter emissions with the proposed 50 TPH boiler.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2 (136TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be sold to authorized vendors.

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

- DDGS (Distilled Dried Grains Stillage) (85 TPD) will be sold as cattle feed/fish feed/ prawn feed.
- Boiler ash (51.3TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (2 Kilolitres per annum) will be sold to authorized recycler.
- ETP sludge (32.62 TPA) and STP Sludge (0.4 TPA) will be disposed through local agency.

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 KL/day will be used for manufacturing fuel ethanol only.

Total land available for the proposed project site is 8.96 ha which is under the possession of company. The present land-use is agricultural land and application for change in land-use has been submitted to office of the Tahasildar, Lakhanpur, District Jharsuguda, Odisha vide letter no. 2022300200704 dated 10/11/2022 & 2022300200701 dated 10/11/2022. EAC found the information satisfactory.

Capital cost and recurring cost of EMP are given below:

S. No	Particulars	Capital Cost (Crore)	Annual Recurring (INR Cr.)
1.	Air pollution control system ESP on stack of 2*25 TPH boiler, Stack, Industrial vacuum cleaner, road sweeping machine.	6.0	0.75
2.	Ambient air quality management system (AAQMS) and Continuous emission monitoring system (CEMS)	0.85	0.20

3.	Scrubbing system, compressing system, liquefying system and storage for CO ₂	5	0.25
4.	Treatment system for spent wash, DWGS centrifuge decanter, DDGS dryer for ZLD system, Construction of Garland drains, Water Reservoir and Web Camera for	4.2	0.75
5.	Condensate Polishing unit for water treatment and recycle, STP	5.5	0.75
6.	Ash handling and management	0.5	0.25
7.	Fire Fighting measures	0.40	0.2
8.	In-house Solar power Plant	1.4	0.25
9.	Rainwater harvesting systems	0.65	0.15
10.	Occupational Health Management	0.5	0.30
11.	Noise Reduction Systems	0.35	0.05
12.	Green Belt Development	0.75	0.25
13.	Environment monitoring	--	0.2
14.	Environment management cell	0.5	0.05
15	CER	2.5	--
Total		29.1	4.40

Details of revised CER with proposed activities and budgetary allocation:

S. No.	Description	Budget (INR Cr.)
1.	a. Development of Park, Drainage System and Village Roads – 1 km Semlia Village b. Upgradation of drinking water facility in nearby i.e. village- Mahuapali, Semlia, Tora & Kandeikala, Semlia UP School and NTPC SVA Mahulpali School.	0.9
2.	Installation of solar lights (30 nos.) in village- Mahuapali, Semlia, Tora & Kandeikala, Semlia UP School and NTPC SVA Mahulpali School.	0.65

3.	Upgradation of medical facility in nearby hospital as Donating medical equipment like Beds, Stretcher, Portable Oxygen Cylinder (330 Litre), Oxygen Concentrator (0.5 to 5 Litre), AC (Window AC of 1.5 Ton), in Govt. Primary Hospital.	0.55
4.	Development of smart class, free tuitions, distribution of benches, Fans, drinking water facility, Upgradation of sanitary facility (One for male and one for female), Distribution of IT gadgets (students of class 12), Printers, Computers in village- Mahuapali, Semlia, Tora & Kandeikala, Semlia UP School and NTPC SVA Mahulpali School.	0.6
5.	Awareness Programs (20 nos.) for local farmers to increase soil productivity and water conservation.	0.3
Total		3.0

During deliberations, EAC discussed following issues:

- PP informed that Mahanadi river is flowing at an elevation of 211 m above mean sea level and the project site is elevation of 218 m above mean sea level.
- It was informed that 2.96 ha buffer area will be provided towards river side. No plant machineries will be provided in the buffer area and used as greenbelt area.
- EAC suggested that PP should propose a single 50 TPH boiler instead of two 25 TPH boilers to avoid loss of energy. Baghouse shall be installed instead of ESP. PP has revised the stack height from 30 m to 60m attached with one 50 TPH boiler.
- PP informed that Industry is located more than 40.2 km from Jharsaguda Critically Polluted Area i.e. IB valley need to confirm whether the plant is within the IB Valley CPA/SPA also. PP should submit affidavit undertaking that Industry falls outside the Critically Polluted Area along with map authenticating the distance from Critically Polluted area. Accordingly PP has also given affidavit stating the same.

- PP should propose ultra-filtration followed by RO. PP informed that they will provide the same.
- PP informed that location of surface water sampling points i.e. upstream is approx. 2 km in east direction and downstream is approx. 1.5 km in SSE direction from the proposed project site.
- Revised Risk Modeling Details has been submitted.
- Additional greenbelt should be developed towards School.
- As per advise of Committee, PP has submitted revised AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.03 $\mu\text{g}/\text{m}^3$, 0.02 $\mu\text{g}/\text{m}^3$, 0.13 $\mu\text{g}/\text{m}^3$, 0.82 $\mu\text{g}/\text{m}^3$ and 0.61 $\mu\text{g}/\text{m}^3$ 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).

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 Concerned Local authority shall be obtained before start of the construction of plant and drawing water from surface water for the distillery activities, State Pollution Control Board 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. No ground water shall be used for the plant operations.
- (v). Total Fresh water requirement shall not exceed 800 m³/day which will be met from Mahanadi 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/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU) followed by UF and RO. STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (vii). ESP (5 field) with 60 meters high stack shall be installed with the Biomass/Coal fired 50TPH boiler for controlling the particulate matter 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 (51.3 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use Biomass / Coal (for startup only) as fuel for the proposed boiler. Low sulphur coal

with maximum sulphur content of 0.5% shall only be used. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

- (ix). CO₂ (136 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. 0.5 Crore capital cost 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.
- (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 3.38 hectares i.e., 37.74 % of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous

/ alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. 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. Green buffer of 200m. shall be provided in the plant towards River Mahanadi. Additional 10.0m thick green belt shall be provide towards the Shiv Temple located 0.5 km. from the plant in West. No tree shall be cut for establishment of the plant .

- (xvi). PP proposed to allocate Rs. 3.00 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. 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.
- (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. 03

Proposed 300 KLPD Grain-based Distillery Project (Ethanol) along with Existing Captive Power Plant (7.5 MW) located at Village: Moraiya, Tal- Sanand, District- Ahmedabad, State – Gujarat M/s. CIL Nova Petrochemicals Limited - Consideration of Environmental Clearance.

[IA/GJ/IND2/425730/2023,IA-J-11011/41/2023-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Enviro Resources (NABET certificate no. NABET/EIA/2225/RA 0277 and validity 06.07.2025) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 300 KLPD Grain based Ethanol Plant & 7.5 MW Co-generation power plant (fuel to be used) located at Village: Moraiya, Tal- Sanand, District- Ahmedabad, State – Gujarat by M/s. CIL Nova Petrochemicals Limited.

Proposal was considered by EAC in its meeting held on 5-6 April 2023 and the Committee returned the proposal due to deficiency in the proposal.

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 (Raw material)	Ethanol	300 KLPD
2.	Co-generation power plant	Electricity	7.5 MW
3.	Fermentation unit	Carbon di-oxide	120 TPD

SEIAA Gujarat vide letter SEIAA/GUJ/EC/1(d)/374/2012 dated 30th November, 2012 issued EC for expansion of Captive Power Plant capacity from 7.5 MW to 10.5 MW by installing additional 3.0 MW steam turbines. IRO, Gandhinagar has given CCR for the existing Industry vide letter J-11/31-2023-IROGNER dated 21.03.2023 reporting that out of 52 conditions 40 conditions were complied, 6 are agreed to comply by PP, 2 were noted by unit and 4 were not applicable. It was reported that during the site visit it was informed that unit has already received 3.0 MW capacity of steam turbine but they have not installed the same yet. EAC was satisfied with the response.

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 there is no litigation is pending against the project.

Total land area required is 7.1725 hectares. Greenbelt will be developed in total area of 2.367 hectares i.e., 33% of total project area. The estimated project cost is Rs. 321.5 Crores. Capital cost of EMP would be Rs. 18.18 Crores and recurring cost for EMP would be Rs. 6.32 Crores per annum. Industry proposes to allocate Rs. 4.00 Crores towards Extended EMP

(Corporate Environment Responsibility). Total Employment will be 130 persons as direct & indirect.

There is no presence of National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: canal is located within 10 km distance. PP has submitted NOC dated 5.2.2022 issued by Irrigation department for canal.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.24028 $\mu\text{g}/\text{m}^3$, 0.41969 $\mu\text{g}/\text{m}^3$ and 0.30115 $\mu\text{g}/\text{m}^3$ with respect to PM, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1200 CMD, which will be met from Borewell. NOC has been obtained by CGWA vide letter no. CGWA/NOC/IND/ORIG/2022/15848 dated 18/05/2022 and validity 17/05/2025*. Effluent of 1720 CMD quantity will be treated through Effluent Treatment Plant/CPU/RO of capacity 2000 CMD. Raw stillage (2434 KLPD :quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 35 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.

*Permission for additional quantity will be obtained after getting Environment clearance.

Power requirement will be 5.5 MW and will be met from existing in house 7.5 Captive Power plant and grid power. 47 TPH coal/Rice husk fired boiler has already been installed. APCE Electric Static Precipitator with 65 m high stack will be installed for controlling the particulate matter emissions within the statutory limit of 30 mg/Nm^3 with the proposed boiler as per CPCB norms.

Details of Process emissions generation and its management:

- APCE Electric Static Precipitator with 65 m high stack is installed for controlling the particulate matter emissions.

- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (120TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it will be stored at plant site and shall be sold to actual users.

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

- DDGS (Distilled Dried Grains Stillage) (135 TPD) will be sold as cattle feed / fish feed /prawn feed.
- Boiler ash (105TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises/supplied to brick manufacturers.
- Used oil (1.5 Tons per annum) will be sold to authorized recyclers.
- Sludge (3.4 TPD) and STP Sludge (0.014 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 300 KLPD will be used for manufacturing fuel ethanol only.

Total land of 7.1725 Hectares is under possession of the company and land use conversion has been completed vide letter no. P/JMN/S.R. dated 05.10.1996. EAC found the information satisfactory.

Revised Capital cost and recurring cost of EMP are given below:

Sr. no.	Description	Capital cost in Crores	Recurring cost in Crores Annum
1.	Air Pollution Management	5.5	1.0
2.	Water pollution control and recycle	7.5	4.0
3.	Solid Waste Management & disposal	2.3	0.3
4.	Environmental monitoring	-	0.1
5.	Green Belt & Development	0.88	0.20
6.	Noise pollution control	0.5	0.12
7.	Occupational Health & safety	1.5	0.6

	Grand Total	18.18	6.32
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Details of revised extended EMP (CER) with proposed activities and budgetary allocation:

S. No	Proposed Activities	Detailed plan for social and infrastructure development with physical targets		Total Budget (Rs. in lakhs)
		Year 1	Year 2	
1	Up gradation of School infrastructure & Educational facilities in nearby village schools	Rs. 50 Lakhs (Govt. school at Village Moraiya) <ul style="list-style-type: none"> • 2 nos potable water facilities - Rs.10 lakh • Solar panels installation- Rs. 30 lakhs • Desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, sports equipment, white washing of school walls, construction of sanitized toilets etc.- Rs 30 lakhs 	Rs. 50 Lakhs (Govt. school at Village Changodar) <ul style="list-style-type: none"> • 2 nos potable water facilities - Rs.5 lakh • Solar panels installation- Rs. 25 lakhs • Desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, sports equipment, white washing of school walls, construction of sanitized toilets etc.- Rs 20 lakhs 	Rs. 120 lakhs
2	Up gradation of Healthcare facilities in nearby PHC/Hospitals	Rs. 50 Lakhs <ul style="list-style-type: none"> • (PHC at Village Changodar) • Provision of 7 oxygen cylinders- Rs. 5 lakhs • Health Check-up camps- Rs 15 lakhs • Provision of Medical 	Rs. 50 Lakhs <ul style="list-style-type: none"> • (PHC at Village Moraiya) • Provision of 7 oxygen cylinders- Rs. 5 lakhs • Health Check-up 	Rs. 100 lakhs

		instruments-Rs 30 lakhs	camps- Rs 15 lakhs • Provision of Medical instruments-Rs 30 lakhs	
3	Skill development for youth - Organizing Training programs for youth/residents in collaboration with District administration, ITI & polytechnique colleges	Rs. 45.0 lakhs (Village Moraiya and Moti Devti) • Benefit extended to approx. 450 persons by attending Training programmes)	Rs. 30.0 lakhs (Village Changodar and sari) • Benefit extended to 450 approx. persons by attending Training programmes)	Rs. 90 lakhs
4	Installation/distribution of Solar Lights/Solar panels/Solar plant/Solar Lanterns in nearby villages	Rs. 30.0 Lakhs • Village Changodar • (250 nos. Solar Lights/Solar panels/Solar plant/Solar Lanterns installation/distribution)	Rs. 30.0 Lakhs • Village Moraiya • (250 nos. Solar Lights/Solar panels/Solar plant/Solar Lanterns installation/distribution)	Rs. 60 lakhs
5	Plantation/Avenue plantation along roadside, tree plantation in nearby schools/colleges/vacant land/Panchayat Bhavan, etc.	Rs. 15 Lakhs • (Plantation of 2500 nos in Village Moraiya)	Rs. 15 Lakhs • (Plantation of 2500 nos in Village Changodar)	Rs 30 lakhs
			TOTAL	Rs. 400 lakhs

During deliberations, EAC discussed following issues:

- PP should submit revised Capital and recurring cost of EMP since adequate funds were not allocated in few activities. PP has submitted revised capital and recurring cost for EMP.
- PP has submitted revised budget for CER for an amount of Rs. 4.0 Crore.
- PP should submit storage capacity of Ethanol tanks. Further, PP informed that they will plan two numbers of Ethanol storage tank, having capacity of 3240 KL each for damaged food grain and surplus rice.
- EAC noted that PP has proposed to develop green belt area in 5 years. In this regard, EAC suggested that PP should submit under taking to complete both greenbelt activities before commissioning of plant. Further, PP has proposed only 6 species as a part of green belt development. PP shall develop at least 20 variety of species as a part of greenbelt. PP has submitted list of 23 species to be planted under greenbelt development plan. Further, PP committed that greenbelt shall be developed by December, 2023.
- PP informed that they will install flyash brick manufacturing unit nearby the proposed site.
- PP has submitted revised risk analysis for the project site.
- PP informed that existing POY unit is shut down since June, 2022. They will dismantle the entire plant except some storage infrastructure of POY which will be used as storage for proposed plant. Existing CPP of 7.5 MW will be used in the proposed project. Therefore, EAC suggested that debris generated from dismantling POY unit shall be disposed as per Construction & Demolition Waste Management Rules, 2016.
- EAC suggested that PP shall not store ammonia in the 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 300 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). The existing Plant for production of POY/FDY/DT/D Tex. Except for the 7.5 MW Power Plant and storage shed shall be dismantled. The Construction &demolition waste generated during demolition shall be disposed in compliance with the provisions specified in Construction &Demolition Waste Management Rules, 2016.
- (v). NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing water from Ground water for the distillery activities. State Pollution Control Board 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 1200 m³/day which will be met from Borewell. 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/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in

the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.

