

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

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**Dated: 16.08.2022**

**Meeting ID: IA/IND2/13302/11/08/2022**  
**MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE**  
**(INDUSTRY-2 SECTOR PROJECTS)**  
**HELD ON 11<sup>th</sup> - 12<sup>th</sup> August, 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/IND2/13295/27/07/2022) held during 27<sup>th</sup> - 28<sup>th</sup> July, 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: -**

**11<sup>th</sup> August, 2022 (Thursday)**

**Agenda No. 1**

**Proposed Greenfield Grain Based Distillery Unit of Capacity 400 KLD under Ethanol Blended Petrol (EBP) Programme of Government of India" at UPSIDC Industrial Area, Village- Bhartiagram, Tehsil**

**Gajraula, District Amroha, U.P. by M/s. Jubilant Agro Science Limited– Re-consideration of Environment Clearance**

**[IA/UP/IND2/271805/2022, IA-J-11011/162/2022-IA-II(I)]**

The proposal was earlier considered by EAC (Ind-2) in its 6<sup>th</sup> meeting held on 19<sup>th</sup> May, 2022 at Agenda No. 6.5 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13302/11/08/2022) held on 11<sup>th</sup> -12<sup>th</sup> August, 2022.

The EAC noted that one of the earlier issues was the location of proposed project site which is within the Hastinapur Wildlife Sanctuary. The Committee also noted that latest directions of the Hon'ble Supreme Court dated 03<sup>rd</sup> June, 2022, in the matter of WP (Civil) No 202 of 1995 directs that each protected forest i.e. National park or Wildlife Sanctuary must have an ESZ of minimum 1 KM measured from the demarcated boundary of the protected forest in which the activities proscribed and prescribed in the Guidelines of 9<sup>th</sup> February, 2011 shall be strictly adhered to. Further, PP informed that Notification of the sanctuary excluding the project site area is under consideration as well as ESZ of the area is not defined. EAC suggested PP to resubmit the proposal after publication of Final Notification for Hastinapur Wildlife Sanctuary/ESZ for further consideration.

**Accordingly, the proposal was returned in the present form.**

**Agenda No. 2**

**Establishment of 105 KLPD Grain based Distillery along with 3 MW Electricity Generation located at Navage Village, Tal.: Belagavi, Dist.: Belagavi, Karnataka State by M/s. Sanjay Patil Sugars Ltd. – Consideration of Environment Clearance**

**[IA/KA/IND2/266863/2022, IA-J-11011/233/2022-IA-II(I)]**

The proposal was earlier considered by EAC (Ind-2) in its meeting (Meeting id: IA/IND2/13281/07/07/2022 ) held on 07<sup>th</sup> -08<sup>th</sup> July, 2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13302/11/08/2022) held on 11<sup>th</sup> -12<sup>th</sup> August, 2022. Information desired by EAC and responses

submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

<b>S. No.</b>	<b>ADS by MoEFCC</b>	<b>Reply of PP</b>
1.	Attiveri bird sanctuary is located at a distance of 9.2 km from the project site. PP informed that it is a tourist place. EAC directed to submit NOC from Chief Wildlife Warden stating that bird sanctuary is not notified. The Committee also directed the Consultant to mention WLS in the Form -II also. Since bird sanctuary is located at a distance of 9.2 km, the Committee suggested them to submit conservation plan.	It is already mentioned in EMP report submitted that the Attiveri Bird Sanctuary is at about 9.2 Km towards NE from site and is tourist place and not actually a notified sanctuary. A letter in this regard has been procured from Deputy Conservator of Forests (DCF), Belagavi Division, Belagavi which states as – “With reference to your letter cited above, this is to inform you that no notified Bird Sanctuary is existing in the jurisdiction of Belagavi Division. Also, Attiveri Bird Sanctuary (Bird Watching Place) is non-notified located at 9.2 Km of North East direction from your project site.”
2.	Road is passing through project site which is a village road. PP informed that it is a Kuccha trail and gram panchayat NOC has been obtained. EAC suggested to submit the same document.	One Kuccha Road passes through the plot on Northern region. For this a NOC has been issued by the local Grampanchayat of Kinaye village stating that this road is not a notified one.
3.	In kml, elevation is 100 m between North and South. Land pitching shall be done. Clarification regarding plant layout shown and details regarding cutting of trees. Consultant informed that no trees will be cut and shrubs are visible in KML. EAC directed to submit the same in undertaking. PP shall submit the appropriate document stating that no trees will be cut	PP vide letter dated 12.07.2022 requested DFO; Jamboti Region, Jamboti to visit Project Site and give opinion about removal of the existing shrubs & small plants. DFO visited Project Site on 14.07.2022 and along with two local people (nominated as 'Panchas') conducted inspection of the project site & premises. A "Panchanama" was prepared; signed by 2 Panchas & officer. It

	<p>and inventory of trees, diameter, height, species and photographs shall also be included. The consultant shall give in writing that flattening of land at lower altitude will not affect the existing trees on slope on higher altitude. The pitching shall protect the trees of slope.</p>	<p>is stated that only 4 plants (trees) are seen up to 2 m apart, small portion of plants &amp; grass; as such removal of same will not cause harm to environment. DFO forwarded a letter dated 15.07.2022 to 'Regional Forest Officer; Khanapur Region' stating that no much trees are grown on the project land &amp; hence no permission of the Forest Dept. is required for removal of the trees under the 'Karnataka Plant Protection Act; 1976' under 'Section 8C'. In spite of the above status certified by DFO; efforts will be taken by the PP to replant big plants / trees (in consultation with the DFO) that will interfere project implementation activities. Moreover, a well-engineered GB will be developed on project site. Details are submitted in ADS reply.</p>
4.	<p>Carbon di-oxide recovery is only 46 TPD which is very low. Clarification and mass balance regarding carbon di-oxide generation.</p>	<p>Detailed clarification and mass balance has been submitted in ADS reply.</p>
5.	<p>Navage village is the sink of maximum incremental concentration of pollutants. Hence, PP informed that 2000 trees will be developed.</p>	<p>PP committed that 2000 trees will be planted in Navage village.</p>
6.	<p>If coal will be used, dry desulphurization will be done by using lime.</p>	<p>PP committed that Coal will not be used as a fuel in the proposed 25 TPH boiler. Only bagasse will be used.</p>
7.	<p>Clarification regarding relation of stack height and distance of GLC. Revise stack height as per discussions.</p>	<p>Under the distillery establishment project; stack height proposed for the 25 TPH boiler was 30 M. Now, as per discussions &amp;</p>

		directions given by Hon. Committee Members; considering the maximum height of a building in the premises as 20 M, the stack height will be increased to 40 M. Therefore, the boiler of 25 TPH will be provided with ESP followed by stack of 40 M as APC.
8.	OHS budget will be Rs. 1 Crores.	PP committed that they will earmark Rs. 1 Crore budget for OHS.
9.	20% power generation of total power requirement shall be done from renewable source as committed by PP.	PP committed that 0.5 MW Solar Photovoltaic Electricity Generation System shall be installed within plant premises.

EAC found the information provided by PP satisfactory.

