

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

Dated: 24.09.2022

**Meeting ID: IA/IND2/13341/23/09/2022
MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE
(INDUSTRY-2 SECTOR PROJECTS)
HELD ON 23rd September, 2022**

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

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

(ii) Confirmation of minutes: The EAC, having taken note that final minutes were issued after incorporating comments received from the EAC members on the minutes of its Meeting (ID: IA/IND2/13332/08/09/2022) held on 08th September, 2022 conducted through Video Conferencing (VC), confirmed the same. After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

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

Agenda No. 1

Greenfield Grain Based Ethanol Plant of 250 KL/Day Capacity located at Survey No. 2270, 2277, 2319, (old Survey No. 1448/1/P/10, 1448/1/P/7, 1448/P/5/P), Village- Gangad, Taluka- Bavla, District- Ahmedabad, Gujarat by M/s. DAPS Infra Private Limited - Consideration of Environmental Clearance

[IA/GJ/IND2/290508/2022, IA-J-11011/296/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. GRC India Pvt. Ltd. (NABET certificate no. NABET/EIA/2124/RA0213 and valid till 15th February, 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project 250 KLD Grain Based Ethanol Plant located at Village Gangad, Tehsil Bavla, District Ahmedabad, State Gujarat by M/s. DAPS Infra 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.

During deliberations, EAC desired clarification regarding Zero Liquid Discharge as it is proposed that company will treat effluent in adjacent unit of M/s. Amanyas Organics Private Limited. The Committee noted that Ministry, vide notification S.O 2339(E) dated 16th June, 2021, made amendment in EIA Notification 2006 through which, Grain based distilleries producing ethanol, solely to be used for Ethanol Blended Petrol Programme of the Government of India, with zero liquid discharge, have been categorised as B2 project (exempting EIA report and public hearing). The Committee specifically mentioned that the proposed unit should have zero liquid discharge within the plant premises to get the benefit of category B2.

Accordingly, PP committed that they will amend the proposal by incorporating Zero liquid discharge facility within the proposed plant premises and submit the proposal. EAC desired that PP shall apply afresh on PARIVESH portal with in-situ provision of ZLD facility for the project.

Accordingly, proposal was returned in present form.

Agenda No. 2

Greenfield project for installation of production facilities for 60 KLD Bio-Ethanol Plant along with 2 MW Co-gen plant under Ethanol blended petrol program launched by GOI located at Village - Paraswar Khurd, Tahsil Rajpur, District – Balrampur - Ramanujganj of Chhattisgarh State by M/s. Indramani Industries Private Limited – Re-Consideration of Environmental Clearance

[IA/CG/IND2/224370/2021, IA-J-11011/318/2021-IA-II(I).]

The proposal was earlier considered by the Expert Appraisal Committee (Industry-2) in its meeting (Meeting ID: IA/IND2/13327/01/09/2022) held during 01st – 02nd September, 2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13341/23/09/2022) held on 23rd September, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

SI	ADS by MoEFCC	Reply by PP
1	The Committee noted that PP has not carried out air quality modeling for incremental GLC for the proposed boiler. No information has been provided in the Parivesh portal.	The GLC is calculated based on use of coal with 50 mg/Nm ³ Particulate Matter and 100 mg/Nm ³ SO _x and 100 mg/Nm ³ NO _x . The predicted maximum concentration of particulate matter, SO ₂ and NO _x are 0.33 µg/m ³ 0.67 µg/m ³ and 0.67 µg/m ³ respectively at a distance of 1 to 1.1 KM in East direction respectively. (Detailed report submitted with ADS reply letter)
2	No details have been provided for	The study of environmental setting within 10 KM radius has been carried out. Revised EMP is

	<p>environmental settings in the EMP report. Committee suggested the Consultant to follow by the documentation requirement as per EIA Notification 2006 as amended from time to time.</p>	<p>submitted along with environmental setting in ADS reply letter.</p>
3	<p>Banki Nadi is flowing at a distance of 0.40 Km in North direction, Baghre Nala River is flowing at a distance of 0.14 Km in East direction. As per Ministry's OM No. 22-39/ 20200IA III dated 14.02.22 regarding guidelines for siting industries which are in close proximity with river. Industry shall not be located within the river flood plain corresponding to one in 25 years flood as certified by concerned District Magistral / Executive Engineer from State water resource Depp. or any other Officer authorized by State</p>	<p>River Banki is about 0.4 to 0.5 KM at North Direction and Baghre Nala River is flowing at 0.14 KM East Direction having highest flood level of 572 MSL. Baghre Nala is a hilly drain which collects water from preceding hill located in South of the proposed plant. The water flow is only during Monsoon. Whereas project site is having elevation of 576 MSL to 585 MSL. The unit will be set up at the much higher levels than the flow levels of Both these water streams.</p> <p>The Executive Engineer (vide Letter no. Memo.No. 1644/Work/86/2022 dtd. 12/09/2022) and Sub-divisional officer (vide Letter no. Memo No./215/2022 dtd. 06.09.2022) of Water Resources Department (WRD), Govt. of CG have certified that the project area does not fall under flood zone. (copy enclosed in ADS reply letter). There is no flood reported in past 30 years at the proposed site from both of these streams. Thus we herewith confirm that the project site is out off of high flood zone of nearby streams</p>

	Govt. for this purpose. It was noted that PP has not submitted NOC from Irrigation Department indicating HFL of river and altitude of the project site.	
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EAC found the information provided by PP against ADS raised as satisfactory.

The Project Proponent and the accredited Consultant M/s. Anacon Laboratories Private Limited (NABET certificate no. NABET/EIA/2023/SA 0160 and validity 29th March, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 60 KLPD Grain based Ethanol Plant and 2 MW co-generation power plant (coal/biomass based) located at Village Paraswar Khurd, Tehsil Rajpur, District Balrampur -Ramanujganj, State Chhattisgarh by M/s. Indramani Industries 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 5g (a), 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	9380 MT / annum
4	Fermentation unit	Carbon di-oxide	9520 MT / annum

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

Total land required for the project is 6.094 Ha. Greenbelt will be developed in total area of 2.05 Ha. i.e., 33.66 % of total project area. The estimated project cost is Rs. 89.50 Crores. Capital cost of EMP would be Rs. 4.50 Crores and recurring cost for EMP would be Rs. 0.77 Crores per annum. Industry proposes to allocate Rs. 0.90 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 90 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/Protected Forest: Paraswad Reserve Forest is at a distance of 0.22 km in South direction. Water bodies: Banki Nadi is at a distance of 0.40 Km in North direction, Baghre Nala River is at a distance of 0.14 Km in East direction, Patrengi Nala is at a distance of 3.14 Km in South direction, Parchhahiyani Nala is at a distance of 4.09 Km in South East direction, Padri Nala is at a distance of 3.25 Km in South west direction, Samtai Nala is at a distance of 2.38 Km in west north west direction. River Banki is about 0.4 to 0.5 KM at North Direction and Baghre Nala River is flowing at 0.14 KM East Direction having highest flood level of 572 MSL. The Executive Engineer (vide Letter no. Memo.No. 1644/Work/86/2022 dtd. 12/09/2022) and Sub-divisional officer (vide Letter no. Memo No./215/2022 dtd. 06.09.2022) of Water Resources Department (WRD), Govt. of CG have certified that the project area does not fall under flood zone. There is no flood reported in past 30 years at the proposed site from both of these streams.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.33 $\mu\text{g}/\text{m}^3$, 0.67 $\mu\text{g}/\text{m}^3$ and 0.67 $\mu\text{g}/\text{m}^3$ with respect to PM, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 300 m³/day which will be met from Banki river. Application has been submitted to Water Resources Department vide letter no. WA00212 Dated 09-08-2021. The State Level committee in the state of Chhattisgarh has also finally recommended to State Government to grant sanction of surface water in its 52nd meeting on dated 11th July 2022, for allocation of surface water resource from Banki River. Effluent

(Condensate/spent lees/blowdown etc.) of 100 m³/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 1000 KLPD. Raw stillage (398 KLPD: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 10 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 1.8 MW and will be met from proposed 2 MW cogeneration power plant. 20 TPH coal/biomass fired boiler will be installed. ESP with a stack height of 43 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. 2 Nos. of 750 kVA DG set will be used as standby during power failure and stack height (15 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- 5 field Electrostatic Precipitator with a stack height of 43 m meters will be installed with 20 TPH coal/biomass fired boiler for controlling the particulate 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 9520 MT per annum 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) (9380 MT per annum) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (34 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil 2 KL/year will be sold to authorized recyclers.
- CPU sludge (250 TPA) & STP Sludge (5 TPA) will be reused as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 60 KLPD will be used for manufacturing fuel ethanol only.

Total land of 6.094 Hectares is under possession of the company and land use conversion has been completed vide order of SDM (Revenue) Rajpur Dist. Balrampur - Ramanuj Ganj (CG) vide order no. Revenue Case No - 202201210100026 /A-2/2021-22 Dated 01/08/2022.

During deliberations, EAC discussed following issues:

- Copy of NOC issued by Irrigation Department to be submitted in MOEFCC. PP has submitted the NOC issued by the Executive Engineer (vide Letter no. Memo.No. 1644/Work/86/2022 dtd. 12/09/2022) and Sub-divisional officer (vide Letter no. Memo No./215/2022 dtd. 06.09.2022) of Water Resources Department (WRD), Govt. of CG.