- (viii). Industry shall not store ammonia in the plant premises.
- (ix). APCE ESP (5 field) with 65 meters high stack shall be installed with the Rice Husk/Coal (with 15% coal usage as auxiliary fuel) fired 47 TPH boiler for controlling the particulate matter 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 (105 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises/supplied to brick manufacturers. PP shall use Rice Husk / Coal (for startup only) as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (xi). CO₂ (120 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it will be stored at plant site and shall be sold to actual users.
- (xii). PP shall allocate at least Rs. 1.50 Crore/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). Sludge drying beds proposed in the ETP/CPU/STP shall be replaced by Filter Press.
- (xvi). 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.
- (xvii). 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.
- (xviii). The green belt of at least 5-10 m width shall be developed in nearly 2.367 hectares i.e., 33 % of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. 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 by December, 2023.
- (xix). PP proposed to allocate Rs. 4.00 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

- (xx). 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.
- (xxi). 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.
- (xxii). 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.
- (xxiii). 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.
- (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. 04

Proposed Sugar Plant of 6500 TCD with 29.5 MW Co-Generation, 400 KLPD Cane Syrup/ Molasses and 100 KLPD Grain Based Distillery Plant located at village Mahalgoan, Tal. Vaijapur, Dist. Aurangabad, Maharashtra by M/s. Panchaganga Sugar & Power Pvt. Ltd. - Consideration of Environmental Clearance.

[IA/MH/IND2/424198/2023, IA-J-11011/533/2022-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 proposed integrated Sugar Plant of 6500 TCD with 29.5 MW Co-Generation, 400 KLPD Cane Syrup/ Molasses and 100 KLPD Grain based Distillery Plant located at village Mahalgoan, Tal. Vaijapur, Dist. Aurangabad, Maharashtra by M/s. Panchaganga Sugar & Power Pvt. Ltd.

All products are listed at S.N.1(d) (> 25 MW biomass based thermal power plant), 5(g)(>100 KLPD molasses based distillery) and 5 (j) (\geq 5000 TCD) 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:

Sr. No.	Unit	Product/By-product	Proposed	Total
Products				
1	Distillery (Cane Sugar/Molasses based)	RS/ENA/AA/ Ethanol	400 KLPD	400 KLPD
2	Distillery (Grain based)	RS/ENA/AA/ Ethanol	100 KLPD	100 KLPD
3	Sugar manufacturing	Sugarcane	6500 TCD	6500TCD

		crushing		
4	Bagasse based Cogeneration power plant	Power	29.5 MW	29.5 MW
5	Incineration boiler	Power	3.2 MW	3.2 MW
By-Products				
1	CO ₂	Grain based distillery	454 TPD	454 TPD
2	DDGS	Grain based distillery	56 TPD	56 TPD

*Note: Total production capacity of distillery shall not exceed 500 KLPD at any point of time.

Standard Terms of Reference have been obtained vide F. No. IA-J-11011/533/2022-IA-II(I) dated 26.12.2022.. It was informed that there is no litigation is pending against the project.

Public Hearing for the proposed project had been conducted by the Maharashtra Pollution Control Board on 06.03.2023 at M/s. Panchaganga Sugar and Power Private Limited chaired by Dr. Anant Gavhane (Additional District Collector). The main issues raised during the public hearing and their action plan:

Sr. No	Name and address of the person along with suggestions, views, comments etc.,	Action plan	Budget Allocation and Timeline
1	<p>Shri MachindraPandurangShelke, at Mahalgaon, Tal. Vaijapur, Dist. Aurangabad</p> <ul style="list-style-type: none"> Which type of Hazardous waste will be generated from proposed project? Also will there be any air pollution due to boiler of proposed project? 	<ul style="list-style-type: none"> The hazardous waste generated from the proposed project will be disposed of scientifically: bagasse ash, CPU sludge, ETP sludge, yeast sludge, Press mud and STP sludge will be used as a manure, spent wash ash will be sold to brick manufacturer, spent oil will be sent to authorized recycler and DDGS shall be sold to 	<p>Solid waste management Capital cost: 50 lakhs Operation and Maintenance cost: 10 lakhs/A</p> <p>Air Pollution (Incineration Boiler, ESP,</p>

		<p>poultry/ cattle feed</p> <ul style="list-style-type: none"> Boilers of 160 TPH and 30 TPH will be installed with Electrostatic Precipitator ESP (with efficiency 99.9%) as an Air Pollution Control System which will trap major dust generated from boiler. Online Monitoring System will be installed to the boiler. 	<p>OCEMS, ID fan and auxiliaries): Capital cost: 4190 Lakhs Operation and Maintenance cost: 57.5 Lakhs/A Timeline:2023-2025</p>
2	<p>Shri. VishwasRaosahebNimbalkar, SarpanchSirasgaon, Tal. Vaijapur Dist. Aurangabad</p> <ul style="list-style-type: none"> Is there any impact of wastewater generated from the proposed project on farm? 	<ul style="list-style-type: none"> Industry shall be installing a full-fledged effluent treatment plant with Zero Liquid Discharge as per the guidelines of MPCB and the treated water will be recycled 100% for cooling tower make up and on land for gardening. Hence no question arises on impact on farms located in the surrounding 	<p>Water Pollution (ETP, CPU, STP, Decanter and Dryer): Capital cost: 2080 Lakhs Operation and Maintenance cost: 21 Lakhs/A Timeline: 2023-2025</p>
3	<p>Shri Bharat Ashok Gundappa, Ghogargaon, Tal. Vaijapur Dist. Aurangabad</p> <ul style="list-style-type: none"> From Proposed Distillery Project is there any Sound Pollution problems? And will the Proposed Project comply with the norms of Pollution Control Board? 	<ul style="list-style-type: none"> Industry informed that there will be no sound pollution problem from the proposed project. Yes, all the activities will be carried out in closed shed to control the noise pollution. All equipment's will be provided with noise control barricades. Green belt will be developed in and around the proposed project to control the noise. All the guidelines issued by 	<p>Noise Pollution: Capital cost: 100 Lakhs Operation and Maintenance cost: 10 Lakhs/A</p> <p>Green Belt: Capital cost: 81 Lakhs Operation and Maintenance cost: 25</p>

		MPCB/CPCB will be followed strictly.	Lakhs/A Timeline: 2023-2024
4	<p>Shri JanardhanPrabhakarChavan, SarpanchBhagur, Tal. Vaijapur, Dist. Aurangabad</p> <ul style="list-style-type: none"> Is there any impact of smoke on health due to the proposed boiler? 	<ul style="list-style-type: none"> No, the industry will be installing boilers of 160 MT and 30 MT capacity with Electro Static Precipitator (ESP) (with efficiency 99.9%) as an Air Pollution Control System. Online Monitoring System will be installed to the boiler 	<p>Air Pollution (Incineration Boiler, ESP, OCEMS, ID fan and auxiliaries): Capital cost: 4190 Lakhs Operation and Maintenance cost: 57.5 Lakhs/A Timeline: 2023-2025</p>
5	<p>Shri ShantaramGajananDushing, Jategaon, Tal. Vaijapur Dist. Aurangabad.</p> <ul style="list-style-type: none"> How will you control the polluted water from proposed project? 	<ul style="list-style-type: none"> Effluent from sugar unit will be treated in 1000 CMD ETP. ETP Treated effluent from sugar will be reused in greenbelt development and cooling tower. Spent lees, blow down, Misc wastewater and condensate will be treated in distillery CPU of capacity 3000 CMD and treated water will be recycled in process. Domestic Sewage will be treated in 30 CMD STP. Raw spent wash will be concentrated in MEE to form conc. Spent wash which will be used as a fuel in incineration boiler. Raw stillage will be treated trough 	<p>Water Pollution (ETP, CPU, STP, Decanter and Dryer): Capital cost: 2080 Lakhs Operation and Maintenance cost: 21 Lakhs/A Timeline: 2023-2025</p>

		Decanter followed by Multi effect evaporator (MEE) followed Dryer to produce DDGS.	
6	<p>Shri. Sunil Borade R.R. Aba Foundation:-</p> <ul style="list-style-type: none"> Will you carry out the plantation in the premises of proposed project? 	<ul style="list-style-type: none"> Yes, industry shall be developing a three tier green belt with 5 to 8 meter width along the project boundary. 	<p>Green Belt: Capital cost: 81 Lakhs Operation and Maintenance cost: 25 Lakhs/A Timeline: 2023-2024</p>
7	<p>Shri. Dadasaheb Chandraman Moan, Dy. Sarpanch Chorvaghgaon, Tal. Vaijapur Dist. Aurangabad :-</p> <ul style="list-style-type: none"> How much employment will be generated through this project? How many local people will get employment? How much electricity will be made available to our Village? Till date lots of tree plantation have been done but what about their long term survival? There is correction in village name i.e, Hanumantgaon instead of Hanumantpur and chorvaghgaon instead of chorvahalegaon please correct. Also Sub Regional Officer said the District name as Chhatrapati Sambhajnagar instead of Aurangabad. 	<ul style="list-style-type: none"> Industry shall be requiring total manpower of 150 (permanent 50 and temporary 100) during construction phase and 500 (permanent 100 and temporary 400) during the operation phase At this stage it is impossible to inform the percentage of local manpower required as both skilled and unskilled manpower shall be required. However, preferences shall be given to the local candidates. Industry generated shall be used for the project. Excess electricity will be given to the gridder and from where it will be further distributed as per the rule An action plan will be prepared by the management for 	<p>Green Belt: Capital cost: 81 Lakhs Operation and Maintenance cost: 25 Lakhs/A Timeline: 2023-2024</p>

		<p>greenbelt development</p> <ul style="list-style-type: none"> • The corrections in the village names have been done in the EIA report • Recently Government has changed the name of Aurangabad district as Chhatrapati Sambhajinagar. Over the time it will be incorporated in documents and other places. 	
8	<p>Shri Sunil Powar, Jategaon-Tembhi, Tal. Vaijapur Aurangabad:-</p> <ul style="list-style-type: none"> • How will you disposal the Effluent and Ash generated from proposed project? 	<ul style="list-style-type: none"> • Effluent from sugar unit will be treated in 1000 CMD ETP. ETP Treated effluent from sugar will be reused in greenbelt development and cooling tower. • Spent lees, blow down, Misc wastewater and condensate will be treated in CPU of capacity 3000 CMD and treated water will be recycled in process. • Domestic Sewage will be treated in 30 CMD STP. • Raw spent wash will be concentrated in MEE to form conc. Spent wash which will be used as a fuel in incineration boiler. • Raw stillage will be treated through Decanter followed by Multi effect evaporator (MEE) 	<p>Water Pollution (ETP, CPU, STP, Decanter and Dryer): Capital cost: 2080 Lakhs Operation and Maintenance cost: 21 Lakhs/A Timeline: 2023-2025</p>

		<p>followed Dryer to produce DDGS.</p> <ul style="list-style-type: none"> • Electrostatic Precipitator shall be provided as an air pollution control device to the boiler with approximately 99.99 % efficiency to capture maximum boiler fly ash. • Spent wash ash will be sent to given to farmer as manure • Bagasse ash will be used as a manure 	
9	<p>Dr. Sanjay Kishan Nehe, Chendufal, Tal. Vaijapur, Dist. Aurangabad :-</p> <ul style="list-style-type: none"> • From Sugar Cane Chimney, boiler ash will be spread in and around the area of 2 to 3 km, • What is the impact of that on human health and what precautionary measure will be taken on that? 	<ul style="list-style-type: none"> • In order to control the pollution industry shall be installing Electro static precipitator (ESP) to the boilers. <p>Health impact due to particulate matter may cause various types of impacts. However, it will not be hazardous as fuel use in boiler will be Bagasse and spent wash, which are not hazardous. Also to control particulate emissions we are going to installed most advance versions of pollution control technology. There will be no impacts on health due to discharge of water, industry shall be installing a CPU of 3000 CMD, ETP of 1000 CMD and STP of 10 CMD for treating the generated</p>	<p>Air Pollution (Incineration Boiler, ESP, OCEMS, ID fan and auxiliaries): Capital cost: 4190 Lakhs Operation and Maintenance cost: 57.5 Lakhs/A</p> <p>Water Pollution (ETP, CPU, STP, Decanter and Dryer): Capital cost: 2080 Lakhs Operation and Maintenance cost: 21 Lakhs/A Timeline:</p>

		waste water. Treated water is recycled/reused in process and CT. Raw spent wash will be concentrated in MEE to form conc. Spent wash which will be used as a fuel in incineration boiler. Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS.	2023-2024
10	<p>Shri ShivajiBhanudasGayke, Mahalgaon, Tal. Vaijapur, Dist. Aurangabad :-</p> <ul style="list-style-type: none"> • When will be industry in operation? • What are the impact of polluted water generated from proposed project? 	<ul style="list-style-type: none"> • It is not possible for us to inform a specific timeline at this time. • There shall be no impacts of polluted water on proposed project as generated wastewater shall be treated and recycled and reused in cooling tower and process • Industry shall install ETP of 1000 CMD, CPU of 3000 CMD and STP of 300 CMD for generated sewage. 	<p>Water Pollution (ETP, CPU, STP, Decanter and Dryer): Capital cost: 2080 Lakhs Operation and Maintenance cost: 21 Lakhs/A Timeline: 2023-2025</p>
11	<p>Shri. D.K. More, Bhagur, Tal. Vaijapur Dist. Aurangabad :-</p> <ul style="list-style-type: none"> • Industry generally use chemicals. My question is that what is the impact of these chemical on underground land? And about what distance? 	<ul style="list-style-type: none"> • Proper provision shall be made for storage of the chemicals within the premises. Storage tank shall be provided at a designated location. Due care will be taken to avoid the leakage of chemicals on the land. 	-
12	<p>Shri. BabasahebKadubaPatil, Chendufal, Tal. Vaijapur Dist. Aurangabad :-</p> <ul style="list-style-type: none"> • For establishment of the 	Project proponent replied with thanks	<p>Green Belt: Capital cost: 81 Lakhs Operation and</p>