The Project Proponent and the accredited Consultant M/s. Equinox Environments (India) Pvt. Ltd. (NABET certificate no. NABET/EIA/1821/RA 0135 and validity 04<sup>th</sup> October, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 105 KLPD Grain based Ethanol Plant & 3.0 MW Co-generation power plant (biomass) at Village Navage, Tehsil Belagavi, District Belagavi, State Karnataka by M/s. Sanjay Patil Sugars Ltd.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> 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:**

<b>S. No.</b>	<b>Name of unit</b>	<b>Name of the product/by-product</b>	<b>Production capacity</b>
1	Distillery plant	Ethanol	105 KLPD
2	Co-generation power plant	Power	3.0 MW
3	DWGS dryer	DDGS	90 TPD
4	Fermentation unit	Carbon di-oxide	46 TPD

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

Total land area required is 8.56 hectares. Greenbelt will be developed in total area of 2.83 hectares i.e., 33.06% of total project area. The estimated project cost is Rs. 126.0 Crores. Capital cost of EMP would be Rs. 18.20 Crores and recurring cost for EMP would be Rs. 0.76 Crores per annum. Industry proposes to allocate Rs. 2.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 80 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. Reserve forest is at a distance of 1.7 km in North-West direction. PP informed that Attiveri Bird Sanctuary is at a distance of 9.2 Km which is a tourist place. Water bodies: Markandey River is at a distance of 6.6 Km in West direction, River Pool Saroli is at a distance of 8.9 Km in, Rakaskop Dam is at a distance of 6.7 Km.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.05 µg/m<sup>3</sup>, 0.006 µg/m<sup>3</sup>, 0.10 µg/m<sup>3</sup> & 0.006 µg/m<sup>3</sup> 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 353 m<sup>3</sup>/day which will be met from ground water. PP informed that application has been submitted to Karnataka Ground Water Authority vide application no. KGWAN1430717637 dated 26<sup>th</sup> May, 2022. Effluent of 637 m<sup>3</sup>/day quantity will be treated through Condensate Polishing Unit of capacity 850 m<sup>3</sup>/day. Raw stillage (528 m<sup>3</sup>/day) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 5 m<sup>3</sup>/day will be installed to treat sewage generated

from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3.0 MW and will be met from proposed 3.0 MW co-generation power plant. 25 TPH biomass fired boiler will be installed. ESP with a stack of height of 40 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler. 1x500 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 40 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 bottling plant shall be installed.

#### **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 (9 TPD) will be utilized for brick manufacturing in proposed in-house brick manufacturing unit.
- Used oil (0.8 TPA) will be sold to authorized recyclers.
- CPU (0.6 TPD) and STP Sludge will be used as manure.

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

PP has reported that total land of 8.56 Hectares is under possession of the company and land use conversion has been completed vide letter no. RB/LNA/SR(I)-109/13/2018-19 dated 10.01.2019. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Validity extension of accredited consultants. Consultants informed that validity is till 04<sup>th</sup> October, 2022.
- Undertaking stating that PP shall provide access to the villagers by diverting the road passing through the plant outside the plant boundary.
- Mass Balance of carbon di-oxide and loss shall be clearly detailed.

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 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 105 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before starting construction of plant and drawing the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iv). 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 3.3 KL/KL of ethanol production and will be met from ground water. Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond having 60 days

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

- (vi). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (vii). ESP alongwith stack of 40 m height shall be provided to biomass fired boiler to control particulate emission within 50mg/Nm<sup>3</sup>. No coal shall be used as fuel. At no time, the emission levels should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- (viii). Boiler ash will be utilized for brick manufacturing in proposed in-house brick manufacturing unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas. Coal shall not be permitted as fuel to be used.
- (ix). PP shall allocate Rs. 1 Crores/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (x). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xi). The unit shall make arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.

- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed instead of sludge drying beds.
- (xiii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. No existing tree shall be cut. PP shall make efforts to replant big plants / trees (in consultation with the DFO) that will interfere project implementation activities. PP shall develop greenbelt having 2000 trees in village Navage.
- (xv). PP proposed to allocate Rs. 2.0 Crores for 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.
- (xvi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking shall be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.

- (xvii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xviii). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xix). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.
- (xx). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12<sup>th</sup> August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

### **Agenda No. 3**

**Establishment of Grain based Distillery of capacity 200 KLD to produce Ethanol under EBP Programme of Govt. of India at Sy. No's 1424/A, 1429/A, 1430, 1431, 1433/A, 1433/C, 1301, 1303, 1298, 1300, 1304/B, 1338/C, 469, 1302, Kampli village and**

**Taluk, Ballari District, Karnataka State by M/s. Sundari Sugars Limited**

**[IA/KA/IND2/282228/2022, IA-J-11011/250/2022-IA-II(I)**

The Project Proponent and the accredited Consultant M/s. Environmental Health and Safety Consultants Private Limited, Bangalore (NABET certificate no.NABET/EIA/2124/RA 0241 and validity 22.08.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for Environmental Clearance to the project for 200 KLD grain based ethanol plant & 5 MW Co-generation power plant (Rice Husk and imported coal based) located at Sy. No's 1424/A, 1429/A, 1430, 1431, 1433/A, 1433/C, 1301, 1303, 1298, 1300, 1304/ B, 1338/C, 469, 1302, Village and Tehsil Kampli, District Ballari, State Karnataka.

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:**

<b>S. No</b>	<b>Name of unit</b>	<b>Name of the product/ by-product</b>	<b>Production capacity</b>
1	Distillery	Ethanol	120 KLD
2	Co-generation power plant	Power	5 MW
3	DWGS dryer	DDGS	164 TPD
4	Fermentation unit	Carbon di-oxide	52 TPD

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

Total land area required is 14.65 Ha for proposed grain based distillery. Greenbelt will be developed in total area of 4.84 hectares i.e., 33.04% of total project area. The estimated project cost is Rs. 392 Crores. Capital cost

of EMP would be Rs. 18.58 Crores and recurring cost for EMP would be Rs. 4.5 Crores per annum. Industry proposes to allocate Rs. 5.88 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 60 persons as direct & indirect.

PP informed that Tungabhadra Otter Conservation Reserve is located at 3.29 Km from the project site in North West direction. ESZ is not applicable for Conservation Reserves. Daroji Bear Sanctuary boundary is located at a distance 6.59 Km from the Project site. ESZ for same is finalized vide Notification No. SO 3528 (E) dated 25.11.2019. The Eco-sensitive Zone is spread over an area of 158.70 square kilometres with an extent varying from 1 kilometres to 4.7 kilometres around the boundary of Daroji Bear Sanctuary. The project site is located 4.73 Km from notified ESZ. NBWL recommendation is not applicable to the project as it is located outside the notified ESZ. Water bodies: River Tungabhadra is at a distance of 4.8 Km in North direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.09  $\mu\text{g}/\text{m}^3$ ,  $\mu\text{g}/\text{m}^3$ , 0.31  $\mu\text{g}/\text{m}^3$  and 0.51  $\mu\text{g}/\text{m}^3$  with respect to PM10, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 850 m<sup>3</sup>/day which will be met from Tungabhadra River. Application has been submitted to Additional Chief Secretary to Government, Water Resource Department, Vikasoudha on 10.04.2022, the proposal has been forwarded by the Water Resource Department to Managing Director, Karnataka Neeravari Nigam Ltd and Chief Engineer, Water Resource Development Organization on 18.06.2022 for recommendation. Effluent (Condensate/spent lees/blow down etc.) of 2245 m<sup>3</sup>/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 2400 KLPD and ETP of capacity 200 KLD. Raw stillage (140 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 10 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 6 MW and will be met from GESCOM. NOC for power requirement is under progress. 55 TPH of rice husk and coal fired

boiler will be installed. Bag filter with a stack height of 70 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler. 150 kVA DG set will be used as standby during power failure and stack height (10 m) will be provided as per CPCB norms to the proposed DG sets.

#### **Details of Process emissions generation and its management:**

- Bag filter 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.
- CO<sub>2</sub> (52 TPD) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and it will be sold to dry ice manufacturing.

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

- DDGS (Distilled Dried Grains Stillage) (164 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (53 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (0.8 Kilo litres per annum) will be sold to authorized recyclers.
- CPU sludge (140 TPD) and STP Sludge (0.5 Kg/day) will be used as manure.

As per Notification S.O 2339(E), dated 16<sup>th</sup> 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.

The total land area of the project is 69.37 Ha which is under procession of the Company and the land was already designated for industrial use since 1959.

During deliberations, PP informed that Kampli Cooperative Sugar Factory Limited, Kampli a Cooperative Society dually registered under the Karnataka Cooperative Societies Act, 1959 owns a sugar factory at Kampli since 1959. Further, the factory incurred substantial losses over the years and became unviable and therefore put to liquidation. M/s. Sundari Sugars Limited purchased the Sugar factory to a sum of Rupees 8.1 Crores on 20.07.1999

under liquidation process from the Govt., of Karnataka. After that, M/s. Sundari Sugars Limited has not started the industrial operations and till date the industrial premises is vacant. The company was commissioned prior to Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 and Environment (Protection) Act, 1986. The Promoters of M/s. Sundari Sugars have extensively and carefully analyzed the present and future scenario of ethanol sector. They have also studied carefully the present irrigation facilities and surplus raw material availability, as well as future potential of irrigation and grain availability and the promoters have finalized the said project.