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 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). 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. CLU certificate shall be obtained before start of construction activities.
- (iv). NOC from the Concerned Local authority for surface water supply shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and

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

- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production i.e. 240 m³/day which will be met from Banki River. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make-up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (vii). Electrostatic precipitator with a stack height of 43 meters will be installed with 20 TPH coal/biomass fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (viii). Boiler ash (34 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ generated will be collected and sold to authorized vendors/collected in proposed bottling plant.
- (x). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's

health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 2.05 Ha i.e. 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant.
- (xvi). PP proposed to allocate Rs. 0.90 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for

uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Approach road to project site shall be maintained.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xxi). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with

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

Agenda No. 3

Expansion of Molasses based Distillery from 90 to 400 KLPD by using Molasses / Cane Syrup / Grains along with Electricity generation of 8 MW & enhancement of Sugarcane Crushing from 12,000 TCD to 16,000 TCD for cane syrup to Distillery located at: Vishnuannanagar, A/P.: Navalihal, Tal.: Athani, Dist.: Belgaum, Karnataka State by Athani Sugars Limited (ASL)– Re-Consideration of Environmental Clearance.

[IA/KA/IND2/288591/2022 , J-11011/373/2013-IA-II(I)]

The proposal was earlier considered by the Expert Appraisal Committee (Industry-2) in its meeting (Meeting ID: IA/IND2/13327/01/09/2022) held during 01st – 02nd September, 2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13341/23/09/2022) held on 23rd September, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

No.	ADS by MoEFCC	Reply by PP
1.	PP shall provide details of trees existing in the proposed site. Commitment stating that the existing trees shall not be removed and properly relocated within the project site.	<ul style="list-style-type: none"> ▪ There are no any existing trees present on the proposed project site. ▪ As such there will not be any activities involved w.r.t. trees cutting or relocating same to any other place. <p>EAC noted that there are trees in the proposed project site and PP was asked to commit that no trees will be cut and all trees will be retained. Accordingly, PP committed that they will retain the trees.</p>
2	Proper traffic study shall be	Traffic Density Plan and impact due to

No.	ADS by MoEFCC	Reply by PP
	carried out and management plan for the same shall be submitted along with the impact on ambient air quality.	traffic loads of sugar factory during existing & proposed activities has been submitted.
3	Commitment for installation of air-cooled condenser system in order to reduce water requirement within 2 years.	Industry will replace existing cooling towers by air cooled condensers within 2 years.
4	Existing sugar unit to be converted for ZLD.	Entire Integrated Project Complex (Sugar Factory, Distillery & Cogen) will adopt ZLD for all effluents.
5	Ground water quality of the plant premises showing BOD which indicates that there may be contamination from the spent wash lagoon or from the bio-composting. PP shall carry out leakage check from the structure and measures to be taken.	PP has monitored the same and no any faults or defects were reported w.r.t. spentwash tank & compost yard. Further, spentwash bio- composting will be discontinued under distillery expansion and spent wash drying will be adopted to convert spent wash in to powder form under entire 400 KLPD capacity. Details are submitted in ADS reply and presented before EAC also.
6	PP shall provide details of ethanol produced using molasses/cane syrup/ grain as feed stock.	400 KLPD Distillery will be operated mainly on cane juice / syrup as raw materials during actual crushing season of 150 Days. During Offseason period of 180 days; the Molasses / Grain will be used as raw materials as per availability. However, in any instance while going with any raw material, the ultimate threshold of 400 KLPD for ethanol manufacturing will be maintained.
7	PP shall provide clarification for high SO ₂ and NO _x concentration in the ambient air.	Clarification regarding the same has been provided in ADS reply and presented before EAC also.
8	PP shall submit proposal for	18 TPH Distillery Boiler (which will be

No.	ADS by MoEFCC	Reply by PP
	achieving emission norms of 30 mg/NM ³ for Particulate matter and 100 mg/NM ³ for SO ₂ and NO _x from 18 TPH Coal/Bagasse fired boiler	<p>kept as standby after expansion) has presently ESP with 3 Fields as APCD. As shown during the presentation; the PM emission results as recorded through OCMS (for Months of Dec. 2021 to March 2022) give readings of 38.63 mg/NM³ as minimum to 43.15 mg/NM³ as maximum.</p> <p>As assured in the EAC Meeting; the Industry will add two more fields to make the ESP as 5-Field device.</p> <p>Further, the dry type FGD through "In-combustion" mode will be adopted which will further reduce the SO₂ emissions. Also, the NO_x will be reduced by adopting Low NO_x Burners and keeping boiler furnace temperature below 900 to 1100 °C and controlling fuel to air combustion ratio by controlling excess air applied for combustion process in the boiler.</p> <p>Accordingly, once all the modifications are incorporated, the boiler stack emission norms will be followed as 30 mg/NM³ for Particulate matter and 100 mg/NM³ for SO₂ and NO_x.</p>
9	PP shall submit proposal to reduce impact of accidents/fires in the threat Zone within and outside the plant.	All the stipulations in existing & proposed PESO orders will be implemented. Moreover, in the threat zone as derived from ALOHA software run; there is no any habitation or structure within distance of 1.3 Km from the Industry. Detailed proposal was submitted in ADS reply and presented before EAC also.

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET Certificate no. : NABET/EIA/1821/RA 0135

and validity 04th October, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for Expansion of Molasses based Distillery from 90 to 400 KLPD along with co-generation power plant of 8 MW & enhancement of Sugarcane Crushing from 12,000 TCD to 16,000 TCD for cane syrup to Distillery located at Vishnuannanagar, A/P. Navalihal, Tehsil Athani, District Belgaum, State Karnataka by M/s. Athani Sugars Limited (ASL).

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

The details of products and capacity as under:

No.	Name of unit	Name of the product/by product	Existing Production capacity	Additional production capacity	Total production capacity
1	Distillery (Molasses / Cane Syrup / Grains)	Ethanol	90 KLPD C-Molasses based	310 KLPD C/B-Heavy Molasses / Sugar Syrup/ Grains	400 KLPD C/B-Heavy Molasses / Sugar Syrup/ Grains
		RS/ENA	90 KLPD C-Molasses based	-	90 KLPD C-Molasses based
2	Co-generation power plant for Distillery	Power	--	8 MW	8 MW
3	Co-generation power plant for sugar mill	Power	54 MW	-	54 MW
4	Sugar mill	Sugarcane juice	12000 TCD	4000 TCD	16000 TCD

		/ syrup			
5	Fermentation unit	Carbon dioxide	75 TPD	255 TPD	330 TPD

Ministry has issued Environmental Clearance to the existing Industry for Expansion of sugar factory from (4500 to 12000 TCD), Distillery Plant (60-90 KLPD), Power Plant (24-54 MW) vide File No. F. No. J-11011/373/2013-IA-II(I) dated 03.04.2017 Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Bangalore vide File No-EP-12.1/2017-18/29/KAR/1345 dated 01.02.2022.

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

Total plant area after expansion will be 48.78 Ha which is under possession of the company and converted to industrial use. Out of the total plant area, 19.42 Ha. i.e. 39.82% of total plant area is to be under green belt. 11.96 Ha. i.e. 24.5% of the total plant area has already been developed as green belt and 7.46 Ha. i.e. 15% of total plant area will be developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs 375 Crores. Capital cost of EMP would be Rs. 63 Crores and recurring cost for EMP would be Rs. 5 Crores per annum. Industry proposes to allocate Rs. 3.91 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 810 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Maharashtra – Karnataka interstate boundary is at 0.3 Km from project site. Agrani river is flowing at a distance of 8 Km from North to South direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.553 $\mu\text{g}/\text{M}^3$, 0.138 $\mu\text{g}/\text{M}^3$, 3.47 $\mu\text{g}/\text{M}^3$ and 2.08 $\mu\text{g}/\text{M}^3$ 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 after expansion will be 1294 M³ /day (sugar mill 40 m³/day and distillery 1254 m³/day) which will be met from Krishna River. NOC has been obtained from Irrigation Dept.; Karnataka vide letter no. WRD21HAY2017 dated 16.11.2017. Existing effluent generation is 729 m³/day from sugar mill treated in full-fledged ETP and 763 m³/day from distillery which is treated in existing ETP under Sugar Factory. Proposed total effluent generation from sugar factory after expansion will be 1011 m³/day which will be treated in existing ETP of capacity 1550 m³/day and that from the distillery will be 3637 m³/day which will be treated through proposed Condensate Polishing Unit of capacity 5000 m³/day. In molasses based & Sugarcane Syrup operation, spent wash generated from the analyser column during distillation will be bio-methanated & concentrated in Multi Effect Evaporator and concentrated spent wash will be dried in ATFD to form powder. In Grain based Operations raw stillage (1820 T/D: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. Domestic waste water will be treated in STP of capacity 50 KLD. The plant is being/will be based on Zero Liquid discharge system and treated effluent will not to be discharged outside the factory premises.

Total power requirement of distillery & sugar mill after expansion will be 26.92 MW which will be sourced from 54 MW co-generation power plant & 8 MW proposed co-generation power plant under distillery. Existing distillery has 18 TPH coal & biogas fired boiler. Under proposed expansion, 60 TPH bagasse fired boiler will be installed in distillery. Existing sugar mill has 130 TPH & 145 TPH bagasse fired boiler. ESP with a stack of height of 52 m is installed for existing 18 TPH coal/biogas fired boiler in distillery. For proposed bagasse boiler (60 TPH), 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. In sugar mill, for existing 130 TPH & 145 TPH bagasse boiler, 2 separate ESPs with a stack of height of 72 m & 80 m respectively is installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Industry has existing 1250, 500 & 320 KVA DG sets which will be used as standby during power failure and stack height (30 m, 7 m, 6 m) are provided as per CPCB norms to the DG sets.

Details of Process emissions generation and its management:

- 3 separate ESPs with stack of height 80 m, 72 m and 52 m are installed

for the existing 145 TPH, 130 TPH and 18 TPH boilers respectively for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. 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 of 60 TPH.

