

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

Dated: 01.07.2022

Meeting ID: IA/IND2/13271/27/06/2022

**MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE
(INDUSTRY-2 SECTOR PROJECTS)
HELD ON 27th - 28th June, 2022**

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

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

(ii) Confirmation of minutes: The EAC, having taken note that final minutes were issued after incorporating comments received from the EAC members on the minutes of its Meeting (ID: IA/IND2/13236/08/06/2022) held during 08th -09th June, 2022 conducted through Video Conferencing (VC), confirmed the same. After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

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

27th June, 2022 (Monday)

Agenda No. 1

Greenfield 1 X 150 KLPD Grain based Ethanol Plant & 4.5 MW Cogeneration power plant located at Sy. Nos. 230, 231 & 232, Gandepally Village, Kanchikacherla Mandal, Krishna District, Andhra Pradesh by M/s. Sentini Bio-Spirit Private Limited- Consideration of Environment Clearance

[IA/AP/IND2/267300/2022 , IA-J11011/126/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Pioneer Enviro Laboratories And Consultants 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 150 KLPD Grain based Ethanol Plant & 4.5 MW Co-generation power plant (Indian coal/imported coal/biomass) at Sy. Nos. 230, 231 & 232, Gandepally Village, Kanchikacherla Mandal, Krishna District, Andhra Pradesh by M/s. Sentini Bio-Spirit Private Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery plant	Ethanol	150 KLPD
2	Co-generation power plant	Power	4.5 MW
3	DWGS dryer	DDGS	120 TPD
4	Fermentation unit	Carbon di-oxide	114 TPD

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

Total land area required is 8.43 hectares. Greenbelt will be developed in total area of 2.83 hectares i.e., 33.57% of total project area. The estimated project cost is Rs. 150 Crores. Capital cost of EMP would be Rs. 18.4 Crores and recurring cost for EMP would be Rs. 2.2 Crores per annum. Industry proposes to allocate Rs. 1.5 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 120 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Muniyeru river is at a distance of 2.0 Km in West direction , Wyira river is at a distance of 1.5 km in North direction,

Nagarjuna sagar left bank canal is at a distance of 1.3 Km in direction East, also few ponds exists within 10 Km radius.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.15 \mu\text{g}/\text{m}^3$, $5.3 \mu\text{g}/\text{m}^3$, $0.74 \mu\text{g}/\text{m}^3$ with respect to PM10, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be $600 \text{ m}^3/\text{day}$ which will be met from Muniyeru River. PP informed that application has been submitted to Irrigation Department for obtaining permission for drawl of water from river. Effluent of $887 \text{ m}^3/\text{day}$ quantity will be treated through Condensate Polishing Unit. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises. STP will be installed to treat sewage generated from factory premises.

Power requirement will be 3.5 MW and will be met from proposed 4.5 MW co-generation power plant. 45 TPH Indian coal/imported coal/biomass fired boiler will be installed. ESP with a stack of height of 65 m will be installed for controlling the particulate emissions within the statutory limit of $50 \text{ mg}/\text{Nm}^3$ for the proposed boiler. 500 KVA DG set will be used as standby during power failure and stack height will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

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

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (120 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (max. 140 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (0.3 Kilolitres per annum) will be sold to authorized recyclers.
- CPU and STP Sludge will be used as manure.

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

PP has reported that the total land available for the proposed project namely Sentini Bio-Spirit Private Limited is 8.43 Hectares which is taken on lease/sale bearing No. 2064/2022 from Sentini Bioproducts Private Ltd. (Group Company for a period of 20 years) . Out of 8.43 Ha, 6.98 Ha of land has already been converted to Non-Agricultural Land. Remaining land use conversion has been applied to Sub-collector, Vijaywada. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Plant is connected with two lane village road and it should be maintained by the company by developing greenbelt along the road. The Committee suggested that proper safety shall be provided to the road along with installation of traffic signal.
- Greenbelt consisting of native plant species shall be developed before commissioning of the plant.
- Land use conversion shall be completed before commencement of construction activities.
- Village names to be included in CER activities proposed.
- Commitment to install own brick manufacturing facility inside plant premises.
- Proposal for rain water storage tanks to be installed for 60 days within premises instead of outside premises.
- Coal with maximum sulphur content of 0.5% shall be allowed for usage.
- Revised EMC hierarchy where Environmental Officer shall be reporting to Head of the organization.
- While submitting proposal to PESO, PP shall conduct Risk assessment taking into account accidental spillage and leakage. Types of rupture and scenario, distance which will be covered and response time.

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

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC

noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 150 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of

environmental management, and risk mitigation measures relating to the project shall be implemented.

- (iii). 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. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Muniyeru River. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Boiler ash will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (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 @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.
- (xiv). PP proposed to allocate Rs. 1.5 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained and proper safety shall be ensured by installation of proper road safety measures.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

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

Agenda No. 2

Greenfield 1 x 65 KLPD Grain based Ethanol Plant with 2.0 MW Captive power plant located at Khasra Nos. 356, 360/4, 360/5, 360/15, 360/17, 379, Patharra Village, Bemetara Tehsil & District, Chhattisgarh by M/s. Biotech Fuels Private Limited - Consideration of Environment Clearance

[IA/CG/IND2/270941/2022, IA-J-11011/156/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Pioneer Enviro Laboratories And Consultants 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 65 KLPD Grain based Ethanol Plant with 2.0 MW co-generation power plant (Indian coal/imported coal/biomass) located at Khasra Nos. 356, 360/4, 360/5, 360/15, 360/17, 379, Patharra Village, Bemetara Tehsil & District, Chhattisgarh by M/s. Biotech Fuels Private Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery plant	Ethanol	65 KLPD

2	Co-generation power plant	Power	2.0 MW
3	DWGS dryer	DDGS	52 TPD
4	Fermentation unit	Carbon di-oxide	49 TPD

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

Total land area required is 4.21 Hectares. Greenbelt will be developed in total area of 1.42 Hectares i.e., 33.73% of total project area. The estimated project cost is Rs. 76.29 Crores. Capital cost of EMP would be Rs. 7.5 Crores and recurring cost for EMP would be Rs. 1.53 Crores per annum. Industry proposes to allocate Rs. 0.76 Crores towards Corporate Environment Responsibility. Total Employment will be 70 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Senonath River is at a distance of 2.0 Km.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.1 $\mu\text{g}/\text{m}^3$, 0.34 $\mu\text{g}/\text{m}^3$, 0.34 $\mu\text{g}/\text{m}^3$ with respect to PM_{10} , SO_2 & NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 262 m^3/day which will be met from Seonath River. Effluent (385 m^3/day) will be treated through Condensate Polishing Unit. Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. STP will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and treated effluent/water shall not be discharged outside the factory premises.

Power requirement will be 2.0 MW and will be met from proposed 2.0 MW co-generation power plant. 16 TPH Indian coal/imported coal/biomass fired boiler will be installed. Electrostatic Precipitator with a stack of height of 42 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boiler. 500 KVA DG set will be used as standby during power failure and stack height will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- Electrostatic Precipitator with a stack height of 42 meters will be

installed for controlling the particulate emissions.

- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (52 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (max. 29.6 TPD) will be utilized in proposed in-house brick manufacturing unit.
- Used oil (0.3 kilolitres per annum) will be sold to authorized recyclers.
- CPU & STP Sludge will be reused as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 65 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that land has already been acquired and land use conversion to industrial use application has been submitted. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Plant layout was discussed as land is in three patches consisting of parking area and greenbelt area separately.
- Explanation for ground water source as there is ample availability of surface water. PP requested to allow ground water usage till construction stage.
- PP informed that to reduce sulphur emissions, lime dosing will be done and coal of sulphur content less than 0.5% will be used in case of biomass unavailability. Committee suggested that 5 field ESP needs to be installed to achieve prescribed standards for particulate emissions.
- PP has reported that air cooled condensers shall be installed, hence fresh water consumption shall not exceed 4 KL/KL including power plant requirement.
- While submitting proposal to PESO, PP shall conduct Risk assessment taking into account accidental spillage and leakage. Types of rupture and scenario, distance which will be covered and response time.

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

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

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with 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 65 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. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production including co-generation power plant and will be met from Seonath River. Prior permission shall be obtained for surface water withdrawal before start of construction activities. As proposed by PP, ground water shall be used during construction stage after obtaining prior permission. 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. Boiler ash will be utilized for making bricks in the proposed brick making unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (vii). 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 @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.
- (xiv). PP proposed to allocate Rs. 0.76 Crores towards CER which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.

- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 3

Proposed 200 KLPD Grain Based Distillery (for fuel ethanol) located at Village Jamira, Tal. Lundra, Dist. Surguja, Chhattisgarh by M/s. Maa Kudargarhi Biofuels Private Limited - Consideration of Environment Clearance

[IA/CG/IND2/276107/2022, IA-J- 11011/191/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. MITCON Consultancy & Engineering Services 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 200 KLPD Grain based Ethanol Plant with 6.0 MW co-generation power plant (biomass/coal) located at Village Jamira, Tehsil Lundra, District Surguja, Chhattisgarh by M/s. Maa Kudargarhi Biofuels Private Limited.

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

notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery plant	Ethanol	200 KLPD
2	Co-generation power plant	Power	6.0 MW
3	DWGS dryer	DDGS	90 TPD
4	Fermentation unit	Carbon di-oxide	85 TPD

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

Total land area required is 9.0 Hectares. Greenbelt will be developed in total area of 2.97 Hectares i.e., 33.0% of total project area. The estimated project cost is Rs. 297 Crores. Capital cost of EMP would be Rs. 25.10 Crores and recurring cost for EMP would be Rs. 1.43 Crores per annum. Industry proposes to allocate Rs. 4.45 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment will be 170 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. PP reported that Reserve forests within study area are Pandoli Katar, Bansbeora, Bendogarh, Korkotbar, Saraipani. Water bodies: Machhli Nadi is at a distance of 0.27 km towards North direction. NOC has been obtained from Subdivision of Water Resource Department, Ambikapur stating that Machhli River is located at a MSL of 616.7 m whereas the industry is located at MSL of 633.1 m which is 15.80 m above the Machhli River. EAC found the information satisfactory.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.54 $\mu\text{g}/\text{m}^3$, 9.63 $\mu\text{g}/\text{m}^3$, 2.46 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, SO₂ & NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 827 m³/day (Industrial requirement 819 m³/day and domestic requirement 7 m³/day) which will be met from Gagar River. Effluent (971 m³/day) will be treated through Condensate Polishing Unit (1000 m³/day). Raw stillage will be sent to decanter followed

by MEE followed by dryer to produce DDGS. STP will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and treated effluent/water shall not be discharged outside the factory premises.