During deliberations, EAC discussed the following issues:

- Road is passing through the project site. Additional measures for protecting the road. Undertaking that access will be provided to villagers inside the plant by diverting the road outside the plant.
- Greenbelt area is varying in acres in documents submitted. PP clarified the same and agreed to develop green belt on 12.1 acres of the plant land with tree density of 2500 trees/ Ha and native trees.
- Bag house shall be installed instead of ESP to achieve prescribed particulate emission standards of 30 mg/ Nm<sup>3</sup> and revise cost of EMP including bag house.
- Emission standards taken to calculate GLC shall be clarified. Additional measures to control SO<sub>2</sub> emissions and NO<sub>x</sub> emissions less than 100mg/Nm<sup>3</sup> shall be detailed. Revised GLC shall be submitted as concentration of pollutants are very high. Detailed calculations of air quality modelling shall be submitted.
- Commitment to install own brick manufacturing unit.
- Revised CER activities and time taken to complete CER activities shall be before commissioning of the plant.
- Greenbelt shall be completed in 2 years not 5 years.
- Include CEMS in EMP budget.

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 Committee took serious note on the presentation of consultant for installation of ESP of 98% efficiency for controlling the particulate emission from the boiler. EAC suggested that prescribed standard for the coal based power generation boiler is 30 mg/Nm<sup>3</sup> and 50 mg/Nm<sup>3</sup> for biomass cannot



be achieved by ESP based on 98% efficiency. They have to go for ESP of 99.99% efficiency or bag filter to achieve the aforesaid prescribed standards for controlling particulate emissions. The EAC suggested that MOEFCC shall inform QCI NABET regarding the activities of Environmental Consultant for presenting irrelevant information before the Committee. Further the Committee suggested to put condition for installation of ESP of 99.99% efficiency or bag filter as air pollution control device to control particulate matter emissions below 30 mg/Nm<sup>3</sup>.

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 16<sup>th</sup> 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 water requirement shall be met from Tungabhadra river. PP shall not start construction before obtaining permission for water withdrawal from Water Resource Department, Vikasoudha/ Managing Director, Karnataka Neeravari Nigam Ltd and Chief Engineer, Water Resource Development Organization, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iv). 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). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. 10 KLPD STP shall be installed to treat sewage generated from factory premises.
- (vii). ESP along with stack of adequate height shall be provided to biomass fired boiler to control particulate emission within 50 mg/Nm<sup>3</sup> and coal fired boiler to control particulate emission within 30 mg/Nm<sup>3</sup>. SO<sub>2</sub> and NO<sub>x</sub> emissions shall be below 100 mg/Nm<sup>3</sup>. At no time, the emission levels should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- (viii). 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.
- (ix). PP shall allocate at least Rs. 1 Crores/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (x). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

- (xi). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed instead of sludge drying beds.
- (xiii). The company shall undertake waste minimization measures as below
  - (a) Metering and control of quantities of active ingredients to minimize waste;
  - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - (c) Use of automated filling to minimize spillage.
  - (d) Use of Close Feed system into batch reactors.
  - (e) Venting equipment through vapour recovery system.
  - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.
- (xv). PP proposed to allocate Rs. 5.88 Crores for 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.
- (xvi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking shall 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. PP shall ensure that access shall be

provided to villagers outside the plant as village road is passing through the plant.

- (xvii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xviii). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xix). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Managing Director/CEO as per company hierarchy.
- (xx). PP shall sensitize and create awareness among the people working within the project areas as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12<sup>th</sup> August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

#### **Agenda No. 4**

**Proposed 175 KLPD Molasses/ Cane Juice/ Sugar Syrup/Grain Based Distillery & 5 MW Co-Generation Power Plant at Village Bhagwanpur Fulwa, Tehsil Faridpur, District Bareilly, Uttar Pradesh by M/s. Dwarikesh Sugar Industries Limited- Amendment in Environmental Clearance**

**[IA/UP/IND2/282297/2022, IA-J-11011/31/2021-IA-II (I)]**

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter no. J-11011/31/2021 – IA - II (I) dated 27<sup>th</sup> September, 2021 for the project Proposed 175 KLPD Molasses/ Cane Juice/ Sugar Syrup/Grain Based Distillery & 5 MW Co-Generation Power Plant located at Village Bhagwanpur Fulwa, Tehsil Faridpur, District Bareilly, Uttar Pradesh by M/s. Dwarikesh Sugar Industries Limited

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

<b>S. No.</b>	<b>Para of EC issued by MoEF&amp;CC</b>	<b>Details as per the EC</b>	<b>To be revised/read as</b>
1	Specific Condition (xii), Page 6 of 9 (EC letter no J-11011/31/2021 – IA - II (I) dated 27th Sep., 2021)	PP shall allocate Rs. 2.5 crores for CER and it shall be used for establishment of solar plant within factory premises. Electricity shall be provided to villagers from the solar plant free of cost.	PP shall allocate Rs. 2.5 crores for CER and it shall be used for Installation of solar plant within the plant premises and also in the nearby areas, skill development programmes, improving infrastructure and facilities in schools and hospitals, medical health & welfare facilities and plantation in nearby areas.

**Justification for amendment proposed:**

PP informed that as per section 12 of the Electricity Act ("Act"), no person shall: - transmit electricity; or distribute electricity; or undertake trading in electricity, unless he is authorised to do so by a licence issued under section 14 of the Act.

While imposing condition in the EC that they have to supply electricity to Villagers, doesn't take into account the fact that for supplying electricity to villagers there has to be a transmission and distribution network for transmitting and distributing electricity to village households. For this, apart from establishing a solar plant, they would have to create a transmission and distribution network by laying electricity lines, which can only be done by a transmission and distribution license as per Section 12 of the Act and as they don't have any such licensee, it won't be possible for PP to create such a network for supplying electricity to villagers. It won't be commercially feasible for PP to apply for transmission and distribution license as it will entail huge financial expenditure and as it is not an electricity company, they also don't have the necessary technical knowhow for establishing such a network. Further for supplying electricity to villagers, consumers are to be charged applicable tariff as approved by UPERC and therefore electricity cannot be supplied free of cost to villagers.

Further assuming we create a transmission and distribution network to supply electricity generated by solar plant, it will require regular upkeep, installation of metering systems, maintenance & fault rectification at consumer end of electric lines and the same can only be done by a distribution company and would require continuing financial expenditure much exceeding the amount of Rs 2.5 crores mentioned in the EC. Being a sugar manufacturing company, PP does not have the necessary technical knowhow, financial resources or manpower for maintenance and upkeep of the transmission and distribution network.

Even if PP does not create its own transmission and distribution network and supply electricity generated by solar plant free of cost to UPPCL for onward supply to villagers, villagers will not be getting electricity free of cost as per aforementioned condition of EC as UPPCL will be charging villagers its standard tariff.

Additionally, for supplying electricity free of cost to villagers, PP would have to apply to the State Commission for exemption from charging standard tariff. For the same, UPPCL would also have to agree to the same and it will be a cumbersome and laborious process to get the required permissions.

In view of the above facts and circumstances, it is clear that it is neither legally nor technically feasible for the company to supply electricity to villagers free of cost. However, the company will install the solar plant within

the plant premises and in nearby areas as well. The electricity generated from the solar plant within plant premises will be consumed in the plant activities and the solar plant in nearby areas will be handed over to concerned authorities after installation.

During deliberations, EAC desired that PP shall submit CER activities of budget Rs. 2.5 Crores already proposed in earlier EC including solar lights installation etc.

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.

After deliberations, EAC **recommended** for amendment in EC as proposed by the project proponent subject to the following additional condition:

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

However, all other terms and conditions mentioned in EC vide letter no. J-11011/31/2021-IA-II (I) dated 27<sup>th</sup> September, 2021 shall remain unchanged.