- Online Continuous Emission Monitoring System is being/will be installed with the stack and data transmitted to CPCB/SPCB servers. Page 36 of 149
- CO₂ (330 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors/collected in proposed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- In molasses/cane juice operations, concentrated spent wash (640 CMD) will be converted to powder by ATFD.
- In grain based operations, DDGS (Distilled Dried Grains Stillage) (319 TPD) will be sold as cattle feed.
- Boiler ash from proposed 60 TPH bagasse fired boiler (870 TPM) and existing 130 & 145 TPH boilers (2475 TPM) will be used as manure /supplied to brick manufacturers.
- Used oil (0.53 MT/M) will be sold to authorized recycler.
- CPU sludge (96 MT/M) and STP Sludge (0.5 MT/M) will be used as manure.
- Press mud (19,200 MT/M) will be used as manure in sugar mill.
- Bagasse (1,44,000 MT/M) will be used as fuel in sugar mill.
- Molasses (14400 MT/M) will be used as raw material in distillery.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of 310 KLPD & 4000 TCD will be used for manufacturing fuel ethanol only.

During deliberations, EAC discussed following issues:

- EAC noted that there are trees in the proposed area and PP was asked to commit that no trees will be cut and all trees will be retained.

Affidavit that no trees will be cut and retained.

- EAC desired that entry/exit to industry should be through service road only and PP shall maintain the approach/link road to plant site.
- EAC discussed regarding safety measures to be implemented while transportation is being done for plant site requirements.
- PP shall commit that Bio-composting shall be phased out within 1 year.
- Separate ETPs shall be provided for grain based and molasses based operations.

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 expansion capacity of 310 KLPD & 4000 TCD 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). Sugarcane syrup from 4000 TCD sugar mill shall be used as raw material for distillery only and not for producing sugar.
- (iii). Industry will replace existing cooling towers by air cooled condensers within 2 years. As committed, the existing bio-composting plant shall be phased out within 1 year from the date of issue of environmental clearance letter.
- (iv). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (v). NOC from the Concerned Local authority for surface water supply shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and

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

- (vi). Total Fresh water requirement shall not exceed 1294 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.
- (vii). Concentrated spent wash will be dried in ATFD to form powder in molasses based operations (existing and proposed) and in grain based operations, concentrated spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent from existing and proposed expansion of sugar and distillery unit shall be recycled/reused for make-up water of cooling towers/process etc. and no wastewater or treated water shall be discharged outside the plant premises and zero discharge shall be maintained. STP shall be installed to treat sewage generated from factory premises.
- (viii). 3 separate ESPs with stack of height 80 m, 72 m and 52 m are installed for the existing 145 TPH, 130 TPH and 18 TPH boilers respectively for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. 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 of 60 TPH. 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). As committed by PP, the Industry will add two more fields to make the ESP as 5-Field device for 18 TPH boiler. Dry type FGD through In-combustion mode will be adopted to reduce the SO₂ emissions. NO_x emissions will be reduced by adopting Low NO_x Burners and keeping boiler furnace temperature below 900 to 1100 °C and controlling fuel to

air combustion ratio by controlling excess air applied for combustion process in the boiler.

- (x). Boiler ash from proposed 60 TPH bagasse fired boiler (870 TPM) and existing 130 & 145 TPH boilers (2475 TPM) will be used as manure /supplied to brick manufacturers. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (xi). Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and RO, MOEFCC. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and Total Dissolve Solids shall be monitored and report submitted to the Ministry's Regional Office.
- (xii). State Pollution Control Board shall conduct ground water monitoring to check the ground water contamination due to leakages from the existing spent wash lagoon and bio-composting plant, if any.
- (xiii). CO₂ generated will be bottled and supplied to manufacturers of beverages /secondary uses.
- (xiv). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xv). 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.
- (xvi). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.

- (xvii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for sludge drying.
- (xviii). 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.
- (xix). The green belt of at least 5-10 m width shall be developed in nearly 19.42 Ha. i.e. 39.82% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Approx. 1,50,000 trees shall be planted. Greenbelt development shall be completed before commissioning of plant. No tree cutting or relocating shall take place.
- (xx). PP proposed to allocate Rs. 3.91 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xxi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 20% shall be allotted solely for parking purposes with facilities like rest rooms etc. Entry/exit to industry should be through service road only and PP shall maintain the approach/link road to plant site.

- (xxii). 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.
- (xxiii). 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.
- (xxiv). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.
- (xxv). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No.4

Drilling of Exploratory cum Development of additional 35 development wells in Bakrol oil and gas block Cambay (Onshore) Ahmedabad, Gujarat by M/s. SELAN Exploration Technology Limited – Amendment (Extension) of Environmental Clearance

[IA/GJ/IND2/136915/2020, IA-J-11011/26/2011-IA-II(I)]

The proposal was earlier considered in the 17th meeting of the Expert appraisal committee (Industry-2 sector) held during 25-27th February, 2020 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13341/23/09/2022) held on 23rd September, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

No.	ADS by MoEFCC	Reply by PP
1.	Certified compliance report to be submitted.	Site inspection was carried out by MOEF&CC, IRO Gandhinagar on 21 st May, 2022. Monitoring & Compliance report was received from MOEF&CC, IRO Gandhinagar vide letter on 23 rd August, 2022. PP has submitted action plan for 11 partially complied environmental conditions. The Committee deliberated the issues and satisfied with the response of PP.

Justification for delay: The sub-surface in Bakrol area is having rapid facies variation at short distances together with discontinuous and tight nature of reservoir necessitating the Company to take up drilling in phases.

Further, due to Rapid Industrialization in and around the block area, Land Acquisition has been a big challenge, rendering unwarranted delays in envisaged drilling plans owing to LAQ issues and it's resolution.

SELAN carried out it's last drilling campaign during FY 2016-17, and thereafter carried out an extensive G&G work in terms of 3D Static and Dynamic modelling to prepare and put up Revised Field Development Plan(RFDP) to DGH with a view to seek extension of the existing Bakrol PSC which was coming up for renewal in March 2020.

Although letter for approval of RFDP and consequent PSC extension for Bakrol field was received from DGH/ MoPNG during November 2019, however, PSC for the extension period was signed by MoPNG on 1 March 2021. Further, based on MoPNG approvals and signing of the PSC for extension period, Department of Petroleum(DoP), Govt. of Gujarat issued Mining Lease Extension on 22 March 2021. Additionally, during FY 20-2021 &

Q1/Q2 FY 2021-22, unwarranted delays due to outbreak of Corona pandemic and consequent lock downs resulted in the E&P operations getting severally affected and delayed.

In the recent past the process of Company take-over also got triggered with New Management taking over the Company in July 2022.

The Company, under the Direction and Guidance of New Management is now targeting development areas in the block wherein based on the current interpretation, two firm and four dependent locations have been identified to be taken up immediately for drilling. Based on the drilling results, balance locations are envisaged to be taken up for drilling expeditiously during the EC Extension validity period.

Further, PP requested EAC (Industry -2) to grant Extension of Validity till 14th January 2024 or such longer period as EAC may deem fit and proper, to enable the Company to carry-out the drilling operations for the new locations expeditiously. PP has also

The proposal is for EC extension of environmental clearance granted by Ministry vide file no. J-11011-/26/2011/IA II (I) dated 15.01.13 for Drilling of Exploratory cum Development of additional 35 development wells in Bakrol oil and gas block Cambay (Onshore) Ahmedabad, Gujarat by M/s. SELAN Exploration Technology Limited.

PP informed that as per the action plan for drilling, 6 development wells will be drilled till 14th January, 2024 and remaining will be drilled after prior permission separately.

Committee noted that as per Notification dated 12th April, 2022, validity of all projects other than the Mining projects and River Valley Projects and Nuclear power projects is 10 years. Hence, the EC dated 15th January, 2013 is valid till 2023. Accordingly, the committee recommended for grant of extension of validity of EC for another 1 year i.e. 14th January, 2024.

Agenda No. 5

Proposed New 200 KLPD Grain based distillery producing Ethanol, solely to be used for Ethanol Blended Petrol Programme of the “Government of India” along with 5 MW Co-generation Power Plant located at Sy. No. 157/19/3; 157/19/4; 157/20-2; 157/22-1A; 157/22-2B; 157/22-2A, Village – Emmajigudem, Tehsil – Bellamkonda (Mandal), Dist – Palnadu (erstwhile Guntur), Andhra

Pradesh by M/s. Eindana Energies Private Limited - Consideration of Environmental Clearance

[IA/AP/IND2/290618/2022, IA-J-11011/344/2022-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 200 KLPD Grain based Ethanol Plant & 5 MW Co generation power plant (Rice Husk/Indian Coal/Indonesian Coal) located at Village Emmajigudem, Tehsil Bellamkonda (Mandal), District Palnadu (erstwhile Guntur), State Andhra Pradesh by M/s. Eindana Energies Private Limited.

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

The details of products and capacity as under:

S. No.	Name of Plant	Name of Product/ By-Product	Production Quantity
1	Distillery (Corn/Rice)	Ethanol	200 KLPD
2	Co-generation Power Plant	Power	5 MW
3	DWGS Dryer	DDGS (Corn/Rice)	199/131 TPD
4	Fermentation unit	Carbon di-oxide	156 TPD

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

Total land area required is 6.564001 hectares. Greenbelt will be developed in

total area of 2.202529 hectares i.e., 33.55% of total project area. The estimated project cost is Rs. 252 Crores. Capital cost of EMP would be Rs. 15.75 Crores and recurring cost for EMP would be Rs. 3.15 Crores per annum. Industry proposes to allocate Rs. 2.5 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 250 persons as direct & indirect.