Power requirement will be 5.0 MW and will be met from proposed 6.0 MW co-generation power plant. 45 TPH biomass/coal fired boiler will be installed. Electrostatic Precipitator with a stack of height of 45 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 1500 KVA DG set will be used as standby during power failure and stack height (12 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

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

Details of solid waste/hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (90 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (max. 52.2 TPD) will be supplied to brick manufacturing unit/used as manure.
- Used oil (2.0 kilolitres per annum) will be sold to authorized recyclers.
- CPU (2.2 TPD) & STP Sludge (0.4 TPD) will be reused as manure.

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

PP has reported that land has been allotted by Chhattisgarh State Industrial Development Corporation Limited and land use is already industrial. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Commitment to install bag filter instead of ESP to achieve prescribed standards of 50 mg/Nm³ for particulate air emissions.

- Revise cost of EMP break up and recurring cost after including cost of CEMS also. PP has increased the cost of EMP to Rs. 25 Crores and recurring cost has been increased to Rs. 1.43 Crores.
- Ash management. PP reported that ash will be supplied to brick manufacturing unit/used as manure.
- As per plant capacity, carbon di-oxide quantity is too less. It shall be revised & confirmed. PP reported that complete recovery of carbon di-oxide will be done and carbon di-oxide bottling plant will be installed.
- Native plant species shall be developed and indigenous species shall be preferred in greenbelt proposed. Greenbelt of 20 m width shall be developed towards Reserve Forests and Machhli Nadi.
- While submitting proposal to PESO, PP shall conduct Risk assessment taking into account accidental spillage and leakage. Types of rupture and scenario, distance which will be covered and response time.

Committee was satisfied with the response of project proponent. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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

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

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 200 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). 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 Gagar River. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Boiler ash will be will be supplied to brick manufacturing unit/used as manure. PP shall use

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

- (vii). CO₂ bottling plant shall be installed for maximum recovery of carbon dioxide.
- (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 @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Greenbelt of 20 m width shall be developed towards Reserve Forests and Machhli Nadi.
- (xiv). PP proposed to allocate Rs. 4.45 Crores towards CER which shall be spent as submitted in CER plan for monitorable activities like up-gradation of

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

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

Agenda No. 4

Integrated Sugar Expansion (2500 TCD to 7500 TCD), Cogen Power Expansion (12 MW to 32MW) & 120 KLPD Distillery /Ethanol Plant with 4 MW Captive Cogen Power Plant located at village Padal, Tal. Khatav, Dist. Satara, Maharashtra by M/s. Katav Man Taluka Agro Processing Limited -Consideration of Environment Clearance

[IA/MH/IND2/ 193217/2021, IA-J- 11011/18/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. MITCON Consultancy and Engineering Services 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 Integrated project involving expansion of sugar mill from 2500 TCD to 7500 TCD, co- generation power plant from 12 MW to 32 MW (bagasse) & establishment of 120 KLPD Distillery (Ethanol) Plant with 4 MW co-generation power plant (bagasse/conc. Spent wash/coal) located at village Padal, Tehsil Khatav, District Satara, Maharashtra by M/s. Katav Man Taluka Agro Processing Limited.

All distillery projects are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC). All sugar projects are listed at S.N. 5(j) of Schedule of Environment Impact Assessment (EIA) Notification under category 'B' and are appraised at State Level by Expert Appraisal Committee (EAC). Being an integrated project, it will be appraised by EAC at Central Level.

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Existing	Proposed	Total
1	Sugar mill	Sugar	2500 TCD	5000 TCD	7500 TCD
2	Co-generation power plant for sugar mill	Power	12 MW	20 MW	32 MW
3	Molasses based distillery	RS/ENA/AA/Ethanol	-	120 KLPD	120 KLPD
4	Co-generation power plant for distillery	Power	-	4 MW	4 MW

Existing industry is operational on the basis of Consent To Operate as Sugar unit is of capacity 2500 TCD and Cogeneration plant of capacity 12 MW. Thus Environmental Clearance was not applicable. Latest CTO (air and water) has been issued on 21st October, 2020 and is valid till 31st July, 2023. Certified CTO compliance report has been issued dated 19th May, 2022 from MPCB, Sub-regional office- Satara. EAC was satisfied with the response of PP.

Standard Terms of Reference have been obtained dated 21st January, 2021. Public Hearing for the proposed project had been conducted by the State

Pollution Control Board on 14th September, 2021 at factory, Khatav Man Taluka Agro Processing Ltd. chaired by Additional District Magistrate, Satara. It was informed that no litigation is pending against the project.

The main issues raised during the public hearing and their action plan as reported by PP is as under:

Regarding freshwater consumption as the area is drought prone & ill effects of waste water, PP replied that there will be requirement of 1500-1600 M3/day of fresh water only which will be mostly extracted through sugarcane crop itself. Hence, there will be less requirement of fresh water. This project will be Zero Liquid Discharge (ZLD) and there will not be any ill effects at the surrounding villages and people residing in the vicinity. CPU: Capital cost: 450 Lakhs and Recurring cost: 30 Lakhs/Annum.

Regarding sewage produced/generated in the production activities can be used for agriculture purposes after treatment, PP informed that project will be completely ZLD. The industrial effluent will be treated and will be reused in the manufacturing process. The sludge will be made available to the local farmers to be used as manure. The ash which will be generated will be made available to brick manufacturers for manufacturing bricks.

Regarding ash dispersion to grape garden/fields about 2 km away, ESP of higher capacity will be installed with the boiler to reduce PM2.5 and PM 10 emissions within statutory limit of 50 mg/Nm³ and ash will be stored in silos and transported in covered trucks to brick manufacturing unit. Capital cost: 180 Lakhs Recurring cost: 15 Lakhs/Annum for APCE.

Regarding generation of spent wash and its effects, spent wash will be concentrated and burnt in incineration boiler and not discharged outside plant premises.

Regarding benefits of distillery project to surrounding villages, employment opportunities will be generated and local economy will improve. Also, CER cost of Rs. 97.31 Lakhs will be invested for the benefit of surrounding villages.

Total existing plant area is 28.16 Hectares. No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area 9.29 Hectares i.e. 33% of the total plant area will be developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 237 Crores. Capital cost of EMP would be Rs. 23.0 Crores and recurring cost for EMP would be Rs. 0.985 Crores per annum. Industry proposes to allocate Rs. 2.37 Crores towards Corporate Environment Responsibility. Total Employment after expansion will be 729 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. There are many Reserved Forests/Protected Forests within study area. Water bodies: Yerala River is at a distance of 1.34 km in South East direction.

Ambient air quality monitoring was carried out at 9 locations during 01.01.2021 to 31.03.2021 and the baseline data indicates the ranges of average concentrations as: PM10 (39-72.60 $\mu\text{g}/\text{m}^3$), PM2.5 (8.70-28.80 $\mu\text{g}/\text{m}^3$), SO2 (4.10-15.70 $\mu\text{g}/\text{m}^3$) and NOx (7.40-20.90 $\mu\text{g}/\text{m}^3$). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.11 $\mu\text{g}/\text{m}^3$, 0.11 $\mu\text{g}/\text{m}^3$, 7.1 $\mu\text{g}/\text{m}^3$ and 2.88 $\mu\text{g}/\text{m}^3$ with respect to PM10, PM2.5, SO2, NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The total fresh requirement for the proposed project is 1135 CMD (550 CMD for Distillery and 585 CMD for Sugar and Co-gen) which will be sourced from Kankatre dam & Dhom dam. Existing effluent generation is 285 m³/day from industry and 50 m³/day from domestic activities which is treated through Condensate Polishing Unit (550 m³/day). Proposed effluent generation from sugar mill & co-generation power plant is of quantity 964 m³/day (Domestic 40 m³/day) which will be treated through Condensate Polishing Unit (1000 m³/day) and excess condensate from sugar will be treated in proposed CPU of capacity 2000 m³/day. Effluent from proposed distillery is of quantity 893 m³/day which will be treated through Condensate Polishing Unit (1000 m³/day). Spent wash generated from the analyser column during distillation will be concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt in proposed incineration boiler. Domestic waste water is being/will be treated in STP (50 m³/day). The plant will be based on Zero Liquid discharge system for the proposed distillery.

Total power requirement of sugar mill & distillery unit after expansion will be 13.22 MW which will be sourced from existing 12 MW & proposed 20 MW co-generation power plant in sugar mill and proposed 4 MW co-generation power plant in distillery unit. Remaining 22.78 MW power generated will be exported to power grid. Existing unit has 75 TPH bagasse fired boiler. After expansion, 100 TPH boiler (sugar and co-generation power plant) bagasse fired boiler and 25 TPH bagasse/conc. Spent wash/ coal fired boiler for distillery will be installed. Electro Static Precipitator with a stack of height of 76 m is installed with the existing boiler and Electro Static Precipitator with a stack height of 45 m will be installed with the proposed boiler of distillery for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Existing unit has 1x1010 KVA & 500 KVA DG set (stack height 12m ARL) and after expansion 1x1010 KVA DG set will be installed to be used as standby

during power failure and stack height (12 m ARL) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- Electro Static Precipitator with a stack of height of 76 m is installed with the existing boiler and Electro Static Precipitator with a stack height of 45 m will be installed with the proposed boiler of distillery for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- Carbon di-oxide generated during the fermentation process is being/will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- Concentrated spent wash (179 m³/day) will be burnt in incineration boiler.
- Ash (bagasse ash-49.44 TPD, coal ash -33 TPD, spent wash ash – 50 TPD) generated from the boiler is being/will be utilized in proposed inhouse brick manufacturing plant/given to farmers to be used as manure.
- CPU Sludge (6.45 TPD) is being/will be reused as manure.
- Press mud (300 TPD) is being/will be utilized as manure or sold directly to farmers.
- Used oil (17 Litres /day) is being/will be sold to authorized recyclers.

PP reported that 120 KLPD distillery will be established in same premises of existing sugar mill and land documents were submitted for the distillery along with land use conversion to industrial use documents. EAC was satisfied with the information provided by PP.

During deliberations EAC discussed following issues:

- Integrated (expansion of sugar mill & proposed distillery) project is being proposed, hence ZLD shall be followed. For proposed expansion of sugar mill, generated treated effluent shall be 50% recycled and 50% used for horticulture purpose within plant premises.
- Commitment that projects site does not fall under the Eco-sensitive area of Western Ghats as notified by MoEFCC. PP has committed the same in writing.