### **Agenda No. 5**

**Proposed 150 KLPD Grain Based Distillery along with 4.0 MW Biomass based Co-Gen Power Plant and ZLD Unit at Village Mohammad Ganj, Tehsil Thakurdwara, District- Moradabad, Uttar Pradesh by M/s. Pasupati Acrylon Ltd. - Consideration of Environmental Clearance**

**[IA/UP/IND2/275978/2022, IA-J-11011/189/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Vardan EnviroNet (NABET certificate no. NABET/EIA/2023/SA0158 and validity 05.05.2023)



made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 150 KLPD Grain based Ethanol Plant & 4.0 MW Co-generation power plant (Biomass Based) located at Village Mohammad Ganj, Tehsil Thakurdwara, District Moradabad, State Uttar Pradesh by M/s. Pasupati Acrylon Ltd.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> 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:**

<b>S. No.</b>	<b>Name of unit</b>	<b>Name of the product/by-product</b>	<b>Production capacity</b>
1	Distillery	Ethanol	150 KLPD
2	Co-generation power plant	Power	4.0 MW
3	DWGS dryer	DDGS	Rice: 91 TPD Maize: 111 TPD
4	Fermentation unit	Carbon di-oxide	Rice: 141 TPD Maize: 118 TPD

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

Total land area required is 8.09371 hectares. Greenbelt will be developed in total area of 2.76 hectares i.e., 34.02% of total project area. The estimated project cost is Rs. 197.0 Crores. Capital cost of EMP would be Rs. 9.02 Crores and recurring cost for EMP would be Rs. 0.46 Crores per annum. Industry proposes to allocate Rs. 2.0585 crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 320 persons as direct & indirect.

There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve Forest: Hariyawal Kudiyawal Reserve Forests is at a distance of 4.0 km in North East direction, Tumaria Ravines Reserve forests is at a distance of 6.0 km in North direction, Sheorajpur Reserve forests is at a distance of 8.0 km in North direction. Water bodies: Dhandi Nadi is at a distance of 10 m in North direction for which NOC has been obtained from State Irrigation Department vide letter no. 1508 dated 19.07.2022 stating that no flood has been recorded in Dhandi River from past 25 years.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be  $0.43 \mu\text{g}/\text{m}^3$ ,  $0.16 \mu\text{g}/\text{m}^3$ ,  $0.89 \mu\text{g}/\text{m}^3$  and  $1.73 \mu\text{g}/\text{m}^3$  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  $925 \text{ m}^3/\text{day}$  including co-generation power plant which will be met from ground water. PP informed that NOC has been obtained from UPGWD dated 29.04.2022. Effluent of  $550 \text{ m}^3/\text{day}$  quantity will be treated through Condensate Polishing Unit of capacity  $550 \text{ m}^3/\text{day}$ . Raw stillage ( $862 \text{ m}^3/\text{day}$ ) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity  $70 \text{ m}^3/\text{day}$  will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 4.0 MW and will be met from proposed 4.0 MW cogeneration power plant. 35 TPH biomass/coal fired boiler will be installed. Electrostatic Precipitator with a stack height of 40 m will be installed for controlling the particulate emissions within the statutory limit of  $30 \text{ mg}/\text{Nm}^3$  for the proposed boiler. 2 DG Set of 1000 KW and 500 KW will be used as standby during power failure and stack height of 15 m will be provided as per CPCB norms to the proposed DG sets.

#### **Details of Process emissions generation and its management:**

- Electrostatic Precipitator will be provided with a stack height of 40 meters for controlling the particulate emissions within the statutory limit of  $30 \text{ mg}/\text{Nm}^3$ .
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- $\text{CO}_2$  (141 TPD) will be collected by utilizing  $\text{CO}_2$  scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) of 91 TPD (Rice) will be sold as cattle feed / fish feed /prawn feed.
- Boiler Ash (30 TPD) will be supplied to brick/cement manufacturers.
- Used oil (4.0 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge and STP Sludge (6 TPD) will be used as manure.

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

Total land of 8.094 Hectares is under possession of the company and already converted for non- agriculture use. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Undertaking that project site does not fall in CPA as declared by CPCB and project site is 41 kms away from CPA.
- Difference of level between the plant and river. It is 12 m as reported by PP. Clarification regarding level of water recorded in rainy season.
- Justification regarding selecting this site.
- Commitment that thick greenbelt along the river side shall be developed and no discharge shall be done in the river.
- Clarify regarding land area shown and greenbelt developed as per area.
- Copy of Land use conversion for industrial use documents shall be submitted.
- Efficiency of ESP shall be 99.9% and PM emissions shall be below 30 mg/Nm<sup>3</sup>. Revise GLC by taking 30 mg/Nm<sup>3</sup> as PM emission standards and 100 mg/Nm<sup>3</sup> for NO<sub>x</sub> and SO<sub>2</sub> emissions. Details regarding wind rose, AQ modelling shall be submitted.
- Coal shall have sulphur content less than 0.5% and boiler capacity shall be confirmed as there is discrepancy in boiler capacity.
- Provide filter press instead of sludge drying beds.
- MOU shall be submitted with brick manufacturers clearly mentioning quantity of fly ash to be supplied.
- CER activities shall be completed before commencement of operations. Revised CER activities shall be submitted including solar lights, upgradation of schools etc as discussed.

- Mohammadganj village is near to project site so thick greenbelt of 20 m shall be developed towards the village.
- Revised cost of EMP shall be submitted including CER budget, CEMS cost.
- 10% of total power requirement shall be sourced from solar/renewable 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 Committee took serious note on the presentation of consultant for installation of ESP of 95% efficiency for controlling the particulate emission from the boiler. EAC suggested that prescribed standard for the coal based power generation boiler is 30 mg/Nm<sup>3</sup> and 50 mg/Nm<sup>3</sup> for biomass cannot be achieved by ESP of 95% efficiency. They have to go for ESP of 99.99% efficiency or bag filter to achieve the aforesaid prescribed standards for controlling particulate emissions. The EAC suggested that MOEFCC shall inform QCI NABET regarding the activities of Environmental Consultant for presenting irrelevant information before the Committee. Further the Committee suggested to put condition for installation of ESP of 99.99% efficiency or bag filter as air pollution control device to control particulate matter emissions below 30 mg/Nm<sup>3</sup>.

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 16<sup>th</sup> 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). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before starting construction of plant and drawing the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent

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

- (iv). Total fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water. Prior permission shall be obtained for fresh 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). No discharge shall be done in the Dhandi river in any case, which is at a distance of 10 m from project site.
- (vi). 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.
- (xxi). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (vii). ESP/bag filter alongwith 40.0 m high stack shall be provided to biomass fired boiler to control particulate emission within  $50\text{mg}/\text{Nm}^3$  and for coal fired boiler, standards of  $30\text{ mg}/\text{Nm}^3$  to be achieved.  $\text{SO}_2$  and  $\text{NO}_x$  emissions shall be below  $100\text{ mg}/\text{Nm}^3$ . At no time, the emission levels should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- (viii). An amount of Rs. 12.00 crores shall be earmarked towards EMP.

- (ix). Boiler ash will be utilized for brick manufacturing in proposed in-house brick manufacturing unit/ 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.
- (x). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed instead of sludge drying beds. Filter press shall be installed in place of sludge drying bed.
- (xiv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in 2.76 Ha of the total plant area of 8.09 Ha i.e. 34.12% of the total project area with

tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Additional thick greenbelt of 20 m width shall be developed along the river side and towards Mohammadganj village shall be developed.

- (xvi). PP proposed to allocate Rs. 2.0585 Crores for 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.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking shall be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision



capability and flow meters in the channel/drain carrying effluent within the premises.

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

### **Agenda No. 6**

**Expansion of Sugar Factory from 4,500 to 7,500 TCD, Cogeneration Plant from 14.85 to 30 MW with Establishment of 110 KLPD Molasses/ Cane Juice based Distillery located at Village Tadwal, Tehsil Akkalkot, District Solapur, State Maharashtra by M/s. Gokul Mauli Sugars Ltd. (GMSL) – Consideration of Environmental Clearance**

**[IA/MH/IND2/213650/2021, IA-J-11011/234/2021-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET certificate no. NABET/EIA/1821/RA 0135 and validity 04.10.2022) made a detailed presentation on the salient features of the project and informed that the proposal is for Environmental Clearance to the Expansion of Sugar Factory from 4,500 to 7,500 TCD, Cogeneration Plant from 14.85 to 30 MW with Establishment of 110 KLPD Molasses/ Cane Juice based Distillery located at Village Tadwal, Tehsil Akkalkot, District Solapur, State Maharashtra by M/s. Gokul Mauli Sugars Ltd. (GMSL).