	<p>proposed project chairman of the industry Shri. ShindeSaheb and local MLA shri. Ramesh BornareSaheb have taken lots of efforts and my request to both of them to organize a farmers melava in the industry.</p>		<p>Maintenance cost: 25 Lakhs/A Timeline: 2023-2024</p>
13	<p>Shri. DilipKhedkar, Regional Officer, MPCB and Member of Public Hearing, Aurangabad :-</p> <ul style="list-style-type: none"> • My first question is that project consultant has given answers to the public question but it is not clear whether management of the proposed project agrees to his answers? So it should be clear from management side. • Then Shri. DilipKhedkar asked project proponent to rectify the green belt development area as per TOR and do necessary corrections at the time of submission. • Shri. Khedkar further asked that what are the precautions taken by the project proponent at the time of construction. Such as toilet facility for labor, dust particle emission, vehicle movement on kaccha road, etc. • Shri. Khedkar suggested to provide the standby arrangements to Effluent treatment plant and Air Pollution Control System in case of failure of 	<ul style="list-style-type: none"> • The management has agreed with all the answers and all the mentioned things shall be done. • Industry shall be providing a three tier green belt with 5 to 8 meter width along the project boundary. The rectified green belt is enclosed in the EIA report • Project consultant replied upon that they will do the necessary correction before submission. • Mobile toilets, modular STP, regular Water Sprinkling to control dust emission, concrete roads shall be provided at the time of construction. • CPU (Condensate Polishing Unit) for 3000 CMD and ETP of 1000 CMD with two stage RO shall be installed for the proposed project. • In case of emergency breakdown, the plant will shut down immediately. 	<p>Construction phase:</p> <p>Water and waste water: Capital Cost: 10 Lakhs Operation and Maintenance: 3 Lakh/ A</p> <p>During site preparation: Capital Cost: 2 Lakhs Operation and Maintenance: 1 Lakh/ A</p> <p>Operation phase Water Pollution (ETP, CPU, STP, Decanter and Dryer): Capital Cost: 10 Lakhs Operation and Maintenance: 3 Lakh/ A</p>

	<p>equipment's.</p> <ul style="list-style-type: none"> • He further asked to give the information about the system to recycle the treated water. 	<p>Additional spent wash storage lagoon with 5-day storage capacity shall be installed</p> <ul style="list-style-type: none"> • The treated water shall be recycled and reused in process and cooling tower 	<p>Timeline: 2023-2025. Green Belt: Capital cost: 81 Lakhs Operation and Maintenance cost: 25 Lakhs/A Timeline: 2023-2024</p>
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Total land area required is 24.39 hectares. Greenbelt will be developed on total area of 8.1 hectares i.e., 33% of total project area. The estimated project cost is Rs. 578.99 Crores. Capital cost of EMP would be Rs. 78.66 Crores and recurring cost for EMP would be Rs. 2.14 Crores per annum. Industry proposes to allocate Rs. 7.51 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 700 (150-200 during Construction and 400-500 during operation phase) persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. There is no reserve forest/ protected area within 10km radius of the project site. NO eco sensitive Zone is present in the 10 km radius of the study area. NBWL application is not applicable. River Shivna is at a distance of 9.29 km, hence NOC from State Irrigation Department vide is not applicable. One Nandur- Mathmeshwar canal is at a distance of 3.74 km towards W direction.

Ambient air quality monitoring was carried out at 11 locations during March 2022 to May 2022 and the baseline data indicates the ranges of concentrations as:PM₁₀ (41.60 to 70.50 µg/m³), PM_{2.5} (16.64 to 28.9 µg/m³), SO₂ (5.90 to 16.30 µg/m³) and NO_x (10.11 to 20.30 µg/m³) in the core zone. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.139 µg/m³ and 0.105 µg/m³, 3.0 µg/m³ and 1.91 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_x in the core zone. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1961 CMD (1593 CMD Distillery, 328 CMD Sugar- Cogeneration and domestic 40) which will be sourced from Ground water. Application has been submitted to CGWA 21-4/9936/MH/IND/2023 dated 08.04.2023. Effluent of 946 CMD Sugar-cogeneration will be treated through effluent treatment plant of capacity 1000 CMD. Effluent of 2935 CMD from Molasses-grain based distillery quantity will be treated through Condensate Polishing Unit of 3000 CMD. STP of capacity 30 CMD will be installed to treat sewage generated from factory premises.

Effluent from sugar unit will be treated in 1000 CMD ETP. ETP Treated effluent from sugar will be reused in greenbelt development and cooling tower. Excess condensate of 996 CMD from Sugar will be treated in 1000 CMD CPU of Sugar and treated water shall be recycled/reused in distillery CT. Raw spent wash will be concentrated in MEE to form conc. Spent wash which will be used as a fuel in incineration boiler. Raw stillage will be treated through Decanter followed by Multi effect evaporator (MEE) followed by Dryer to produce DDGS. Spent lees, blow down, Misc. wastewater and condensate will be treated in CPU of capacity 3000 CMD and treated water will be recycled in process. Domestic Sewage will be treated in 30 CMD STP. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 11.87MW (9.87 MW Sugar and 2 MW Distillery (Molasses & Grain)) and will be met from proposed 29.5 MW and 3.2 MW TG cogeneration power plant. Bagasse fired 160 TPH Sugar Boiler and Spent wash and bagasse fired 30 TPH distillery boiler will be installed. APCE Electrostatic Precipitator with 75m high stack (Sugar Boiler) and 60 m high stack (Distillery boiler) will be installed for controlling the particulate matter emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 1250kVA* 2 DG set will be used as standby during power failure and stack height (12 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- Process emission will be in the form of CO₂. It will be generated from Fermentation unit. This will be scrubbed and bottled to be sold.

- The whole process will be carried out in closed condition so as to avoid any chances of VOC emissions.
- PM, SO₂ and NO_x emission from utility operation 160 TPH and 30 TPH boiler with Electrostatic precipitator, sulphur reducing measures and 75 m and 60 m stack height resp. as APC measures.

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

- Bagasse ash of 27.72 TPD will be used as a manure
- Conc. spent wash of 29.32 TPD will be sold to brick manufacturer
- DDGS of 56 TPD will be sold to poultry/ cattle feed
- ETP sludge of 18.92 TPD will be used as a manure
- CPU sludge of 16.8 TPD will be used as a manure
- Yeast sludge of 129.9 TPD will be used as a manure
- Press mud of 260 TPD will be used as a manure
- STP sludge of 2.81 TPD will be used as a manure
- Spent oil of 0.008 TPD will be sent to authorized recycler

Total land of 24.39 Hectares is under possession of the company and tentative land use conversion has been completed vide approval No. RPAUR/LT/2023/APL/00042 dated 13.02.2023. EAC found the information satisfactory.

Capital cost and recurring cost of EMP are given below:

S. No	Construction phase (with Break-up)	Capital Cost	O & M
		(Amount in lakhs)	
1.	Environmental monitoring		3
2.	During site preparation	2	1
3.	Noise and solid waste management	2	1.5
4.	Water and waste water	10	3
5.	Occupational health	4	1
6.	Greenbelt development	7	5
	Total (A)	25	14.5
Sr.	Operation Phase (with Break-up)	Capital	O & M

No		Cost	
		(Amount in lakhs)	
1	Air pollution		
a	Incineration Boiler	3000	40
b	ESP	1000	15
c	Online Continuous Emission Monitoring System (OCEMS)	40	2.5
d	ID fan and other auxiliaries	150	
2	Water pollution		
a	ETP	550	5
b	CPU	600	5
c	STP	80	1
d	Decanter	150	5
e	Dryer	1000	5
			21
3	Noise pollution	100	10
4	Environmental Monitoring (Air, water, waste water, Soil, Solid waste, Noise)	40	15
5	Occupation health	200	30
6	Green belt	81	25
7	Solid waste	50	10
8	Rain water harvesting	50	10
9	CER Cost	750	0
	Total (B)	7841	199.5
	Total A+B	7866	214

Details of CER with proposed activities and budgetary allocation:

#	CER Activity	Location	Details	Quantities	Total Amount in Rs.
1	Providing Solar street lamps nearby	Mahalgaon	Providing Solar street lamps nearby	15	8,00,000
		Tembhi		15	8,00,000
		Sirasgaon		15	8,00,000
		Kate Pimpalgaon		15	8,00,000
		Bhagur		15	8,00,000
		Chorwaghalgaon		15	8,00,000
				90	48,00,000

2	Providing Water filters/ filtered water in nearby schools	Z. P. Primary school, Agar saigaon	Water filters 2000 L each filtered water tank at at each place	2	1,00,000
		Z.P School, Chinchadgaon		2	1,00,000
		Z. P. P School, Kanak Sagaj		2	1,00,000
		Z. P. Elementary School, Katepimpalgaon		2	1,00,000
		Z. P. Primary School, Satana		2	1,00,000
		S.N.M. Vidhyalaya - Middle school, Virgaon		2	1,00,000
		Veer Ashok Patil English School, Virgaon		2	1,00,000
		Z. P. P. School, Sirasgaon		2	1,00,000
		Z. P. P. School, Nadi		2	1,00,000
		MadhyamikVidyaliya High School, Kautgaon		2	1,00,000
		Z. P. P. School, Mali Ghogargaon		2	1,00,000
		Z. P. P. School, RanjangaonNarhari		2	1,00,000
		APGE English Medium School, Mahalgaon		2	1,00,000
		New High School, Mahalgaon		2	1,00,000
		Z. P. P. School, AkoliVadgaon		2	1,00,000
					30
3	Providing Ambulance/ equipments to the nearby	CHATURTHI HOSPITAL, Mahalgaon	Providing Ambulance/ equipments to the nearby Gov Hospitals	1	30,00,000
		Dr Thaware Hospital, Mahalgaon		1	30,00,000
		Government Hospital, Kate Pimpalgaon		1	30,00,000

	Gov Hospitals			3	90,00,000
4	Providing computers in nearby school/ colleges, necessary furniture, projectors, Air conditioners for computer lab, science lab equipment	New High School, Mahalgaon	Providing computers in nearby school/ colleges, necessary furniture, projectors, Air conditioners for computer lab equipment	10	14,00,000
		MadhyamikVidyalya High School, Kautgaon		10	14,00,000
		S.N.M. Vidhyalaya - Middle school, Virgaon		10	14,00,000
		Veer Ashok Patil English School, Virgaon		10	14,00,000
		APGE English Medium School, Mahalgaon		10	14,00,000
		Z. P. Elementary School, Katepimpalgaon		50	70,00,000
5	Infrastructure development in the area, Roads, gutters etc.	Mahalgaon	Development of closed drainage at 5 locations (~1000m length), road development near School grampanchayat (~3 km), wherever required during execution	5	25,00,000
		Tembhi	Development of closed drainage at 5 locations (~1000m length), road development near School grampanchayat (~3 km), wherever required during execution	5	25,00,000
		Sirasgaon	Development of closed drainage at 4 locations (~2 000m length), road development near School grampanchayat (~2 km), wherever required during execution	4	25,00,000
		Kate Pimpalgaon	Development of closed	5	20,00,000

	drainage at 5 locations (~1000m length), road development around 2 km wherever required during execution		
Bhagur	Development of closed drainage at 4 locations (~1000m length), road development near School grampanchayat (~2 km), wherever required during execution	4	25,00,000
Chorwaghalgaon	Development of closed drainage at 4 locations (~1000m length), road development near School grampanchayat (~2.5 km), wherever required during execution	3	25,00,000
Hanumantgaon	Development of closed drainage at 4 locations (~1000m length), road development near School grampanchayat (~2 km), wherever required during execution	4	30,00,000
Kautgaon	Development of closed drainage at 3 locations (~1000m length), road development near School grampanchayat (~1.5 km), wherever required during execution	3	30,00,000
Jategaon	Development of closed drainage at 5 locations (~1000m length), road development near School grampanchayat (~2 km), wherever required during execution	5	30,00,000
Ghogargaon	Development of closed drainage at 5 locations (~1000m length), road development near	5	30,00,000

			School grampanchayat (~2 km), wherever required during execution		
		Varkhed	Development of closed drainage at 5 locations (~1000m length), road development near School grampanchayat (~2 km), wherever required during execution	5	30,00,000
				48	2,95,00,000
6	Provision of Rain water Harvesting system or watershed management program	Mahalgaon	Provision of roof top Rain water Harvesting system for school (1 school), grampanchayat (1 office) etc. Water shed management - Cement nall bunds at 2 locations in the village, Water conservation through loose bolder structure/Gully Plug/ at 5 locations, Construction of Rainwater harvesting tanks/ farm pond at 3 locations	total 12 activities in each village	12,00,000
		Tembhi			12,00,000
		Sirasgaon			12,00,000
		Kate Pimpalgaon			12,50,000
		Bhagur			12,50,000
		Chorwaghalgaon			12,50,000
		Hanumantgaon			12,50,000
		Kautgaon			12,50,000
		Jategaon			12,50,000
		Ghogargaon			12,50,000
		Varkhed			12,50,000
		Agar saigaon			12,50,000
		Jambargaon			12,50,000
		Barathwadi			12,50,000
Virgaon	12,50,000				
				-	1,86,00,000
7	Training programme to nearby villages/ farmers	Mahalgaon	Training programme to nearby villages/ farmers, Organic farming, crop rotation, selection of crop and crop management, Good Agricultural Practices and methods for crop irrigation, Pests, Disease And Biological pest control, development in harvesting technologies	1	2,00,000
		Tembhi		1	2,00,000
		Sirasgaon		1	2,00,000
		Kate Pimpalgaon		1	2,00,000
		Bhagur		1	2,00,000
		Chorwaghalgaon		1	2,00,000
		Hanumantgaon		1	2,00,000
		Kautgaon		1	2,00,000
		Jategaon		1	2,00,000
		Ghogargaon		1	2,00,000
		Varkhed		1	2,00,000
		Agar saigaon		1	2,00,000
		Jambargaon		1	2,00,000
		Barathwadi		1	2,00,000
Virgaon	1	2,00,000			
8	Tree plantatio	Along the road Vaijapur-	3500 Native tree species & Locations with	1	17,00,000

n	Gangapur road	help of Social forestry and local planning authority		
			16	47,00,000
	TOTAL AMOUNT Rs.			7,51,00,000

During deliberations, EAC discussed following issues:

- Committee suggested to install air cooled condenser in the Sugar unit to reduce the fresh water requirement. Accordingly, water requirement for the sugar unit will reduce. PP has submitted that revised fresh water consumption for the sugar unit along with CPP without considering air cooled condenser in the sugar plant. From water balance of sugar unit, it appears that water is consumed as the make up water for cooling tower. From water balance of distillery unit, it appears that water is also consumed by the cooling tower, which indicates that PP has not considered installation of air cooled condenser and submitted revised water balance with taking account of the same.
- PP has submitted revised risk assessment.
- PP informed that CPU of capacity 3000 CMD will be biological followed by the ultra-filtration and two stage RO. Sugar ETP 1000 CMD and CPU 1000 CMD will also be based on Ultrafiltration and RO for recycling treated water back to the process.
- PP has submitted revised incremental GLC values due to increase in traffic from the proposed project. However, PP has not submitted the resultant incremental GLC values after superimposing the values from the point source emissions and vehicular emissions.
- Committee suggested that PP shall develop at least 20 variety of species as a part of greenbelt. However, PP has submitted only 18 plant species.
- Committee suggested to provide control measures for fugitive emissions from the storage and transfer points of coal and bagasse. PP informed that fuel will be stored in covered shed but PP did not mention the transfer of fuel in closed conveyer from storage to boiler.