- Revised total project cost and cost earmarked towards environmental management plan. PP has increased the cost to Rs. 23 Crores for EMP and total project cost has been increased to Rs. 237 Crores.
- Revised cost for extended EMP (Corporate Environment Responsibility) has been submitted. PP has informed that Rs. 2.37 crores has been earmarked as increased cost.
- Fresh water consumption shall not exceed 3 KL/KL as treated water from sugar mill shall be reused in distillery. PP agreed for the same.
- PP reported that there is a non-notified Mayani bird sanctuary in study area at approx. 6.3 km from plant site. PP informed that they did not obtain permission as the same is not notified. However, it was also pointed out that they have not mentioned in form 2 of Parivesh. PP was directed to obtain NOC from Chief Wildlife Warden stating the same. The Member Secretary apprised the Committee about obtaining NOC from Chief Wildlife Officer before recommending the project. However, consensus of the Committee was to recommend the project for EC with condition to obtain NOC from wildlife warden before start of construction activities if PP failed to do so, EC will become invalid.
- Conservation plan to be submitted for schedule 1 species reported.
- Regarding ash management, PP shall install Brick manufacturing unit within premises. Existing sugar mill solid waste i.e. press mud, bagasse ash can be used as manure.
- PP shall commit that there shall be no impact of industrial pollution on migratory bird species as reported. Greenbelt shall be properly developed towards the bird sanctuary area of at least 20 m width.
- CO2 bottling plant shall be installed.

Committee was satisfied with the response of project proponent. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC directed that the project proponent will treat and use the treated water within the industry. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

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

- (i). EC is subject to obtaining NOC from Chief Wildlife Warden and clearly mentioning that the Mayani Bird sanctuary (approx. 6.3 km from plant site) is non-notified by concerned authority. EC will become invalid if PP fails to obtain the NOC before start of construction activities. Also, PP shall comply with all the measures as submitted in conservation plan for schedule 1 species. PP shall also ensure that no impact of industrial pollution is envisaged on migratory birds population as reported.
- (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 of sugar mill for proposed expansion and new distillery unit.
- (iv). Total Fresh water requirement shall not exceed 3 KL/KL of ethanol production and will be met from Kankatre dam & Dhom dam. Prior permission shall be obtained for surface water supply before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (v). Concentrated spent wash shall be burnt in incineration boiler. ESP shall be installed with the boiler. Ash is being/will be utilized in proposed inhouse brick manufacturing plant/given to farmers to be used as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (vi). CO₂ bottling plant shall be installed for maximum recovery of CO₂.
- (vii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xi). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors.

(e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

- (xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Greenbelt of at least 20 m width shall be developed towards the bird sanctuary area.
- (xiii). PP proposed to allocate Rs. 2.37 Crores towards extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply, skill development for 20 persons each year of nearby villages etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the

project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 5

Proposed 120 KLPD Grain based Ethanol Plant along with 3.0 MW Cogeneration Power Plant at Village Barundhan, Tehsil Talera, District Bundi, Rajasthan by M/s. Glensky Spirits Private Limited- Consideration of Environment Clearance.

[IA/RJ/IND2/277668/2022 , IA-J-11011/200/2022-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 120 KLPD Grain based Ethanol Plant & 3.0 MW Co-generation power plant (biomass/coal) at Village Barundhan, Tehsil Talera, District Bundi, Rajasthan by M/s. Glensky Spirits Private Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery plant	Ethanol	120 KLPD
2	Co-generation power plant	Power	3.0 MW
3	DWGS dryer	DDGS	81 TPD
4	Fermentation unit	Carbon di-oxide	93 TPD

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

Total land area required is 5.844 hectares. Greenbelt will be developed in total area of 1.928 hectares i.e., 33.03% of total project area. The estimated

project cost is Rs. 215 Crores. Capital cost of EMP would be Rs. 30.0 Crores and recurring cost for EMP would be Rs. 2.5 Crores per annum. Industry proposes to allocate Rs. 2.0 Crores towards Corporate Environment Responsibility. Total Employment will be 200 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Some unnamed Reserved Forests (RF)/ Protected Forests (PF) are also reported in study area: Protected Forests is at a distance of 3.0 km in WSW direction, Reserved Forest is at a distance of 7.5 km in SSE direction, Reserved Forest is at a distance of 6.0 km in SSW direction. Water bodies: Ghora Pacchar Nadi is at a distance of 0.8 km in SW direction, Bundi Branch is at a distance of 2.0 km in SW direction, Mangli Nadi is at a distance of 4.0 km in North direction, Talera Nadi is at a distance of 7.0 km in ESE direction, Chitawa Nadi is at a distance of 8.5 km in WNW direction, Bardha Bandh is at a distance of 8.5 km in SSE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.26 \mu\text{g}/\text{m}^3$, $0.10 \mu\text{g}/\text{m}^3$, $0.63 \mu\text{g}/\text{m}^3$, $0.78 \mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 635 m³/day (621 m³/day Process & 14 m³/day Domestic & others) which will be met from ground water. Effluent of 1014 m³/day quantity will be treated through Condensate Polishing Unit (1160 m³/day). Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. STP will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and treated effluent/water shall not be discharged outside the factory premises.

Power requirement will be 2.335 MW and will be met from proposed 3.0 MW co-generation power plant. 25 TPH biomass/coal fired boiler will be installed. ESP with a stack of height of 45 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 500 KVA DG set will be used as standby during power failure and stack height (5 m ARL) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- ESP with a stack height of 45 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.

- CO₂ (93 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (81 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (26 TPD) will be utilized in proposed brick manufacturing plant inside plant premises.
- Used oil (0.2 Kilolitres per annum) will be sold to authorized recyclers.
- CPU and STP Sludge will be reused as manure.

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

PP has reported that the total land area is under the possession of the company and land use conversion application has been submitted to the Revenue Department, Government of Rajasthan for land conversion to industrial purpose vide Application No. LC/2022-23/125396 dated 31.05.2022 and is under process. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Ghora Pacchar Nadi is at a distance of 0.8 km in SW direction, Plantation of at least 20 m width shall be developed towards river. As per OM dated 14th February, 2022, NOC is required when river is at a distance less than 500 m from project site. However, PP informed that river is located at a distance of 800 m from the proposed site, which is more than 500m so NOC may not be required since it meets the siting criteria.
- Commitment to install brick manufacturing unit within premises.
- Category of block, as reported by PP is under safe zone so ground water permission will be granted. GW permission shall be obtained before start of construction activities.
- 15% power generation shall be through solar power out of total power requirement.

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

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

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

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

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

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

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). 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. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Boiler ash will be utilized in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (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 @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Greenbelt of 20 m width shall be developed towards Ghora Pacchar Nadi.
- (xiv). PP proposed to allocate Rs. 2.0 Crores towards extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution

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

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

Agenda No. 6

Expansion of existing distillery unit capacity from 100 KLPD (molasses) to 160 KLPD (C / B heavy molasses/sugar syrup/grain) along with 5.63 MW co-generation power located at Village: Mamida, Tehsil: Jagadhri, District: Yamunanagar, Haryana by M/s. Saraswati Sugar Mills Limited (Distillery Division)-Consideration of Environment Clearance

[IA/HR/IND2/269917/2022, IA-J-11011/149/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Environmental and Technical Research Centre made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of existing distillery unit from 100 KLPD (molasses) to 160 KLPD (C/B heavy molasses/sugar syrup/grain) along with 5.63 MW co-generation power at Village: Mamida, Tehsil: Jagadhri, District: Yamunanagar, Haryana by M/s. Saraswati Sugar Mills Limited (Distillery Division).

As per EIA Notification 2006 (Schedule 5 (g) Category A); however, as per in the MoEFCC Notification S.O. 345(E), dated the 17th January, 2019, notification number S.O. 750(E), dated the 17th February, 2020, S.O. 980 (E) dated 02nd March, 2021 & S. No. 2339(E) 16th June, 2021, a special provision in the EIA Notification, 2006 "Expansion of sugar manufacturing units or distilleries for production of ethanol, having Prior Environment

Clearance (EC) for existing unit, to be used completely for Ethanol Blended Petrol (EBP) Programme only, as per self-certification in form of an affidavit by the Project Proponent, shall be appraised as category 'B2' projects.

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Existing	Proposed	Total
1	Distillery	Ethanol	100 KLD C- Molasses based	60 KLD C/ B-Heavy Molasses / Sugar Syrup / Grain based	160 KLD C/ B-Heavy Molasses / Sugar Syrup / Grain based
2	Co-generation power plant for sugar mill	Power	5.63 MW	-	5.63 MW

State Environmental Impact Assessment Authority (SEIAA), Haryana has issued Environmental Clearance vide File no.-SEIAA/HR/2019/486 dated 20th December 2019. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Chandigarh vide File no-15-02/2020-IRO/149-150-151 dated 08.03.2022. Certified Action Taken Report has been obtained by IRO, MOEFCC, Chandigarh dated 24th May, 2022. Certain queries against submitted ATR were again replied by PP on 31st May, 2022 which has been further verified by IRO, MOEFCC and mail has been sent by IRO, MOEFCC stating that no further shortcoming is pending in certified ATR. EAC was satisfied by the above information provided by PP.

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

Total plant area after expansion will be 4.69 Ha (existing plant area - 3.58 Hectares and additional land - 1.11 Hectares for proposed capacity) which is under possession of the company and converted to industrial use. Out of the total plant area 1.55 Hectares i.e. 33% of the total plant area has already been developed as greenbelt & plantation and the same will be maintained. The estimated project cost is Rs. 50.0 Crores. Capital cost of EMP would be Rs. 2.5 Crores and recurring cost for EMP would be Rs. 3.0 Crores per annum. Industry proposes to allocate Rs. 1.0 Crores towards extended EMP

(Corporate Environment Responsibility). Total Employment after expansion will be 225 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Some Protected Forests falls within study area. Water bodies: River Yamuna is at a distance of 7.9 km in South East Direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.55 $\mu\text{g}/\text{m}^3$, 0.33 $\mu\text{g}/\text{m}^3$, 1.79 $\mu\text{g}/\text{m}^3$ and 0.96 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO₂, NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 883 m³/day during C Heavy / B heavy Molasses / Sugar Syrup/grain operation which is being / will be met from Canal supply water. Existing effluent generation is 993 m³/day from industry which is treated through Condensate Polishing Unit. Proposed effluent generation from 160 m³/day (C/ B-Heavy Molasses/ Sugar Syrup) will be 1543 m³/day and 935 m³/day from 160 KLPD grain based operation which will be treated through proposed Condensate Polishing Unit (1800 m³/day). In molasses based operation, spent wash generated from the analyser column during distillation will be concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt in existing incineration boiler. In grain based operation, raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. Domestic waste water is being/will be treated in STP. The plant will be based on Zero Liquid discharge system and treated effluent/water shall not be discharged outside the factory premises.

