

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

Dated: 24.03.2022

**MINUTES OF THE 01st MEETING OF THE EXPERT APPRAISAL
COMMITTEE**

(INDUSTRY-2 SECTOR PROJECTS)

HELD ON 15th-16th March, 2022

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

Opening Remarks by JS (SKB) and the Chairman: An Opening remark was made by JS(SK B) with welcome to the members of newly constituted EAC Ind-2. The Chairman and Member Secretary also made hearty welcome to the Committee members. Thereafter, a presentation was given by Member Secretary on the scope of the work and important aspects of the project appraisal. After opening remarks and orientation, the Chairman opened the EAC meeting for further deliberations.

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: -

15th March, 2022 (Tuesday)

Agenda No. 1.1

Establishment of 75 KLPD Grain based Distillery with 1.8 MW Electricity Generation by M/s. Dhage-Patil Chemical Pvt. Ltd., located at Gut No. 239/2, 239/3 & 239/4, At./Po: Chimbhale, Tal.: Shrigonda, Dist.: Ahmednagar, Maharashtra - Consideration of Environment Clearance.

[IA/MH/IND2/256870/2022, J-11011/64/2022-IA-II(I)]

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

The proposal is for environmental clearance to the project for Establishment of 75 KLPD Grain based Distillery with 1.8 MW Electricity Generation by M/s. Dhage-Patil Chemical Pvt. Ltd., located at Gut No. 239/2, 239/3 & 239/4, At./Po: Chimbhale, Tal.: Shrigonda, Dist.: Ahmednagar, Maharashtra.

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.

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per Notification S.O. 2339(E), dated 16th June, 2021. It was informed that no litigation is pending against the project.

The details of products and capacity are as under:

Industrial Unit	Products & By-products	Units	Quantities
Distillery (75 KLPD)	Ethanol	KLPD	75
	By-product		
	DDGS (10% Moisture)	MT/D	70
	CO ₂	MT/D	62
Co-gen Plant	Electricity	MW	1.8

Total plot land area is 51,200 m². Proposed Built- up is 10,294.12 m². Industry will develop greenbelt in an area of 33% i.e 16,930.86 m² out of total plot area. The estimated project cost is Rs. 94.60 Crores. The distillery will be operated for 330 days. Total capital cost earmarked towards environmental pollution control measures under proposed project will be Rs.14.35 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.53 Crores per annum. Total Employment will be 70 persons as direct & indirect under proposed project. Industry proposes to allocate Rs. 215 Lakh @ of 2.3% towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 Km distance from the project site. Ghod River is flowing at a distance 4 Km from South to West.

Total water requirement is 808 CMD. Out of which 305 CMD will be fresh water taken from Dhod Left Canal. For proposed Distillery; Wet Cake from decantation operation and Thick Slop from MEE will be mixed

together and this mixture known as DDGS will be used as Cattle Feed. Lees generated from grain base distillery operations along with other effluent @ 454 M³/Day will be treated in proposed CPU. Treated effluent from CPU will be reused for industrial operations, thereby achieving Zero Liquid Discharge (ZLD) for process effluent. This wet cake further dried in dryers will result in loss of moisture thereby forming Distillers Dry Grains with Soluble (DDGS- 10% moisture) @ 70 MT/D. This DDGS has more shelf life & sold as cattle feed.

Power requirement for proposed project will be 1.8 MW which will be met from own Turbine Generation Plant. One DG set of 500 KVA which will be operated only during failure. Stack 5 M ARL will be provided as per CPCB norms to the proposed DG Set. New boiler of 18 TPH will be installed under proposed distillery unit. Fuel for the same will be Rice Husk / Bagasse / Coal. ESP with a stack of height of 50 M will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the boiler.

Details of process emissions generation and its management:

The CO₂ generation shall take place in fermenters of the distillery. CO₂ to the tune of 62 MT/Day shall be released from 75 KLPD distillery plant. CO₂ shall be bottled and supplied to manufacturers of beverages.

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

Details of Solid waste generated & its management

No.	Description	Quantity (MT/D)	Disposal Facility
1	Boiler Ash	10	Sold to Bricks Manufacturer
1	CPU Sludge	0.4	Use as manure

No any Hazardous waste is generated from Distillery.

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

During deliberations EAC sought the following information/commitments from PP:

- Parking area shall be separate and no process activities shall be conducted inside parking area.
- Affidavit stating no jaggery shall be manufactured within the premises proposed for distillery.
- Revised fresh water usage.
- Revised rainwater harvesting calculations.

- Revised stack height calculations.
- Revised ESP cost.
- Detailed and specific CER plan shall be submitted.

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

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

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 75 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC

granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. No jaggery shall be manufactured within the premises proposed for distillery.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Dhod Left Canal. No ground water abstraction shall be permitted. Prior permission shall be obtained from the concerned regulatory authority in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. PP shall use biomass like rice husk 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. Ash shall be stored in silos and used as manure/brick manufacturing.
- (vii). CO₂ bottling plant shall be installed within plant premises.
- (viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

- (x). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xi). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xii). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiv). PP proposed to allocate Rs. 2.15 Crores towards CER which shall be spent as submitted for up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes. Parking area shall be separate and no process activities shall be conducted inside parking area.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

Agenda No. 1.2

Proposed 120 KLD Grain Based Ethanol Plant along with 3.0 MW Co-generation Power Plant by M/s. Aadhar Green Industries LLP located at Village: Loflong 2, Mouza: Sonapur, District: Kamrup (Metro), Assam - Consideration of Environment Clearance.

[IA/AS/IND2/258244/2022, J-11011/74/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Grass Roots Research & Creation India (P) Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Proposed 120 KLD Grain Based Ethanol Plant along with 3.0 MW Co-generation Power Plant by M/s. Aadhar Green Industries LLP located at Village: Loflong 2, Mouza: Sonapur, District: Kamrup (Metro), Assam.

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.

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per Notification S.O. 2339(E), dated 16th June, 2021. It was informed that no litigation is pending against the project.

The details of products and capacity are as under:

S. No.	Units	Proposed Capacity
1	Installed Capacity	Grain Base Ethanol Plant of 120 KLPD
2	Major Raw Material	Mostly Broken Rice, Maize, Millet & Sorghum or mixed grains will be used.
3	Final Product & By-Product	Ethanol (120 KLPD) DDGS- 64 TPD

		CO ₂ - 52 TPD
4	Power Plant	3.0 MW

Total land required for the project is 12.1082 Acre (4.9 Ha). Industry will develop greenbelt in an area of 33.0% of total project area i.e., 1.617 Ha out of total area of the project. The estimated project cost is Rs. 99.70 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 1400 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 450 lakhs per annum. Total Employment will be 105 persons as direct & indirect due to the project. Industry proposes to allocate Rs. 1.0 Cr @ of 1 % of total project cost towards Corporate Environment Responsibility.