There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance. Reserve Forest/Protected Forest: Kamepelle RF is at a distance of 1.6 Km in N direction, Venkatayapalem RF is at a distance of 3.6 km in E direction, Piluttla RF is at a distance of 3.5 km in SE direction, Konanki RF is at a distance of 7.5 km in SE direction, Vamavarm is at a distance of 8 km in W direction, Govundpuram is at a distance of 5.3 km in NW direction. Water bodies: Krishna River is at a distance of 4.7 Km in North direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.75 $\mu\text{g}/\text{m}^3$, 0.44 $\mu\text{g}/\text{m}^3$, 4.81 $\mu\text{g}/\text{m}^3$ and 3.00 $\mu\text{g}/\text{m}^3$ 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 800 CMD which will be met from Ground Water/ Surface water (Krishna River). Application has been submitted to Department of Industries, Government of Andhra Pradesh (Common Application Form) dated 24 Aug., 2022 for Ground Water & Application has been submitted to Superintending Engineer, Irrigation Circle, Water Resource Department, Vijayawada, Andhra Pradesh dated 20 Aug, 2022 for Surface Water. Effluent (Condensate/spent lees/blow down etc.) of 1400 CMD quantity will be treated through Condensate Polishing Unit cum Effluent Treatment Plant of capacity 1400 CMD. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 20 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 5 MW and will be met from proposed 5 MW cogeneration power plant. 40 TPH biomass/ Indian /Indonesian Coal fired boiler will be installed. ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³

for the proposed boiler. 1500 kVA DG set will be used as standby during power failure and stack height will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- 5 field 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 (156 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be collected in proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (199/131 TPD) will be sold as cattle feed / fish feed/ prawn feed.
- Boiler ash (90 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (0.01 TPD) will be sold to authorized recyclers.
- ETP/CPU sludge (0.02 TPD) will be used as manure.

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

Total land of 6.564001 Hectares is under possession of the company & Land use conversion application has been submitted to Village- Ward Secretariat Department, Andhra Pradesh Govt. vide application no. NLCR012200273251. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- CLU certificate shall be obtained before start of construction activities.
- Commitment that NOC for ground/surface water supply shall be obtained before start of construction activities. PP has submitted the same.

- Prescribed standards of 30 mg/Nm³ for PM, 100 mg/Nm³ for SO₂ and NO_x emissions shall be achieved. PP shall commit to install 5 field ESP with 99.9 % efficiency.
- Width of approach/village road shall be clarified as discrepancy is found in the values given. PP submitted that 11 m wide village road is outside project site and industry will strengthen the same.
- Revised cost of EMP shall be submitted including CEMS and capital cost of CO₂ plant as it seems less. PP has revised the capital cost of EMP to Rs. 15.75 Crores and recurring cost per annum Rs. 3.15 Crores.
- Commitment to install own brick manufacturing plant inside plant premises. PP has submitted that industry will install own brick manufacturing plant for utilization of ash.

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. CLU certificate shall be obtained before start of construction activities.
- (iv). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue

the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from Ground Water/ Surface water (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 shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (vii). Electrostatic precipitator (5 field and 99.9% efficiency) with a stack height of 60 meters will be installed with 40 TPH biomass/ Indian /Indonesian Coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (viii). Boiler ash (90 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ (156 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be collected in proposed bottling plant.

- (x). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 2.202529 hectares i.e., 33.55% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant.
- (xvi). PP proposed to allocate Rs. 2.5 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities

like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.

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

Agenda No. 6

Proposed 120 KLPD (Ethanol) Grain based distillery along with 3.5 MW Power generation plant at village - Matani, Tehsil - Siwani and District Bhiwani, of Haryana by M/s Raj Ethanol India Private Limited – Consideration of Environmental Clearance

[IA/HR/IND2/290582/2022; IA-J-11011/245/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Enviro Infra Solutions Pvt. Ltd. (NABET certificate no. NABET/EIA/1922/RA0157 and validity 13th November, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 120 KLPD Grain based Ethanol distillery and 3.5 MW co-generation power plant (biomass based) located at Village Matani, Tehsil Siwani, District Bhiwani, State Haryana by M/s Raj Ethanol India Private Limited.

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

The details of products and capacity are as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
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1	Distillery	Ethanol	120 KLPD
2	Co-generation power plant	Power	3.5 MW
3	DWGS dryer	DDGS	51 TPD
4	Fermentation unit	Carbon di-oxide	60 TPD

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

Total land area required is 7.286 hectares. Greenbelt will be developed in total area of 2.43 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 150.61 Crores. Capital cost of EMP would be Rs. 28.82 Crores and recurring cost for EMP would be Rs. 2.92 Crores per annum. Industry proposes to allocate Rs. 2.25 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 62 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. No major water body present within study area.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.73 \mu\text{g}/\text{m}^3$, $0.47 \mu\text{g}/\text{m}^3$ and $0.36 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be $715 \text{ m}^3/\text{day}$ which will be met from ground water. Application have been submitted to Haryana Water Resources Authority dated 13.07.2022. Effluent (Condensate/spent lees/blowdown etc.) of $756 \text{ m}^3/\text{day}$ quantity will be treated through Condensate Polishing Unit of capacity 800 KLPD. Raw stillage (695 KLPD: quantity of raw spent wash from distillation) 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 2.8 MW which will be sourced from proposed power plant of 3.5 MW. 35 TPH biomass fired boiler will be installed. ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. DG set of 750 KVA capacity with stack height (6 m ARL) will be used as standby during power failure.

Details of Process emissions generation and its management

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

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (51 TPD) will be sold as cattle feed / fish feed /prawn feed.
- Boiler ash (55 TPD) will be utilized for brick making in proposed in-house brick manufacturing plant.
- Used oil (19.5 Kiloliters /annum) will be sold to authorized recyclers.
- CPU sludge (0.075 TPD) and STP Sludge (0.003 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 7.286 Hectares is under possession of the company and as per Haryana Government Gazette notification no. 19/06/2018-5P dated 09.03.20218. For Land use conversion, they will approach Department of Town and Country Planning and submit the document.

During deliberations, EAC discussed following issues:

- Department of Town and Country Planning shall issue land use conversion certificate for land use conversion. PP shall give commitment to apply for land use conversion and submit the same to Ministry.
- Ground water permission shall be obtained before start of construction activities.
- Affidavit that coal shall not be used as fuel and prescribed emissions of 50 mg/Nm³ shall be followed for biomass as fuel.
- PP shall reduce fresh water requirement as fresh water requirement per KL of ethanol produced is more than 4KL/KL. Revise water balance shall be submitted.
- Avenue plantation in the approach road to project site and construct/maintain connecting road to highway.
- Disposal of ash. PP informed that they will be supplying to brick manufacturers/farmers. PP informed that they will increase specific gravity of ash by quenching. EAC asked PP to install own brick manufacturing unit in premises/adjoining area.
- Traffic management plan.

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. PP shall obtain CLU certificate before start of construction activities.

- (iv). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production i.e. 480 m³/day which will be met from ground water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make-up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (vii). Electrostatic precipitator with a stack height of 60 meters will be installed with 35 TPH biomass fired boiler for controlling the particulate emissions within the statutory limit of 50 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 (55 TPD) will be utilized for brick making in proposed in-house brick manufacturing plant. PP shall explore possibility of installation of brick manufacturing plant within premises/ adjoining area. PP shall use biomass like rice husk/bagasse as fuel for the proposed

boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

- (ix). CO₂ generated will be collected and sold to authorized vendors/collected in proposed bottling plant.
- (x). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 2.43 Ha i.e. 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the

State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant.

- (xvi). PP proposed to allocate Rs. 2.25 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Industry shall carry out Avenue plantation in the approach road to project site and construct/maintain connecting road to highway.
- (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. 7

Establishment of 105 KLPD Grain based distillery along with 3 MW Electricity Generation located at Gat No. 223 & 224, Village Darfal (Gawadi), Tal.: North Solapur, Dist.: Solapur, Maharashtra by Sureshwaram Biofuel Pvt. Ltd. (SBPL) – Consideration of Environmental Clearance

[IA/MH/IND2/283528/2022, IA-J-11011/97/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET certificate no. NABET/EIA/1821/RA 0135 and validity 04th October, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for Environmental Clearance to the project for Establishment of 105 KLPD Grain based Ethanol Plant along with 3 MW co-generation power plant located at Village Darfal (Gawadi), Tehsil North Solapur, District Solapur, State Maharashtra by M/s. Sureshwaram Biofuel Pvt. Ltd. (SBPL).

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	105 KLPD
2	Cogeneration Power Plant	Power	3 MW
3	DWGS dryer	DDGS	90 TPD
4	Fermentation unit	Carbon di-oxide	75 TPD

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

Total land area required is 3.79 hectares. Greenbelt will be developed in total area of 1.25 hectares i.e., 33% of total project area. The estimated project cost is Rs. 108 Crores. Capital cost of EMP would be Rs. 20.20 Crores and recurring cost for EMP would be Rs. 0.9 Crores per annum. Industry proposes to allocate Rs. 2.1 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 80 persons as direct & indirect.

There is no presence of National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. The Great Indian Bustard Sanctuary (Patch No. 92; Point A) is at 3.8 Km from project site. ESZ for same is finalized vide Notification No. S.O. 654(E). dated 11th February, 2020. The Eco-sensitive Zone is spread over an area of 591.52 square kilometres with an extent varying from 0 metres to 400 metres around the boundary of sanctuary. The project site is located 3.8 Km from notified ESZ. Water bodies: Bhogawati River is at a distance of 12.9 Km in North direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.073 $\mu\text{g}/\text{m}^3$, 0.018 $\mu\text{g}/\text{m}^3$, 0.455 $\mu\text{g}/\text{m}^3$ and 0.020 $\mu\text{g}/\text{m}^3$ 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 353 m³ /day which will be met from Ground water. Application has been submitted to CGWA dated 24.05.2022. Effluent (Condensate/spent lees/blow down etc.) of 637 m³ /day quantity will be treated through Condensate Polishing Unit of capacity 850 m³ /day. Raw stillage (528 T/D: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 5 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 2.5 MW and will be met from proposed 3 MW co-generation power plant. 25 TPH biomass fired boiler will be installed. ESP with a stack height of 50 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 500 kVA DG set will be used as standby during power failure and stack height (5 m) will be provided as per CPCB norms to the proposed DG set.