Total power requirement after expansion will be 3.814 MW which will be sourced from existing 5.63 MW co-generation power plant. Existing unit has 40 TPH bagasse/conc. spent wash fired boiler which will be upgraded to 48 TPH by increasing surface area. Bag filter with a stack of height of 86 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Existing unit has 1x1200 KVA & 500 KVA DG set (stack height 16.3 m ARL as per CPCB norms) to be used as standby during power failure. No additional co-generation power plant & DG set is proposed with this expansion.

Details of Process emissions generation and its management

- Bag filter with a stack of height of 86 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.

- Online Continuous Emission Monitoring System is installed with the stack and data will be transmitted to CPCB/SPCB servers.
- Carbon di-oxide generated during the fermentation process is being/will be collected by utilizing CO2 scrubbers and sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- Concentrated spent wash (399 TPD/294 TPD) is being/will be burnt in incineration boiler.
- DDGS (Distilled Dried Grains Stillage) (26280 TPA) will be sold as cattle feed / fish feed / prawn feed.
- Ash (74.19 TPD) generated from the boiler is being/will be supplied to farmers to be used as manure.
- Used oil (1250 kg/annum) is being/will be sold to authorized recyclers.
- CPU Sludge is being/will be reused as manure.

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

During deliberations, EAC discussed the following issues:

- Commitment that fresh water consumption shall not exceed 4 KL/KL of ethanol production.
- Commitment to maintain particulate emission within the statutory limit of 50 mg/Nm³. To meet prescribed standard of 50 mg/Nm³ of particulate matter emissions, EMP cost shall be increased to Rs. 2 Crores. As reported by PP, boiler capacity is also being increased from 40 TPH to 48 TPH by certain surface area modifications, hence cost of EMP will include that also. Hence EMP cost shall be revised.
- Action plan for greenbelt @2500 trees per hectares shall be proposed.
- Budget for Occupational health and safety shall increase to 50 lakhs/annum.
- Villages to be included in CER plan and revised activities to be included i.e. school upgradation and solar lights installation in nearby villages. Villages Bilaspur, Shadipur & Jubbal has been selected for CER activities as informed by PP.

Committee was satisfied with the response of project proponent. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with 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. Conversion of Land Use certificate shall be obtained before start of construction activities.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from canal supply water. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The concentrated spent wash shall be burnt in incineration boiler. Ash is being/ will be used for supplying to farmers to be used as manure. Existing Bag filter shall be upgraded to achieve particulate matter emissions prescribed standard of 50 mg/Nm³. PP shall use biomass like rice husk/bagasse as fuel for the boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (vii). 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/maintained in nearly 33% of the total project area @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiv). PP proposed to allocate Rs. 1.0 Crores towards extended EMP (CER) which shall be spent as submitted in CER plan in villages Bilaspur, Shadipur & Jubbal for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum

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

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

Agenda No. 7

Setting up of new 120 KLPD Molasses Based Distillery located at Village: Pingli (Bk), Tal. Man, District Satara, State Maharashtra by M/s. Sugar Grid Ltd. – Re-consideration of Environment Clearance

[IA/MH/IND2/138065/2020, IA-J-11011/18/2020-IA-II(I)]

The proposal was earlier considered by the EAC (Ind-2) in its 02nd meeting held during 29th to 30th March, 2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. The case was again re-considered by the EAC (Ind-2) in its 05th meeting held during 10th May, 2022 wherein EAC again deferred the proposal and desired certain requisite information/inputs. Information desired by the EAC and responses submitted by the project proponent is as under:

S.N o	ADS	Reply of PP	Remarks of EAC
1.	There is a drain within proposed site. PP shall obtain NOC from Irrigation department and submit to the Ministry.	PP has obtained NOC from Water Resources Department, Assistant Engineer, Satara Irrigation Sub-Division Dahivadi vide dated 10 th June, 2022. Onsite inspection was carried out on 31/05/2022.	EAC found the information satisfactory.

2.	Revised GLC for sugar and distillery unit shall be submitted.	Proposed 80 TPH boiler in sugar mill will be having stack height of 70 m. This is a combined stack for sugar and distillery unit. Maximum incremental load of 1.91 µg/m ³ for PM and 6.84 µg/m ³ for SO ₂ has been calculated.	EAC found the information satisfactory.
3.	Revised water balance as well as other environmental components such as solid waste/waste water generation etc. taking into account sugar and distillery as integrated unit and no discharge of treated water within/outside premises.	Net fresh water requirement for sugar mill and co-generation power plant is 233 m ³ /day and for domestic purposes is 10 m ³ /day. Distillery net fresh water requirement is 480 m ³ /day. Revised water balance as well as other environmental components such as solid waste/waste water generation etc. taking into account proposed sugar and distillery unit has been submitted. PP has committed that no discharge of treated water within/outside premises will be done from both the units.	EAC found the information satisfactory.
4.	Commitment to develop greenbelt towards the forest areas.	PP has committed and submitted action plan to develop greenbelt towards the forest areas i.e. towards East and South.	EAC found the information satisfactory.
5.	Revised break up of fund earmarked for EMP.	PP has revised EMP cost and included CEMS budget. Revised cost is Rs. 53.18 Crores.	EAC found the information satisfactory.

The case was again placed in EAC meeting held on 27th-28th June, 2022.

The Project Proponent and the accredited Consultant M/s. Vasantdada 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 proposed molasses based distillery of capacity 120 KLPD at Gata number 1727, Post Pingali Bk., Tehsil Man, District Satara, State Maharashtra by M/s. Sugar Grid Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product	Production capacity
1	Molasses based distillery	Rectified Spirit/Extra Neutral Alcohol/Ethanol	120 KLPD
2	Co-generation power plant	Power	4.0 MW
3	Spray Dryer	Spent wash powder	44.71 TPD

Standard Terms of Reference have been obtained dated 20th February 2020. Public Hearing for the proposed project has been conducted by the Maharashtra Pollution Control Board on 17th March 2021 at project site Pingali Bk. chaired by Additional District Magistrate. It was informed that no litigation is pending against the project.

The main issues raised during the public hearing and their action plan as reported by PP is as under:

Regarding treatment of spent wash: 360 m³ /day spent wash will be concentrated in standalone Multi effect evaporation and burnt in incineration boiler. Remaining 600 m³ /day of spent wash will be subjected to bio-methantion after which it will be converted into powder using ATFD. Rs. 12 Crores and Rs 3.5 Crores has been earmarked for incineration boiler and ATFD.

Regarding reuse of treated effluent: Treated effluent from CPU will be again recycled to process. 69% effluent will be reused in the process. Rs. 2.28 Crores have been earmarked for CPU.

Regarding employment opportunities: 90 people will get direct opportunities. Indirectly also, there will be job opportunities like tanker suppliers, drivers, tea stalls, hotels etc. there will be increase in local business.

Total land area required is 27.69 Ha. Greenbelt will be developed in total area of 12.62 Hectares i.e. 45.58% of total project area. The estimated project cost is Rs. 131.49 Crores. Capital cost of EMP would be Rs. 53.18 Crores and recurring cost for EMP would be Rs. 22.67 Crores per annum. Industry proposes to allocate Rs. 1.94 Crores towards Corporate Environment Responsibility. Total Employment will be 90 persons as direct & indirect.

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

distance. Some Protected Forests falls within study area. Reserve Forest is at a distance of 1.02 km towards East. Water bodies: Pingali-Dahiwadi (small scale reservoir) is at a distance of 3.2 in North and River Manganga is at a distance of 7 km in East.

Ambient air quality monitoring was carried out at 8 locations during 15.10.2019 to 15.01.2020 (winter season). The baseline data indicates the ranges of concentrations as: PM10 (44.30 to 65.20 $\mu\text{g}/\text{m}^3$), PM2.5 (19.80 to 30.77 $\mu\text{g}/\text{m}^3$), SO₂ (10.51 to 21.44 $\mu\text{g}/\text{m}^3$) and NO₂ (14.30 to 27.12 $\mu\text{g}/\text{m}^3$). AAQ modelling study for point source emissions indicates that the maximum rise in GLCs after the proposed project would be 1.41 $\mu\text{g}/\text{m}^3$ and 6.67 $\mu\text{g}/\text{m}^3$ with respect to PM and SO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 480 m³/day which will be met from Pingali-Dahiwadi small scale reservoir through pipeline. Net fresh water requirement for sugar mill and co-generation power plant is 233 m³/day and for domestic purposes is 10 m³/day. Distillery effluent of 1075 m³/day quantity will be treated through Condensate Polishing Unit (1100 m³/day). Sugar mill effluent will be 315 m³/day which will be treated through CPU. 360 m³ /day spent wash will be concentrated in standalone Multi effect evaporation and burnt in incineration boiler. Remaining 600 m³ /day of spent wash will be subjected to bio-methanation after which it will be converted into powder using ATFD. STP will be installed to treat sewage generated from factory premises. The sugar mill and distillery unit will be based on Zero Liquid discharge system and treated effluent/water shall not be discharged outside the factory premises.

Power requirement will be 3.6 MW and will be met from proposed 4.0 MW co-generation power plant. 15 TPH concentrated spent wash/biomass/coal fired boiler and 28 TPH coal/biomass fired conventional boiler will be installed. ESP with a stack of height of 70 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. No DG sets are proposed and in case of shutdown, power will be purchased from Sate Electricity Grid.

Details of Process emissions generation and its management

- ESP with a stack height of 70 meters will be installed for controlling the particulate emissions. Separate ESP will be installed for sugar mill and distillery unit with combined stack of 70 m.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- Concentrated spent wash will be burnt in incineration boiler/spray dried with ATFD to form powder (44.71 TPD).
- Boiler ash (14.64 TPD from sugar mill & 24477 TPA from distillery unit) will be utilized for making bricks in the proposed brick making unit.
- ETP Sludge (7 TPA from sugar mill & 48 TPA from distillery) will be reused as bio-compost for green belt development.
- Press mud (140 TPD) will be given to farmers to be used as manure.
- Used oil will be given to authorized recyclers.