As per Ministry's final notification of Amchang Wildlife Sanctuary Vide S.O 1817(E) dated 07th May, 2017, Eco Sensitive Zone (ESZ) is varying from 170 m to 8.1 km around boundary of Amchang Wildlife Sanctuary in all directions. Amchang Wildlife Sanctuary is approx. 3.5 km towards NNW direction from the project site and project site falls outside the ESZ of the Wildlife Sanctuary. Markdola RF is approx. 0.10 km, towards West, Khanpora RF is approx. 4.3 km towards NW, Anchang RF is approx. 6.2 km towards North, Mylilim RF is approx. 6.5 km West. Digaru River is at approx. 1.5 km towards South East direction from the project site.

One Time Total water requirement for the project will be 1,794 KLD which will be further reduced through recycling & reuse of 1,134 KLD. Total fresh water demand for distillery operation is 395 KLD @3.3 KL of water/KL of Ethanol. Net fresh water requirement including power plant of 3 MW is 555 KLD, which will be sourced from ground water augmented with rain water. The permission of withdrawal for 480 KLD ground water has been obtained from CGWA vide letter no CGWA/NOC/IND/ORIG/2022/14407 and permission for withdrawal of additional 180 KLD water has been submitted to CGWA vide application no 21-4/1578/AS/IND/2022. Effluent of 526 KLD quantities will be treated in 630 KLD ETP/CPU. The plant will be based on Zero Liquid Discharge system.

Power requirement will be 2.8 MW and will be sourced from In-house captive power plant and balance electricity will be given to State Electricity Board. 2 DG sets of total capacity 1000 kVA (1*500 kVA + 1*500 kVA) capacity will be used as standby during power failure and stack height will be provided as per CPCB norms to the proposed DG sets. Project will have 25 TPH AFBC boiler will be installed. ESP and bag filter with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/nm³ for the

proposed boilers. Regular monitoring will be done to ensure that ambient air quality standards to meet all the time. All the internal roads will be asphalted.

Details of process emissions generation and its management:

CO₂ generated during fermentation process will be collected, purified, liquefied and sold to vendors.

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

Type of Waste	Quantity (TPA)	Storage	Utilization/ Disposal
DDGS – (by product) (Dried distillers’ grains with soluble)	22,400 TPA	Covered shed	Sold as Cattle Feed, Poultry & Fisheries
Ash from boiler	4,200 TPA	Silo	Sold to Bricks manufactures in nearby area
Waste papers/Boxes	3.0 TPA	Covered shed	Sold to recyclers
Used Oil	2.0 KL	HDPE drums in covered shed	Used for oiling the machine in house and balance will be given to authorized re-cycler
Spent Resin from DM Plant	0.6 KL	HDPE drums in covered shed	Given to authorized re-cycler
ETP Sludge	71.7 KL	Stored in the dedicated Place	Given to authorized re-cycler

As per the 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 KLD will be used for manufacturing fuel ethanol only.

During deliberations EAC sought the following information/commitments from PP:

- Greenbelt species list shall be submitted constituting native and local species which may survive in the project environment.
- Justification for high background NOx values.
- Revised EMP break up shall be submitted.

- Providing 15 metres greenbelt towards Markdola R.F. which is about 100 m in West and towards Kamaljara Bishnu Mandir in SSW of the plant.

PP has submitted the desired information as sought above and EAC has 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 KLD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC

granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water augmented with rain water. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Brick manufacturing unit shall be installed within premises. PP shall use biomass like rice husk 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.
- (vii). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (viii). PP shall allocate at least Rs. 25 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

- (x). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xi). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Additional greenbelt shall be developed towards West boundary facing Markdola RF.
- (xiv). PP proposed to allocate Rs. 1.0 Crores towards CER which shall be spent as submitted in CER plan for up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

Agenda No. 1.3

Proposed 100 KLPD Grain based Ethanol Plant and 3.0 MW Co-generation Power Plant with Zero Liquid Discharge (ZLD), to be used for Ethanol Blended Petrol (EBP) Programme of the Government by M/s. Sambalpur Biofuels Private Limited located at Parmanpur (Nuamunda), Tehsil-Maneswar, P.S-Sason, District-Sambalpur, Odisha - Consideration of Environment Clearance.

[IA/OR/IND2/254790/2022, J-11011/70/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Global Tech Enviro Experts Private Limited, 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 100 KLPD Grain based Ethanol Plant and 3.0 MW Co-generation Power Plant with Zero Liquid Discharge (ZLD), to be used for Ethanol Blended Petrol (EBP) Programme of the Government by M/s. Sambalpur Biofuels Private Limited located at Parmanpur (Nuamunda), Tehsil-Maneswar, P.S-Sason, District-Sambalpur, Odisha.

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.

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per Notification S.O. 2339(E), dated 16th June, 2021. It was informed that no litigation is pending against the project.

The details of products and capacity are as under:

S.No.	ProductDetails	Proposed Quantity	Total Quantity
1.	Distillery	100 KLD	100 KLD
2.	Power Plant	3.0 MW	3.0 MW

Existing land area is 60,000 m² will be used for the proposed distillery project. Industry will at present develop greenbelt in an area of 33 % i.e. 20,000 m² area of the distillery. The estimated project cost is Rs. 120.00 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 5.25 Crore and the Recurring cost (operation and maintenance) will be about Rs. 0.55 Crore per annum. Total Employment will be 61 persons as direct & 100 persons indirect. Industry proposes to allocate Rs. 1.28 Cr towards Corporate Environmental Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Sason canal is flowing at a distance of 2 km in western direction.

Total water requirement is 2,110 m³/day of which fresh water requirement of 565 m³/day will be met from Ground/Surface water & Rain water Harvesting. Effluent of 500 KLD will be treated through CPU. The plant will be based on Zero Liquid Discharge system.

Power requirement will be 2.5 MW and will be met from Proposed Co-Generation Power Plant. The unit will have DG sets of 750 kVA capacity, as stand by during power failure. Stack height 5 meter above roof will be provided as per CPCB norms for the proposed DG sets. The project will have 30 TPH AFBC boiler. Multi cyclone separator/ bag filter with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boiler.

Details of process emissions generation and its management:

Sl. No.	Plant/ Area	Proposed Pollution Control Measures
	Rice grain Handling	
1	Grains to be free from dust and husk and then to be milled to grain flour	Bag filter
2	30TPH steam from AFBC	ESP

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

Name of waste	Quantity Per Annum	Unit	Mode of Transport	Mode of Disposal
DDGS	15,780	Tons	Road	will be used as Cattle feed, Poultry & Fisheries
Boiler Ash	9,300	Tons	Road	Sold to Brick manufacturers

Sludge from STP	300	Kilo Liter	Road	will be used as manure for landscaping within plant premises.
Used oil	0.5	Kilo Liter	Road	will be sold to the CPCB authorized recycler

As per the 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.