Details of Process emissions generation and its management:

- ESP with a stack height of 50 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (75 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be collected in bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (90 TPD) will be sold as cattle feed.
- Boiler ash (9 TPD) will be used for brick manufacturing in proposed brick manufacturing unit inside plant premises.
- Used oil (0.8 Ton per annum) will be sold to authorized recyclers.
- CPU sludge (0.6 TPD) and STP Sludge (0.001 TPD) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 105 KLPD will be used for manufacturing fuel ethanol only.

Total land of 3.79 Hectares is under possession of the company and land use conversion application has been submitted to Tahsildar Office; North Solapur dated 31.03.2022. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- CLU certificate shall be obtained before start of construction activities.
- Ground water NOC shall be obtained before start of construction activities.

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 105 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. CLU certificate shall be obtained before start of construction activities.

- (iv). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production i.e. 353 m³/day which will be met from ground water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (vii). Electrostatic precipitator with a stack height of 50 meters will be installed with 25 TPH biomass fired boiler for controlling the particulate emissions within the statutory limit of 50 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 (9 TPD) will be used for brick manufacturing in proposed brick manufacturing unit inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

- (ix). CO₂ (75 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be collected in bottling plant.
- (x). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 1.25 Ha i.e. 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant.

- (xvi). PP proposed to allocate Rs. 2.1 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (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. 8

Proposed 100 KLPD Grain Based Distillery Unit along with 2.8 MW Co-gen Power Plant and Zero Liquid Discharge located at Melakallankulam Village, Kariapatti Taluk, Virudhunagar District, Tamil Nadu by M/s. Stellar Distilleries Private Limited - Consideration of Environmental Clearance

[IA/TN/IND2/289178/2022, IA-J-11011/301/2022-IA-II (I)]

The Project Proponent and the accredited Consultant M/s. Enviro Care India Private Limited (NABET certificate no. NABET/EIA/2124/RA0249 and validity 14th December 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 100 KLPD Grain Based Ethanol Plant along with 2.8 MW co-generation power plant (biomass/imported coal) located at Village Melakallankulam, Tehsil Kariapatti, District Virudhunagar, State Tamil Nadu by M/s. Stellar Distilleries Private Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/ by-product	Production capacity
1	Distillery(Broken rice, Maize)	Ethanol	100 KLPD
4	Co-generation Power Plant	Power	2.8 MW
5	DWGS Dryer	DDGS	65 TPD
6	Fermentation Unit	Carbon di-oxide	55 TPD

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

Total land area required is 6.69 hectares. Green belt will be developed in total area of 2.4 hectares i.e., 35.87% of total project area. The estimated project cost is Rs. 165.28 Crores. Capital cost of EMP would be Rs. 46.95 Crores and recurring cost for EMP would be Rs. 1.07 Crores per annum. Industry proposes to allocate Rs. 4.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 150 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Pond near Aviyur is at a distance of 8.19 km, Pond near Meenakshipuram is at a distance 8.33 km and Nallur Pond is at a distance of 9.83 km. There are some unnamed small ponds present in study area.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.45 $\mu\text{g}/\text{m}^3$, 1.87 $\mu\text{g}/\text{m}^3$, 0.67 $\mu\text{g}/\text{m}^3$ and 0.94 $\mu\text{g}/\text{m}^3$ with respect to PM10, PM 2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 400 m^3/day (4KL/KL of ethanol produced) which will be met from Ground water. Application has been submitted to the Chief Engineer, State Ground & Surface water resources data center, Chennai dated 27-07-22 and under progress of getting NOC.

Effluent (Condensate/spent lees/blow down etc.) of 461 m³/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 600 KLPD. Raw stillage (530 KLPD: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 25 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 2.4 MW and will be met from proposed 2.8 MW co- generation power plant. 26 TPH biomass/imported coal fired boiler will be installed. Electrostatic Precipitator with a stack height of 50 m will be installed for controlling the particulate emissions within the statutory limit of 30mg/Nm³ for the proposed boiler. 750 kVA DG set will be used as standby during power failure and stack height (15 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- 5 field Electrostatic Precipitator with a stack height of 50 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- One separate CO₂ recovery plant will be installed and CO₂ (55 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (65TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (19TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises/supplied to brick manufacturers.
- Used oil (500 litres per annum) will be sold to authorized recyclers.
- ETP Sludge (0.3TPD) will be used as manure in green belt areas.

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 6.69 Hectares is under possession of the company and land use conversion for industrial factory use NOC has been obtained vide Deputy Director, Town and Country planning letter no.1419/2022/dated 13.08.2022. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Fresh water consumption shall not exceed 4 KL/KL of ethanol production.
- Ash management. Ash shall be supplied to brick manufacturing unit. Undertaking for the same shall be submitted and MOU with brick manufacturers shall be obtained before start of construction activities.

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. CLU certificate shall be obtained before start of construction activities.

- (iv). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from ground water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (vii). Electrostatic precipitator (5 field and 99.9% efficiency) with a stack height of 50 meters will be installed with 26 TPH biomass/imported coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (viii). Boiler ash (19TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises/supplied to brick manufacturers. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power

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

- (ix). CO₂ (55 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. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 2.4 hectares i.e., 35.87 % of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed.

Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant.

- (xvi). PP proposed to allocate Rs. 4.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in

the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/ Director/CEO as per company hierarchy.

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

Agenda No. 9

Proposed 180 KLPD Grain based Ethanol Plant along with 4.0 MW Cogeneration Power Plant located at Village Biana & Randauli, Tehsil Indri, District Karnal, Haryana by M/s. Iris Fuel India Private Limited –Re- Consideration of Environmental Clearance

[IA/HR/IND2/291274/2022, IA-J-11011/264/2022-IA-II(I)]

The proposal was earlier considered by the EAC (Ind-2) in meeting ID IA/IND2/13295/27/07/2022 held during 27th July to 28th July, 2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13341/23/09/2022) held on 23rd September, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

S. No.	ADS Points	Reply of PP
1	Submit valid land ownership documents	The total project area is already under the possession of the company. Copy of Sale Deed & its notarized English translation have been submitted.
2	Coal shall not be used as fuel as project lies in NCR region. Prescribed emission standard of PM will be 50	The company has committed for not using coal as fuel & prescribed emission standard of PM will be maintained at 50 mg/Nm ³ . Undertaking for the same has

	mg/Nm ³ .	been submitted.
3	Commitment to maintain village road near to project site.	The company has committed to maintain village road near to project site. Undertaking for the same has been submitted.
4	MOU with brick manufacturers adjacent to project site shall be submitted.	The company has done MOU with brick manufacturers. Copy of the same has been submitted.
5	Native plant species shall be developed in project premises.	Greenbelt development will be undertaken in 33% area of total project site in 2.8 ha land. Approximately 7000 saplings will be planted @ 2500 trees per hectares. Native plant species viz., <i>Dalbergia sissoo</i> (Shisham), <i>Azadirachta indica</i> (Neem), <i>Populus species</i> (Poplar), <i>Morus species</i> (Mulberry), <i>Meliaaza dirachta</i> (Bakain), <i>Senegalia catechu</i> (Khair), <i>Mangifera indica</i> (Mango), <i>Syzygium cumini</i> (Jamun) etc. will be planted in project premises.
6	Commitment that raw material shall be stored in covered sheds and ash shall be stored in silos.	The company has committed to store raw material in covered sheds and ash will be stored in silos only. Undertaking for the same has been submitted.
7	Commitment that 15% parking area shall be allotted in total area.	The company has committed to demarcate 15% parking area of 1.2 ha out of total land of 8.44 ha. Undertaking for the same has been submitted.
8	Rain water harvesting details. Storage shall be for 60 days.	The company will be storing rainwater inside the plant premises and the same will be utilized in plant activities. Net Rainwater Harvested inside the Plant Site is 25918.38 cum/annum for which 1 pond of 30m length and 30m width with 3m depth & 2 rectangular underground storage tanks having dimensions of about 12.5m*12.5m*3m

	(Length*Width*Depth) is proposed.
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The Project Proponent and the accredited Consultant M/s. J.M. EnviroNet Private Limited (NABET certificate no. NABET/EIA/2023/RA 0186 and validity till 07th February, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for proposed 180 KLPD Grain based Ethanol Plant & 4.0 MW Co-generation power plant (Biomass based) located at Village Biana & Randauli, Tehsil Indri, District Karnal, Haryana by M/s. Iris Fuel India Private Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/ by-product	Production capacity
1.	Distillery	Ethanol	180 KLPD
2.	Co-generation power plant	Power	4.0 MW
3.	DWGS dryer	DDGS	88 TPD
4.	Fermentation unit	Carbon di-oxide	138 TPD

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

Total land area required is 8.44 hectares. Greenbelt will be developed in total area of 2.8 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 220 Crores. Capital cost of EMP would be Rs. 22.0 Crores and recurring cost for EMP would be Rs. 3.63 Crores per annum. Industry

proposes to allocate additional Rs. 2.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 200 persons (Permanent 150 & Temporary 50) as direct & indirect.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forest: Baragaon RF is at a distance of 9.0 km in SSW direction. Water bodies: Hanauri Drain is at a distance of 3.5 km in West direction, Nanhera Garnpur Drain is at a distance of 4.5 km in NW direction, Khera Drain is at a distance of 8.0 km in NW direction, Murad Nagar Drain is at a distance of 9.0 km in NNW direction, Augmentation Canal is at a distance of 3.5 km in NW direction, Western Yamuna Canal is at a distance of 9.5 km in WNW direction, Purani Nadi is at a distance of 1.5 km in East direction, Yamuna River is at a distance of 3.0 km in East direction, Saindli Nadi is at a distance of 6.5 km in East direction, Budhi Nadi is at a distance of 8.5 km in ENE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.329 $\mu\text{g}/\text{m}^3$, 0.13 $\mu\text{g}/\text{m}^3$, 0.65 $\mu\text{g}/\text{m}^3$ and 0.82 $\mu\text{g}/\text{m}^3$ 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 990 m³/day which will be sourced from Ground water. Application has been submitted to Haryana Water Resource Authority (HWRA) vide letter no. HWRA/IND/N/2022/3798 dated 07.07.2022. Effluent (Process Condensate/DM plant reject/ CT blowdown etc.) of 952 m³/day quantity will be treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 1200 KLPD. Raw stillage (1167 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 20 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 4.0 MW and will be met from proposed 4.0 MW Cogeneration power plant. 40 TPH biomass fired boiler will be installed. ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 2 x 1010 kVA DG set will be used as standby during power failure and stack height (9 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP with a stack height of 60 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (138 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (88 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (40 TPD) will be used for brick manufacturing & will be supplied to nearby brick manufacturers in covered vehicles only. The company has done MOU with brick manufacturers.
- Used oil (0.6 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (1.2 TPD) and STP Sludge (0.01 TPD) will be used as manure.