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. 05

Greenfield Project of Grain Based Distillery Plant of 200 KLD along with Co-generation Power Plant of 4.5 MW located at Village- Pedda Dhanwada, Tehsil-Rajoli Mandal, District-Jogulamba Gadwal, Telangana by M/s. Gayathri Renewable Fuels and Allied Industries Pvt. Ltd. - Consideration of Environmental Clearance.

[IA/TG/IND2/425550/2023, IA-J-11011/137/2023-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 Greenfield Project of "Grain Based Distillery Plant of 200 KLD along with Co-generation Power Plant of 4.5 MW" located at Village- Pedda Dhanwada, Tehsil-Rajoli Mandal, District-Jogulamba Gadwal, Telangana-509126 by M/s. Gayathri Renewable Fuels and Allied Industries Pvt. Ltd.

The proposal was considered by the EAC in its meeting held on 08.04.2023 and the committee returned the proposal as there was no approach road from the proposed site connecting to the main road. Now, PP has procured one acre land for the approach road connectivity from the proposed site to the main road.

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

The details of products and capacity as under:

S. No.	Name of Unit	Name of the product /by-product	Production capacity
1	Distillery	Ethanol	200 KLD
2	Co-generation power plant	Power	4.5 MW
3	DWGS dryer	DDGS	98 TPD
4	Fermentation unit	Carbon di-oxide	150 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 there is no litigation is pending against the project.

Total land area required is 7.76 hectares. Greenbelt will be developed in total area of 2.56 hectares i.e., 33% of total project area. The estimated project cost is INR Rs. 220.64 Crores. Capital cost of EMP would be INR Rs. 34.1 Crores and recurring cost for EMP would be INR Rs. 5.25 Crores per annum. Industry proposes to allocate Rs. 2.5 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 123 persons as direct & indirect. PP has acquired 1 acre land through registered deed for construction of road from plant site to approach road.

There are no national parks, wildlife sanctuaries, Wildlife Corridors etc. within 10 km distance. Lake Distributary is at 0.23 km towards South, River Distributary is at 1.4 km towards NE direction, Tungabhadra River is at 1.7 km towards South direction, Pedda vanka tributary at approx. 2.2 km towards ENE direction, Rajalabanda Diversion Scheme Canal is at 4.8 km towards NW direction. Flood NOC has been obtained from Executive Engineer, Irrigation Division No 4, Jogulamba Gadwal, Government of Telangana, Irrigation and CAD Department vide letter no. EE/ID 4/GDL/DB dated 29.03.2023.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.27 $\mu\text{g}/\text{m}^3$, 0.12 $\mu\text{g}/\text{m}^3$, 3.69 $\mu\text{g}/\text{m}^3$, 2.3 $\mu\text{g}/\text{m}^3$ and 1.94 $\mu\text{g}/\text{m}^3$ 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 CPP will be 800 m³/day which will be met from surface water. The application for withdrawal of surface water from Tungabhadra River has been submitted to the competent authority dated 11.03.2023. Effluent (Condensate/spent lees/blowdown etc.) of 715 m³/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 860 KLPD. 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 4.4 MW and will be sourced from proposed 4.5 MW co-generation power plant, the rest will be supplied to state grid. 50 TPH using rice husk, coal and biomass pellets fired boiler will be installed. ESP with 60 m high stack will be installed for controlling the particulate matter emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 2500 kVA DG sets will be used as standby during power failure and stack height (15 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP with 60 meters high stack will be installed for controlling the particulate matter emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (150 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) (98 TPD) will be sold as cattle feed/fish feed/ prawn feed.

- Boiler ash (63 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (1.0 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (0.098 TPD) and STP Sludge (0.002 TPA) 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 is 7.76 ha and 100% land is under possession of the company. The permission for land use conversion has been obtained from the Tahsildar & Jt. Sub Registrar Office, Rajoli, Government of Telangana vide Proedgs. no. 2300200769 dated 16.03.2023. EAC found the information satisfactory.

Capital cost and recurring cost of EMP are given below:

S. No.	Particulars	Capital Cost (INR Cr)	Annual Recurring (INR Cr)
1	Air pollution control system ESP with stack, Industrial vacuum cleaner, road sweeping machine, etc.	6.20	1.05
2	Continuous Emission Monitoring System and Ambient Air Quality Monitoring System	0.85	0.25
3	Scrubbing system, compressing system, liquefying system and storage for CO ₂ removal	5.9	0.85
4	Treatment system for spent wash, DWGS centrifuge decanter, DDGS dryer for ZLD system, Construction of Garland drains, Water Reservoir	5.5	0.75
5	Condensate Polishing unit for water treatment and recycle, STP	5.4	0.65
6	Ash handling and management	0.5	0.25
7	Fire Fighting measures	0.45	0.20
8	In-house Solar power Plant	4.0	0.25

9	Rainwater harvesting systems	0.5	0.20
10	Occupational Health Management	0.80	0.20
11	Noise Reduction Systems	0.25	0.10
12	Green Belt Development	0.75	0.20
13	Environment monitoring	---	0.25
14	Environment management cell	0.50	0.05
15	CER	2.5	---
	Total	34.1	5.25

Details of CER with proposed activities and budgetary allocation:

S. No	Description	Value in INR (Cr)
1.	a. Development of Village roads- Pedda Dhanwada Village road- 1 km b. Upgradation of drinking water facility in nearby in nearby Villages such as Pedda Dhanwada, Mandoddi, Chinna Dhanwada.	0.95
2.	Installation of solar panels (30 nos.) in Village Pedda Dhanwada, Mandoddi, Chinna Dhanwada.	0.55
3.	Upgradation of medical facility in nearby hospital such as Donating medical equipment like Beds, Stretcher, Portable Oxygen Cylinder (330 Litre), Oxygen Concentrator (0.5 to 5 Ltr), AC (Window AC of 1.5 Ton) in Govt Hospital, Pedda Dhanwada, Mandoddi, Chinna Dhanwada.	0.40
4.	Development of smart class, distribution of benches, Fans, drinking water facility, Upgradation of sanitary facility (One for male and one for female), Distribution of IT gadgets, Printers, Computers in schools present in nearby in nearby villages i.e., Z. P. H. S high school, Mandoddi, Upper Primary School, Pacharla,	0.35

5.	Awareness Programs (10 nos.) for local farmers to increase soil productivity and water conservation.	0.25
	Total	2.5

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 Concerned Local authority shall be obtained before start of the construction of plant and drawing water from surface water for the distillery activities, State Pollution Control Board 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. No ground water shall be used for the plant operations.
- (v). Total Fresh water requirement shall not exceed 800 m³/day which will be met from Tungabhadra 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/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (vii). ESP (5 field) with 60 meters high stack shall be installed with the Rice Husk/Biomass pellets/ Coal (with 15% coal usage as auxiliary fuel) fired 50 TPH 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 (63 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use Rice Husk/Biomass pellets/Coal (for startup only) as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ (150 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. 0.8 Crore/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.
- (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 2.56hectares i.e., 33 %of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. 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.
- (xvi). PP proposed to allocate Rs. 2.5 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. 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, 1.16Ha i.e 15% of the total project area shall be allotted solely for parking purposes with facilities like rest rooms etc. Entry and Exit of the vehicles transporting material to and from the plant shall be through slip road only to avoid traffic congestion on the main road.
- (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. 06

Greenfield Project of 60 KLD Grain Based Distillery Plant along with 2 MW Co-generation Power Plant located at Village- Biladi, Tehsil-Tilda, District-Raipur, Chhattisgarh by M/s. Shri Sanjay Gupta and Others - Re-consideration of Environmental Clearance.

[IA/CG/IND2/423638/2023, IA-J-11011/148/2023-IA-II(I)]

The proposal was earlier considered by the EAC (Ind-2) in its meeting ID IA/IND2/13477/08/04/2023 held during 8th April, 2023, wherein EAC deferred the proposal and desired certain requisite information/inputs. Information desired by the EAC and responses submitted by the project proponent is as under:

S. No.	ADS by MOEFCC	Reply of PP
1	PP should submit Risk Assessment report.	Risk Assessment report has been submitted.
2	PP should submit size of the ethanol storage tank & likely duration of the storage in the tanks.	We have proposed two ethanol storage tank of 750 KL each for our proposed project considering storage for 25 days.
3	PP should submit risk modeling considering connecting pipeline and leakage from valve.	Risk modeling study has been done considering connecting pipeline and leakage from valve.

EAC found the response to PP to additional details sought satisfactory.

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 Greenfield Project of 60 KLD Grain Based Ethanol Plant along with 2 MW Cogeneration Power Plant located at Village- Biladi, Tehsil- Tilda, District-Raipur, Chhattisgarh by M/s. Shri Sanjay Gupta and Others.

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 MW
3	DWGS dryer	DDGS	27 TPD
4	Fermentation unit	Carbon di-oxide	45 TPD

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

Total land area required is 5.65 hectares. Greenbelt will be developed in total area of 1.86 hectares i.e., 33% of total project area. The estimated project cost is INR Rs. 86.40 Crores. Capital cost of EMP would be INR Rs. 13.34 Crores and recurring cost for EMP would be INR Rs. 3.5 Crores per annum. Industry proposes to allocate Rs. 1 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 103 persons as direct & indirect.

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

Reserve forest or protected area is present within 10 km study area. Bilari RF is at a distance of 1.5 km in NW direction. Bilari Ghughua is at a distance of 2.5 km in North direction. Bhatpara Branch (Mahanadi Canal) is 0.4 km from the project site in West direction for which NOC has been obtained from Office of Executive Engineer Water Resource Department vide letter no. 997/Works/NOC/2023/Tilda dated 29.03.2023. Ghughua Tank is at a distance of 3.5 km in North direction. Sessional Jamuniya Nala is at a distance of 6 km in ENE direction. Seonath is at a distance of 9.5 km in West direction. Kirna Tank/Jasola Dam is at a distance of 10 km in South direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.02 \mu\text{g}/\text{m}^3$, $0.01 \mu\text{g}/\text{m}^3$, $0.38 \mu\text{g}/\text{m}^3$, $0.29 \mu\text{g}/\text{m}^3$ and $0.82 \mu\text{g}/\text{m}^3$ 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 CPP will be 240 KLD which will be met from ground water. The application for permission of withdrawal of ground water has been submitted to CGWA having application no. 21-4/8399/CT/IND/2023 dated 03/04/2023. Effluent (Condensate/spent lees/blowdown etc.) of 244 KLD quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 300 KLD. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP capacity of 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 2 MW and will be met from proposed 2 MW cogeneration power plant. 20 TPH Coal based and Biomass fired boiler will be installed. ESP with 45 m high stack will be installed for controlling the particulate matter emissions within the statutory limit of $50 \text{ mg}/\text{Nm}^3$ with the proposed 20 TPH boiler. 500 kVA DG set will be used as standby during power failure and stack height (10 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP with 45 meters high stack will be installed for controlling the particulate matter emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (45 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) (27 TPD) will be sold as cattle feed/fish feed/ prawn feed.
- Boiler ash (26.21 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (1 Kilo litres per annum) will be sold to authorized re-cycler.
- ETP sludge (10.99 TPA) and STP Sludge (0.36 TPA) will be disposed through local agency.

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 is 5.65 hectare. Total land is under the possession of Shri Sanjay Gupta and land use conversion application has been submitted to Sub-Divisional Officer (Revenue) and Competent Authority Raipur Chhattisgarh Sn. No./80/A.V.A./ Reader/2023 dated 03/03/2023. EAC found the information satisfactory.

Capital cost and recurring cost of EMP are given below:

S. No.	Particulars	Capital Cost (In Cr.)	Annual Recurring (In Cr.)
1	Air pollution control system ESP on 20 TPH boiler, Stack, Industrial vacuum cleaner, road sweeping machine.	3.25	1.0

2	Continuous Emission Monitoring System & Ambient Air Quality Monitoring	0.75	0.25
3	Scrubbing system, compressing system, liquefying system and storage	2.2	0.45
4	Treatment system for spent wash, DWGS centrifuge decanter, DDGS dryer for ZLD system, Construction of	2.1	0.6
5	Condensate Polishing unit for water treatment and recycle, STP	2	0.5
6	Rainwater harvesting systems	0.24	0.1
7	Occupational Health Management	0.30	0.10
8	Noise Reduction Systems	0.35	0.1
9	Green Belt Development	0.65	0.1
10	Environment monitoring	---	0.20
11	Environment management cell	0.50	0.05
12	CER	1.0	---
	Total	13.34	3.5

Details of CER with proposed activities and budgetary allocation:

S. No.	Description	Budget (INR Cr.)
1.	a. Development of village road- Biladi Village road-0.4 km b. Upgradation of drinking water facility in nearby Villages Sarora, Parsada, Bagdai.	0.35
2.	Installation of solar panels (15 nos.) in Villages Sarora, Parsada, Biladi.	0.25
3.	Donate medical equipment like Beds, Stretcher, Portable Oxygen Cylinder (330 Litre), Oxygen Concentrator (0.5 to 5 Ltr), Air Purifier (Honeywell Air Purifier with Capacity of 300m ³ /hr), AC (Window AC of 1.5 Ton), Evangelical Mission Hospital.	0.20

4.	Development of smart class, distribution of benches, Fans, drinking water facilities, Upgradation of sanitary facility, Distribution of IT gadgets, Printers, Computers in Sasaholi School Tilda Newra and S.H.S.School Sarora Gosadan.	0.15
5.	Awareness programs (5 nos.) for farmers for increasing soil productivity and water conservation.	0.05
	Total	1.0

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 60 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). PP shall obtain NOC from State electricity authority prior to construction of project w.r.t HT line passing through the site. Area below the HT LINE and atleast 10.0m on both the sides will be left vacant.
- (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 shall be obtained before start of the construction of plant and drawing water from ground water for the distillery activities, State Pollution Control Board 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 240 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 rainfall capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vii). Spent Wash/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (viii). ESP (5 field) with a 45 meters high stack shall be installed with the 20 TPH Rice Husk/Biomass / Coal (with 15% coal usage as auxiliary fuel) fired boiler for controlling the particulate matter 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.
- (ix). Boiler ash (26.21 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use Rice Husk/Biomass / Coal (with 15% coal usage as auxiliary fuel) as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

- (x). CO₂ (45 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors.
- (xi). PP shall allocate at least Rs. 0.3 Crore/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.
- (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 1.86 hectares i.e., 33 % of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop atleast 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. 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.