During deliberations EAC sought the following information/commitments from PP:

- GLC value of sulphur emission is high. Clarification shall be submitted.
- Ash shall be consumed in plant premises only and no ash transportation shall be carried out.
- CER activities shall be detailed and spend before commencement of operations.
- Land documents and land conversion documents shall be submitted.
- Layout shall be submitted showing road to project site clearly for transportation purposes.
- Revised carbon dioxide quantity shall be submitted as there is discrepancy in values quoted.

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

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

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

Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Ground/Surface water & Rain water Harvesting. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity

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

- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Brick manufacturing unit shall be installed within premises. PP shall use biomass like rice husk 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.
- (vii). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (x). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xi). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiv). PP proposed to allocate Rs. 1.28 Crores towards CER which shall be spent in villages as submitted in CER plan for up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory,

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

- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.4

Expansion of Distillery from existing capacity 140 KPLD to 220 KLPD RS to produce 210 KLPD Ethanol using multi feedstock (sugarcane syrup/ B Heavy molasses/ grains) and expansion of captive power plant from 4.5 MW to 6 MW by M/s. Siddapur Distilleries Limited located at Sy. Nos. 49/2B/1 & 2, 57/2D & 2E, 58/1B, 58/1A/3, 66/4D, 85/2, 93/2/3, 95/1 & 107/2, 90/1, 90/2, 90/3 & 90/4 of Siddapur Village, Jamakhandi Taluk, Bagalkot District, Karnataka - Consideration of Environment Clearance.

[IA/KA/IND2/257979/2022, J-11011/10/2017-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Samrakshan Sugar Institute, 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 Distillery from existing capacity 140 KPLD to 220 KLPD RS to produce

210 KLPD Ethanol using multi feedstock (sugarcane syrup/ B Heavy molasses/ grains) and expansion of captive power plant from 4.5 MW to 6 MW by M/s. Siddapur Distilleries Limited located at Sy. Nos. 49/2B/1 & 2, 57/2D & 2E, 58/1B, 58/1A/3, 66/4D, 85/2, 93/2/3, 95/1 & 107/2, 90/1, 90/2, 90/3 & 90/4 of Siddapur Village, Jamakhandi Taluk, Bagalkot District, Karnataka.

The project/activities are covered under category A of item 5 (g) 'Distilleries' of the Schedule to the EIA, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC). The proposal has been submitted under the Ministry's EIA Notification, 2006 amendments vide Notification no. S.O. 345(E) dated 17th January 2019 & extension of notification S.O. 750(E) dated 17th February 2020, S.O. 980(E) dated 02nd March, 2021 and S.O. 2339(E), dated 16th June, 2021. Accordingly, the proposal has been appraised as category 'B2' project.

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per Notification S.O. 980(E) dated 02nd March, 2021 and S.O. 2339(E), dated 16th June, 2021. It was informed that no litigation is pending against the project.

Ministry had issued EC earlier vide letter No. F. No. J-11011/10/2017-IA-II(I) dated 30.03.2021 to the existing project Expansion of distillery plant of capacity 70 KLPD to 140 KLPD using B- Heavy molasses and captive power plant from 1.5 MW to 4.5 MW in favor of M/s. Siddapur Distilleries Limited.

Certified Compliance Report (CCR) was issued by IRO, MoEFCC, Bangalore vide letter F. No. EP/12.1/04/2018-19/KAR/1442 dated 23/02/2022. Certified Compliance Report was found satisfactory by the EAC.

The details of products and capacity are as under:

Sl. No.	Product	Feedstock	Existing 140 KLPD Distillery unit	Proposed 80 KLPD Distillery unit	After expansion in KLPD
1	Distillery capacity - Rectified Spirit (RS)	Multi feedstock	140 (95 % alcohol)	80 (95 % alcohol)	220 (95 % alcohol)
2	Extra Neutral Alcohol (ENA)	C-Heavy Molasses	70	-	70

3	Ethanol	B-Heavy Molasses	133.56 or say 134 (99.6 % alcohol)	76.32 or say 76 (99.6 % alcohol)	210 (99.6 % alcohol)
		Sugarcane Syrup during sugarcane crushing season	133.56 or say 134 (99.6 % alcohol)	76.32 or say 76 (99.6 % alcohol)	210 (99.6 % alcohol)
		Grain (during off season)	-	80	76 (99.6 % alcohol)
4	Captive power plant A) Using steam from incinerator boiler B) Bio-gas based power plant	-	4.5 MW	1.5 MW	6 MW
		-	2 MW	-	2 MW

Existing land area is 307561 m²; out of which distillery land is 56656 m²; Additional no land will be used for proposed expansion. Proposed expansion is within the existing premises. Industry has already developed greenbelt in an area of 33 % i.e., 101171 m² out of total area of the project. The estimated project cost is Rs.190.35 Crore including existing investment Rs. 96.96 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 32.32 Crores. And the recurring cost (operation and maintenance) will be Rs. 157.7 Lakhs per annum. Total employment will be 238 persons as direct & 50 persons indirect after expansion. Industry proposes to allocate Rs. 1.0 Crores towards Corporate Environment Responsibility.

There are no national parks, wild life sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild life Corridors etc. within 10 km distance from the project site. River Krishna is flowing at a distance of 22 km in North direction.

Baseline ambient air quality monitoring is not carried out since the project is to be appraised as B2 category as per the Notification of MoEF&CC S. no. 2339(E) dated 16.06.2021. However, ambient air quality monitoring is carried out by the industry as per the conditions of the Consent issued by KSPCB. The monitoring data during December 2021 indicate PM₁₀ 85.38µg/m³, PM_{2.5} (36.15 µg/m³), SO₂ (5.09 µg/m³) and NO_x (10.41µg/m³). AAQ modeling study for point source emissions

indicates that the maximum incremental GLCs after the proposed project would be 3.11 µg/m³, 0.529 µg/m³ and 3.63 µg/m³ with respect to PM₁₀, SO₂ and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 1584 m³/day of which fresh water requirement of 841 m³/day will be met from River Krishna. (Permission to draw 0.0122 TMC/annum is obtained from Irrigation Department, Government of Karnataka).

Fresh water use for the 220 KLPD distillery unit process

Sl. No.	Feed stock	Fresh water requirement in KLPD		Total	KL/KL of Alcohol	Recycled water utilised in process		Total water requirement of distillery plant
		Existing 140 KLPD plant	New 80 KLPD plant			For molasses dilution	For cooling tower makeup & CO ₂ scrubber	
1	B-heavy molasses	503	265	768	3.5	816	447	2031
2	Sugar cane syrup	841		841	4.0	588	447	1876
3	Grains	-	276	276	3.45	363 (Liquefaction & Jet cooking)	91	730

The quantity of spent wash generation and the other lean effluent generation under different feed stock usage is as per the table below.