PP has reported that the total land area is under the possession of the company and land use conversion to industrial use has been completed. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Commitment that PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- Replace CSR with extended EMP (CER) in the table submitted.

Committee was satisfied with the response of project proponent. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the

incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC directed that the project proponent will treat and use the treated water within the industry. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises of sugar mill and distillery unit as it is an integrated unit.
- (iii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of Land Use certificate shall be obtained before start of construction activities.
- (iv). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Pingali-Dahiwadi small scale reservoir through pipeline. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water

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

- (v). The concentrated spent wash shall be burnt in incineration boiler/spray dried to form powder. Ash will be used for brick making in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xi). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of

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

- (xiii). PP proposed to allocate Rs. 1.94 Crores towards extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 8

Expansion of sugarcane crushing capacity from 4500 TCD to 7500 TCD, Co-generation power plant capacity from 14.75 MW to 29.5 MW and establishment of 150 KLPD Distillery to produce Rectified Spirit (RS)/ Extra Neutral Alcohol (ENA)/ Ethanol based on alternative raw

materials such as B"/C" Heavy Molasses/ Sugarcane Juice/ Syrup/ Grains located at Mahatma Phule Nagar, Taluka Kannad, District Aurangabad, Maharashtra by M/s. Baramati Agro Limited (Unit-2) – Re-consideration of Environment Clearance.

[IA/MH/IND2/202038/2021, J-11011/81/2021-IA-II(I)]

The proposal was earlier considered by the EAC (Ind-2) in its 03rd meeting held during 12th - 13th April, 2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. Information desired by the EAC and responses submitted by the project proponent is as under:

S.No	ADS	Reply of PP	Remarks of EAC
1.	Latest Certified CTO compliance report by RO, SPCB shall be submitted.	PP has submitted Certified CTO compliance report issued by RO, SPCB dated 26 th April, 2022 and no partial/non-compliance has been reported.	EAC found the information satisfactory.
2.	Revised CER break-up including specific villages and schools.	Revised CER break up including specific villages and schools of cost Rs. 1.5 Crores has been submitted.	EAC found the information satisfactory.
3.	Steam and power balance.	PP has submitted steam and power balance.	EAC found the information satisfactory.
4.	Clarification regarding points raised related to baseline monitoring.	PP has informed that there is not much variation in values for baseline monitoring. PP has confirmed with the laboratory regarding the same and they have confirmed the same results.	EAC found the information satisfactory.
5.	Clarification regarding contradiction of air quality monitoring stations as per dominant wind direction.	As the predominant wind direction is from North West to South-East direction, hence maximum receptors are selected from South-East direction. Receptors are taken within 10 km radius. Additionally, two receptors are selected from South-East direction	EAC found the information satisfactory.

		(i.e. towards predominant wind direction therefore the maximum receptors are selected from South-East direction. Hence out of 11 receptors 5 receptors are in South-East direction, 4 locations are in North-West direction and remaining two receptors are selected within factory). The results of additional receptors have been submitted.	
6.	Revised water balance.	Revised water balance has been submitted.	EAC found the information satisfactory.
7.	Revised AQ modeling data.	Revised AQ modelling data has been submitted.	EAC found the information satisfactory.
8.	Revised EMP break up including CEMS cost.	PP has submitted revised EMP break up including CEMS cost.	EAC found the information satisfactory.
9.	Action plan for greenbelt development @2500 trees per hectares and name of species specific to habitat.	PP has submitted action plan for greenbelt development @2500 trees per hectares, as such 7000 trees will be developed and name of species specific to habitat has also been submitted.	EAC directed to develop greenbelt in 1 year instead of 3 years.
10.	Action plan for conservation of various drains/streams/road passing through plant layout.	PP has submitted action plan for conservation of various drains/streams/road passing through plant layout.	EAC found the information satisfactory.
11.	Sanctuary is falling in study area. Action plan for mitigation of expansion impacts shall be detailed.	PP has submitted NBWL application and wildlife conservation plan for mitigation of expansion impacts. Rs. 15 Lakhs has been earmarked for conservation.	EAC found the information satisfactory.
12.	Revised Environmental	PP has submitted revised Environmental Management Cell	EAC found the

Management Cell hierarchy.	hierarchy where Environmental Officer is directly reporting to Head of the Organization.	information satisfactory.
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The case was again placed in EAC meeting held on 27th-28th June, 2022.

The Project Proponent and the accredited Consultant M/s. SD Engineering Services Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the integrated project which involves expansion of sugarcane crushing capacity from 4500 TCD to 7500 TCD, Co-generation power plant capacity from 14.75 MW to 29.5 MW and establishment of 150 KLPD Distillery located at Village Mahatma Phule Nagar, Taluka Kannad, District Aurangabad, State Maharashtra by M/s. Baramati Agro Limited (Unit-2).

All distillery projects are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC). All sugar projects are listed at S.N. 5(j) of Schedule of Environment Impact Assessment (EIA) Notification under category 'B' and are appraised at State Level by Expert Appraisal Committee (EAC). Being an integrated project, it will be appraised by EAC at Central Level.

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Existing	Proposed	Total
1	Sugar mill	Sugar	4500 TCD	3000 TCD	7500 TCD
2	Co-generation power plant for sugar mill	Power	14.75 MW	14.75 MW	29.5 MW
3	Molasses/grain based distillery	RS/ENA/Ethanol	-	150 KLPD	150 KLPD
4	Co-generation power plant for distillery	Power	-	3 MW	3 MW

Existing industry is operational on the basis of Consent To Operate as Sugar unit is of capacity 4500 TCD and Cogeneration plant of capacity 14.75 MW. Thus Environmental Clearance was not applicable. Latest CTO (air and

water) has been issued on 31st October, 2019 and is valid till 31st July, 2022. Certified CTO compliance report has been issued dated 26th April, 2022 from Ro, MPCB. EAC found it satisfactory.

Standard Terms of Reference have been obtained dated 17th April, 2021. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 08th October, 2021 at plant premises of existing unit chaired by Additional District Collector, Aurangabad. It was informed that no litigation is pending against the project.

The main issues raised during the public hearing and their action plan as reported by PP is as under:

Regarding freshwater consumption & water conservation, The sugar and cogeneration division will work on zero water requirements and distillery unit will require fresh water 471 m³/day which will be met from Ambadi Dam. The balanced water will be sourced from rainwater harvesting system and treated excess condensates from sugar unit. Therefore, no additional water sanctioned will be required. Therefore, there will be no disturbances to agriculture activities. Also, Rain water harvesting will be implemented. Watershed development programme will be conducted by the industry to prevent the soil erosion and to conserve the water which can be later used for agriculture purposes.

Rain water harvesting- Rs. 15 Lakhs, Water pollution control : Rs. 3800 Lakhs Recurring Cost: Rs. 100 Lakhs per year. Watershed development program:- Rs. 10 Lakhs.

Regarding benefit to local farmers and job opportunities, the local persons will be given preference based on required qualification and experience criteria for the specific role. The industry has also earmarked Rs. 12.5 Lakhs from CER Funds towards the skill development programs for farmers to increase the crop yield.

Regarding waste water & odour generated due to spent wash, PP informed that the industry has proposed to adopt concentration and incineration technology to achieve zero liquid discharge; therefore no effluent from industry will be disposed outside the premises. Also the storage of spent wash will not be more than 7 days therefore the problem of smell and nuisance will not be there.

Regarding development of roads, the cost of Rs. 10 Lakhs is allocated towards arrangement of one JCB and two tractors for the repair of the roads in the study area.

Regarding ash dispersion & mitigation, the industry earmarked Rs. 8.60 Crores as capital investment towards construction of new stack and

installation of ESP and online monitoring system and Rs. 20 Lakhs towards recurring cost.

Regarding Rainwater Harvesting, Solar Power and regarding Green Belt Development, For Green Belt Development, at present 34% i.e. 21,728 trees has been developed @1500 trees per hectares. At this moment, there are 21,728; hence remaining 11,727 trees will be planted in next three years. Solar Power:- The industry will install the solar power plant to fulfill the 10% of the total power requirement and accordingly 1.2 MW solar power plant will be installed. Rainwater harvesting :- Rs. 15 Lakhs Greenbelt Development:- Rs. 20 Lakhs Solar Power plant Rs. 100 Lakhs.

Total existing plant area is 63.17 Hectares. No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area 22.30 Hectares i.e. 33% of the total plant area will be developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 150 Crores. Capital cost of EMP would be Rs. 48.12 Crores and recurring cost for EMP would be Rs. 1.68 Crores per annum. Industry proposes to allocate Rs. 1.5 Crores towards Corporate Environment Responsibility. Total Employment after expansion will be 980 persons as direct & indirect.

PP has reported that the plot is located 5.3 km from Gautala Autramghat Wildlife Sanctuary and 3.5 km from Eco-sensitive Zone Boundary (ESZ) as per the MoEF&CC Final Notification Vide No. SO 3996(E) dated 9th December, 2016. The Eco-Sensitive Zone is spread over an area of 483.45 square kilometres with an extent of up to one kilometre from the boundary of Gautala Autramghat Wildlife Sanctuary and the boundary description of the said Zone. The project does not fall under wild sanctuary or within ESZ boundary. PP has submitted Wildlife Conservation Plan to concerned authority. Water bodies: Shivna river is at a distance of 1.5 Km in South East Direction & Ambadi Dam is at a distance of 7 Km in North West Direction.

Ambient air quality monitoring was carried out at 09 locations during 1.10.2020 to 31.12.2020 and the baseline data indicates the ranges of concentrations as: PM10 (55.29 to 79.80 $\mu\text{g}/\text{m}^3$), PM 2.5 (24.48 to 40.81 $\mu\text{g}/\text{m}^3$), SO₂ (7.98– 11.95 $\mu\text{g}/\text{m}^3$), NO₂ (13.54 – 21.37 $\mu\text{g}/\text{m}^3$) and CO (0.069 to 0.127 mg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.06 $\mu\text{g}/\text{m}^3$, 0.04 $\mu\text{g}/\text{m}^3$, 0.19 $\mu\text{g}/\text{m}^3$, and 0.18 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO_x and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The total fresh requirement for the proposed expansion of sugar mill, co-generation power plant and establishment of distillery project is 546 m³/day (471 m³/day for Distillery and 75 m³/day for domestic requirement of sugar mill) which will be sourced from Ambadi Dam. Sugar mill effluent of quantity 1136.5 m³/day (Sugar factory trade effluent- 577.5 m³/day, Cogeneration power plant effluent 59 m³/day, Spray Pond overflow- 500 m³/day) will be treated through existing ETP after up-gradation. Distillery effluent of quantity (max. 975 m³/day) will be treated through proposed Condensate Polishing Unit (1500 m³/day). Spent wash generated from the analyser column during distillation will be concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt in proposed incineration boiler. Domestic waste water will be treated in STP. The plant will be based on Zero Liquid discharge system and treated effluent/water shall not be discharged outside the factory premises.