- (xvii). PP proposed to allocate Rs. 1.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. 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.
- (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. 07

Proposed 120 KLPD Grain based Ethanol Plant along with 3.0 MW Co-generation Power Plant located at Village Alagawadi, Taluka Raybag District Belgaum, Karnataka by M/s. Consolidated Agroindustrial Syndicate Limited - Consideration of Environmental Clearance.

[IA/KA/IND2/420690/2023, IA-J-11011/90/2023-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 120 KLPD Grain based Ethanol Plant along with biomass/coal based 3.0 MW Co-generation Power Plant located at Village Alagawadi, Taluka Raybag District Belgaum, Karnataka by M/s. Consolidated Agroindustrial Syndicate 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 and by-product	Production capacity
1	Distillery	Ethanol	120 KLPD
2	Cogeneration Power Plant	Power	3.0 MW
3	DWGS Dryer	DDGS	80 TPD
4	Fermentation unit	Carbon di-oxide	82 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 there is no litigation is pending against the project.

Total land area required is 17.09 hectares. Greenbelt will be developed in Total area of 5.64 hectares i.e. 33% of total project area. The estimated project cost is Rs. 120.5 Crore. Capital cost of EMP would be Rs. 18.79 Crores and recurring cost for EMP project would be Rs. 114 Lakhs per annum. Industry proposes to allocate Rs. 2.00 Crores towards Extended EMP (Corporate Environmental Responsibility). Total Employment will be 177 as direct and indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies Chikkud Branch Canal is at a distance of 0.79 Km in SSW direction for which NOC has been obtained from Karnataka Neeravari Nigam Limited vide letter no. KNNL/EE/GLBC-01/2586 dated 27.03.2023 stating 'no objection to set up grain based distillery unit on the given survey no'.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.497 $\mu\text{g}/\text{m}^3$, 1.67 $\mu\text{g}/\text{m}^3$, 0.02 $\mu\text{g}/\text{m}^3$, 0.014 $\mu\text{g}/\text{m}^3$, with respect to NO_x , SO_2 , PM_{10} , $\text{PM}_{2.5}$. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 485 CMD which will be met from Krishna river. Application for Water permission has been submitted to Karnataka Niravari Nigan Ltd., dated 17.02.2023. Effluent (Condensate/spent lees/blowdown etc.) of 1042 CMD quantity will be treated

through Condensate Polishing Unit of capacity 1100 CMD. Raw stillage 1066 KLPD 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 2.95 MW, which will be met from own 3.0 MW co-generation power plant. 32 TPH Biomass (Coal as optional fuel in case of emergency) fired boiler will be installed. APCE ESP with 45 m high stack will be installed for controlling the particulate matter emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 1000kVA DG set will be used as standby during power failure and stack height 12 m will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- APCE Electro Static Precipitator with 45m high stack is installed for controlling the particulate matter emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (82 TPD) generated during the fermentation process will be collected by CO₂ recovery plant 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) (80 TPD) will be sold as cattle feed.
- Biomass ash (21.68 TPD) will be used as a manure.
- Coal ash (12.6 TPD) will be sent to brick manufacturer.
- Spent oil (0.0024) TPD) will be sold to authorized recyclers.
- CPU sludge (2.12 TPD), Yeast sludge (7 TPD) and STP Sludge (0.0078 kg/d) 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 120 KLPD will be used for manufacturing fuel ethanol only.

Total land of 17.09 Hectares is under possession of the company. EAC found the information satisfactory.

Capital cost and recurring cost of EMP are given below:

S. No	Construction phase (with Break-up)	Capital Cost	O & M
		(Amount in lakhs)	
1	Environmental monitoring	—	1.5
2	During site preparation	2.5	0
3	Noise and solid waste management	2	0
4	Water and waste water	5	0
5	Occupational health	3	2.5
6	Greenbelt development	5	5
	Total (A)	17.5	9
Sr. No	Operation Phase (with Break-up)	Capital Cost	O & M
		(Amount in lakhs)	
1	Air pollution		
a	ESP	330	30
b	Online Continuous Emission Monitoring System (OCEMS)	50	
2	Water pollution		
a	CPU	150	20
b	STP	10	
c	Decanter	120	
d	Dryer	1000	
3	Noise pollution	10	3
4	Environmental Monitoring (Air, water, waste water, Soil, Solid waste, Noise)	50	25
5	Occupation health	50	7
6	Green belt	57	10
7	Solid waste	5	5
8	Rain water harvesting	30	5
	Total (B)	1862	85

	Total A+B	1879.5	114
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Details of CER with proposed activities and budgetary allocation:

Sr. No.	CER Activity	Proposed CER Location	Details	Quantities	Year		Total Amount in Rs
					1 st Year 2023-	2 nd Year 2024- 2025	
1	Water Supply in nearby schools & villages	Alagawadi	Providing filter water or potable water to nearby schools & colleges & villages	2	1,00,000	1,00,000.00	2,00,000
		Adukali		2	1,00,000	1,00,000.00	2,00,000
		Maddalipada		2	1,00,000	1,00,000.00	2,00,000
		Beerapanmaddi		2	1,00,000	1,00,000.00	2,00,000
		Hidakal		2	1,00,000	1,00,000.00	2,00,000
		Government primary		4	2,00,000	2,00,000.00	4,00,000
		Govt Kannada Higher Kannada Govt High		4	2,00,000	2,00,000.00	4,00,000
			22	11,00,000	11,00,000	22,00,000	
2	Providing Solar street lamps nearby	Athani- Gokak road	Electrification and Solar	14	3,50,000	3,50,000	7,00,000
		Alagawadi - Harugeri	Work for Roads at ~ 10-15 kms on the mentioned roads	15	3,75,000	3,75,000	7,50,000
		Alagawadi - Hidkal road (internal village road)		15	3,75,000	3,75,000	7,50,000
			44	11,00,000	11,00,000	22,00,000	
3	Providing Ambulance	Government Hospital-	Providing Abulance to	2	24,00,000	-	24,00,000
		Govt Hospital Harugeri -	the nearby Gov. Hospitals	2		24,00,000	24,00,000
		Hidakal Govt Hospital		2	-	24,00,000	24,00,000
			6	24,00,000	48,00,000	72,00,000	
4	Providing computers in nearby school/ colleges, necessary furniture, projectors, Air conditioners for computer lab, science lab equipment	Government primary	Computers, Air conditioners, Necessary furniture	10	6,00,000	6,00,000	12,00,000
		Government school		10	6,00,000	6,00,000	12,00,000
		Shri Malsiddeshwar		10	6,00,000	6,00,000	12,00,000
		Government High	Computers, Air conditioners, science lab equipment/ assembly hall	10	6,00,000	6,00,000	12,00,000
		Govt Kannada Higher Primary School		10	6,00,000	6,00,000	12,00,000
		Kannada Govt High		10	6,00,000	6,00,000	12,00,000
	Govt Kannada Higher Primary School Ebaratti	10	6,00,000	6,00,000	12,00,000		
				42,00,000	42,00,000	84,00,000	
TOTAL AMOUNT Rs.					88,00,000	1,12,00,000	2,00,00,000

During deliberations, EAC discussed following issues:

- PP shall increase the funds allocated to CER from Rs. 1.8 Crore to Rs. 2.00 Crore and submit revised list of activities proposed in CER. Accordingly, PP submitted the revised list of CER list.
- PP shall increase the capital cost of OHS from Rs. 30 Lakhs to Rs. 50 Lakhs. Accordingly, PP revised OHS capital cost to 50 Lakhs
- PP shall submit revised EMP details by increasing the recurring cost Environmental monitoring from Rs. 5 Lakhs per annum to Rs. 25 Lakhs

per annum. Accordingly, PP revised the cost proposed for recurring cost Environmental monitoring.

- EAC suggested that PP should maintain the approach road to the project site. PP informed that nearest approach road is in the north side which is already under the ownership of the company shall be developed and maintained.
- CPU should be provided with Ultra filtration followed by RO for recycling the treated water into the process. PP agreed to it.

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 120 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). 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 shall be obtained before start of the construction of plant and drawing water from surface water for the distillery activities. State Pollution Control Board 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. No ground water shall be used for the plant operations.

- (v). Total Fresh water requirement shall not exceed 480 m³/day which will be met from Krishna 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/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU) followed by Ultra filtration and RO. STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (vii). APCE ESP (5 field)with 45 meters high stackshall be installed with the Rice Husk/Biomass/ Coal (with 15% coal usage as auxiliary fuel) fired 32 TPH boiler for controlling the particulate matter 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 (Biomass ash 21.68 TPD) will be used as a manure and Coal ash (12.6 TPD) will be sent to brick manufacturer. PP shall use Rice Husk/Biomass / Coal (for startup only) as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

- (ix). CO₂(82 TPD) generated during the fermentation process will be collected by CO₂ recovery plant and it shall be sold to authorized vendors/ collected in proposed bottling plant.
- (x). PP shall allocate at least Rs. 0.5 Crore/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.
- (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 5.64 hectares i.e., 33 % of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. 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.

- (xvi). PP proposed to allocate Rs. 2.00 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. 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.
- (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. 08

Proposed 45 KLPD Grain Based Distillery along with 1.5 MW Co-generation Power Plant under Ethanol Blending Petrol Programme (EBP) at Gat No. 180, Village-Roze, Taluka Malegaon, District Nashik, Maharashtra by M/s. Asmipratap Biofuel Pvt. Ltd. - Consideration of Environmental Clearance.

[IA/MH/IND2/420864/2023, IA-J-11011/163/2023-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. AmplEnviron Pvt. Ltd. (NABET certificate No. NABET/EIA/2023/IA0061 and validity 22nd October, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 45 KLPD Grain based Ethanol Plant & 1.5 MW Co-generation power plant located at Gat No. 180, Village-Roze, Taluka Malegaon, District Nashik, Maharashtra M/s. Asmipratap Biofuel 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 (Grain based)	Ethanol	45 KLPD
		Fusel Oil	0.07 KLD
2	Co-generation power plant	Power	1.5MW
3	DDGS dryer	DDGS	34 TPD
4	Fermentation unit	Carbon di-oxide	35 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 there is no litigation is pending against the project.

Total land area required is 3.6 hectares. Greenbelt will be developed in total area of 1.190025 hectares i.e., 33.06 % of total project area. The estimated project cost is Rs. 60 Crores. Capital cost of EMP would be Rs. 15.7125 Crores and recurring cost for EMP would be Rs. 0.8942 Crores per annum. Industry proposes to allocate Rs. 1.2 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 35 persons as direct & indirect.

There are no National parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, protected forest etc. within 10 km distance. Reserve Forests : 1. Reserve Forest patch near Girna Canal (Stony Waste Land): 2.5 Km in SE direction. This Patch spread nearby areas of Girna Canal, continually spread towards Sayatapada Village in East direction & towards SE upto Dapure Village. 2. Reserve Forest Patch near Dahival Village: 2.97 Km in South Direction. 3. Reserve Forest Near Umbardhe Village: 7.54 Km in SE direction. 4. Reserve Forest Near Jalku Village: 9.10 Km in NW direction. 5. Reserve Forest Near Gugulvad Village: 9.5 Km in NE direction. 6. Reserve Forest Patch near Bilkot Village: 6.3 Km in NE Direction. (This patch spread over Satarpada, Sherul& some part of Palasdare Village in west to east direction. Water bodies: 1. Check Dam near Roze Village present at a distance of 0.5 Km in SE direction for which NOC has been obtained from ZillaParishad Sub-Division (MI) Malegaon Maharashtra vide outward No. 250/2023 dated 29/03/2023 stating thatthere

is no flood history in last 25 years for the said proposed project location. 2. Check Dam on Sakhi Nala present at a distance of 4.12 Km in SE Direction. 3. Girna Canal & Sakhi Nala present at the distance of 4.71 Km in SE direction. 4. Water Reservoir near Dapure village present at the distance of 8.35 Km in East direction. Water Bodies : Water Reservoir near Deoghat village present at the distance of 9.67 Km in East direction. 6. Water Reservoir near Chinchagavhan village present at the distance of 5.69 Km in SE direction. 7. Girna Dam present at the distance of 6.0 Km in South direction. 8. Water Reservoir near Sayane Bk. village present at the distance of 8.84 Km in West direction. 9. Water Reservoir near Chikhalvahal village present at the distance of 5.81 Km in NW direction. 10. Dahikute Dam present at the distance of 8.96 Km in NW direction. 11. Kanoli River is Present at distance of 3.7 km in NW direction from project site.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.08 \mu\text{g}/\text{m}^3$, $0.02 \mu\text{g}/\text{m}^3$, $0.42 \mu\text{g}/\text{m}^3$ and $0.76 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 206.44 CMD (Out of which fresh water required for distillery operation will be 175.09 KLD i.e. 3.89 KL/KL) which will be met from Girna Reservoir. EAC suggested to restrict net fresh water requirement to 180 KLPD i.e. 4 kL/ kL alcohol production. Application has been submitted to Water Resource Department, Chalisgaon dated 03.01.2023. Effluent (Condensate, Spent Lees, Dryer process condensate, sealing water, Blow downs, DM reject, CIP water and sewage etc.) of 399.28 m³/day quantity will be treated through Condensate Polishing Unit of capacity 450 CMD. Raw stillage (301 KLPD: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. CPU of capacity 450 KLPD will be installed to treat Condensate, Spent Lees, Dryer process condensate, sealing water, Blow downs, DM reject, CIP water and 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 1.5 MW and will be met from proposed 1.5 MW Co-generation power plant. 15 TPH Rice Husk or Coal fired boiler will be installed. APCE- ESP with 99.9% efficiency 40 m high stack will be

installed for controlling the particulate matter emissions within the statutory limit of 30 mg/Nm³ and Dry-FGD system for SO₂ removal for the proposed boiler. 500 kVA DG set will be used as standby during power failure and stack height (4.5 m above roof) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP with 99.9% efficiency with 40 meters high stack will be installed for controlling the particulate matter emissions.
- Dry-FGD system for SO₂ removal
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (35 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) (34TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash 20.80 TPD(During Coal firing) / 11 TPD(During Rice Husk firing)will be used for proposed in-house brick manufacturing plant.
- Used oil (0.1Kilolitres per annum) will be sold to authorized recyclers.
- CPU Sludge (0.84TPD) 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 45 KLPD will be used for manufacturing fuel ethanol only.

Total land of 3.6 Hectares is under possession of company and land use conversion application has been submitted to Revenue Department, Malegaon Sub-Division, Malegaon dated 24.01.2023. EAC found the information satisfactory.