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

Total land of 8.44 Hectares is under possession of the company and land use conversion is not necessary as the land falls outside the urban areas/controlled areas as stated by Directorate of Town & Country Planning, Haryana dated 06.07.2022. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- MOU for fly ash supply. EAC desired PP to install own brick manufacturing plant whereas PP informed that brick manufacturing facility is adjacent to plant premises, hence least transportation will take place.

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

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

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

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 180 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. CLU certificate shall be obtained before start of construction activities.
- (iv). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production i.e. 720 m³/day which will be met from ground water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling

towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.

- (vii). Electrostatic precipitator with a stack height of 60 meters will be installed with 40 TPH biomass fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Coal shall not be used as fuel at any circumstances. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/systems will be conducted annually.
- (viii). Boiler ash (40 TPD) will be used for brick manufacturing & will be supplied to nearby brick manufacturers in covered vehicles only. The company has done MOU with brick manufacturers. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ (138 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.
- (x). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.

- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 2.8 Ha i.e. 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant.
- (xvi). PP proposed to allocate Rs. 2.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. The company shall maintain village road near to project site.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should

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

- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xxi). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 10

Proposed 200 KLPD Grain based Manufacturing Unit along with 4.5 MW Co-Generation Power Plant (Rice Husk/Rice straw) located at Plot No. 1, Upcoming Industrial Area, Aduwal, Tehsil Nalagarh, District Solan, Himachal Pradesh by M/s. Bharat Spirits Pvt. Ltd. – Consideration of Environmental Clearance

The Project Proponent and the accredited Consultant M/s. Eco Paryavaran Laboratories and Consultants Pvt. Ltd (NABET certificate no. NABET/EIA/2023/RA 0211 and validity 17th December, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 200 KLPD Grain based Ethanol Plant along with 4.5 MW co-generation power plant (biomass) located at Plot No. 1, Upcoming Industrial Area, Aduwal, Tehsil Nalagarh, District Solan, State Himachal Pradesh by M/s. Bharat Spirits 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/bv-	Production capacity
1.	Distillery (Grain-Broken rice)	Ethanol	200 KLPD
2.	Co-generation power plant	Power	4.5 MW
3.	DWGS dryer	DDGS	118 TPD
4.	Fermentation unit	Carbon di-oxide	152 TPD

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

Total land area required is 7.83 hectares. Greenbelt will be developed in total area of 2.64 hectares i.e., 33.78% of total project area. The estimated project cost is Rs. 215.14 Crores. Capital cost of EMP would be Rs. 10.45

Crores and recurring cost for EMP would be Rs. 0.96 Crores per annum. Industry proposes to allocate Rs. 2.15 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 650 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: Sobal PF is at a distance 8 km in SE direction, Aduwal PF is at a distance of approx. 2 km in NW direction, Khobla PF is at a distance of approx. 3.5 km in E direction, Shilnun PF is at a distance of approx. 8.5 km in SE direction., Ratwari PF is at a distance of approx. 5.5 km in NE direction, Kala Amb PF is at a distance of approx. 7.5 km in NE direction, Sihal PF is at a distance of approx. 6.4 km in NE direction, Dhagoh PF is at a distance of approx. 6.1 km in NE direction, Rajween PF is at a distance of approx. 5.8 km in NE direction, Chikni Palsara PF is at a distance of approx. 7.9 km in SE direction, Jaglog PF is at a distance of approx. 7.9 km in NW direction, Kalti PF is at a distance of approx. 9.5 km in NE direction, Johar Johru PF is at a distance of approx. 9.2 km in W direction. Conservation plan for schedule I species has been submitted to Deputy conservator of forest, Nalagarh Forest Division, HP. dated 25.05.2022 and a budget of 0.05 Crores has been earmarked for the same. Water Bodies: Mahadev Khad is adjacent to project site, Kundlu Ki Khad is at a distance of 3 km in N direction, Chikni Khad is at a distance of 6.5 km in S direction, Sutlej River is at a distance of 9.5 km in S direction, Hydel Channel is at a distance of 7 km in W direction, Sirsa Nadi is at a distance of 9.5 km in SW direction. A Khad is adjacent to project site for which NOC has been obtained from Jal Shakti Division Nalagarh vide letter no. JSV-NLG-CB-WA-1-/2022-9052 dated 27.08.2022 stating that the proposed plant and Machinery area of the industry is located outside the river flood plain and there is no water body/ river running through this proposed plant and machinery area.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $1.70 \mu\text{g}/\text{m}^3$, $0.90 \mu\text{g}/\text{m}^3$, $0.53 \mu\text{g}/\text{m}^3$ and $2.25 \mu\text{g}/\text{m}^3$ 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 1174 CMD which will be met from ground water. NOC has been obtained by Jal Shakti Division, Nalagarh, HP.

vide letter no. JSV-NLG-CB-WA-Ground Water/2022-157-58 dated 06.04.2022. Effluent (Condensate/spent lees) of 1464 CMD quantity will be treated through Condensate Polishing Unit of capacity 1800 CMD. Raw stillage (1185 KLPD raw spent wash from distillation) will be sent to the decanter followed by MEE and dryer to produce DDGS. ETP cum STP of capacity 225 KLD will be installed to treat boiler blowdown cooling tower blow down, RO water reject, lab reject, soft water reject and domestic sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3.5 MW and will be met from proposed 4.5 MW co- generation power plant. Power connection of 1 MW will be obtained from Himachal Pradesh State Electricity Board. 40 TPH biomass fired boiler will be installed. Electrostatic Precipitator with a stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 750 KVA and 500 KVA DG set will be used as standby during power failure and stack height (7 m ARL) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- Electrostatic Precipitator with a stack height of 30 meters will be installed for controlling the particulate emissions.
- Online continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (152 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) (118 TPD) will be used as cattle feed.
- Boiler ash (53 TPD) will be supplied to brick manufacturing unit.
- Used oil (0.45 Kiloliters per annum) will be sold to authorized recyclers.
- Sludge (4.5TPD) from CPU and ETP cum STP will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted

self-certification in the form of notarized affidavit declaring that the proposed capacity of 200 KLPD will be used for manufacturing fuel ethanol only.

Total land of 7.83 Hectares is under possession of the company and possession of the industrial plot has been obtained from Himachal Pradesh State Industrial Development Corporation Limited, Baddi, Distt. Solan, HP vide letter no. HPSIDC/EE/I.A./Aduwal/295/P-1/-597 dated 27.06.2022.

During deliberations, EAC discussed following issues:

- EAC members noted that kml file showing plant layout submitted to EAC members is different and layout shown during EAC meeting & uploaded on the website are different. Undertaking confirming the final plant layout shall be submitted along with correct kml file showing plant layout.
- Project site is towards upstream and encroaching the khad. Project site is obstructing the natural flow of Mahadev Khad. EAC suggested to construct embankment and PP shall commit the same. Time bound action plan for protecting the stream shall be submitted. Also, commit that no discharge of treated water/waste water shall be done in Khad.
- PP informed that under CER activities pond rejuvenation will be done. EAC suggested to revise CER activities including school upgradation, supply of potable water, solar lighting etc. in addition to pond rejuvenation.
- OHS budget shall be increased from Rs. 10 Lakhs to Rs. 50 Lakhs.
- Revised fresh water consumption shall be submitted and requirement shall not exceed 4 KL/KL of ethanol production.
- Details of condensate polishing unit along with RO considering correct effluent quality. Revised characteristics of inlet of condensate shall be submitted.
- Commitment that no coal shall be used. If coal is used then standard shall be 30 mg/Nm³ for PM emission.
- The Committee noted that dispersion of the pollutants was shown opposite to the wind rose diagram. The Committee asked them to carry out fresh air quality modelling and submit revised isopleths as per dominant wind direction.
- Revised baseline data for CO level shall be submitted.

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. 11

Proposed new 300 KLPD molasses based distillery / 200 grain based distillery along with 10.0 MW cogeneration power plant located at Meerganj, Village & Tehsil- Meerganj, Sidhauri Road, District Bareilly, Uttar Pradesh by M/s. Dhampur Sugar Mills Limited Meerganj Unit - Consideration of Environmental Clearance

[IA/UP/IND2/229422/2021, IA-J-1101/373/2021 IA-II (I)]

The Project Proponent and the accredited Consultant M/s. Enviro Infra Solutions Pvt. Ltd. (NABET certificate no. NABET/EIA/1922/RA0157-and validity of 13th November, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 300 KLPD molasses distillery project or 200 KLPD grain based distillery along with 10.0 MW co-generation power plant located at Village & Tehsil Meerganj, Sidhauri Road, District Bareilly, State Uttar Pradesh by M/s. DSM Sugar Meerganj (A unit of Dhampur Sugar Mills Limited).