Total power requirement of sugar mill & distillery unit after expansion will be 12 MW which will be sourced from existing 14.75 MW & proposed 14.75 MW co-generation power plant in sugar mill and proposed 3 MW co-generation power plant in distillery unit. Existing unit has 110 TPH bagasse fired boiler. After expansion, 60 TPH (sugar and co-generation power plant) bagasse fired boiler and 30 TPH bagasse/conc. spent wash/coal fired boiler for distillery will be installed. Electro Static Precipitator with a stack of height of 72 m (For 110 TPH & 60 TPH boiler) is installed and Electro Static Precipitator with a stack height of 75 m will be installed with the proposed boiler of distillery for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Existing unit has 500 KVA DG set (stack height 6 m ARL as per CPCB norms) to be used as standby during power failure.

Details of Process emissions generation and its management

- Electro Static Precipitator with a stack of height of 72 m (For 110 TPH & 60 TPH boiler) is installed and Electro Static Precipitator with a stack height of 75 m will be installed with the proposed boiler of distillery for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- Carbon di-oxide generated during the fermentation process is being/will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- Concentrated spent wash (372 TPD) will be burnt in incineration boiler.
- Ash (max. 69.5 TPD) generated from the boiler is being/will be given to farmers to be used as manure.
- Used oil (1.5 Kilolitres per annum) is being/will be sold to authorized recyclers.
- CPU Sludge (200 TPA) is being/will be reused as manure.
- Press mud (300 TPD) is being/will be sold as manure.

During deliberations EAC discussed following issues:

- Commitment that PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- Commitment to develop greenbelt as proposed within 1 year.

Committee was satisfied with the response of project proponent. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC directed that the project proponent will treat and use the treated water within the industry. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have

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

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

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

- (i). PP shall comply with all the measures as submitted in conservation plan for schedule 1 species. PP shall also ensure that no impact of industrial pollution is envisaged on schedule 1 species as reported.
- (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). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Ambadi Dam. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (v). Concentrated spent wash shall be burnt in incineration boiler. ESP shall be installed with the boiler. Ash is being/will be given to farmers as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet

10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xi). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Greenbelt shall be developed within 1 year and native species shall be planted.
- (xiii). PP proposed to allocate Rs. 1.5 Crores towards extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply, skill development for 20 persons each year of nearby villages etc.

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

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

28th June, 2022 (Tuesday)

Agenda No. 1

Installation of 1 x 60 KLPD Grain Based Fuel Ethanol Plant to manufacture Fuel Ethanol located at Plot No. A-2m Gadegaon MIDC Area, Taluka & District Bhandara, State Maharashtra by M/s. Asgaon Agro Processors and Beverages Private Limited – Consideration of Environmental Clearance.

[IA/MH/IND2/265402/2022 , IA-J-11011/139/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Creative Enviro Services, Bhopal made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 60 KLPD Grain based Ethanol Plant at Plot No. A-2m Gadegaon MIDC Area, Taluka & District Bhandara, State Maharashtra by M/s. Asgaon Agro Processors and Beverages Private Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery plant	Ethanol	60 KLPD
2	DWGS dryer	DDGS	38 TPD
3	Fermentation unit	Carbon di-oxide	28 TPD

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

Total land area required is 6.07 hectares. Greenbelt will be developed in total area of 2.01 hectares i.e., 33.11% of total project area. The estimated project cost is Rs. 81.75 Crores. Capital cost of EMP would be Rs. 16.8916 Crores and recurring cost for EMP would be Rs. 0.99 Crores per annum. Industry proposes to allocate Rs. 1.64 Crores towards Corporate Environment Responsibility. Total Employment will be 150 persons as direct & indirect.

PP reported that New Nagzira Wildlife Sanctuary, Koka Wildlife Sanctuary, Navegaon Wildlife Sanctuary is at a distance of 330 m. As per the Notification No. S.O. 612(E) dated 25th February, 2016, Eco-Sensitive Zone is spread over an area of 2333.39 square kilometres. PP has submitted NOC from Deputy Conservator of Forest along with the verified map indicating proposed plant vis-a-vis ESZ boundary. NOC states that it has been checked and verified that proposed project area does not fall in the ESZ as project site is located in Village Chikhali Hamesha, Tehsil & District Bhandara, the village Chikhali Hamesha does not fall in Eco Sensitive Zone as per MoEF &

CC, Notification Nery Delhi, S.O. 612 (E) dated 25th February, 2016. Reserve forest in study area as reported by PP: Purkabodi Reserved Forest is at a distance of 3.5 Km in SW direction, Purkabodi Reserved Forest is at a distance of 5.2 Km in SSW direction, Mahaka Reserved Forest is at a distance of 4.5 Km in WNW direction, Matora Reserved Forest is at a distance of 5.2 Km in North direction. Water bodies: Rawanwadi Talav is at a distance of 4.5 Km in SW direction and Rawanwadi Main Canal is at a distance of 6.7 Km in SW direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.16 \mu\text{g}/\text{m}^3$, $1.67 \mu\text{g}/\text{m}^3$, $1.03 \mu\text{g}/\text{m}^3$ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 278 m³/day which will be met from MIDC. Effluent of 399 m³/day quantity will be treated through Condensate Polishing Unit (467 m³/day). Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. STP will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and treated effluent/water shall not be discharged outside the factory premises

Power requirement will be 1.8 MW and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). 18 TPH biomass fired boiler will be installed. ESP with a stack of height of 45 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 750 KVA & 500 KVA DG set will be used as standby during power failure and stack height (30 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

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

Details of solid waste/hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (38 TPD) will be sold as cattle feed / fish feed / prawn feed.

- Boiler ash (25 TPD) will be utilised for in-house brick manufacturing.
- Used oil (1.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU and STP Sludge will be used as manure.

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

Land has been allotted by Maharashtra Industrial Development Corporation dated 21st December, 2021 . EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Greenbelt shall be of 5-10 m width along the periphery of plant.
- Explore possibility of 18 TPH boiler to be used for power generation also as electricity supplied from MSEDCL will cost high.
- GLC values of SO₂ and NO_x were discussed and PP has to revise/recheck the same. Standards taken for sulphur and nitrogen emissions shall be clarified and stack height shall be recalculated as per standards.
- 10% of total power requirement shall be generated from solar energy.
- Flow diagram of waste water treatment including biological treatment along with RO.
- Ash management. PP committed to install brick manufacturing plant inside plant premises.

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

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

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 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. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from MIDC. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Boiler ash will be utilised for in-house brick manufacturing. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (vii). 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 @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.
- (xiv). PP proposed to allocate Rs. 1.64 Crores towards extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 2

Proposed 200 KLPD Multi Grain Based Distillery located at Village Havanur, Tehsil Haveri, District Haveri , State Karnataka by M/s. Sooraj Agro Distilleries Limited - Consideration of Environmental Clearance.

[IA/KA/IND2/272302/2022, IA-J-11011/169/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. MITCON Consultancy and Engineering Services 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 200 KLPD Grain based Ethanol Plant & 8.0 MW Co-generation power plant (biomass/coal) at Village Havanur, Tehsil Haveri, District Haveri , State Karnataka by M/s. Sooraj Agro Distilleries Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery plant	Ethanol	200 KLPD
2	Co-generation power plant	Power	8.0 MW
3	DWGS dryer	DDGS	113 TPD
4	Fermentation unit	Carbon di-oxide	165 TPD

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

Total land area required is 11.86 hectares. Greenbelt will be developed in total area of 3.91 hectares i.e., 32.97% of total project area. The estimated

project cost is Rs. 210 Crores. Capital cost of EMP would be Rs. 16.60 Crores and recurring cost for EMP would be Rs. 1.35 Crores per annum. Industry proposes to allocate Rs. 3.15 Crores towards Corporate Environment Responsibility. Total Employment will be 140 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Few patches of Reserved Forests falls within study area. Water bodies: Tungabhadra River is at a distance of 5.23 km towards East, Varada River is at a distance of 4.74 km towards North.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.136 \mu\text{g}/\text{m}^3$, $11.5 \mu\text{g}/\text{m}^3$, $17.1 \mu\text{g}/\text{m}^3$ with respect to PM₁₀, SO₂ and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be $856.8 \text{ m}^3/\text{day}$ which will be met from Tungabhadra River. Effluent of $1003 \text{ m}^3/\text{day}$ quantity will be treated through Condensate Polishing Unit ($1200 \text{ m}^3/\text{day}$). Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. STP (5 KLD) will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and treated effluent/water shall not be discharged outside the factory premises.

Power requirement will be 7.660 MW and will be met from proposed 8 MW co-generation power plant. 50 TPH biomass/coal fired boiler will be installed. ESP with a stack of height of 57 m will be installed for controlling the particulate emissions within the statutory limit of $50 \text{ mg}/\text{Nm}^3$ for the proposed boiler. 1100 KVA DG set will be used as standby during power failure and stack height (11 m ARL) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

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

Details of solid waste/hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (113 TPD) will be sold as cattle

feed / fish feed / prawn feed.

- Boiler ash (max. 57.6 TPD) will be utilized for brick making in proposed in-house brick manufacturing unit.
- Used oil (0.005 TPD) will be sold to authorized recyclers.
- CPU (2.0 TPD) and STP Sludge (0.4 TPD) will be used as manure.

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

Land is under possession of the company and land use conversion application has been submitted to Deputy Commissioner. After receiving State level Single Window Clearance Committee (SLSWCC) from Karnataka Government, land use conversion shall be obtained. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Ash should be in silos and all storage areas shall be covered from all sides.
- LU conversion to industrial use & Surface water permission shall be obtained before start of construction activities.
- PESO clearance shall be obtained before start of operations.
- Revise cost of Environmental Management Plan including cost of CER, CEMS and web camera. PP has increased the cost from Rs. 3.93 Crores to Rs. 16.60 Crores.
- Ash management. PP committed to install brick manufacturing unit.
- Sulphur & Nitrogen emissions are high. Measures for controlling the emissions shall be clarified. AFBC boiler shall be subject to dry lime dosing, temperature control, excess air control, low NOx burners to reduce emissions. For sulphur emissions, stack height shall be increased/recalculated and low sulphur coal shall be used.
- Revised EMC hierarchy where Environment Officer will report to head of organization.
- Secondary data for baseline shall be collected from SPCB and total GLC shall be calculated and submitted.
- Pressure of boiler to be clarified.
- Risk assessment taking into account accidental spillage and leakage. Types of rupture and scenario, distance which will be covered and response time.
- 15% of total power requirement shall be generated from solar energy.