As per the provision of EIA Notification No. S. O. 1533 (E) dated 14.09.2006 as amended vide Notification No S.O. 3067 (E); dated 13.06.2019, the proposed expansion project is listed as activity 5 (j)& 1(d) – Sugar & Cogen resp; Category 'B' at State Level & 5(g)(i)(ii)-Distillery at Centre Level. As the Sugar, Cogen & Distillery projects are located in same premises as an integrated project complex, the entire proposal of expansion of Sugar, Cogen

and Distillery establishment is being submitted at 'Ministry of Environment, Forests and Climate Change (MoEFCC); New Delhi' for grant of EC.

**The details of products and capacity as under:**

S.No.	Unit	Product/By Product	Existing Quantity (MT/D)	Proposed Quantity (MT/D)	Total Quantity (MT/D)
1	Sugar Factory	Sugar (11%)	495	330	825
		Bagasse (30%)	1350	900	2250
		Molasses (4%)	180	120	300
		Press Mud (4%)	180	120	300
2	Co-gen Plant	Power (MW)	14.85	15.15	30
3	Distillery Unit	Ethanol/ENA/RS (KLPD)	--	110	110
		Carbon Di-oxide	--	91	91
		Fusel Oil	--	7	7
		Spent wash Dry Powder	--	135	135

Existing 4500 TCD Sugar Factory & 14.85 MW Cogeneration Unit is operational on the basis of Consent To Operate because Environmental Clearance is not applicable. Latest CTO (Air and Water) has been issued on 22.10.2021 and is valid till 31.07.2022. Certified CTO compliance report has been issued dated 22.02.2022 from RO, MPCB, Solapur.

Standard Terms of Reference have been obtained vide F. No. IA-J-11011/234/2021-IA-II(I) dated 05.06.2021. It was informed that no litigation is pending against the project.

Public Hearing for the proposed project had been conducted by the Maharashtra Pollution Control Board on 21.10.2021 at Project Site chaired by Additional District Magistrate, Solapur. The main issues raised during the public hearing and their action plan:

**Regarding benefits to farmers,** PP informed that concentrated spent wash will be converted into powder by ATFD/spray drying, powder is rich in N, P, K & used as manure. Powder will be made available to farmer members on subsidiary rate.

**Regarding employment, greenbelt development & CER,** PP informed that for expansion unit 445 no. of workers will be required, locals will be given priority. Greenbelt will be developed as per norms. About Rs. 266 Lakhs has been earmarked for CER activities to be undertaken in the study area for next 5 years.

No additional land will be acquired for the expansion project as the same will be done within existing plant premises of 44.41 Ha which is under possession of Industry. Out of the total plant area, 3.5 Hectares i.e. 8% has already been developed as greenbelt. Remaining plantation will be done in 11.10 Ha i.e. 25% of Total Plant Area. The estimated project cost is Rs. 233.63 Crores. Capital cost of EMP would be Rs. 23.1 Crores and recurring cost for EMP would be Rs. 1.9 Crores per annum. Industry proposes to allocate Rs. 2.66 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 445 persons as direct & indirect.

There is no presence of national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Reserve forests/protected forests, etc. Water bodies: Bhima River is at a distance of 5.7 Km in South direction & Sina River is at a distance of 7.3 Km in West direction.

Ambient air quality monitoring was carried out at 8 locations during March 2019 to May 2019 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (43.4–65.9 µg/m<sup>3</sup>), PM<sub>2.5</sub> (10.2–20.5 µg/m<sup>3</sup>), SO<sub>2</sub> (8.3-24 µg/m<sup>3</sup>) and NO<sub>x</sub> (14.4-28.7µg/m<sup>3</sup>) and CO (0.01-0.9 mg/m<sup>3</sup>). The Committee noted that the proposal seeking environmental clearance was submitted in the month February, 2022, which is within 3 years of the data collection. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.560 µg/m<sup>3</sup>, 0.143 µg/m<sup>3</sup>, 3.50 µg/m<sup>3</sup> and 0.583 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 93 m<sup>3</sup>/day which will be met from Ground Water. NOC has been obtained by CGWA, Govt. of India vide NOC No. CGWA/NOC/IND/REN/1/2021/6233 dated 13.03.2020. Effluent generated after expansion of sugar & cogeneration power plant will be 658 m<sup>3</sup>/day which will be treated in existing ETP of capacity 1200 m<sup>3</sup>/day & used for green belt development in own premise. Raw spent wash generated after establishment of distillery will be @ 880 m<sup>3</sup>/day which will be concentrated in MEE, concentrated spent wash @192 m<sup>3</sup>/day will be dried for powder formation. Other effluent generated after distillery establishment will be @ 982 m<sup>3</sup>/day in the form of lees, MEE condensate, cooling & boiler blowdown, lab & wash effluent which will be treated in CPU of capacity 1000 m<sup>3</sup>/day. Domestic effluent generated after expansion of sugar, cogeneration power plant & distillery establishment will be 34 m<sup>3</sup>/day and will be treated in proposed STP of capacity 40 m<sup>3</sup>/day. The plant will be based on Zero Liquid discharge system and treated effluent/water will not be discharged outside the factory premises.

Total power requirement after expansion of sugar, co-generation power plant & distillery establishment will be 17.75 MW which will be sourced from 30 MW co-generation power plant. Existing sugar mill has 100 TPH bagasse fired boiler. ESP with stack of height 85 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. Under expansion unit new 100 TPH bagasse fired boiler will be installed. ESP with a stack of height 85 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler. Industry has 3 nos. of DG sets with capacity 600 KVA which are used as standby during power failure and stack height 5 M (ARL) is provided as per CPCB norms. No new DG set will be installed under expansion unit.

#### **Details of process emissions generation and its management:**

- ESP with a stack of height 85 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler.
- Air cooled condenser provided with the existing Boiler of 100 TPH capacity and air cooled shall be provided with the additional 100 TPH boiler to be installed.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- Carbon di-oxide (91 TPD) will be bottled and supplied to manufacturers of beverages /secondary uses.

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

- ETP sludge from sugar mill expansion (0.8 TPD) will be used as manure.
- Boiler ash from sugar mill expansion (42 TPD) will be used as manure.
- Yeast sludge from distillery unit (20 TPD) & CPU sludge (2 TPD) will be used as manure.
- Used Oil (1 MT/annum), will be send to authorized re-processor.

During deliberations, EAC discussed following issues:

- Undertaking that for proposed 100 TPH boiler also, air cooled condensers shall be installed.
- Commitment that hazardous waste will be disposed through authorized recyclers.
- Greenbelt development shall be completed before December, 2022.
- Coal shall not be permitted as fuel to be used.

- Soil is deficient in N and P so include soil conditioning in CER activities. CER activities shall be completed before commissioning of plant.
- Noise level monitoring shall be clarified as per discussions. PP has clarified the same.
- Status of action plan for conservation of Schedule 1 species submitted to concerned DFO. PP has submitted that application is under scrutiny and evaluation. Further, industry will follow all directions issued by PCCF and lower offices.

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

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

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance, 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. All public hearing issues shall be properly addressed as per timeline and budget submitted.
- (ii). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iii). Industry shall follow all directions issued by PCCF and lower offices for conservation plan of Schedule 1 species.
- (iv). Total Fresh water requirement shall not exceed 93 m<sup>3</sup>/day which 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 rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

- (v). Spent wash shall be concentrated in MEE and dried to form powder. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (vi). ESP alongwith stack of adequate height shall be provided with 100 TPH biomass fired boiler to control particulate emission within 50mg/Nm<sup>3</sup>. SO<sub>2</sub> and NO<sub>x</sub> emissions shall be below 100 mg/Nm<sup>3</sup>. Coal shall not be permitted as fuel to be used. At no time, the emission levels should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/systems will be conducted annually. Air cooled condensers shall be installed with the 100 TPH boilers.
- (vii). Boiler ash will be used as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (viii). Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and Total Dissolve Solids shall be monitored and report submitted to the Ministry's Regional Office.
- (ix). CO<sub>2</sub> generated will be bottled and supplied to manufacturers of beverages /secondary uses.
- (x). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiv). The company shall undertake waste minimization measures as below  
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before December, 2022.
- (xvi). PP proposed to allocate Rs. 2.66 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.



- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 20% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Managing Director/CEO as per company hierarchy.
- (xxi). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

## **Agenda No. 7**

**Proposed establishment of Grain-based distillery unit of 140 KLPD capacity to produce Ethanol and installation of captive power plant of capacity 4.5 MW located at Village Malachapur, Tehsil Bhalki, District Bidar, State Karnataka by M/s. SV Distilleries Private Limited - Consideration of Environmental Clearance**

**[IA/KA/IND2/283800/2022; IA-J-11011/265/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Samrakshan (NABET certificate no. NABET/EIA/1992/SA 0138 (Rev. 01) and validity 20<sup>th</sup> October 2022). The consultant has made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 140 KLPD Grain based Ethanol Plant & 4.5 MW co-generation power plant (coal/ biomass based) located at Village Malachapur, Tehsil Bhalki, District Bidar, State Karnataka by M/s. S V Distilleries Private Limited.

As per the MoEFCC Notification S.O. 2339(E), dated 16<sup>th</sup> 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:**

<b>Sl. No.</b>	<b>Name of unit</b>	<b>Name of the product/by-product</b>	<b>Production capacity</b>
1	Distillery	Ethanol	140 KLPD
2	Co-generation power plant	Power	4.5 MW
3	DWGS dryer	DDGS	127 TPD
4	Fermentation unit	Carbon di-oxide	106 TPD

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

Total land area required is 19.35 hectares. Greenbelt will be developed in total area of 6.40 hectares i.e., 33.11 % of total project area. The estimated project cost is Rs. 215.978 Crores. Capital cost of EMP would be Rs. 33.63 Crores and recurring cost for EMP would be Rs. 1.40 Crores per annum. Industry proposes to allocate Rs. 2.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 77 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forest of Kaplapur is at a distance of 3.12 km in North East direction; Khanapur reserve forest at a distance 4.0 km. Water bodies: Karanja Reservoir is at a distance of 7 Km in South West direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.608  $\mu\text{g}/\text{m}^3$ , 0.284  $\mu\text{g}/\text{m}^3$  and 0.321  $\mu\text{g}/\text{m}^3$  with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 696 m<sup>3</sup>/day which will be met from ground water. Application has been submitted to Karnataka Ground Water Authority dated 14/07/2022 for extraction of ground water. Effluent quantity (Condensate/spent lees/blowdowns etc.) of 938 m<sup>3</sup>/day will be treated through Condensate Polishing Unit of capacity 1000 KLPD. Raw stillage (851 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP will be installed to treat 10 KLD of sewage generated from factory premises. The plant will be based on Zero Liquid Discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3 MW and will be met from proposed 4.5 MW co-generation power plant. 35 TPH coal/ biomass fired boiler will be installed. ESP/bag filter with a stack height of 54 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler. 1000 kVA DG set will be used as standby during power failure and stack height (31 m) will be provided as per CPCB norms to the proposed DG sets.

#### **Details of Process emissions generation and its management:**

- Electrostatic Precipitator/bag filter with a stack height of 54 meters will

be installed for controlling the particulate emissions of the statutory limit of 50 mg/Nm<sup>3</sup> from proposed 35 TPH boiler.

- Online Continuous Emission Monitoring System will be installed for the boiler stack and emission online data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> (106 TPD) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers in proposed liquid CO<sub>2</sub> bottling plant for commercial purpose.

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

- DDGS (Distilled Dried Grains Stillage) 127 TPD will be sold as cattle feed.
- Coal ash (18 TPD) will be given to brick manufacturers /biomass ash will be given to farmers to be used as manure.
- Used oil (0.4 Kiloliters per annum) will be sold to authorized recyclers.
- Yeast sludge and CPU sludge (15 TPD) will be converted and used as manure within the project premises.

As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 140 KLPD will be used for manufacturing fuel ethanol only.

Total land of 19.35 Hectares is under possession of the company and land use conversion has been completed for 12 acres (4.86 hectares) vide order no. SDB/ONC/CR/30-92-93 dated 16.09.1992 by Assistant commissioner, Basavakalyana, under Karnataka Land Act 1964. The balance 35.825 acres (14.49 hectares) is under conversion from agriculture to non-agriculture vide applications dated 05.05.2022.

During deliberations, PP informed that M/s. S V Distilleries is a Private Limited company (hereinafter referred as SVDPL) formed during 1995 under the provisions of Companies Act, 1956. The industry started its operation in 1999. The prior EC vide no. J-11011/58/95-IA. II(I) was issued by MoEFCC dated 16/10/1998 for the distillery capacity of 20 KLPD to produce Rectified Spirit using molasses as raw material. After operating for 9 years at 20 KLPD capacity the distillery has gone sick in the year 2008. Later, in 2011 the company was taken over from original owners Shri Narasa Reddy and Group by R V Ravikumar. However, in the various constraints, the distillery is intermittently operated and since 2014 the plant is completely shut down. Further, EAC discussed the following issues:

- Land Use conversion shall be done before start of construction activities.
- Undertaking that earlier 20 KLPD distillery shall be dismantled/scrapped. CCR mentions that expansion is from 20 KLPD to 140 KLPD. PP clarified the same. EAC suggested that condition shall be framed that they will not operate 20 KLPD distillery and it shall be scrapped.
- Ground water NOC shall be obtained before start of construction activities.
- Revise GLC for 30 mg/Nm<sup>3</sup> standard of Particulate matter emissions. ESP shall be replaced with bag filter to achieve prescribed norms. Recalculate GLC as discussed.
- CER cost shall be increased to Rs. 2 Crores and all activities shall be monitorable.
- Tree plantation shall be of tree density @ 2500 trees per hectares. Revise no. of trees to be planted. PP has submitted that they will develop approximately 15800 no. of trees in plant premises.
- Clarification regarding source of fresh water withdrawal.
- No. of trees to be cut. Clarification regarding the same.

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

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

The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the

issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

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

- (i). Existing distillery of 20 KLPD shall be scrapped/dismantled before start of construction activities and shall not be operated at any circumstances.
- (ii). The C&D waste/debris generated during dismantling of the 20 KLPD distillery shall be disposed in compliance with the provisions specified in the Construction and Demolition Waste Management Rules, 2016.
- (iii). As per the Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 140 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.

- (iv). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (v). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of construction of plant and drawing the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (vi). 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. STP shall be installed to treat sewage generated from factory premises.
- (vii). 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.
- (viii). 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.
- (xxii). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

- (ix). Bagfilter/ESP alongwith 54.0 m high stack of adequate height with coal fired shall be provided to biomass fired boiler to control particulate emission within 50mg/Nm<sup>3</sup> and 30 mg/Nm<sup>3</sup> for coal as fuel for the proposed boiler. SO<sub>2</sub> and NO<sub>x</sub> emissions shall be below 100 mg/Nm<sup>3</sup>. At no time, the emission levels should exceed beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- (x). Boiler ash will be given to farmers to be used as manure/supplied to 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.
- (xi). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xiii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiv). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed instead of sludge drying beds.
- (xv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated



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

- (xvi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.
- (xvii). PP proposed to allocate Rs. 2.0 Crores for 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.
- (xviii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking shall be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xix). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

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

**12<sup>th</sup> August, 2022 (Friday)**

**Agenda No. 1**

**Proposed 60 KLPD Grain Based Distillery Plant (Ethanol) along with Power Generation of 2.5 MW located at Gat No. 1190, Khadki, Tal – Daund, Dist. – Pune by M/s. Vasundhara Green Bio-Energy Private Limited – Consideration of Environment Clearance**

**[IA/MH/IND2/281236/2022, IA-J-11011/243/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Techno Green Solution (NABET certificate no. NABET/EIA/2124/IA0081 and validity till 05<sup>th</sup> July, 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for proposed 60 KLPD Grain Based Ethanol Plant along with 2.5 MW co-generation power plant located at Gat No. 1190, Village Khadki, Tehsil Daund, District Pune by M/s. Vasundhara Green Bio-Energy Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> 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:**