Capital cost and recurring cost of EMP are given below:

SR. NO.	COMPONENT	PARTICULARS	CAPITAL INVESTMENT (IN CRORES)	RECURRING INVESTMENT (IN CRORES/ ANNUM)						
1.	Air	<ul style="list-style-type: none"> ➤ Construction of Stack of 40 meters height ➤ Installation of ESP with 99.9% efficiency & Dry FGD System ➤ Installation of CO2 Bottling Plant 	4	0.35						
2.	Water	<ul style="list-style-type: none"> ➤ Construction of CPU with RO ➤ Installation of MEE ➤ Installation of Decanter ➤ Installation of DDGS dryer 	9.2	0.14						
3.	Noise	Acoustic enclosures, Silencer pads, ear plugs etc.	0.05	0.01						
4.	Environment monitoring and Management	Quarterly Environment Monitoring (Per Year) <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Ambient air monitoring</td> <td>PM_{10'}, PM_{2.5'}, SO_{2'}, NOx</td> </tr> <tr> <td>Boiler & DG Set Monitoring</td> <td>TPM, SO_{2'}, NOx</td> </tr> <tr> <td>Effluent (Treated & Untreated)</td> <td>pH, COD, BOD, TSS, TDS, Oil & Grease</td> </tr> </table>	Ambient air monitoring	PM _{10'} , PM _{2.5'} , SO _{2'} , NOx	Boiler & DG Set Monitoring	TPM, SO _{2'} , NOx	Effluent (Treated & Untreated)	pH, COD, BOD, TSS, TDS, Oil & Grease	0.15	0.06
Ambient air monitoring	PM _{10'} , PM _{2.5'} , SO _{2'} , NOx									
Boiler & DG Set Monitoring	TPM, SO _{2'} , NOx									
Effluent (Treated & Untreated)	pH, COD, BOD, TSS, TDS, Oil & Grease									

5.	Occupational Health	Gloves, Breathing Masks, Gloves, Boots, Helmets, Ear Plugs etc. & annual health-medical checkup of workers, Occupational Health (training, OH center)	0.5	0.14
6.	Greenbelt	Green belt development activity and Maintenance of green belt	0.25	0.0242
7.	Solid Waste Management	Solid Waste Management- in house Brick Manufacturing unit.	0.25	0.04
8.	Rain water harvesting	Provision of rain water harvesting tank with 60 days storage capacity	0.3	0.05
9.	Solar system	Installation of in-house solar system of 225 KW capacity	1.0125	0.08
		TOTAL COST	15.7125	0.8942

Details of CER with proposed activities and budgetary allocation:

S.N.	Proposed Activity	Proposed Budget in (IN Crores) (INR)
1.	Providing basic amenities to Primary School of village Roze and Padalde	0.60
2.	Provision of Solar Lights to for Roze, Padalde, Sajvahal, Shendurni, Dahiwal Village.	0.60
	Grand Total	1.20

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 45 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 shall be obtained before start of the construction of plant and drawing water from surface water for the distillery activities. State Pollution Control Board 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. No ground water shall be used for the plant operations.
- (v). Total Fresh water requirement shall not exceed 180 KLPD which will be met from Girna 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/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.

- (vii). APCE ESP (5 field)with 40 meters high stack shall be installed with the Rice Husk/Biomass/ Coal (with 15% coal usage as auxiliary fuel) fired 15 TPH boiler for controlling the particulate matter 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 20.80 TPD(During Coal firing) / 11 TPD (During Rice Husk firing)will be used for proposed in-house brick manufacturing plant. PP shall use Rice Husk/Biomass / Coal (for startup only) as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂(35 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. 0.5 Crore/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.
- (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 1.190025 hectares i.e., 33.06 %of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. 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.
- (xvi). PP proposed to allocate Rs. 1.2 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. 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.

- (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. 09

Establishment of a distillery plant of 200 KLPD capacity with 3 MW captive power plant using multi-feed stock located at Halkarni Industrial Area, MIDC, Halkarni village, Taluk-Chandgad, Dist. –

Kolhapur, Maharashtra by M/s. Eco Cane Sugar Energy Ltd (ECSEL) - Consideration of Terms of Reference.

[IA/MH/IND2/423952/2023, IA-J-11011/158/2023-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Samrakshan (NABET certificate no. NABET/EIA/2225/RA 0265 and validity 25/07/2025) made a detailed presentation on the salient features of the project and informed that the proposal is for obtaining ToR to the project for 200 KLPD Standalone distillery & 2 MW Captive power plant located at , Halkarni Industrial Area, MIDC, Halkarni village, Taluk-Chandgad, Dist. – Kolhapur, Maharashtra by M/s. Eco Cane Sugar Energy Ltd (ECSEL).

All Specific Condition are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification 2006 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

Sl. No.	Product	Feedstock	Proposed plant capacity
1	Ethanol/ ENA in KLPD	Sugarcane Juice/ Syrup	200
		B-heavy molasses	
		C-heavy molasses	
2	The Captive power plant for the distillery in MW	Conc. spent wash and bagasse	3

PP has informed that no Litigation pending against the proposal.

Total land area required is 8.09 hectares. Greenbelt will be developed in total area of 2.6 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 250 Crores. Capital cost of EMP (will be consider as 15 % of total cost of project) recurring cost for EMP would be calculate during EIA. Industry proposes to allocate 1 % of project cost for 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 etc. within 10 km distance. Reserve forests/protected forests Kalanidhi reserved forest at 5 towards south west. Water bodies are Halkarni Small lake-0.5 Km towards west, Jangamhatti Dam -3km towards South west, Ambewadi dam-4 km towards south west.

Total fresh water requirement will be 900 KLD which will be met from Halkarni industrial area, MIDC.

Power requirement will be 2 MW and will be met from proposed 3 MW captive power plant. 35 TPH Incinerator boiler will be installed. ESP with a stack of height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 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:

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

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

- Incinerator Boiler ash and yeast sludge will be given to farmers.
- Used oil will be sold to authorized recyclers.
- CPU sludge and STP Sludge will be used as manure.

Total land of 10.1171 Hectares is under the possession of the company and

land is located in Halkarni Industrial area, MIDC. EAC found the information satisfactory.

After deliberations, the Committee recommended the project proposal for prescribing following specific ToRs along with public hearing for undertaking detailed EIA and EMP study in addition to the Standard ToR for establishment of molasses/cane based distillery (Annexure-II).

- i. PP shall provide the details of source for feed stock i.e sugarcane juice/molasses and also provide availability of sufficient feed stock for operating the proposed plant.
- ii. No coal shall be used as fuel.
- iii. One season fresh base line data shall be collected for preparation of EIA/EMP reports.
- iv. Layout plan earmarking space for development of peripheral green belt.
- v. Transportation details and their impact on road network to be submitted in the EIA/MEP report.
- vi. Impact due increase traffic shall be assessed and incorporate in environmental management plan.
- vii. Risk assessment study shall be carried out of hazardous chemical storage.
- viii. Action plan to retain the existing trees located in the proposed site. As proposed 5 acre land shall be left as a buffer area with the width of 50 m towards the reservoir side.
- ix. Action plan to restore the reservoir.

Agenda No. 10

Proposed New 100 KLPD Grain based distillery producing Ethanol alongwith 3.35 MW Co-generation Power Plant at Plot No. D9, Jakekur, Omerga MIDC, Omerga, Osmanabad, Maharashtra by M/s. SHK Chemtech Industries LLP - Consideration of Environmental Clearance.

[IA/MH/IND2/423212/2023, IA-J-11011/132/2023-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Sd engineering services Pvt. Ltd. (NABET certificate no. NABET/EIA/2023/SA 0166 and validity Aug. 12 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 100 KLPD Grain based Ethanol Plant alongwith 3.35 MW Co-generation power plant (Bagasse/Coal) located at Plot No. D9, Jakekur, Omerga MIDC, Omerga, Osmanabad, District Osmanabad, State Maharashtra by M/s. SHK Chemtech Industries LLP.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1.	Distillery(Broken Rice / Corn)	Ethanol	100 KLPD
2.	Co-generation power plant	Power	3.35 MW
3.	DWGS dryer	DDGS	70 TPD
4.	Fermentation unit	Carbon di-oxide	80 TPD

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

Total land area required is 27895 sqm. Greenbelt will be developed in total area of 9208 sqm i.e., 33% of total project area. The estimated project cost is Rs. 150 Cr. Capital cost of EMP would be Rs.15 Corers and recurring cost for EMP would be Rs. 2.57 Cr. per annum. Industry proposes to allocate Rs.1.5 Cr. towards Extended EMP (Corporate

Environment Responsibility). Total Employment will be 250 persons as direct & indirect.

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. PP submitted undertaking that there is no forest land in 10 km radius of project site.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $2.32 \mu\text{g}/\text{m}^3$, $0.93 \mu\text{g}/\text{m}^3$, and $4.09 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$ and SO_2 . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 425 CMD which will be met from Maharashtra Industrial Development Corporation. Effluent (Condensate/spent lees/blow down etc.) of 450 CMD quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 500 CMD. Spent Wash/stillage will be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. 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 3.35 MW and will be met from proposed 3.35 MW co-generation power plant/state grids. 30 TPH Bagasse's or coal fired boiler will be installed. APCE ESP with 70 m high stack will be installed for controlling the particulate matter emissions within the statutory limit of $30 \text{ mg}/\text{Nm}^3$ with the proposed 30 TPH boiler.

Details of Process emissions generation and its management:

- APCE ESP with 65 meters high stack will be installed for controlling the particulate matter emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2 (80 TPD) generated during the fermentation process will be collected by utilizing CO_2 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) (70 TPD) will be sold as cattle feed.
- Boiler ash (84 TPD) will be supplied to brick manufacturers
- Used oil (0.02TPD) will be sold to authorized recyclers.
- CPU sludge (0.011TPD) 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 27895 sqm. is under possession of the company. EAC found the information satisfactory.

Capital cost and recurring cost of EMP are given below:

Sr. No.	Description	Capital Cost (Rs. in Lakh)	Recurring Cost (Rs. In Lakh)
1	Air pollution control system (ESP) on 30 TPH low pressure boiler	250	30
2	Scrubbing system, compressing system, Bottling system and storage for CO2	905	145
3	Treatment system for DWGS centrifuge decanter, DDGS dryer for ZLD system	150	40
4	Condensate Polishing unit for water treatment and recycle	125	30
5	Rainwater harvesting systems	10	1.5
6	Environment monitoring & Online Monitoring as per CPCB Requirements	25	2.5
7	Occupational Health Centre	10	2.5
8	Green Belt Development	10	2
9	Solid waste management	5	1
10	Safety & Fire Fighting Arrangement	10	2.5
	Grand Total	1500	257

Details of CER with proposed activities and budgetary allocation:

Sr. No	Desperation	Total (To be spent before commissioning of the plat)
1	Providing sanitation and drinking water facilities in nearby Zilla Parishad School in Yalli& Jakekur Village	42
2	Maintenance of Existing Infrastructure/ Roads in Chincholi Village	75
3	Training Program on Govt. initiative for Women's Self Help Group (SHGs)	33
4	Setting up solar panels in village- Koregaon&Ganjoti Gram Panchayat	67
5	Avenue Plantation in Forest Area with Consultation &Guidance of Forest Department Near Omerga	33
Grand Total		250

During deliberations, EAC discussed following issues:

- As suggested by EAC, PP submitted undertaking that Coal will be used in emergency case only & 0.5% of Sulphur content Coal will be used for Boiler.
- Further, PP informed that stack height shall be increased from 65 m to 70 m for reducing the SO₂ Concentration;
- PP agreed that no existing tree shall be cut.
- PP committed that Sludge drying bed shall be replaced with Filter Press.
- PP informed that there is no forest land in 10 km radius of project site.
- EAC suggested that PP shall increase the funds allocated to CER from Rs. 1.50 Crore to Rs. 2.50 Crore and submit revised list of activities proposed in CER. Further, it was suggested that all activities under CER shall be completed before commissioning of the plant.

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 shall be obtained before start of the construction of plant and drawing water from surface water for the distillery activities, State Pollution Control Board 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. No ground water shall be used for the plant operations.
- (v). Total Fresh water requirement shall not exceed 400 m³/day which will be met from Maharashtra Industrial Development Corporation. 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/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used

as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.

- (vii). APCE ESP (5 field) with 70 meters high stack shall be installed with the Rice Husk/Bagasse/Coal (with 15% coal usage as auxiliary fuel) fired 30 TPH boiler for controlling the particulate matter 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 (84 TPD) will be supplied to brick manufacturers. PP shall use Rice Husk /Bagasse/Coal (for startup only) as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas. Sludge drying beds shall be replaced by Filter Press.
- (ix). CO₂ (80 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. 0.5 Crore/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.
- (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 9208 sqm i.e., 33 %of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. 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 existing tree shall be cut.
- (xvi). PP proposed to allocate Rs. 2.5 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. 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.

- (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. 11

Proposed 120 KLPD Grain based Ethanol Plant along with 2.5 MW Cogeneration Power Plant under Ethanol Blending Programme at Plot no. 60, Industrial Growth Centre Borgaon, Tehsil Sauser, District Chhindwara, Madhya Pradesh by M/s. UKR Industries Limited - Consideration of Environmental Clearance.

[IA/MP/IND2/425207/2023, IA-J-11011/164/2023-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 proposed 120 KLPD Grain based Ethanol Plant along with 2.5 MW Cogeneration Power Plant under Ethanol Blending Programme at Plot no. 60, Industrial Growth Centre Borgaon, Tehsil Sauser, District Chhindwara, Madhya Pradesh by M/s. UKR Industries 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.	Grain Based Ethanol Plant (Grains-broken rice, maize, bajra & sorghum)	Ethanol (Biofuel)	120 KLPD
2.	Co-generation power plant	Power	2.5 MW
3.	DWGS dryer	DDGS	53 TPD
4.	Fermentation unit	Carbon di-oxide	92 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 there is no litigation is pending against the project.