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

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

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

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 200 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if

ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). 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. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Tungabhadra River. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Boiler ash will be utilized for brick making in proposed in-house brick manufacturing unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (vii). 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 @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.
- (xiv). PP proposed to allocate Rs. 3.15 Crores towards extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during

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

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

Agenda No. 3

Proposed Grain Based 60 KLD Ethanol Plant along with Cogeneration Power plant of 1.8 MW located at Village-Jiwan Singh Wala, Tehsil Talwandi Sabo, District Bathinda, Punjab by M/s. Garg Acrylics Ltd (Distillery Unit) - Consideration of Environment Clearance

[IA/PB/IND2/274004/2022, IA-J-11011/177/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Chandigarh Pollution Testing Laboratory (EIA Division) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 60 KLPD Grain based Ethanol Plant & 1.8 MW Co-generation power plant (biomass/coal) at Village-Jiwan Singh Wala, Tehsil Talwandi Sabo, District Bathinda, Punjab by M/s Garg Acrylics Ltd. (Distillery Unit).

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery plant	Ethanol	60 KLPD
2	Co-generation power plant	Power	1.8 MW
3	DWGS dryer	DDGS	27 TPD
4	Fermentation unit	Carbon di-oxide	54 TPD

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

PP informed that proposed project is a new unit and the same is to be established in the vacant land of M/s. Garg Acrylics Ltd where a spinning unit is in operation at present. At present, M/s Garg Acrylics Ltd is operating a spinning mill unit in an area of 50.755 acres in the revenue estate of Village- Jiwan Singh Wala, Tehsil-Talwandi Sabo, District- Bathinda, Punjab. About 7.93 acres (3.2ha) (khasra no.- 669, 687, 688/1) out of which 50.755 acres of land area, which was primarily lying unused, has been earmarked for establishment of a distillery unit. Since spinning mill is already in operation in the name of M/s Garg Acrylics Ltd, therefore, the name of this proposed unit is M/s Garg Acrylics Ltd (Distillery Unit).

Total land area required is 3.20915 hectares. Greenbelt will be developed in total area of 1.15 hectares i.e., 35.84% of total project area. The estimated project cost is Rs. 65.30 Crores. Capital cost of EMP would be Rs. 14.5 Crore and recurring cost for EMP would be Rs. 3.1 Crore per annum. Industry proposes to allocate Rs. 0.88 Crores towards Corporate Environment Responsibility. Total Employment will be 140 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies reported by PP: Lower lissara nala is at a distance of 1.8 km and Kotla Branch (Sirhind canal) is at a distance of 1.6 km .

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.66 $\mu\text{g}/\text{m}^3$, 2.23 $\mu\text{g}/\text{m}^3$, 2.23 $\mu\text{g}/\text{m}^3$ with respect to PM10, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 257 m³/day which will be met from ground water. Effluent of 227 m³/day quantity will be treated through Condensate Polishing Unit (300 m³/day). Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. STP will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system.

Power requirement will be 1.5 MW and will be met from proposed 1.8 MW co-generation power plant. 18 TPH biomass/coal fired boiler will be installed. Multi cyclone followed by bag filter & alkali scrubber with a stack of height of 55 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 500 KVA DG set will be used as standby during power failure and stack height will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- Multi cyclone followed by bag filter & alkali scrubber with a stack height of 55 meters will be installed for controlling the particulate emissions/sulphur emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (54 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.

Details of solid waste/hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (27 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (7350 TPA) will be supplied to brick manufacturers/ given to farmers to be used as manure.
- Used oil (2.0 Kilolitres per annum) will be sold to authorized recyclers.
- CPU and STP Sludge will be used as manure.

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

Land is under possession of the company and land use conversion has been obtained by Department of Town and Country Planning, Punjab. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Rice husk shall be stored in covered sheds. PP agreed to provide complete covered sheds for storage of rice husk.
- Plant layout shall be revised for storage of fuel/raw material/ETP/ RWH storage. PP was suggested to earmark some additional land from the existing unit for establishment of all units of distillery.
- PESO permission shall be obtained before start of operations.
- Clarify APCE to be installed as norms may not be achieved as per proposed Multi cyclone followed by bag filter and alkali scrubber. PTFE filter to be included and EMP cost shall be revised.
- Incremental GLC distance and stack height are contradictory. Provide correct figures regarding distance of impact.
- NOC for ground water withdrawal shall be obtained before start of construction activities.
- Fresh water consumption per KL of alcohol shall be clarified and shall not exceed 4 KL/KL of ethanol production.
- Rain water harvesting shall be done within premises by collecting rain water and use in the process with storage of 60 days.
- Greenbelt consisting of native tree species shall be developed.

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

1. Multicyclone followed by bag filter house with PTFE membrane will be installed as APCD with boiler to contain the concentration of Particulate Matter (PM) within prescribed standards of $30\text{mg}/\text{Nm}^3$. However, when coal will be used as fuel, APCDs such as Multicyclone followed by bag filter house with PTFE membrane and Alkali Scrubber shall remain in-line to contain the concentration of PM, SO_2 and NO_x within prescribed standards of $30\text{mg}/\text{Nm}^3$, $100\text{mg}/\text{Nm}^3$ and $100\text{mg}/\text{Nm}^3$ respectively.
2. Two stage alkali scrubber shall only be taken in-line when coal will be used as fuel. Lime solution will be used as scrubbing media and there will be formation of Gypsum, which will be collected by passing the scrubbing media through an inverted filter and will be sold out in the market.
3. The temperature of Flue gases before passing through APCD will be 150°C - 160°C , which will get down to 130°C - 140°C after passing through Multicyclone followed by bag filter house. However, the temperature of flue gases further get down after passing through alkali scrubber and will become in the range of 80°C - 90°C , which will be sufficient to further pass through the stack and dispersion and as the flue gases will pass through stack with momentum rise and Bouncy rise.

4. The value of GLC has been recalculated by using AERMOD Cloud Version-5. The amended values are given as under:

S. No.	Type of Fuel	Maximum GLC			Direction & Distance of GLC from source of emission	
		PM	SO2	NOX	Direction	Distance
1.	Rice Husk	0.24	--	--	NW	549m
2.	Coal	0.30	0.99	0.99	NW	550m

5. That the revised EMP is as follows:

S.No.	Particulars	Approx. Capital cost (Crore)	Approx. Recurring Cost annually (Lakh)	Parameters covered
1.	Cyclone followed by bag filter house and alkali scrubber	Rs 4.00	Rs 100.0	SPM when rice husk will be used as fuel.SPM, SO2 and NOx when coal will be used as fuel
2.	Multieffect Evaporator (MEE)	Rs 5.00	Rs 50.0	----
4.	Effluent Treatment Plant	Rs 4.0	Rs145	pH, TSS, COD,BOD,
5.	Green Belt Development	Rs.0.12	Rs 5.0	Saplings, transportation, fertilizers, horticulturist manpower etc.
6.	RWH	Rs. 0.50	Rs. 10.0	
7.	CER activities	Rs. 0.88		
TOTAL		Rs. 14.50	Rs.310	----

6. Prior permission shall be obtained for ground water withdrawal before start of construction activities.
7. total fresh water requirement including utility and cooling tower will be 257KLD, as such, the total fresh water consumption will be 4.28kl/kl of ethanol produced. However, in the process, only 180KLD of fresh water will be consumed, which comes out to be 3 KL/KL of ethanol produced.

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. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (v). Total Fresh water requirement shall not exceed 3 KL/KL of ethanol production and will be met from ground water. Prior permission shall be obtained for ground water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Boiler ash will be supplied to brick manufacturers/given to farmers to be used as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (vii). 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 @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant and native species shall be developed.
- (xiv). PP proposed to allocate Rs. 0.88 Crores towards extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution

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

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

Agenda No. 4

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

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

The Project Proponent and the accredited Consultant M/s. Enviro Infra Solutions 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 100 KLPD Grain based Ethanol Plant & 3.6 MW Co-generation power plant (biomass) at Village Mulhera, Tehsil Sardhana, Meerut District, Uttar Pradesh by M/s. Doghat Organics Pvt. Ltd.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery plant	Ethanol	100 KLPD
2	Co-generation	Power	3.6 MW

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

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

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

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 6.6 $\mu\text{g}/\text{m}^3$, 3.1 $\mu\text{g}/\text{m}^3$, 3.6 $\mu\text{g}/\text{m}^3$ with respect to PM10, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 494 m^3/day which will be met from ground water. Effluent of 431 m^3/day quantity will be treated through Condensate Polishing Unit (550 m^3/day). Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. STP will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system.

Power requirement will be 3.0 MW and will be met from proposed 3.6 MW co-generation power plant. 32 TPH (2x16 TPH) biomass fired boiler will be installed. ESP with a stack of height of 42 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boiler. 1x750 and 1x150 KVA DG set will be used as standby during power failure and stack height (10 m ARL) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- ESP with a stack height of 42 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 generated during the fermentation process will be collected by

utilizing CO2 scrubbers and sold to authorized vendors.

Details of solid waste/hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (70972 TPA) will be utilized in brick making in proposed in-house brick manufacturing plant.
- Used oil will be sold to authorized recyclers.
- CPU and STP Sludge will be used as manure.

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

Land is under possession of the company and land use conversion has been obtained dated 16th June, 2022. EAC found the information satisfactory.