<b>Sr No</b>	<b>Name of Unit</b>	<b>Name of the products /by products</b>	<b>Production capacity</b>
1	Distillery	Ethanol	60 KLPD
2	Cogeneration power Plant	Power	2.5 MW
3	DWGS Dryer	DDGS	30 TPD
4	Fermentation	Carbon Dioxide	45 TPD

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

Total land area required is 8.0 hectares. Greenbelt will be developed in total area of 2.70 hectares i.e., 33.75 % of total project area. The estimated project cost is Rs. 75 Crores. Capital cost of EMP would be Rs. 19.40 Crores and recurring cost for EMP would be Rs. 0.61 Crores per annum. Industry proposes to allocate Rs. 1.5 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 from the project site. Water bodies: Bhima River is at a distance of 5.5 Km in North East direction and Roti nala is at a distance of 1.6 Km in South West direction from project site.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.089 µg/m<sup>3</sup>, 0.070

$\mu\text{g}/\text{m}^3$ ,  $0.045 \mu\text{g}/\text{m}^3$  and  $0.053 \mu\text{g}/\text{m}^3$  with respect to PM10, PM 2.5 ,SO2 & NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement is 317 m<sup>3</sup>/day including co-generation power plant and will be met from Bhima River. Application has been submitted to Executive Engineer, Department for management, Ujani dam, Department of Water Resources, Government of Maharashtra vide letter no. VGBEPL/14/2022-23 dated 20<sup>th</sup> July 2022. Effluent (Condensate/ Spent lees /blowdown) of 360 m<sup>3</sup>/day quantity will be treated through Condensate polishing unit of capacity 500 m<sup>3</sup>/day. Raw Stillage (401 KLPD) will be sent to decanter followed by MEE and 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 no effluent/treated water will be discharged outside factory premises.

Power requirement will be 2.0 MW and will be met from proposed 2.5 MW cogeneration power plant. 22 TPH biomass fired boiler will be installed. ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler. 1000 kVA DG set will be used as standby during power failure and stack height (6 m) will be provided as per CPCB norms to the proposed DG sets.

#### **Details of Process emissions generation and its management:**

- ESP with a stack height of 60 meters will be installed for controlling the particulate emissions.
- Coal shall not be used as fuel.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> (45 TPD) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and collected in proposed bottling plant.

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

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

- Boiler ash (4.6 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises/supplied to brick manufacturers/ given to farmers to be used as manure.
- Used oil will be sold to authorized recyclers
- CPU & STP sludge will be used as manure.

As per Notification S.O 2339(E), dated 16<sup>th</sup> 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.

PP has reported that the total land of 8 Hectares is under possession of M/s. Vasundhara Green Bio-Energy Private Limited and land use conversion application has been submitted to Revenue Department, Government of Maharashtra dated 19<sup>th</sup> July, 2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Land use conversion certificate shall be obtained before start of construction activities.
- Atleast 15% parking area shall be developed in total land area.
- Freshwater requirement per KL of ethanol production. EAC suggested to not exceed it 4 KL/KL of ethanol production.
- 60 days storage shall be provided for rain water storage.
- 10% of total power requirement shall be sourced from renewable energy.
- Native tree species shall be included while doing greenbelt development and in consultation with DFO. The tree density shall be maintained as 2500 trees/ Ha. Uniform green belt shall be developed along the plant boundary within the plant premises including the western boundary of the plant. Tree plantation shall be done along the road connecting plant to the main road.
- OHS budget allocated is Rs. 25 lakhs.
- Instead of supplying RO facilities to nearby villages, provide solar lighting and school upgradation in two villages as CER activities.
- Prescribed standards of PM shall be 50 mg/Nm<sup>3</sup> as bagasse is being used as fuel.
- EHS head shall report to Head of Organization.
- Filter press shall be installed instead of sludge drying beds.

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 16<sup>th</sup> 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). NOC from the MIDC shall be obtained before starting plant construction for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iv). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Bhima River. Prior permission shall be obtained from MIDC for surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a rainwater storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (v). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be

discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

- (vi). ESP alongwith 60 m high stack shall be provided to biomass fired boiler to control particulate emission within 50mg/Nm<sup>3</sup> and 30 mg/Nm<sup>3</sup> for coal as fuel. SO<sub>2</sub> and NO<sub>x</sub> emissions shall be below 100 mg/Nm<sup>3</sup>. At no time, the emission levels should exceed beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Coal shall not be used as fuel.
- (vii). 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.
- (viii). Boiler ash will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises/supplied to brick manufacturers in covered trucks/ 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.
- (ix). CO<sub>2</sub> generated from the process shall be collected in proposed bottling plant.
- (x). PP shall allocate at least Rs. 25 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.



- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
  - (a) Metering and control of quantities of active ingredients to minimize waste;
  - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - (c) Use of automated filling to minimize spillage.
  - (d) Use of Close Feed system into batch reactors.
  - (e) Venting equipment through vapour recovery system.
  - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in 2.7 ha nearly 33% of the total project area with tree density @2500 trees per hectares, mainly along the plant periphery. Uniform green belt shall be developed along the plant boundary within the plant including the western boundary of the plant. Tree plantation shall be done along the road connecting plant to the main road. 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.
- (xvi). 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.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no

parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.

- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Managing Director/CEO as per company hierarchy.
- (xxi). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12<sup>th</sup> August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

## **Agenda No. 2**

**Grain based Ethanol [Bio fuel] Plant [100 KLPD] along with cogeneration power plant [3 MW] located at Village– Dukwara,**

**Tehsil – Ganora, District – Banswara, Rajasthan by M/s. EIB Ethanol Private Limited– Consideration of Environment Clearance**

**[IA/RJ/IND2/282713/2022, IA-J-11011/253/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Sd Engineering Services Pvt. Ltd. (NABET certificate no. NABET/EIA/2023/SA0166 and validity up to 12<sup>th</sup> August 2023) has made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance for the project for 100 KLPD Grain based Ethanol Plant with 3 MW Co-generation power plant (biomass/coal) located at Village Dukwara, Tehsil Ganora, District Banswara, State Rajasthan by M/s. EIB Ethanol Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> 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:**

<b>S. No.</b>	<b>Name of unit</b>	<b>Name of the product /by-product</b>	<b>Production capacity</b>
1	Distillery	Ethanol	100 KLPD
2	Co-generation power plant	Power	3 MW
3	DWGS dryer	DDGS	47 TPD
4	Fermentation unit	Carbon di-oxide	50 TPD

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

Total land area required is 13.28 hectares. Greenbelt will be developed in total area of 4.4 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 147 Crores. Capital cost of EMP would be Rs. 13.7 Crores and recurring cost for EMP would be Rs. 3.6 Crores per annum. Industry proposes to allocate Rs. 1.47 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 97 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. Reserve forests/protected forests: Unnamed RF at an aerial distance of 2.8 Km in SE direction and Unnamed PF is at an aerial distance of 14.6 Km in NE direction. Water bodies: Heyro Dam is at a distance of 9.75 Km in East direction, Tajela Talab is at a distance of 8.2 Km in West direction, Kamboia Talab is at a distance of 6.6 Km in West direction, Mahi river is at a distance of 7.5 Km in NW direction, Shaktiya river is at a distance of 9.6 Km in East direction, Kalol river is at a distance of 9.8 Km in SE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.010  $\mu\text{g}/\text{m}^3$ , 0.122  $\mu\text{g}/\text{m}^3$ , 4.832  $\mu\text{g}/\text{m}^3$  and 1.59  $\mu\text{g}/\text{m}^3$  with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>X</sub>. The resultant total ground level concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> are slightly higher than the National Ambient Air Quality Standards (NAAQS). Accordingly, Committee suggested that PP should take all the measures to control particulate emissions from the boiler stack by installing ESP of efficiency 99.99% or bag filter to achieve prescribed norms of CPCB and also take all the measures to control fugitive emissions from the storage as well as vehicular pollution. All storage areas shall be covered. Ash should be stored in silos and ensure that ash is transported in covered trucks.