Total land area required is 4.64 hectares. Greenbelt will be developed in total area of 1.54 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 135 Crores. Capital cost of EMP would be Rs. 13.0 Crores and recurring cost for EMP would be Rs. 1.3 Crores per annum. Industry proposes to allocate Rs. 2.00 Cr. towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 100 persons as direct.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km radius. Khapa Padri RF ~ 7.5 km in East South East direction, Jalalkhera RF ~ 7.5 km in South direction, Kondhar RF ~ 8.0 km in West South West, Pareghat RF ~ 8.5 km in East direction. Some unnamed patches of PF are also present; Water bodies: Jam River ~ 6.0 km in East North East direction, Kanhan River ~ 6.0 km in East direction & Dantpali Nala ~ 9.0 km in West direction exists within study area. The company has obtained NOC from Office of Sub-Divisional Officer, Water Resources Sub-division Sausar District Chhindwara (M.P.) vide Letter No. 189/SDO/Sausar dated 5.04.2023 stating that as per record available in Sausar Block, there is no flood forming condition in the local nala at Borgaon Industrial area since last 25 years due to channels.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.49 $\mu\text{g}/\text{m}^3$, 0.198 $\mu\text{g}/\text{m}^3$, 0.642 $\mu\text{g}/\text{m}^3$ and 0.741 $\mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 480 KLPD which will be met from Madhya Pradesh Industrial Development Corporation Limited (MPIDC). NOC has been obtained by company from Madhya Pradesh Industrial Development Corporation Limited dated 29.03.2023 for supply of 700 KLPD water vide letter no MPIDC/KH.BO. /Technical/2023/488.Effluent (Process Condensate) of 498 CMD & others effluent (CT Blowdown, DM Plant reject, washings, boiler blowdown) of 95 CMD will be treated in CPU/WWTP of capacity 720 KLPD. Raw stillage (698 TPD) will be sent to decanter followed

by MEE and dryer to produce DDGS. 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 2.5 MW and will be met from proposed 2.5 MW Co-generation Power Plant & D.G Sets (for emergency). 25 TPH Biomass /Rice husk or Coal fired boiler will be installed. APCE ESP with 50 m high stack will be installed for controlling the particulate matter emissions within the statutory limit of 30mg/Nm³. 750 KVADG 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:

- APCE ESP with 50 m high stack will be installed for controlling the particulate matter emissions within the statutory limit of 30 mg/Nm³
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (92 TPD) generated during the fermentation process will be collected & sold to local vendors as per demand.

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

- DDGS (53 TPD) will be sold as Cattle, poultry and fish feed ingredients.
- Ash (48 TPD) generated from coal based operation will be given to nearby cement plants and the ash (26 TPD) generated from biomass based operation will be given to nearby brick manufacturers in covered vehicles only.
- Used oil (0.2 KL/annum) will be sold to authorized recyclers.
- CPU sludge (0.6 TPD), WWTP Sludge (0.12 TPD) and STP Sludge (0.0075 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 120 KLPD will be used for manufacturing fuel ethanol only.

Total land of 4.64 ha is under possession of the company & has been allotted to the company by MPIDC (Madhya Pradesh Industrial Development Corporation Limited) vide letter no. 1040072101022 dated 20.03.2023, hence already industrial in nature. EAC found the information satisfactory.

Capital cost and recurring cost of EMP are given below:

S. No.	Description		Capital Cost (Crores)	Recurring Cost/annum (Crores)
1.	Air Pollution management	Boiler stack + ESP + Online Monitoring System	6.0	0.6
2.	Effluent Treatment	ZLD System, Condensate polishing unit, ETP and STP	5.5	0.57
3.	Environment monitoring	Lab instrument, Online monitoring System, Third party monitoring, audit	0.5	0.05
4.	Solid waste management	Ash handling & management	0.5	0.045
		Others		
5.	Greenbelt & plantation development	Plantation for greenbelt	0.35	0.035
6.	Rain water harvesting	Required infrastructure	0.15	-
		Total	13.0	1.3

Details of CER with proposed activities and budgetary allocation:

S. No.	Proposed Activities	Implementation of EMP for Social and Infrastructure Development on The Basis of Physical Targets		Total Budget Allocated (Rs. in Lakhs)
		Year 1	Year 2	
1	Up gradation of School infrastructure &	Rs. 22 Lakhs	Rs. 22 Lakhs	44

	<p>Educational facilities- Provide Interactive smart class equipment /gadgets/solar panels like desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, sports equipment etc. to students, Seating Benches, installation of potable water facilities, etc.</p>	<p>(Govt school at Village Borgaon) (2 nos potable water facilities - Rs.1 lakh, solar panels installation- Rs. 12 lakhs, Rs 9 lakhs for desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, sports equipment, etc)</p>	<p>(Govt school at Village Tinkhera) (2 nos potable water facilities - Rs.1 lakh, solar panels installation- Rs. 12 lakhs, Rs 9 lakhs for desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, sports equipment, etc)</p>	
2	<p>Social Infrastructure Development- Installation of Solar Street Light, Solar Lanterns, Village Pond & RWH pond Infrastructure</p>	<p>Rs. 15 Lakhs Village Tinkhera (Rs. 9 Lakhs for 150 nos. solar street light, Rs.</p>	<p>Rs. 15 lakhs Village Borgaon (Rs. 9 Lakhs for 150 nos. solar street light, Rs.6 Lakhs local ponds & RHW pond development)</p>	30

	Development, etc.	6 Lakhs for local ponds & RHW pond development)		
3	Skill development for youth- Organizing Training programmes for youth/residents in collaboration with District/State government institutes	Rs. 15 Lakhs Village- Bargaon (Benefit to be extended to 150 persons)	Rs. 15 Lakhs Village Tinkhera (Benefit to be extended to 150 persons)	30
3	Up gradation of Healthcare facilities- Provision of oxygen cylinders, ambulance, Health Check- up camps, medical instruments etc.	Rs. 40 Lakhs (PHC at Village Tinkhera) (Provision of 1 ambulance facility-Rs 8 lakhs, Health Check- up camps-Rs 2 lakhs, medical instruments-Rs 30 lakhs etc.)	Rs. 40 Lakhs (PHC at Village- Bargaon) (Provision of 1 ambulance facility-Rs 8 lakhs, Health Check- up camps-Rs 2 lakhs, medical instruments-Rs 30 lakhs etc.)	80
4	Plantation –Plantation/ Avenue plantation along roadside, tree plantation in nearby schools/colleges/vacant land/Panchayat bhavan,	Rs. 8 lakhs Village- Bargaon (1600 no. of plants to be	Rs. 8 Lakhs Village Tinkhera (1600 no. of plants to be planted)	16

	etc.	planted)		
TOTAL				200

During deliberations, EAC discussed following issues:

- EAC suggested that total fresh water requirement shall not exceed 4 kL/ kL alcohol. Accordingly, PP revised water balance restricting net fresh water requirement to 480 KLPD
- PP shall increase the funds allocated to CER from Rs. 1.35 Crore to Rs. 2.00 Crore and submit revised list of activities proposed in CER. Accordingly, PP submitted list activities of CER increasing budget to Rs. 2.00 Crores.
- EAC suggested that PP shall develop at least 20 variety of species as a part of greenbelt instead of proposed 15 species. Accordingly, PP submitted revised list of 20 species of trees that are planted in green belt.
- PP informed that filter press shall be installed for sludge management.
- As suggested by EAC, PP informed that proposed stack height shall be increased from 46 m to 50 m.

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 120 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). 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 shall be obtained before start of the construction of plant and drawing water from MPIDC. State Pollution Control Board 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. No ground water shall be used for the plant operations.
- (v). Total Fresh water requirement shall not exceed 480 m³/day which will be met from Madhya Pradesh Industrial Development Corporation Limited (MPIDC). 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/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (vii). APCE ESP (5 field) with 50 meters high stack shall be installed with the Rice Husk/Bagasse/Coal (with 15% coal usage as auxiliary fuel) fired 25 TPH boiler for controlling the particulate matter 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 (48 TPD) generated from coal based operation will be given to nearby cement plants and the ash (26 TPD) generated from biomass based operation will be given to nearby brick manufacturers in covered vehicles only. PP shall use Rice Husk /Bagasse/Coal (for startup only) as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ (92 TPD) generated during the fermentation process will be collected & sold to local vendors as per demand.
- (x). PP shall allocate at least Rs. 0.5 Crore/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.
- (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 1.54 hectares i.e., 33 %of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery before 31st December 2024. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. 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 existing tree shall be cut.
- (xvi). PP proposed to allocate Rs. 2.00 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. 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.
- (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. 12

Proposed 100 KLPD Fuel Ethanol Unit by using Grain as Feed Stock along with 2.5 MW Cogeneration Power Plant (Under Ethanol Blending Programme) at Plot No 29 & 36 Part , Village Raweli, Teshil Bematara, Dist. Bematara, Chhattisgarh by M/s. Deshail Biotech Pvt. Limited - Consideration of Environmental Clearance.

[IA/CG/IND2/424822/2023, IA-J-11011/388/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Mantras Green Resources Ltd (NABET certificate no. NABET/EIA/1922/RA0201 and validity 29th April 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 100 KLPD Grain based Ethanol Plant & 2.5 MW Co-generation power plant located at Village Raweli, Tehsil Bematara, District Bematara, State by M/s. Deshail Biotech Pvt. 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	Unit	Name Of product by product	Product
1.	Distillery (250 TPD, Broken rice, maize, bajra& Sorghum, starchy material etc-Raw Material)	Ethanol	100 KLPD
2.	CO- Generation Power Plant	Power	2.5 MW
3.	DWGS Dryer	DDGS	70 TPD
4.	Fermentation Unit	Carbon Dioxide	70 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 there is no litigation is pending against the project.

Total project area is 14.16 ha for proposed project. Industry will develop greenbelt in an area of 50% i.e. 7.08 ha out of total area of the project. The estimated project cost is Rs. 150 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 18.13 Crore and the Recurring cost (operation and maintenance) will be about Rs. 2.0 Crore No. of working days will be 350 days/annum. Industry proposes to allocate Rs. 1.20 Crores of total project cost towards Corporate Environment

Responsibility (CER). Total Employment will be 124 persons (Permanent 76 & temporary 48) during operation phase.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance. No Reserve forests/protected forests: The national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. Achanakmar Wildlife Sanctuary is at a distance of 62.60 Km in North West direction from project site. Chilpi Range is at 60 Km West Direction. The Hanp river is flowing at a distance of 400 mtrs in North direction. Letter from Water Resources Division having HFL level 249 mtr has been obtained vide letter no. Memo No 1467/D/W/ETHANOL/BEMETARA date 06.04.2023. The Shivnath River is flowing at a distance of 8.90 km from the plant location.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $2.74 \mu\text{g}/\text{m}^3$, $1.56 \mu\text{g}/\text{m}^3$, $1.99 \mu\text{g}/\text{m}^3$ and $3.96 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 394 KLD which will be met from Shivnath River. Spent Lees 106 MT will be recycle back for Slurry preparation. 700 MTD of Process condensate, 140 MTD of dryer condensate and 107 MTD of CT blow down is fed to CPU unit. Permeate of 448 MTD is taken to cooling tower whereas reject of 80 MTD is taken back to Evaporation. 1023 m³/day treated water will return back to process for utilization in liquefaction/fermentation/cooling tower etc. Spent Wash/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. 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 2.5 MW and will be met from proposed CPP i.e. Cogeneration power plant. 45 TPH boiler will be installed. APCE, ESP with a 45m high stack will be installed for controlling the particulate matter emissions within the statutory limit of $30 \text{ mg}/\text{m}^3$ for the proposed boiler. 500

kVA DG set will be used as standby during power failure and stack height (30 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP will be provided. Stack height of 45 meters will be installed for controlling the particulate matter emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (70 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:

- Solid waste from the Grain based operations generally comprises of fibers and proteins in the form of DDGS (70TPD), which will be ideally used as Cattle, poultry & fish feed ingredients.
- Ash (30 TPD) generated from boiler will be supplied to brick manufacturers.
- Used oil & Grease (2 KL/Annum) generated from plant machinery/gear boxes as hazardous waste will be sold out to the CPCB 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 100 KLPD will be used for manufacturing fuel ethanol only.

Total land of 14.16 Hectares is under possession of the company and land has been allotted by CSIDC vide letter no. CSIDC/BHU.AA/2022/1195 dated 13.05.2022 has been allotted by Chhattisgarh Industrial Area Raweli Chhattisgarh on 13.05.2022. EAC found the information satisfactory.

Revised Capital cost and recurring cost of EMP are given below:

S. No	Particulars	Capital Cost In Rs Cr.	Annual Recurring Cost in Rs Cr.
1	Air pollution control system	8.00	0.50
2	Scrubbing system, compressing system, liquefying system and storage for CO2 removal	2.10	0.30
3	Treatment system for spent wash, DWGS centrifuge decanter, DDGS dryer for ZLD system	4.10	0.24
4	Condensate Polishing unit for water treatment and recycle	1.5	0.20
5	Rainwater harvesting systems	0.3	0.20
6	Occupational Health Management	0.50	0.08
7	Noise Reduction Systems	1.2	0.08
8	Green Belt Development	0.43	0.15
9	Environment monitoring	-	0.15
10	Environment management cell	-	0.10
	Total	18.13	2.00

Details of revised extended EMP (CER) with proposed activities and budgetary allocation:

TYPE OF ACTIVITIES	CER Budget: Rs 1.2 Cr (For Three Years)			Total Amount To Be Spent (Rs.) Cr
	1ST Year	2ND Year	3RD Year	

Arranging courses for personality development, Skill development etc., career counseling at Grampanchayat Schools and Collages (Raweli, Chandnu, Mutpuri, Bhadarli, Ghograni, Buchipur Villages)	0.05	0.05	0.05	0.15
Arrangement of Medical Camps for Villagers, Grampanchayat, Schools (Raweli, Chandnu, Mutpuri, Bhadarli, Ghograni, Buchipur Villages)	0.05	0.05	0.06	0.16
Environment camps/ Forestation drivers/ Solar Lights/Panel (Raweli, Chandnu, Mutpuri, Bhadarli, Ghograni, Buchipur Villages)	0.08	0.08	0.09	0.25
Providing basic amenities to ZP Schools in village. (Raweli, Chandnu, Mutpuri, Bhadarli, Ghograni, Buchipur Villages)	0.09	0.11	0.12	0.32
Safe Drinking water System for School, Providing new, Computers, Projector and Scholarship (Raweli, Chandnu, Mutpuri, Bhadarli, Ghograni, Buchipur Villages)	0.09	0.11	0.12	0.32
Total	0.36	0.40	0.44	1.2

During deliberations, EAC discussed following issues:

- PP shall submit undertaking that that project site falls outside the CPA. Accordingly, PP submitted undertaking that project site does not fall in CPA.
- PP shall create sufficient buffer area of greenbelt towards Hanp river. All plant machinery shall be installed at least 450 m away from the Hanp River boundary.
- PP shall replace sludge drying beds with filter press in effluent treatment plan.

- PP shall allocate at least 15 % of the proposed plot area reserved for parking
- EAC suggested PP to revise OHS capital cost to at least Rs. 0.50 Crore and budget proposed towards CER to Rs. 1.20 Crores. Accordingly, PP agreed to it.
- EAC noted that PP has proposed to develop green belt area in 5 years and to complete CER activities within 5 years. In this regard, EAC suggested PP to submit under taking to complete both greenbelt and CER activities before commissioning of plant. Further, PP has proposed only 7 species as a part of green belt development. PP has submitted list of 15 variety of species to be planted in greenbelt. Further, committee suggested that PP shall develop greenbelt with at least 20 variety of plant species.