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

The details of products and capacity as under:

S. No	Unit	Product/by-product	Total Quantity
1	Molasses/grain based distillery	Ethanol/RS/ENA	300 KLD molasses based or 200 KLPD grain based
2	Cogeneration power plant	Power	10 MW
3	Fermentation Unit	Carbon di-oxide	216/144 TPD
4	DWGS dryer	DDGS	40 TPD

Standard Terms of Reference have been obtained vide F. No. IA-J-11011/373/2021-IA-II(I) dated 19.09.2021. PP has informed the litigation is pending against the proposal.

An application was filed being OA No. 539 of 2019 In Re: Adil Ansari Vs. Dhampur Sugar Mills Ltd., and Others. In the said application Hon'ble NGT vide its order dated 1st September 2021 imposed an Environmental Compensation of total Rs. 20 Crores which includes Rs. 5 Crores on M/s Dhampur Sugar Mills Ltd., Meerganj, District Bareilly and ordered to deposit compensation within a period of 30 days from date of order. Hon'ble NGT then constituted a Committee to assess the damage.

The Company has filed a Civil Appeal No. 5975/2021, titled as M/s Dhampur Sugar Mills Ltd. & Ors Vs Adil Ansari & Others against the impugned order dated 01.09.2021, passed by the National Green Tribunal in Original Application No. 539 of 2019 to pay the environment compensation of Rs. 5,00,00,000/- (Rs. Five crores only) and cost Rs. 10,00,000/- by each unit.

On dated 08.10.2021, the Hon'ble Supreme Court passed a stay order confirming "*stay of the impugned Order restricting the direction of NGT for payment of Environment compensation of Rs.5,00,00,000/- (Rupees five crores only) in respect of each unit as also the costs of Rs.10,00,000/- imposed on Respondent Nos. 1 to 3.*" Hon'ble Supreme Court also ordered that "*A committee may be constituted to make a detailed study as directed by the order impugned, but no further steps shall be taken by the Committee for a period of six weeks from date.*" The Case is presently pending in the Hon'ble Supreme Court. PP informed that they are submitting an affidavit to the effect that they shall comply with the final orders of the Hon'ble Supreme Court as and when the final orders are passed.

Public Hearing for the proposed project had been conducted by the Uttar Pradesh Pollution Control Board on 28.04.2022 chaired by Additional District Magistrate, Bareilly. The main issues raised during the public hearing and their action plan:

Regarding employment, PP informed that with the establishment of the unit, preference will be given to the people of nearby areas in context to employment. Apart from this, only 10 to 15 percent people have been given employment from outside. Employment for technical posts will be given on the basis of Educational qualification and interview.

Regarding lot of encroachment on the road and widening of the road to prevent traffic, PP informed that road is outside industry premises and necessary assistance will be provided to build the road.

Regarding work to be done for Fatehganj to build over bridge from Sajanpur Nagaria, PP informed that the construction work of the road on the mill side would start in 10 to 15 days. Road in front of the society will also be built, which will reduce the jam at the gate. There are three works in our priority, on which, work will be started soon.

Total land area required is 8.094 hectares. Greenbelt will be developed in total area of 2.75 hectares i.e., 34% of total project area. The estimated project cost is Rs. 250 Crores. Capital cost of EMP would be Rs 96 Crores and recurring cost for EMP would be Rs.3.50 Crores per annum. Industry proposes to allocate Rs. 3.80 Crores towards Extended EMP (Corporate Environment Responsibility). Total employment will be 120 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance. Water bodies: Ramganga River is at a distance of 9.6 km in South West direction and other seasonal river like Palikhar River, Bagul River and Bhakra River are at a distance of 4.0 km, 7.0 km and 6.0 km respectively in East direction.

Ambient air quality monitoring was carried out at 08 locations during Post monsoon from 01 Oct 2021 to 31 Dec 2021 and the baseline data indicates the ranges of concentrations as: PM₁₀ (54.2 to 93.6.µg/m³), PM_{2.5} (24.2 to 49.9.µg/m³), SO₂ (6.2 to 18.3.µg/m³) and NO₂ (7.4 to 27.5.µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.68 µg/m³, 0.41 µg/m³, 3.2 µg/m³ and 0.85 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1735 m³/day which will be sourced from ground water. Application has been submitted to Ground water Department, Ministry of Jal Shakti, Government of Uttar Pradesh dated 10 August 2022. Effluent of 3243 m³/day quantity will be treated

through Condensate Polishing Unit of capacity 3500 KLPD. Spent wash from molasses based operation will be concentrated in MEE and incinerated in boiler/dried in ATFD to form powder. In grain based operation, concentrated spent wash will be concentrated in MEE and dried to form DDGS. STP of capacity 50 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 5 MW and will be met from proposed 10.0 MW co-generation power plant. 95 TPH slop/biomass/coal fired boiler will be installed. ESP with a stack of height of 84 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler.

Details of Process emissions generation and its management:

- ESP with a stack of height of 84 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler.
- Online continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (216/144 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) (40 TPD) will be used as cattle feed.
- Boiler ash (137.8 MT/Day) will be supplied to brick manufacturing unit.
- Used oil (3.5 KL/annum) will be sold to authorized recyclers.
- Yeast sludge (30 TPD) & ash will be used in bio-composting plant.

Total land of 54.827 Hectares is under possession of the company and land use conversion has been completed vide letter no. 1/94295 and 2/94295 dated 06.07.1995.

During deliberations, PP informed that distillery will be established in the same premises of sugar mill. EAC discussed following issues:

- Certified CTO compliance report issued by RO, SPCB shall be submitted.
- Details of court case, action plan for the court case was discussed. PP shall submit action plan for all issues mentioned in court cases as well as measures taken to control effluent discharge into the river.
- Current status of the court case w.r.t. stay by the Hon'ble Court on the existing as well as proposed industry.
- Treated effluent of sugar mill shall be 70%-80% recycled and reused in distillery. Industry shall implement phase wise Zero Liquid Discharge for integrated unit. PP shall submit detailed action plan for the same.
- Fresh water consumption shall not exceed 2.5 KL/KL of alcohol production i.e., 750 KLPD only for the proposed distillery unit. Revised water balance shall be submitted.
- Action plan for road development as per public hearing issues shall be undertaken by the industry. PP informed that industry will implement the same with collaboration of State Authority. Further, PP shall submit commitment & action plan for road development.
- Occupational health budget shall be increased to Rs. 70 Lakhs instead of Rs. 50 Lakhs.
- Information on risk from ethanol storage tanks, its likely impact on boundary level , safe distances between the tanks, Prevailing Risk from existing facilities, Perceived risk from the proposed facilities, Societal Risk, Cumulative risk, Details of Onsite mitigation measures / DMP so that zone of influence in worst case scenario do not go outside the industry boundary.

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. 12

Expansion of Grain based Distillery from 650 KLPD to 1320 KLPD & Co-generation Power Plant from 20 MW to 40 MW at Village Devadi, Block Garhani, Anumandal Ara, District Bhojpur, Bihar by M/s. Bihar Distillers & Bottlers Private Limited - Consideration of Environmental Clearance

[IA/BR/IND2/274130/2012, IA- J-11011/98/2012-IA II(I)]

The proposal was earlier considered by the EAC (Ind-2) in its 07th meeting held during 8th - 9th June, 2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13341/23/09/2022) held on 23rd September, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

S. No.	ADS by MoEFCC	Reply of PP
1	PP will submit closure report from IRO, MOEFCC, Ranchi.	The company has obtained Closure report from IRO, MOEFCC, Ranchi vide letter no. 105-107/488 dated 24.08.2022.
2	Consolidated CTO for 650 KLPD shall be submitted.	The company has obtained CTO for air & water from Bihar State Pollution Control Board for 650 KLPD out of which 400 KLPD is consent for Ethanol plant obtained vide Ref No. PT(NOC)-1493/14/1302 for water & Ref No. PT(NOC)-1493/14/1301 dated 26.04.2022 for air; 250 KLPD consent is for ENA/RS plant obtained vide Ref No. 3918 for air & Ref No. 3919 for water dated 16.09.2020. Hence, BSPCB has decided to keep the consents separate.
3	Water audit shall be done regularly in order to reduce fresh water requirement.	The company is making regular efforts to reduce its freshwater requirement. After expansion, the freshwater requirement will be reduced to 4.5 KL/KL of alcohol production. Water audit shall be done in order to reduce fresh water requirement.
4	Time bound action plan for Construction of covered shed with wind barriers for rice husk storage shall be done.	Presently, the fuel feeding point at the boiler has been covered from where the daily requirement of husk is being met. Also, the boiler fuel conveyor has been covered to avoid husk getting air borne.