Spent wash generation

Sl. No	Description of feed stock	Raw spent wash generation KLD			Conc. Spent wash	
		Existing	New	Total	kl/kl of KLPD	KL/KL

		140 KLPD	80 KLPD	220 KLPD	Ethanol		of Ethanol
1	B- Heavy Molasses	672	384	1056	4.80	201	0.91
2	Sugar cane syrup	546	312	858	3.90	165	0.75
3	Grains	-	480	480	6.0	114	1.42

Total wastewater generation

Sl. No.	Particulars	Using B heavy molasses to produce 210 KLPD Ethanol	Using Sugar syrup to produce 210 KLPD Ethanol	Using grains to produce 76 KLPD Ethanol
A	Process Effluent			
1	Raw Spent wash	1320	1320	480 (Thin slop)
	Raw spent generation KL/KL of Alcohol	6.28	6.28	6
2	Recycled raw spent wash to the process	264	462	96
3	Raw Spent wash to MEE/DDGS	1056	858	334
	Raw spent generation KL/KL of Ethanol	5.02	4.08	4.17
4	Concentrated spent wash	201	165	114
	Conc. Raw spent generation KL/KL of Ethanol	0.95	0.78	1.5
5	Spent lees	330	264	104
B	Lean effluent			
1	D M reject	15	15	17
2	MEE condensate	1003	825	267
3	Cooling tower bleed	36	36	9
4	Stripper column reject	148	132	47
5	Boiler blow down	27	27	12
6	Domestic Sewage	8	8	8

The treatment methodology for the spent wash and other lean effluents are as under;

- The total raw spent wash will be treated in CSTR bio-digester of total capacity 1300 KL and later concentrated in MEE of 1500 KL. 65% of the concentrated spent wash from MEE is used as fuel to fire the incinerator and 35% of the spent wash is used for manure preparation during non-rainy seasons in existing compost yard of 12.6 ha. During the monsoon the entire spent wash will be concentrated and incinerated.
- The biogas generated from the primary treatment will be used as supplementary fuel in incinerator along with bagasse and concentrated spent wash. Excess biogas is used to generate power from biogas-based power plant.
- Utility effluents such as spent lees, MEE condensate, cooling tower bleed, boiler blow down and condensate water is treated by physico-chemical treatment method/ stripper column to remove entrapped gases such as ammonia and CO₂.
Later this effluent is passed through plate heat exchanger for further reducing the temperature up-to 32°C and is used in process dilution and cooling tower makeup.

Power requirement after expansion will be 5100 kW and will be met from Captive power plant of 6 MW and bio gas gen set of 2 MW. Existing unit has DG set of 1000 kVA capacity, additionally No DG Sets are used as standby during power failure. Stack of height 31m AGL is provided to the DG set. Existing unit has 25 TPH concentrated spent wash & Bagasse/Bio-Gas fired incineration boiler and 12 TPH waste heat recovery biogas-based boiler. The incinerator is adequate for incinerating the additional load due to expansion. Additionally, no boiler will be installed. Electrostatic Precipitator and a stack of height of 50 m for incineration boiler and stack height of 30 m for waste heat recovery boiler is installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers. No additional air pollution sources are proposed during the expansion.

Details of process emissions generation and its management:

CO₂ from fermentation will be scrubbed, recovered and bottled.

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

Solid waste management

SI. No.	Details of the Solid waste	Quantity in TPD (existing)	Quantity in TPD (proposed)	Quantity in TPD (After expansion)	Mode of Disposal
1	Sludge (Yeast)	42	21	63	Mixed with the Press Mud & converted into organic manure
2	Fly Ash	26	13	39	Rich in Bio-potash and used as farm land manure or Mixed with the composting.
3	Bottom Ash	5.4	2.7	8.1	
4	DDGS	-	52	52	Sold as cattle feed

Hazardous waste management

Waste category	Hazardous waste generated	Quantity		Method of handling
		Existing	After Expansion	
5.1	Used Oil	0.300 KL/A	New DG sets are not proposed in the expansion program	Used oil and waste residues containing oil will be collected in leak proof containers and disposed through KSPCB authorized re-processors/ Incinerators.
5.2	Waste residues containing oil	0.100 MT/A		

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

During deliberations EAC sought the following information/commitments from PP:

- Clarify litre per litre generation of ethanol as figures corresponding to ethanol production capacity are not clear.
- Bio-composting shall not be allowed after one(01) year. Existing EC dated 30.03.2021 mentions very clearly that the company will not practice bio-composting after three (03) years of the grant of amended EC dated 23.09.2020. As per existing EC issued, PP shall

be granted only one(01) year i.e. till 2023 for stopping the practice of bio-composting and switching to incineration route.

- Submit 24 hours baseline data instead of 8 hours for ambient air quality monitoring.
- Revised EMP break shall be submitted.
- Water consumption/balance shall be detailed.
- Ash management shall be submitted.
- CER cost shall be Rs. 1.0 Crores and activities shall be such that which can be monitored, construction/up-gradation and adopting local public schools building with provision of facilities e.g. Class rooms, Playground, Laboratory, Library, Computer class, Toilets, Drinking Water Facilities, Solar light. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Magistrate.
- Greenbelt species list is much generalized, hence submit native and local species list which may survive in the project environment.

PP has submitted the desired information as sought above and EAC has 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 Notification S.O 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 80 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project.
- (v). Total Fresh water requirement shall not exceed @4.0 KL/KL and will be met from River Krishna. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Company to construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed in grain based mode and in molasses based mode, spent wash shall be incinerated as bio-composting shall not be allowed after one(01) year as prior EC granted already has provided three(03) years time for discontinuing bio-composting. PP shall meet 10% of the total power requirement from solar power. Ash shall be stored in silos and used as manure.

- (vii). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (viii). PP shall allocate at least Rs. 50 Lakhs for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (x). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xi). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xii). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiv). Industry shall allocate Rs. 1.0 Crores towards CER which shall be used for construction/up-gradation and adopting local public schools building with provision of facilities e.g. Class rooms, Playground, Laboratory, Library, Computer class, Toilets, Drinking Water Facilities, Solar light etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes.

- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.5

Proposed grain-based Fuel Ethanol plant having proposed production capacity of 150 KLPD of Fuel Ethanol and 5 MW of power cogeneration to be installed by M/s. Umiam Distillation Pvt. Ltd., located at EPIP Byrnihat, District Ri Bhoi, Meghalaya - Consideration of Environment Clearance.

[IA/ML/IND2/258907/2022, J-11011/481/2021-IA-II(I)]

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

The proposal is for environmental clearance to the project for Proposed grain-based Fuel Ethanol plant having proposed production capacity of 150 KLPD of Fuel Ethanol and 5 MW of power cogeneration to be installed by M/s. Umiam Distillation Pvt. Ltd., located at EPIP Byrnihat, District Ri Bhoi, Meghalaya.

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.

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per Notification S.O. 2339(E), dated 16th June, 2021. It was informed that no litigation is pending against the project.