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

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 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 shall be obtained before start of the construction of plant and drawing water from surface water for the distillery activities. State Pollution Control Board 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 394 KLD which will be met from Shivnath 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/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (vii). APCE ESP (5 field) with 45 meters high stack will be installed with the 45 TPH Rice Husk/Coal (with 15% coal usage as auxiliary fuel) fired boiler for controlling the particulate matter 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 (30 TPD) generated from boiler will be supplied to brick manufacturers. PP shall use Rice Husk /Coalas fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

- (ix). CO₂ (70 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.
- (x). PP shall allocate at least Rs. 0.50 Crore/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.
- (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 7.08 hectares i.e., 50 %of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. 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.

- (xvi). PP proposed to allocate Rs. 1.20 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. 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.
- (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. 13

Proposed 500 KLPD Grain based Ethanol Plant along with biomass based 7.5 MW Cogeneration Power Plant at Village Karimganj, Tehsil Shahabad, District Rampur, Uttar Pradesh by M/s. Ajudhia Biofuels Private Limited - Consideration of Environmental Clearance.

[IA/UP/IND2/425674/2023, IA-J-11011/107/2023-IA-II(I)]

The proposal was earlier considered by the EAC (Ind-2) in its meeting IDIA/IND2/13474/05/04/2023 held during 05th - 06th April, 2023 wherein EAC returned the proposal in present form stating "Total land area required for setting up of proposed project is 10.65 hectares. Further, EAC also noted that PP has acquired 10.65 ha land from adjacent unit by executing lease agreement. However, lease agreement has been executed for 10 years only. As per the current practices, registered lease agreement is required for at least 20 years." Accordingly, the company has revised the lease agreement between M/s. Rana Sugars Limited & M/s. Ajudhia Biofuels Private Limited for a period of 29 years & submitted the same.

The Project Proponent and the accredited Consultant M/s. 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 500 KLPD Grain Based Ethanol Plant along with biomass based 7.5 MW Co-generation Power Plant at Village Karimganj, Tehsil

Shahabad, District Rampur, Uttar Pradesh by M/s. Ajudhia 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 proposed 500 KLPD Grain Based Ethanol Plant along with 7.5 MW Co-generation Power Plant will be installed adjacent to 5000 TCD Sugar mill & 15 MW Co-generation power plant of Rana Sugars Limited. For this proposed project, Rana Sugars Limited has leased 10.65 ha (26.32 acres) land to M/s. Ajudhia Biofuels Private Limited which is a sister company of the same. **The details of products and capacity as under:**

S. No.	Name of unit	Name of the product/ by-product	Production capacity
1.	Grain Based Ethanol Plant (Grains-broken rice, maize, bajra & sorghum)	Ethanol (Biofuel)	500 KLPD
2.	Co-generation power plant	Power	7.5 MW
3.	DWGS dryer	DDGS	246 TPD
4.	Fermentation unit	Carbon di-oxide	320 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 there is no litigation is pending against the project.

Total land area required is 10.65 hectares. Greenbelt will be developed in total area of 3.52 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 300 Crores. Capital cost of EMP would be Rs. 30.0 Crores and recurring cost for EMP would be Rs. 3.0 Crores per annum. Industry proposes to allocate Rs. 3.0 Crores of total project cost towards Corporate

Environment Responsibility (CER). Total Employment will be 200 persons as direct during operation.

There are no National Parks, Wildlife Sanctuaries, Reserved Forests (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km radius. Water bodies: Ganganadi is flowing at a distance of 1.0 km in North East direction & Ram Ganga River is flowing at a distance of 3.0 km in East North East direction within 10 km study area.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.469 $\mu\text{g}/\text{m}^3$, 0.188 $\mu\text{g}/\text{m}^3$, 0.684 $\mu\text{g}/\text{m}^3$ and 0.743 $\mu\text{g}/\text{m}^3$ 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 2000 CMD (1980 CMD Ethanol Plant, Co-generation power plant & utilities and 20 CMD KLPD Domestic & others) which will be sourced Ground Water. The company has already applied to Ground Water Department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of UP for groundwater permission of 2000 KLPD vide Application no. RMPR0323NIN0058 & RMPR0323NIN0059 dated 11.03.2023 & is under process. Effluent of 1400 CMD (Process condensate 1190 CMD, CT Blowdown 120 CMD, DM regeneration 50 CMD, Boiler BD 40 CMD) will be treated in ETP/CPU of capacity 1700 CMD. Raw stillage (2500 TPD) 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 Effluent discharge system and no effluent/treated water will be discharged outside factory premises.

The power requirement will be 7.5 MW and will met from proposed 7.5 MW Co-generation Power Plant. 70 TPH Biomass/Paddy Straw along with 15% coal as auxiliary fuel for the proposed boiler. APCE ESP with 60 m high stack will be installed for controlling the particulate emissions within the statutory limit of 30mg/Nm³. DG Sets of 2x1000 KVA will be provided with adequate stack height (6.5 m each) as per CPCB norms.

Details of Process emissions generation and its management:

- APCE ESP with 60 m high stack will be installed for controlling the particulate matter emissions within the statutory limit of 30 mg/Nm³.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (320 TPD) generated during the fermentation process will be collected & sold to local vendors as per demand.

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

- DDGS (246 TPD) will be sold as Cattle, poultry and fish feed ingredients.
- Ash (90 TPD) from proposed boiler will be supplied to brick manufacturers in covered vehicles.
- Used oil (1.0 KL/annum) generated from the plant machinery/ gear boxes as hazardous waste will be sold out to the CPCB authorized recycler.
- CPU sludge (2 TPD) and STP Sludge (0.00001TPD) will be used as manure.

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

Total land area required is 10.65 hectares. For this proposed project, Rana Sugars Limited has leased 10.65 ha (26.32 acres) land to M/s. Ajudhia Biofuels Private Limited which is a sister company of the same for period of 29 years. 8.36 hectares land has already been converted to industrial use as per orders from Court Pargana Officer Shahabad, Rampur vide No. 01/06.07 dated 10.11.2006 & application for conversion for rest 2.29 ha has been submitted to ADM, Shahabad & is under process. EAC found the information satisfactory.

Capital cost and recurring cost of EMP are given below:

Particular	Capital Cost (In crores)	Recurring Cost / annum (In crores)
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Air Pollution Management	ESP + Stack+ Online Monitoring System	9.50	0.85
Effluent Treatment	Condensate Polishing Unit/ETP & STP	11.00	1.10
Spent Wash Treatment Facility	MEE	4.50	0.45
Environment Monitoring	Lab Instrument	2.00	0.30
	Online Monitoring System		
	Third Party Monitoring Audit		
Solid waste management	Ash Handling & Management	2.00	0.20
Greenbelt & Plantation Development	Plantation for Greenbelt	0.50	0.05
Rain Water Harvesting	Required Infrastructure	0.50	0.05
Total		30 crores	3.0 crores

Details of CER with proposed activities and budgetary allocation:

S. No.	PROPOSED ACTIVITIES	IMPLEMENTATION OF EMP FOR SOCIAL AND INFRASTRUCTURE DEVELOPMENT ON THE BASIS OF PHYSICAL TARGETS		TOTAL BUDGET ALLOCATED (RS. IN LAKHS)
		Year 1	Year 2	
1	Up gradation of School infrastructure & Educational facilities- Provide Interactive smart class equipment /gadgets/solar panels like desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, sports equipment etc. to students, Seating Benches, installation of potable water facilities, construction of sanitized toilets etc.	Rs. 55 Lakhs (Govt. school at Village Karimganj) (2 nos potable water facilities - Rs.2 lakh, solar panels installation- Rs. 25 lakhs, Rs 13 lakhs for desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, sports equipments, Rs. 15	Rs. 55 Lakhs (Govt school at Village Kesarpur) (2 nos potable water facilities - Rs.2 lakh, solar panels installation- Rs. 25 lakhs, Rs 13 lakhs for desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, sports equipments, Rs. 15	Rs. 110.0 lakhs

		lakhs for construction of sanitized toilets etc)	lakhs for construction of sanitized toilets etc)	
2	Social Infrastructure Development- Installation of Solar Street Light/Solar Lanterns & Village Pond & RWH pond Infrastructure Development, etc.	Rs. 45.0 Lakhs Village Kesarpur (Rs. 30 Lakhs for 600 nos. solar street light, Rs. 15 Lakhs for local pond & RWH pond development)	Rs. 45.0 Lakhs Village Karimganj (Rs. 30 Lakhs for 600 nos. solar street light, Rs. 15 Lakhs for local pond & RWH pond development)	Rs. 90.0 lakhs
3	Skill development for youth- Organising Training programmes for youth/residents in Skill Development centre in collaboration with District administration.	Rs. 25.0 lakhs (Village Karimganj Benefit extended to approx. 200 persons)	Rs. 25.0 lakhs (Village Kesarpur Benefit extended to 200 approx. persons)	Rs. 50.0 lakhs
4	Up gradation of Healthcare facilities- Provision of oxygen cylinders, Health Check-up camps, medical instruments etc.	Rs. 50 Lakhs (PHC at Village Kesarpur) (Provision of 10 oxygen cylinders- Rs. 5 lakhs, Health Check- up camps-Rs 15 lakhs, Medical instruments-Rs 30 lakhs etc.)	Rs. 50 Lakhs (PHC at Village Karimganj) (Provision of 10 oxygen cylinders- Rs. 5 lakhs, Health Check- up camps-Rs 15 lakhs, Medical instruments- Rs 30 lakhs etc.)	Rs. 100.0 lakhs
5	Plantation development- Plantation/ Avenue plantation along roadside, tree plantation in nearby schools/colleges/vacant land/Panchayat bhavan, etc.	Rs. 25.0 Lakhs (5000 nos in Village Karimganj)	Rs. 25.0 Lakhs (5000 nos in Village Kesarpur)	Rs 50.0 lakhs
TOTAL				Rs. 400.0 lakhs

During deliberations, EAC discussed following issues:

- As suggested by EAC, PP company has increased the CER budget from Rs. 3.0 Crores to Rs 4.0 Crores and submitted the list activities proposed under CER.
- PP informed that Environment, Health & Safety Head will directly report to the Director of the company

- PP informed that Industry will develop dense greenbelt towards the parking area of the proposed plant. 33% of total project area, i.e., 3.52 hectares will be developed as greenbelt within plant premises which will be achieved before October 2024 (Monsoon season 2024).
- EAC suggested that will be no direct entry of the proposed plant on NH & SH passing near the plant and Industry should maintain approach road to the Industry.

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

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 500 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). 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 shall be obtained before start of the construction of plant and drawing water from ground water for the distillery activities. State Pollution Control Board 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 2000m³/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/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (vii). APCE ESP (5 field) with 60 meters high stack shall be installed with the Biomass/Paddy Straw (with 15% coal usage as auxiliary fuel) fired 70 TPH boiler for controlling the particulate matter 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 (90 TPD) from proposed boiler will be supplied to brick manufacturers in covered vehicles. PP shall use Biomass/Paddy Straw as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ (320 TPD) generated during the fermentation process will be collected & sold to local vendors as per demand.

- (x). PP shall allocate at least Rs. 0.5 Crore/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.
- (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 3.52 hectares i.e., 33 %of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Thick green belt shall be developed around the parking area. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. 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 by October, 2024.

- (xvi). PP proposed to allocate Rs. 3.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. 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.
- (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.

ANNEXURE

GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

- (i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (ii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- (iii) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- (iv) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- (v) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- (vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local

Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal.

- (vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- (viii) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
- (ix) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.nic.in/>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- (x) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- (xi) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

GENERIC TERMS OF REFERENCE (ToR) IN RESPECT OF INDUSTRY SECTOR

1. **Executive Summary**
2. **Introduction**
 - i. Details of the EIA Consultant including NABET accreditation
 - ii. Information about the project proponent
 - iii. Importance and benefits of the project
3. **Project Description**
 - i. Cost of project and time of completion.
 - ii. Products with capacities for the proposed project.
 - iii. Details of existing sugar, distillery and cogen power plant with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
 - iv. List of raw materials required and their source along with mode of transportation.
 - v. Other chemicals and materials required with quantities and storage capacities
 - vi. Details of Emission, effluents, hazardous waste generation and their management.
 - vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
 - viii. The project proponent shall furnish the requisite documents from the competent authority in support of drawl of ground water and surface water and supply of electricity.
 - ix. Process description along with major equipment and machineries, process flow sheet (Quantitative) from raw material to products to be provided
 - x. Hazard identification and details of proposed safety systems.
 - xi. Expansion/modernization proposals:
 - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB/PCC shall be attached with the EIA-EMP report.
 - b. In case the existing project has not obtained environmental

clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. **Site Details**

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Co-ordinates (lat-long) of all four corners of the site.
- iv. Google map-Earth downloaded of the project site.
- v. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vi. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- vii. Land use break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- viii. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- ix. Geological features and Geo-hydrological status of the study area shall be included.
- x. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xii. R&R details in respect of land in line with state Government policy.

5. **Forest and wildlife related issues (if applicable):**

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable).
- ii. Land use map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha*).
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon.
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6. **Environmental Status**

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM₁₀, PM_{2.5}, SO₂, NO_x, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.

- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

7. Impact Assessment and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling – in case, if the effluent is proposed to be discharged in to the local drain, then Water Quality Modelling study should be conducted for the drain water taking into consideration the upstream and downstream quality of water of the drain.
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and disposal. Copies of MOU regarding utilization of solid and hazardous waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques,

- Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
 - ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
 - x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
 - xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
 - xii. Action plan for post-project environmental monitoring shall be submitted.
 - xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

- i. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre-designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analysed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
- iii. Annual report of health status of workers with special reference to Occupational Health and Safety.
- iv. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.

9. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the

- EIA report.
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
 - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
 - iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
 11. To address the Public Hearing issues, provisions contained under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 30/09/2020 shall be complied.
 12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
 13. A tabular chart with index for point wise compliance of above ToRs.
 14. The ToRs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages shall be provided.
- iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J-

11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.

- viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
- ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarized in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

SPECIFIC ToR FOR EIA STUDIES FOR DISTILLERY

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses/grains, their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

**List of the Expert Appraisal Committee (Industry-2) members
participated during Video Conferencing (VC) meeting**

S. No.	Name and Address	Position
1.	Shri S. C. Mann	Chairman
2.	Dr. J. S. Sharma	Member
3.	Prof. Y. V. Rami Reddy	Member
4.	Shri. J.S. Kamyotra	Member
5.	Dr. Rahul Ramesh Rao Mungikar	Member
6.	Dr. Onkar Nath Tiwari	Member
7.	Dr. Seshagiri Rao Ambati	Member
8.	Dr. Sanjay V. Patil (VSI)	Member
9.	Shri A. N. Singh, Scientist 'E'	Member Secretary
MoEFCC		
10.	Dr. Mahendra Phulwaria	Scientist 'C'
11.	Mr. Kanaka Teja	Research Assistant