		<p>Since, the company is using various biomass such as rice husk/ paddy straw/ wood chips (along with 10-15% coal in emergency cases) as fuel in the boiler and the procurement of this fuel has to be done in bulk within a period of 2-3 months to meet the requirement for the complete year on an economic basis. Hence, it requires very big storage areas and therefore having covered storage sheds for the same is not feasible. However, the Company has arranged to cover the rice husk with durable plastic mesh in the storage areas to prevent it from getting air borne. The company would construct wind barriers if huge quantities of rice husk are stored for a longer duration.</p>
5	Time bound action plan for Carbon di-oxide bottling plant shall be installed during proposed expansion activities to completely utilize carbon di-oxide.	<p>Carbon dioxide (CO₂) scrubbers have already been installed in the plant. Since, there was no demand for CO₂ in the state of Bihar, hence the CO₂ plant has not been installed yet. However, the Company is now exploring the market for CO₂; and as and when the demand for the same is identified, the Company shall install the CO₂ plant.</p>
6	Additional measures to control fugitive emissions/ suspended dust.	<p>Following additional measures will be taken for :</p> <ul style="list-style-type: none"> • All the internal roads have been asphalted during the implementation of the existing plant. Therefore, vehicular movement may not generate fugitive dust. • Covered enclosures have been/will be provided for the raw materials/ash while transportation via trucks/trolleys. • Adequate greenbelt has been developed in the plant area. Greenbelt acts as a surface for settling of dust

		<p>particles and thus reduces the concentration of particulate matter in air.</p> <ul style="list-style-type: none"> • Regular water sprinkling on roads is carried out to suppress any dust dispersion. • Ash from silo is being/will be transferred in transport vehicles directly with efficient arrangement to prevent dusting or air borne particulates. • All transportation vehicles shall carry a valid PUC (Pollution under Control) Certificate. • Proper servicing & maintenance of vehicles is being/will be carried out.
7	Revised CER cost as cost is too less, hence cost should be increased to Rs. 5 Crores. Activities to be done shall be clarified and CER cost shall be invested before commissioning of project.	<p>The company has increased the socio economic developmental activities budget from Rs 2.48 Crores to Rs 4.0 Crores and detailed time bound action plan with activities has been submitted. The proposed action plan will be implemented during project implementation phase. The company hereby commits that the amount to be spent on socio economic development i.e., Rs. 4.0 Crores will be spent and the amount will be spent in nearby villages; Village Devadi, Village Ratanpur and Village Mahavirganj in activities viz., supporting educational facilities, development of infrastructure and improving health facilities.</p>
8	Revised cost earmarked towards Environment Management Plan as cost is too less as compared to capacity proposed.	<p>The Company executes its project through in house team in a cost-effective manner and does not believe in turnkey award of contracts, which unnecessarily escalates the total project cost. Hence, the project cost of Rs. 248 crores are justified for additional 670 KLPD Ethanol</p>

		plant. Also, based on this cost the company has proposed Rs. 79.95 Crores as Environment Management Plan cost which is sufficient for the expansion project.
9	Explore installation of air-cooled condensers instead of water cooled condensers with boiler, if feasible.	For the production of Ethanol, there is requirement of low pressure steam in the process. The Company has proposed a high pressure boiler and this high pressure steam shall then pass through a back pressure type turbine instead of a condensing type turbine for the generation of power. Also, the exhaust steam coming out from this back pressure turbine is at a lower pressure suitable for process requirements. Since, condenser for steam is not required in this type of turbine hence there is no need to explore an air cooled condenser for boiler and turbine.
10	Ash management. MOU with brick manufacturers shall be submitted and explore possibility of installation of brick manufacturing unit.	The Company has entered into an agreement with Ash lifting Contractor who is supplying fly ash generated from the boiler to the nearby villages of Barap, Balligaon, Kahen, Dulhiganj, Kaup for brick manufacturing/ paver tiles manufacturing, in covered vehicles. An agreement with the Contractor has been submitted.
11	Ground water permission shall be obtained before commencement of construction activities.	The company has obtained renewed NOC for Ground water abstraction from CGWA vide NOC no. CGWA/NOC/IND/REN/ 1/2022/7162 valid from 10/06/2021 to 09/06/2024.
12	Action plan for greenbelt development @2500 trees per hectares.	The Company has already initiated the action for greenbelt densification @2500 trees per hectares by planting various species of trees.
13	Filter press shall be installed instead of	Filter press will be installed instead of sludge drying beds inside plant premises

	sludge drying beds.	for proper sludge management.
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EAC found the information satisfactory.

The Project Proponent and the accredited Consultant M/s. JM EnviroNet Pvt. Ltd. (NABET/EIA/2023/RA 0186 and validity till 7th February, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for Expansion of Grain based Distillery from 650 KLPD to 1320 KLPD & Co-generation Power Plant from 20 MW to 40 MW (biomass based) at Village Devadi, Block Garhani, Anumandal Ara, District Bhojpur, Bihar by M/s. Bihar Distillers & Bottlers Private Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/ byproduct	Existing Production capacity	Additional Capacity	Total production capacity
1	Distillery (Grain based)	Ethanol, Rectified Spirit/ Extra Neutral Alcohol/ Impure Spirit/ DS/SDS/ Fusel oil	650 KLPD (Ethanol, Rectified Spirit/ Extra Neutral Alcohol/ Impure Spirit/ DS/SDS/ Fusel oil)	670 KLPD (Ethanol)	1320 KLPD
2	Co-generation	Power	20 MW	20 MW	40 MW

	Power Plant for distillery				
3	DWGS dryer	DDGS	275 TPD	280 TPD	555 TPD
4	Fermentation unit	Carbon di-oxide	455 TPD	470 TPD	925 TPD

Ministry has issued Environmental Clearance to the existing 660 KLPD Grain based plant & 20 MW Co-generation Power Plant at Village Devadi, Block Garhani, Anumandal Ara, District Bhojpur (Bihar) letter no. J-11011/98/2012-IA II (I) dated 1st May 2014 & validity of EC extension was issued on 6th May, 2021 and extended till 30th April, 2024. Certified Compliance report of Existing EC has been obtained from Regional Office, MoEFCC, Ranchi vide letter no. 105-107/13/EPE/124 dated 25.02.2022. Action Taken Report has been submitted to MoEFCC, New Delhi dated 28.04.2022 for 9 partial compliances and Closure report from IRO, MOEFCC, Ranchi has been obtained vide letter no. 105-107/488 dated 24.08.2022.

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

Total plant area is 18.21 hectares. No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area 6.01 hectares i.e. 33% of the total plant area has already been developed as greenbelt & plantation and the same will be maintained in and around plant premises. The estimated project cost is Rs. 248.0 Crores. Capital cost of EMP would be Rs. 79.95 Crores and recurring cost for EMP would be Rs. 1.12 Crores / annum. Industry proposes to allocate Rs 4.0 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 500 persons as direct.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Reserve forests/protected forests, Wildlife Corridors etc. within 10 km distance. Water bodies: Banas Nadi is at a distance of 2.0 km in NE direction, Gangi Nadi is at a distance of 9.5 km in NW direction & some Distributary/Nala are present within 10 km radius.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.53 µg/m³, 0.21

µg/m³, 0.80 µg/m³ and 0.97 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 5982 CMD which will be met from groundwater. The company has already obtained renewed NOC from CGWA vide NOC no. CGWA/NOC/IND/REN/1/2022/7162 valid from 10/06/2021 to 09/06/2024. Existing effluent generation is 705 CMD from distillery which is treated through Wastewater Treatment Plant of Capacity 1200 CMD. After Expansion, effluent generation will be 1415 CMD from distillery which will be treated through Wastewater Treatment Plant of Capacity 1700 CMD. The Process condensate (5162 KLPD) will be recycled into process use. In grain based operation, raw stillage (9152 KLPD) will be sent to decanter followed by MEE followed by dryer to produce DDGS. Domestic waste water will be treated in existing STP of 15 & 25 KLPD & proposed STP of capacity 20 KLPD. The plant is being/will be based on Zero Liquid discharge system and treated effluent/water is being/will not be discharged outside the factory premises.

Total power requirement of distillery mill after expansion will be 24 MW which will be sourced from 40 MW Co-Generation Power Plant. Existing distillery has 52 TPH, 95 TPH & 6 TPH biomass such as rice husk/ paddy straw/ wood chips/coal fired boiler having 55 meters stack height and ESP as air pollution control device. A new 120 TPH biomass such as rice husk/ paddy straw/ wood chips/coal fired boiler will be installed in distillery. ESP with a stack of height of 55 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. Industry has existing 1000 KVA DG set & proposed 1250 KVA which will be used as standby during power failure and Stack height (6.5 m) for existing & (7.0 m) for expansion will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP with a stack of height of 55 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler.

- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (925 TPD) generated during the fermentation process is being/will be collected by utilizing CO₂ scrubbers and sold to vendors as per local demand.

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

- DDGS (555 TPD) is being/ will be sold as cattle feed/fish feed/prawn feed.
- Boiler ash (218 TPD) is being /will be supplied to nearby brick/paver tiles manufacturers. The Company has entered into an agreement with Ash lifting Contractor who is supplying fly ash generated from the boiler to the nearby villages for brick manufacturing/ paver tiles manufacturing, in covered vehicles.
- Used oil & grease (2.5 KL/annum) is being/will be sold out to the CPCB authorized recyclers.
- CPU sludge (1.7 TPD) and STP Sludge (0.03 TPD) is being/will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 670 KLPD will be used for manufacturing fuel ethanol only.

During deliberations, EAC discussed following issues:

- Total fresh water consumption shall not exceed 4 KL/KL of ethanol production. PP committed the same.
- Additional land is required for expansion or not. PP informed that no additional land will be required.
- The Committee suggested that certain covered shed shall be created for the biomass storage for atleast 10 days.
- The Committee suggested that installation of air-cooled condensers shall be explored in the distillery to reduce water requirement.

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 670 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). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iv). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production i.e. 2680 m³/day which will be met from ground water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption. PP shall explore installation of air-cooled condensers in distillery.
- (v). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.

- (vi). Electrostatic precipitator (5 field and 99.9% efficiency) with a stack height of 60 meters will be installed with 120 TPH biomass such as rice husk/ paddy straw/ wood chips/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (vii). Boiler ash (218 TPD) is being /will be supplied to nearby brick/paver tiles manufacturers. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (viii). CO₂ (925 TPD) generated during the fermentation process is being/will be collected by utilizing CO₂ scrubbers and sold to vendors as per local demand.
- (ix). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (x). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xi). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.

- (xiii). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv). Out of the total plant area 6.01 hectares i.e. 33% of the total plant area has already been developed as greenbelt & plantation and the same will be maintained in and around plant premises. The green belt of at least 5-10 m width shall be developed with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map.
- (xv). PP proposed to allocate Rs. 4.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xvii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind

speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

- (xviii). Continuous online (24x7) monitoring system for stack emissions/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.
- (xix). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xx). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

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

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

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

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