The details of products and capacity are as under:

S. No.	Item	Unit	Total
1.	Fuel Ethanol	KL	150
2.	By-products		
	CO2	MT	105
	Fusel Oil	MT	2.0
	DDGS	MT	80

The industry has already procured leased land area of 5.83 hectares at EPIP Byrnihat, District Ri Bhoi, Meghalaya from Directorate of Commerce and Industry for 30 years of lease starting from 09th December, 2021. Change of Land Use for the proposed land is not required as the land area falls within Notified Industrial Area developed by Directorate of Commerce and Industry, Meghalaya. The industry will develop green belt in an area of 1.94 hectares of land which is more than 33 % of total land area. The estimated project cost is Rs. 150.00 crores for the proposed project. Total capital cost earmarked towards environmental pollution control measures is Rs. 16.00 crores and recurring cost (operation and maintenance) will be about Rs. 3.0 crores. Total employment generation will be 300 persons as direct and indirect employment due to the proposed expansion. Industry proposes to allocate Rs. 1.125 crores towards Corporate Environment Responsibility. 15 % of total plant area will be reserved for parking of vehicles. The industry will construct a water reservoir of more than 3000 KL capacity for river water/rain water storage.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Umtru river flows at a distance of 35 meters from the proposed project. The project proponent has obtained NOC regarding safety of land from Flood Zone from the office of the Executive Engineer (WR), Ri Bhoi division. As per NOC, earthen embankment of 12 ft. height is located between the project location and river and no floods have occurred in the last more than 25 years in that area.

Total water requirement for the proposed project will be 606 m³/day. All the fresh water requirement for the proposed project will be met from river water supply. The industry has already got the NOC for the extraction of river water @ 865 m³/day from the Office of Executive Committee, Khasi Hills Autonomous District Council, Shillong. The industry will generate a total of 847 m³/day of condensates including spent lees from the proposed project. Out of this, 500 m³/day will be directly used in the process for slurry preparation. Remaining

condensates @ 347 m³/day will be treated in condensate polishing unit and reused for cooling tower makeup water. Effluent from misc. streams will be 84 m³/day which will be treated in ETP and reused for water of green belt within the industrial premises. The plant will be based on Zero Liquid Discharge system.

Power requirements for the proposed expansion will be 4000 KVA and will be met from in house cogeneration power plant. The industry will purchase 1 x 1000 KVA D G set to be used as standby during power failure. Stack height to the D G sets has been provided as per norms. The industry will install a biomass/coal fired boiler of 35 TPH capacity. Electrostatic precipitator will be installed as pollution control system to achieve the statutory limit of 50 mg/Nm³ for the proposed boiler. The industry will install dryers for the handling of DWGS for controlling process odors from the factory. There is no litigation pending against the proposal.

As per the Notification S.O. 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 150 KLPD will be used for manufacturing fuel ethanol only.

During deliberations EAC sought the following information/commitments from PP:

- CER cost shall be Rs. 1.125 Crores and activities shall be such that which can be monitored, construction/up-gradation and adopting local public schools building with provision of facilities e.g. Class rooms, Playground, Laboratory, Library, Computer class, Toilets, Drinking Water Facilities, Solar light. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Magistrate.
- Revised EMP break shall be submitted.
- AQ modelling shall be resubmitted after considering topography of the project site.

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

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of

data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 150 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns

out to be different from the land considered at the time of appraisal of project.

- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol produced which will be met from Umtrew River, Ri Bhoi District. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Ash shall be utilized in brick manufacturing unit to be proposed within project site. PP shall use biomass like rice husk as fuel for the proposed boiler. PP shall meet 10% of the total power requirement from solar power.
- (vii). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (viii). PP shall allocate at least Rs. 50 Lakhs for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (x). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xi). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xii). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiv). CER cost shall be Rs. 1.125 Crores and activities shall be such that which can be monitored, construction/up-gradation and adopting local public schools building with provision of facilities e.g. Class rooms, Playground, Laboratory, Library, Computer class, Toilets, Drinking Water Facilities, Solar light. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.6

Greenfield Project of 60 KLPD Grain Based Ethanol Plant along with 2.0 MW Co-generation Power Plant by M/s. ESE Energy Private Limited located at Khasra No. 406/410/411, Block Kudra, Village Daindih, District Kaimur, Bihar - Consideration of Environment Clearance.

[IA/BR/IND2/250674/2022, J-11011/345/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Grass Roots Research & Creation India (P) Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Greenfield Project of 60 KLPD Grain Based Ethanol Plant along with 2.0 MW Co-generation Power Plant by M/s. ESE Energy Private Limited located at Khasra No. 406/410/411, Block Kudra, Village Daindh, District Kaimur, Bihar.

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.

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per Notification S.O. 2339(E), dated 16th June, 2021. It was informed that no litigation is pending against the project.

The details of products and capacity are as under:

S. No.	Units	Proposed Capacity
1	Installed Capacity	Grain Base Ethanol Plant of 60 KLPD
2	Major Raw Material	Mostly Broken Rice, Maize, Millet & Sorghum or mixed grains will be used.
3	Final Product & By-Product	Ethanol (60 KLPD) DDGS- 30 TPD CO ₂ - 48 TPD
4	Power Plant	2.0 MW

Total land required for the project is 10.32 Acres (4.17 Ha). Industry will develop greenbelt in an area of 33.0% of total project area i.e., 1.377 Ha out of total area of the project. The estimated project cost is Rs. 97.715 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 1257 lakhs and the Recurring cost (operation and maintenance) will be about Rs. 400 lakhs per annum. Total Employment will be 110 persons as direct & indirect due to the project. Industry proposes to allocate Rs. 0.97 Cr (1 % of total project cost) towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Kudra Nadi is at approx. 0.3 km towards East, Durgawati River is at Approx. 2.7 km towards South-West, and Kudra Dam is at approx. 3.2 km towards West South-West. The project

proponents have already taken the NOC regarding safety of land from Flood Zone from the office of the Chief Engineer (Water Resources Department, Patna).

One Time Total water requirement for the project will be 906 KLD which will be further reduced through recycling & reuse of 663 KLD. Total fresh water demand for distillery operation is 240 KLD @ 4 KL of water/KL of Ethanol. Net fresh water requirement including power plant of 2.0 MW is 339 KLD @5.7 KL/KL of ethanol production, which will be sourced from ground water augmented with rain water. So, the total fresh water demand for plant including CPP etc., will be 339 KLD. The applications for permission of withdrawal of ground water has been submitted to CGWA vide application no 21-4/901/BR/IND/2021 dated 01.09.2021. Effluent of 268 KLD quantities will be treated through 330 KLPD ETP/ CPU. The plant will be based on Zero Liquid Discharge system.

Power requirement will be 1.5 MW and will be sourced from In-house captive power plant of 2.0 MW. 2 DG sets of total capacity 750 kVA (1*500 kVA + 1*250 kVA) capacity will be used as standby during power failure and stack height will be provided as per CPCB norms to the proposed DG sets. Project will have 20 TPH AFBC boiler will be installed. ESP and bag filter 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 boilers. Regular monitoring will be done to ensure that ambient air quality standards to meet all the time. All the internal roads will be asphalted.