During deliberations, EAC discussed and desired the following information:

- (i) The Committee suggested that native species shall be developed in consultation with Forest Department. Greenbelt shall be developed within 1 year. As reported by PP, Baparsi Reserve Forest is at a distance of 230 m in North direction. EAC directed that greenbelt shall be developed towards Forest side of width 30 m.
- (ii) Particulate Matter emission norms of 50 mg/Nm³ shall be maintained as well as guidelines issued by Commission for Air Quality Management in NCR and adjoining areas for pollutants shall be followed from time to time.
- (iii) CSR shall be replaced with CER and activities shall be specific to CER not CSR. CER budget shall be utilized before commencement of operations.
- (iv) OHS budget shall be increased to 60 lakhs/annum from 50 lakhs/annum.
- (v) Reduce fresh water consumption to 4 KL/KL of ethanol production.
- (vi) Distance of incremental GLC is contradictory with stack height. Revise and recalculate emission rate of Particulate Matter in gram/seconds. Also, latest version of AERMOD shall be used i.e. version 10 instead of version 3.
- (vii) Revised flow diagram of ETP including biological treatment.
- (viii) Ash management. Brick manufacturing facility shall be installed.
- (ix) 15% of power requirement shall be generated from solar energy.

PP vide letter dated 28.06.2022 has submitted above information mentioned at S.N. (v, viii and ix). However, PP has not submitted the remaining information. The Committee noted that the proposed project is located in the NCR area. Therefore, proposal should meet the directions of various court orders regarding pollution control measures.

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

Agenda No. 5

Proposed 120 KLD Grain Based Ethanol plant along with 3.2 MW Co-generation Power Plant located at Khasra No. 243/1, Village Bheta, Tehsil Shahpura, Distt. Jabalpur, Madhya Pradesh by M/s. Vardhinni Fuels Pvt. Ltd - Consideration of Environment Clearance

[IA/MP/IND2/272558/2022, IA-J-11011/185/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Ascenso Enviro 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 120 KLPD Grain based Ethanol Plant & 3.2 MW Co-generation power plant (biomass) at Khasra No. 243/1, Village Bheta, Tehsil Shahpura, Distt. Jabalpur, Madhya Pradesh by M/s. Vardhinni Fuels Pvt. Ltd.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery plant	Ethanol	120 KLPD
2	Co-generation	Power	3.2 MW

	power plant		
3	DWGS dryer	DDGS	54 TPD
4	Fermentation unit	Carbon di-oxide	91 TPD

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

Total land area required is 15.0 hectares. Greenbelt will be developed in total area of 6.9 hectares i.e. 46.0% of total project area. The estimated project cost is Rs. 125 Crores. Capital cost of EMP would be Rs. 7.15 Crores and recurring cost for EMP would be Rs. 1.40 Crores per annum. Industry proposes to allocate Rs. 1.25 Crores towards Corporate Environment Responsibility. Total Employment will be 250 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: River Narmada is at a distance of 0.3 km in South direction, Sone River is at a distance of 0.74 km in Nort East Direction. PP has obtained NOC from State Irrigation Department stating that this project site is more than 100 m away from High Flood Level of Narmada River and flood has not come since 25 years.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.2 $\mu\text{g}/\text{m}^3$, 0.80 $\mu\text{g}/\text{m}^3$, 2.18 $\mu\text{g}/\text{m}^3$ with respect to PM10, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 630 m^3/day which will be met from Narmada River. Effluent of 720 m^3/day quantity will be treated through Condensate Polishing Unit (850 m^3/day). Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. STP will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and treated effluent/water shall not be discharged outside the factory premises.

Power requirement will be 3.4 MW and will be met from proposed 3.4 MW co-generation power plant. 34 TPH biomass fired boiler will be installed. ESP with a stack of height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3 for the proposed boiler. 1000 KVA DG set will be used as standby during power failure and stack height (14 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- ESP with a stack height of 60 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (91 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.

Details of solid waste/hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (54 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (48 TPD) will be utilized for brick making in proposed in-house brick manufacturing plant.
- Used oil (0.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU and STP Sludge will be used as manure.

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

Land has been allotted by MP Industrial Development Corporation Limited and land is undeveloped as stated in the letter dated 17th February, 2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Greenbelt of 20 m width shall be developed towards Narmada River.
- If natural drainage is passing through plant as River Narmada is at a distance of 0.3 km, then commitment shall be given that no diversion of tributary/drain shall be carried out and proper development of greenbelt shall be maintained along drain side.
- Schools are falling near to project site. Additional measures shall be undertaken including development of greenbelt towards school side.
- 5 field in ESP shall be provided and norms of 30 mg/Nm³ shall be achieved as committed by PP.
- Traffic management details.
- 10% of power requirement shall be generated from solar energy.

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

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

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

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

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

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

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). 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. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Narmada River. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP/Bag filter shall be installed with the boiler. Boiler ash will be utilized for brick making in proposed in-house brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (vii). 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 @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Greenbelt of 20 m width shall be developed towards Narmada River & schools nearby project site .
- (xiv). PP proposed to allocate Rs. 1.25 Crores towards extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum

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

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

Agenda No. 6

Establishment of 300 KLPD Grain based distillery along with 9 MW Co-generation Plant located at village Hanumanahalli, Taluka Rannebennur, District Haveri, State Karnataka by M/s. Greenergy Bio Refineries Private Limited (GBRPL) - Consideration of Environment Clearance

[IA/KA/IND2/277024/2022, IA-J-11011/59/2022-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 300 KLPD Grain based Ethanol Plant & 9.0 MW Co-generation power plant (biomass/coal) at village Hanumanahalli, Taluka Rannebennur, District Haveri, State Karnataka by M/s. Greenergy Bio Refineries Private Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery plant	Ethanol	300 KLPD
2	Co-generation power plant	Power	9.0 MW
3	DWGS dryer	DDGS	175 TPD
4	Fermentation unit	Carbon di-oxide	248 TPD

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

Total land area required is 9.35 hectares. Greenbelt will be developed in total area of 3.08 hectares i.e. 32.94% of total project area. The estimated project cost is Rs. 238 Crores. Capital cost of EMP would be Rs. 18.15 Crores and recurring cost for EMP would be Rs. 1.9 Crores per annum. Industry proposes to allocate Rs. 3.75 Crores towards Corporate Environment Responsibility. Total Employment will be 140 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. The Ranebennur Wildlife Sanctuary is at 6.8 Km. ESZ for same is finalized wide Notification No. S.O. 2147(E) dated 6th July, 2017. The Eco-sensitive Zone is spread over an area of 112.74 square kilometers with an extent varying from 100 meters to 4.60 kilometers around the boundary of Ranebennur Blackbuck Sanctuary. The Site is located 5.6 Km from notified ESZ. Water bodies: Tungabhadra river is at a distance of 3.50 Km in South West direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.447 $\mu\text{g}/\text{m}^3$, 0.11 $\mu\text{g}/\text{m}^3$, 4.98 $\mu\text{g}/\text{m}^3$, 0.53 $\mu\text{g}/\text{m}^3$ with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 922 m^3/day which will be met from Tungabhadra river. Effluent of 1789 m^3/day quantity will be treated through Condensate Polishing Unit (2300 m^3/day). Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. STP will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and treated effluent/water shall not be discharged outside the factory premises.

Power requirement will be 5.8 MW and will be met from proposed 9.0 MW co-generation power plant. 60 TPH biomass/coal fired boiler will be installed.

ESP with a stack of height of 70 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 1000 KVA DG set will be used as standby during power failure and stack height (5 m ARL) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- ESP with a stack height of 70 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (248 TPD) generated during the fermentation process will be collected by bottling plant.

Details of solid waste/hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (175 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (36 TPD) will be utilized in brick manufacturing unit proposed within plant premises.
- Used oil will be sold to authorized recyclers.
- CPU and STP Sludge (2.1 TPD) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 300 KLPD will be used for manufacturing fuel ethanol only.

PP reported that the Agreements for Sale are in the name of Haveri Mega Food Park Private Limited (HMFPPPL). But Recently, the name of company has changed from HMFPPPL to Greenergy Bio Refineries Private Limited (GBRPL). Land is under possession of the industry and land use conversion of 8.5 Ha has been completed whereas remaining land use conversion application has been submitted . EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Surface water permission shall be obtained before start of construction activities.
- NOC for drain adjacent to proposed project site shall be obtained as shown in plant layout and reported by PP during EAC. PP informed that application for NOC has been submitted to Karnataka Irrigation Department and NOC will be issued in 2 weeks.

- While submitting proposal to PESO, PP shall conduct Risk assessment taking into account accidental spillage and leakage. Types of rupture and scenario, distance which will be covered and response time.
- Commitment that 10% of power requirement shall be generated from solar power.
- Additional measures proposed in order to mitigate industrial pollution towards the nearest village Hanumanahalli and density of greenbelt to be provided towards nearest populated habitat.
- Measures to control sulphur and nitrogen emissions. Mechanism to achieve prescribed standards of SO₂ and NO_x emissions. PP informed that AFBC & travelling gate boiler will be used & moisture content of rice husk is only 15% which will not affect the characteristics of pollutants in the flue gases as well as on the performance of ESP.

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

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

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

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The

project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 300 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). 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. NOC shall be obtained from State Irrigation Department for the drain adjacent to proposed project site before start of construction activities.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Tungabhadra River. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler. Boiler ash will be utilized in brick manufacturing unit proposed within plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (vii). CO₂ bottling plant shall be installed.
- (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 @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Greenbelt of width 20 m shall be developed towards village Hanumanahalli.

- (xiv). PP proposed to allocate Rs. 3.75 Crores towards extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

1. Any other items with the permission of the Chair.

Clarification regarding requirement of Environmental Clearance for oil & gas transportation pipe line.

Member Secretary briefed the case and informed that additional safe guards shall be suggested by EAC which shall be included in Consent that is being issued to pipeline projects presently. EAC suggested that latest CTO issued to pipeline projects shall be obtained from concerned SPCB so that additional

safe guards may be suggested in addition to existing conditions stipulated. Further, EAC decided to discuss the same after examination of details in the next meeting.

GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

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

Clearance and six monthly compliance status report shall be posted on the website of the company.

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

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

S. No.	Name and Address	Position
1.	Shri S. C. Mann	Chairman
2.	Dr. J. S. Sharma	Member
3.	Prof. Y. V. Rami Reddy	Member
4.	Dr. Sanjeev Chaudhari (28.06.2022; one day)	Member
5.	Shri J. S. Kamyotra	Member
6.	Dr. Rahul Ramesh Rao Mungikar	Member
7.	Dr. Seshagiri Rao Ambati (IIPe)	Member
8.	Dr. Sanjay V. Patil (VSI)	Member
9.	Dr. Siddhartha Singh (IMD)	Member
10.	Shri A.N. Singh, Scientist 'E'	Member Secretary
MoEFCC		
11.	Dr. Mahendra Phulwaria	Scientist 'C'
12.	Kanaka Teja	Research Assistant
13.	Ms. Meetika Gupta	Research Associate