Details of process emissions generation and its management:

CO₂ generated during fermentation process will be collected, purified, liquefied and sold to vendors

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

Type of Waste	Quantity (TPA)	Storage	Utilization/ Disposal
DDGS - (by product) (Dried distillers' grains with soluble)	10,950	Covered shed	Sold as Cattle Feed, Poultry & Fisheries
Ash from boiler	21,420	Silo	Sold to Bricks manufactures in nearby area

Waste papers/Boxes	3	Covered shed	Sold to recyclers
Used Oil	1.2 KL	HDPE drums in covered shed	Used for oiling the machine in house and balance will be given to authorized re-cycler
Spent Resin from DM Plant	1.2 KL	HDPE drums in covered shed	Given to authorized re-cycler
ETP Sludge	12.79	Stored in the dedicated Place	Given to authorized re-cycler

As per the 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.

During deliberations EAC sought the following information/commitments from PP:

- Revised EMP Break shall be submitted.
- Greenbelt species list is much generalized, hence submit native and local species list which may survive in the project environment.
- Water conservation measures i.e. revised rainwater calculations.
- Impact of carbon dioxide leakage and preventive/mitigation measures.
- Revised legal framework shall be submitted.
- BOD of River Kudra is high. Clarification regarding the same shall be submitted.
- Commitment for plant road maintenance in order to prevent accidents of local people and installation of filter press for dewatering STP sludge.
- Industry shall allocate Rs. 0.97 Crores towards CER. Half of the amount shall be spent for upgradation of drinking water facilities in the area as the surface water in that area is high in fluoride and remaining amount shall be spent in energy conservation measures like solar panel installation etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

PP has submitted the desired information as sought above and EAC has 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). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water augmented with rain water. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. PP shall use biomass like rice husk 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. In-house brick manufacturing unit shall be installed for utilization of fly ash.
- (vii). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (viii). PP shall allocate at least Rs. 25 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (x). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xi). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xii). The company shall undertake waste minimization measures as below
 - (a) Metering and control of quantities of active ingredients to minimize

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

- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiv). Industry shall allocate Rs. 0.97 Crores towards CER. Half of the amount shall be spent for upgradation of drinking water facilities in the area as the surface water in that area is high in fluoride and remaining amount shall be spent in energy conservation measures like solar panel installation etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes. PP shall maintain MDR road to prevent road accidents and also develop greenbelt along the road.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

16th March, 2022 (Wednesday)

Agenda No. 1.7

Proposed 100 KLD Grain Based Distillery & 3.5 MW Co-generation Plant by M/s. Chandrika Power Private Limited located at Nalanda, Bihar - Consideration of Environment Clearance.

[IA/BR/IND2/237463/2021, J-11011/464/2021-IA-II(I)]

The PP/consultant intimated that they are not able to attend this meeting due to personal reason and requested to defer the proposal. Therefore, EAC has decided to defer the proposal.

Accordingly, proposal was deferred for the needful.

Agenda No. 1.8

Proposed 150 KLPD Grain Based Fuel Ethanol Distillery Plant along with Power Generation of 4.0 MW CPP by M/s. Shakun Agrotech India Pvt. Ltd. located at Gut No. 34 and 35, Village-Bhendala, Teshil –Gangapur, District Aurangabad, Maharashtra - Consideration of Environment Clearance.

[IA/MH/IND2/247827/2021, J-11011/536/2021-IA-II(I)]

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

The proposal is for environmental clearance to the project for Proposed 150 KLPD Grain Based Fuel Ethanol Distillery Plant along with Power Generation of 4.0 MW CPP by M/s. Shakun Agrotech India Pvt. Ltd. located at Gut No. 34 and 35, Village-Bhendala, Teshil –Gangapur, District Aurangabad, Maharashtra.

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.

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per Notification S.O. 2339(E), dated 16th June, 2021. It was informed that no litigation is pending against the project.

The details of products and capacity are as under:

Unit	Capacity	Product
Grain Based Ethanol Plant	150 KLPD	Product – Fuel Ethanol By Product – DDGS- 100 TPD CO ₂ – 65 TPD
Co- Generation Plant	4.0 MW	Power

Total project area is 11.57 ha for proposed project. Industry will develop greenbelt in an area of 34.9% i.e. 4.04 ha out of total area of the project. The estimated project cost is Rs. 132.0 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 16.00 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.18 Crores / annum. No. of working days will be 350 days/annum. Total Employment will be 150 persons (Permanent 90 & temporary 60) during operation phase. Industry proposes to allocate INR 2.5 Crores of total project cost towards Corporate Environment Responsibility (CER).

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km radius.

One Time Total water requirement for the project will be 4039 KLD which will be further reduced through recycling & reuse to 3126 KLD. 913 KLD will be fresh water. Fresh water demand for distillery process will be less than 4KL/KL of Ethanol. Water will be sourced from surface water. The applications for permission of withdrawal of water has been submitted to Command Area Development Authority Aurangabad. Effluent will be treated through state of art Effluent Treatment Plant. The plant will be based on Zero Liquid Discharge system.

Power requirement for Ethanol plant will be 4.0 MW, which will be sourced from the 4.0 MW Co-generation Power Plant. Unit will be having D.G. Sets of 1 x 1500 KVA which will be used as standby during power failure. Stack height (30 m) will be provided as per CPCB norms. Proposed Boiler of 40 TPH capacity with ESP as Air Pollution Control Equipment will be installed with a stack height of 60 m for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.

Details of process emissions generation and its management:

CO₂ (65 TPD) generated during the fermentation process will be

collected and sold to authorized vendors.

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

- Solid waste from the Grain based operations generally comprises of fibers and proteins in the form of DDGS (100 TPD), which will be ideally used as Cattle, poultry & fish feed ingredients.
- Ash (36 TPD) generated from boiler will be utilized in-house brick manufacturing plant.
- Used oil & grease (02 KL/Annum) generated from plant machinery/gear boxes as hazardous waste will be sold out to the CPCB authorized recyclers.

As per the Notification S.O. 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 150 KLPD will be used for manufacturing fuel ethanol only.

During deliberations EAC sought the following information/commitments from PP:

- Affidavit for land diversion certificate shall be submitted.
- Commitment to increase greenbelt in coal storage area and ash storage area and greenbelt area shall be confirmed.
- Revised CER plan with specific activities.
- No ground water shall be extracted.
- Greenbelt species list is much generalized, hence submit native and local species list which may survive in the project environment.
- Grain quantity shall be revised and submitted.
- Revised EMP break up shall be submitted.
- Commitment that no coal shall be used as fuel.

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

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

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 150 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns

out to be different from the land considered at the time of appraisal of project.

- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from surface water. No ground water shall be extracted. Prior permission shall be obtained from the concerned regulatory authority in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Brick manufacturing unit shall be installed within premises. PP shall use biomass like rice husk as fuel for the proposed boiler. PP shall meet 10% of the total power requirement from solar power.
- (vii). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (x). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xi). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xii). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed around coal storage area and ash storage area.
- (xiv). PP proposed to allocate Rs. 2.5 Crores towards CER which shall be spent in villages as submitted in CER plan for up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.9

Proposed 150 KLPD Grain based Ethanol Plant & 3.2 MW Cogeneration Power Plant by M/s. Asia Pacific Biofuels Private Limited located at Village Jatwar, Block Shahzadpur, Tehsil Naraingarh, District Ambala, Haryana - Consideration of Environment Clearance.

[IA/HR/IND2/260492/2022, J-11011/7/2022-IA-II(I)]

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

The proposal is for environmental clearance to the project for Proposed 150 KLPD Grain based Ethanol Plant & 3.2 MW Cogeneration Power Plant by M/s. Asia Pacific Biofuels Private Limited located at Village Jatwar, Block Shahzadpur, Tehsil Naraingarh, District Ambala, Haryana.

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.

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per Notification S.O. 2339(E), dated 16th June, 2021. It was informed that no litigation is pending against the project.

The details of products and capacity are as under:

Unit	Capacity	Product
Grain Based Ethanol Plant	150 KLPD	Ethanol (Biofuel)
Co-generation Power Plant	3.2 MW	Power

Total project area is 6.88 ha (68800 m²) and the same is already under the possession of the company. The Khasra nos. for proposed Ethanol plant falls outside the boundary of the Controlled Area or Urban Area and the provisions of Change of Land use permission are not applicable as declared by District Town Planner, Ambala. Hence, no CLU is required for the project. Industry will develop greenbelt in an area of 33% i.e., 2.27 ha (22700 m²) out of total area of the project. The estimated project cost is Rs. 141.93 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 14.0 Crores and the Recurring cost (operation and maintenance) will be about Rs. 2.0 Crores / annum. No. of working days will be 330 days/annum. Total Employment will be 175 persons (Permanent 100 & Temporary 75) during operation phase. Industry proposes to allocate Rs. 1.5 Crores (1% of total project cost) towards Corporate Environment Responsibility.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves,

Reserved Forests (RF)/ Protected Forests (PF), Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km radius. Baliali Nadi (Adjacent), Dangri Nadi (~2.5 km in NW direction), Dhanana River (~2.5 km in SE direction), Amri Choa (~3.5 km in SSE direction), Choa Nala (~7 km in WNW direction) are the water bodies which lies within 10 km radius.

Total fresh water requirement will be 838 KLPD (798 Process & 40 KLPD Domestic) which will be sourced from Ground water. Total input for first run for Ethanol Plant will be 2553 KLPD. 1755 KLPD will be recycled and net fresh water requirement will be 798 KLPD for proposed Ethanol Plant and 40 KLPD Domestic use. Effluent of 756 KLPD will be treated through state of art CPU/Effluent Treatment Plant of 1000 KLPD capacity. The plant will be based on Zero Liquid Discharge system.

Power requirement for proposed Ethanol plant will be 3.2 MW, which will be sourced from the 3.2 MW Co-generation Power Plant. Unit will be having two D.G. Sets of 500 KVA each which will be used as standby during power failure. Adequate Stack height (4.5 m) will be provided as per CPCB norms. Boiler of 35 TPH capacity with ESP as Air Pollution Control Equipment will be installed with a stack height of 60 m for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.

Details of process emissions generation and its management:

CO₂ (114 TPD) generated during the fermentation process will be collected and sold to authorized vendors.

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

- Solid waste from the Grain based operations generally comprises of fibres and proteins in the form of DDGS (70 TPD), which will be ideally used as Cattle, poultry & fish feed ingredients.
- Ash (36 TPD) generated from the boiler will be used for brick manufacturing. The company will be exploring opportunities for installation of in-house briquetting unit inside plant premises.
- Used oil (0.5 KL/annum) generated from plant machinery/gear boxes as hazardous waste will be sold out to the CPCB authorized recyclers.

As per the Notification S.O. 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 150 KLPD will be used for manufacturing fuel ethanol only.

During deliberations EAC sought the following information/commitments from PP:

- EC will be effective subject to obtaining ground water permission as the block falls in critical category.
- Air Quality modelling shall be conducted again.
- CER break up shall be submitted with proper quantitative description and specific activities covering villages, schools.
- Greenbelt species list shall be submitted constituting native and local species which may survive in the project environment.

PP has submitted the desired information as sought above and EAC has 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). EC shall be effective subject to ground water permission before commencement of construction. If PP fails to obtain ground water permission, then EC shall stand cancelled.
- (ii). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 150 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (iii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iv). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (v). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project.
- (vi). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vii). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Brick manufacturing unit shall be installed within premises. PP shall use biomass like rice husk 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.
- (viii). CO₂ bottling plant shall be installed within plant premises.

- (ix). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (x). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xi). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiii). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xix). PP proposed to allocate Rs. 1.5 Crores towards CER which shall be spent in villages Jatwar and Patwi for up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

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

Agenda No. 1.10

Proposed Grain Based Distillery 195 KLPD along with 6 MW Co-generation Power Plant by M/s. Shaktichem Pvt. Ltd. located at Survey No. 718, 719, & 720 Moje Sunevkalla, Taluka: Hansot, District: Bharuch, Gujarat - Consideration of Environment Clearance.

[IA/GJ/IND2/258585/2022, J-11011/73/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Proposed Grain Based Distillery 195 KLPD along with 6 MW Co-generation Power Plant by M/s. Shaktichem Pvt. Ltd. located at Survey No. 718, 719, & 720 Moje Sunevkalla, Taluka: Hansot, District: Bharuch, Gujarat.

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.

Standard ToR and public Hearing is not applicable as the project falls under category B2 as per Notification S.O. 2339(E), dated 16th June, 2021. It was informed that no litigation is pending against the project.

The details of products and capacity are as under:

Unit	Capacity	Product
Grain Based Ethanol Plant	195 KLPD	Ethanol (Bio-fuel)
Co-generation Power Plant	6 MW	Power

Total 41100 m² land area is available for the proposed project. Industry will develop greenbelt in an area of 33 % i.e., 13563 m² out of total area 41100 m² of the project. The estimated project cost is Rs. 190.0 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 15.2975 Crores and the Recurring cost (operation and maintenance) will be about Rs. 11.42 Crores per annum. Total Employment will be 200 persons as direct 50 persons indirect for proposed project. Industry proposes to allocate of Rs. 285 Lakhs @ of 1.5% towards Corporate Environment Responsibility.

There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance from the project site. River/ water body Kim River is flowing at distance of 3.6 Km in South direction.

Total water requirement is 2809 m³/Day of which fresh water requirement of 780 m³/Day and will be met from Water Sources, Water Supply & Kalpsar Department vide letter Dated 09/08/2021. Effluent of 847 m³/Day quantity will be treated through ETP (Primary Treatment), CPU (Condensate Polishing Unit) and MEE facilities and then treated effluent will be reuse within premises. 831 KL/Day effluent from process condensate, boiler & cooling tower blow down, washing and other will be treated in primary ETP then send to CPU (Condensate Policing Unit). Permeate water – 696 KL/Day will be reused in cooling tower and Reject will be send to MEE. 120 KL/Day syrup from MEE will be dried in dryer and DDGS will be output as a by –product which will sell to end user for cattle feed. Domestic Waste Water 16 KL/Day will be treated in STP and then reuse in gardening. The plant will be based on Zero Liquid Discharge system.

Power requirement for proposed project will be 1000 KVA will be met from Dakshin Gujarat Vij Company Limited (DGVCL) and 6 MW from Co-generation Power Plant. Unit will have 3 Nos. DG sets of 1010 KVA capacity each is used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets. Unit will have 1 Nos. of 50 TPH Boiler will be installed. ESP with wet Scrubber with

a stack of height of 50 Meter will be installed for controlling the particulate emissions within the statutory limit of 115 mg/nm³ for the proposed boilers.

Details of process emissions generation and its management:

CO₂ (158 TPD) generated during the fermentation process will be collected and sold to authorized vendors.

Sr. No.	Source Of Emission With Capacity	Stack Height (Meter)	Type Of Fuel	Quantity Of Fuel Mt/Day	Type Of Emissions I.E. Air Pollutants	Air Pollution Control Measures (APCM)
PROPOSED						
1	Steam Boiler (50 TPH)	50	Imported Coal/ Briquettes / Baggase / Rice Husk / Corncob	250 MT/Day	SPM SO2 NOx	ESP + wet Scrubber
2	D G Set-1 Nos. (1010 KVA)	11	HSD	500 Lit/Hr		Adequate Stack Height
3	D G Set-1 Nos. (1010 KVA)	11	HSD	500 Lit/Hr		Adequate Stack Height
4	D G Set-1 Nos. (1010 KVA)	11	HSD	500 Lit/Hr		Adequate Stack Height

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

6 Categories of Hazardous/Solid Wastes shall be generated from this Unit.

Discarded container Bags/liners @ 500 MT/Annum will be Collected, Stored, Transported and sell to authorize dealer. Used or Spent Oil @ 0.5 MT/Annum will be Collected, Stored, Transported and sell to register re-processors. ETP Sludge @ 600 MT/Annum will be Collected, Stored, Transported and dispose to Common TSDf Site. CPU Sludge @ 120 MT/Annum will be Collected, Stored, Transported and dispose to Common

TSDF Site. DDGS @ 27390 MT/Annum will be Collected, Stored, Transported and sell to end user for cattle feed/fish feed. Ash from Boiler @ 1500 MT/Annum will be Collected, Stored, Transported and sell to brick manufacturer.

Sr. No	Type Of Waste	Category No	Source	Proposed Quantity (Mt/Annum)	Disposal Method
HAZARDOUS WASTE					
1.	Discarded container Bags/liners	Schedule-I-(33.1)	Storage & Handling of raw material	500	Collection, Storage, Transportation and sell to authorized dealer
2.	Used or Spent Oil	Schedule-I-(5.1)	Equipment & Machineries	0.5	Collection, Storage, Transportation & sale to register re-processors
3.	ETP Sludge	Schedule-I-(35.3)	ETP	600	Collection, Storage Transportation and dispose to Common TSDF Site.
SOLID WASTE					
4.	CPU Sludge	Schedule-I-(35.3)	CPU	120	Collection, Storage Transportation and dispose to Common TSDF Site.
5.	DDGS	Schedule-I-(26.1)	Dryer	27390	Collection, Storage, Transportation and sell to end user for cattle feed/fish feed.
6.	Ash from Boiler	--	Boiler	1500	Collection, Storage, Transportation and sell to brick manufacturer

As per the 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 195 KLPD will be used for manufacturing fuel ethanol only.

During deliberations EAC sought the following information/commitments from PP:

- PP shall not use ground water at any circumstances.
- Ash quantity is not correct as submitted in Form -2 and presentation. Correct and resubmit it.
- Greenbelt shall be developed within one(01) year and more plantation shall be done along the plant road.
- Flue gas velocity as given in stack calculations is too low. It shall be re-verified.
- Revised EMP break shall be submitted.
- PP shall explore the option of ESP with dry scrubbers.

PP has submitted the desired information as sought above and EAC has 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 195 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Surface water. PP shall not use ground water at any circumstances. Prior permission shall be obtained from the concerned regulatory authority in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. In house brick manufacturing unit shall be installed. PP shall use biomass like rice husk 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.

- (vii). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (x). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xi). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed within 1 year and more plantation shall be done along the plant road.
- (xiv). PP proposed to allocate Rs. 2.85 Crores towards CER which shall be spent for up-gradation of public schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no

parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes.

- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 1.11

Expansion of Sugar plant capacity from 10,000 TCD to 15,000 TCD and expansion of distillery to increase the production capacity of Ethanol from existing 500 KLPD to 750 KLPD using multi stock raw material C/B Heavy molasses, sugarcane juice/ Syrup and grain and installation of captive power plant of 23.5 MWH Capacity (15 MWH & 8.5 MWH) by M/s. Shree Renuka Sugars Ltd. (Munoli Unit), located at Survey R.S. No. 367/1, Munoli Village, Saundatti. Taluk, Belagavi District, Karnataka - Consideration of Environment Clearance.

[IA/KA/IND2/256147/2022, J-11011/08/2002-IA-II(I)]

The PP/consultant intimated that they are not able to attend this meeting due to personal reason and requested to defer the proposal. Therefore, EAC has decided to defer the proposal.

Accordingly, proposal was deferred for the needful.

ANNEXURE

GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

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

whom suggestions/ representations, if any, were received while processing the proposal.

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

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

S. No.	Name and Address	Position
1.	Shri S. C. Mann	Chairman
2.	Dr. J. S. Sharma	Member
3.	Prof. Y. V. Rami Reddy	Member
4.	Prof. Dilip Majumdar	Member
5.	Prof. Sanjeev Chaudhari	Member
6.	Dr. Onkar Nath Tiwari	Member
7.	Shri J. S. Kamyotra	Member
8.	Dr. Rahul Ramesh Rao Mungikar	Member
9.	Dr. V. S. R. K. Prasad (IIPE)	Member
10.	Dr. Sanjay V. Patil (VSI)	Member
11.	Shri Ashok Kr. Pateshwary, Director, MoEFCC	Member Secretary
MoEFCC		
12.	Dr. Mahendra Phulwaria	Scientist 'C'
13.	Ms. Meetika Gupta	Research Associate