Total fresh water requirement will be 584 m<sup>3</sup>/day including domestic & green area usage which will be met through ground water. PP has applied vide application no. 21-4/17435/RJ/IND/2022 dated 21/07/2022 for obtaining ground water abstraction approval. Effluent (Condensate/spent lees/blowdown etc.) of 1183 m<sup>3</sup>/day quantity will be treated through Condensate Polishing Unit of capacity 600 KLPD. STP of capacity 6 m<sup>3</sup>/day will be installed to treat sewage generated from factory premises. The plant

will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 2.188 MW and will be met from proposed 03 MW cogeneration power plant. 25 TPH biomass/coal fired boiler will be installed. ESP/bag filter with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler. 750 kVA DG set will be used as standby during power failure and stack height (40 m) will be provided as per CPCB norms to the proposed DG sets.

#### **Details of Process emissions generation and its management:**

- ESP/bag filter with a stack height of 60 m will be installed with 25 TPH coal/ rice husk fired boiler for controlling the particulate emissions from boiler.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> (50 TPD) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (47 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (approx. 30 -35 TPD from coal or 35-40 TPD from biomass) will be disposed for landfilling/road making activities. Coal fly ash will be supplied to nearby cement manufacturing unit and biomass ash will be used in inhouse brick manufacturing plant.
- Used oil (0.5 Kl/annum) will be sold to authorized recyclers.
- ETP sludge (50 Kg/day) and STP Sludge (0.6 Kg/day) will be used as manure.

As per Notification S.O 2339(E), dated 16<sup>th</sup> 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.

PP has reported that the total land of 13.28 Hectares is under possession of the company and land use conversion application has been submitted vide application no. LC/2022-23/126284 dated 11/06/2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Connectivity of MDR-22 is with village road which is already metalled and service lane shall be used for transportation. PP shall maintain the village road and avenue plantation shall be carried out.
- 60 days storage of rainwater shall be provided.
- Coal shall only be used in case of biomass unavailability. Low sulphur coal of 0.5% content shall be used.
- To achieve norms of PM emission as 30mg/Nm<sup>3</sup>, bag house shall be installed instead of ESP.
- Revise cost of EMP including CEMS.
- Three schools are nearby and 300-500 m. Additional measures to be taken and greenbelt development to be of 20 m width towards school side.
- PP committed that if there will be not adequate brick kilns in the area then they will install the brick manufacturing unit of their own.
- Native tree species shall be developed in greenbelt with DFO consultation.
- Atleast 15% parking area shall be developed in total land area.
- CER activities shall include potable water supply, upgradation of school and solar panel installation.
- 10% of total power requirement shall be sourced from renewable 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 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the

requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iv). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production 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.
- (v). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (vi). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (vii). Baghouse/ESP alongwith 60 m high stack shall be provided to biomass fired boiler to control particulate emission within  $30\text{mg}/\text{Nm}^3$ .  $\text{SO}_2$  and



NO<sub>x</sub> emissions shall be below 100 mg/Nm<sup>3</sup> and 30 mg/Nm<sup>3</sup> for coal as fuel. Emissions of SO<sub>2</sub> and NO<sub>x</sub> shall be below 100 mg/Nm<sup>3</sup>. At no time, the emission levels should exceed beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.

- (viii). Boiler ash will be used for landfilling/road making activities/ supplied to nearby cement manufacturing unit / will be used in inhouse 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.
- (ix). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors/collected in proposed bottling plant.
- (x). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiv). The company shall undertake waste minimization measures as below  
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated

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

- (xv). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area with tree density @2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Greenbelt development of 20 m width towards school side.
- (xvi). PP proposed to allocate Rs. 1.47 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.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road connecting to MDR shall be maintained and greenbelt shall be developed along the road.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

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

### **Agenda No. 3**

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

**[IA/HR/IND2/281400/2022, IA-J-11011/245/2022-IA-II(I)]**

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

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> 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:**

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

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

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

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. No major water bodies are present in the study area.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.73 µg/m<sup>3</sup>, 2.55 µg/m<sup>3</sup> and 0.36 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant

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

Total fresh water requirement will be 715 m<sup>3</sup>/day which will be met from ground water. Application have been submitted to Haryana Water Resources Authority dated 13.07.2022. Effluent (Condensate/spent lees/blowdown etc.) of 756 m<sup>3</sup>/day quantity will be treated through Condensate Polishing Unit of capacity 800 m<sup>3</sup>/day. Raw stillage (695 m<sup>3</sup>/day) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 15 m<sup>3</sup>/day will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 2.8 MW which will be sourced from proposed co-generation power plant of 3.5 MW. 35 TPH biomass/coal fired boiler will be installed. ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler. 750 kVA DG set will be used as standby during power failure and stack height (6 m) will be provided as per CPCB norms to the proposed DG sets.

#### **Details of Process emissions generation and its management:**

- ESP with a stack height of 60 meters will be installed with the boiler 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.
- CO<sub>2</sub> (60 TPD) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and it shall be sold to authorized vendors.

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

- DDGS (Distilled Dried Grains Stillage) (51 TPD) will be sold as cattle feed / fish feed /prawn feed.
- Boiler ash (55 TPD) will be supplied to brick manufacturers/ given to farmers to be used as manure.
- Used oil (19.5 Kiloliters per annum) will be sold to authorized recyclers.

- CPU sludge (0.075 TPD) and STP Sludge (0.003 TPD) will be used as manure.

As per Notification S.O 2339(E), dated 16<sup>th</sup> 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 of 7.286 Hectares is under possession of the company and as per Haryana Government Gazette notification no. 19/06/2018-5P dated 09.03.20218, the land use conversion for industrial purpose is exempted for setting up of biomass based projects in the State. EAC found the information satisfactory.

During deliberations, EAC noted that land documents were not complete and ownership of land is not with the PP as reported. The committee noted that land does not belong to the company applied for environmental clearance. Accordingly, the project proponent informed that present land owner will be inducted in the Board of Directors as per the registration certificate issued by the Ministry of Corporate Affairs. **EAC also advised that the same should not be repeated in future as such activities are treated as concealment of facts.** EAC suggested to submit the valid land ownership documents for further consideration.

**Accordingly, proposal was returned in present form**

#### **Agenda No. 4**

**Proposed Expansion of Distillery unit from 100 KLPD to 200 KLPD along with Sugar Unit from 7500 TCD to 10000 TCD and Cogeneration unit from 40 MW to 50 MW located at Gut No-75, 76, 77, 78, 79, 88, 90, 99 & 102, Malwati Kasarkheda Road, Village Malwati, Tehsil - Latur, District - Latur , State Maharashtra by M/s. Twentyone Sugar Ltd. under EBP program – Consideration of Environment Clearance**

**[IA/MH/IND2/279490/2022, IA-J-11011/63/2019-IA-II (I)]**

The Project Proponent and the accredited Consultant M/s. SD engineering service Pvt. Ltd (NABET certificate no. NABET/EIA/2023/SA 0166 and validity 12<sup>th</sup> August, 2023) made a detailed presentation on the salient features of

the project and informed that the proposal is for environmental clearance to the project for expansion of existing distillery unit from 100 KLPD to 200 KLPD, sugar mill from 7500 TCD to 10000 TCD & co-generation power plant for sugar mill/ distillery from 40 MW to 50 MW (Bagasse based) located at Gut No-75, 76, 77, 78, 79, 88, 90, 99 & 102, Malwati Kasarkheda Road, Village Malwati, Tehsil Latur, District Latur, State Maharashtra by M/s. Twentyone Sugar Ltd.

As per EIA Notification 2006 (Schedule 5 (g) Category A); however, as per in the MoEF&CC Notification S.O. 345(E), dated the 17<sup>th</sup> January, 2019, notification number S.O. 750(E), dated the 17<sup>th</sup> February, 2020, S.O. 980 (E)dated 02<sup>nd</sup> March, 2021 & S. No. 2339(E) 16<sup>th</sup> 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:**

<b>Sr. No.</b>	<b>Name of Unit</b>	<b>Name of Product/ by-product</b>	<b>Existing production capacity</b>	<b>Additional product capacity</b>	<b>Total production capacity</b>
1	Distillery (Molasses)-KLD	Ethanol	-	100 KLPD	100 KLPD
		RS/ENA/AA	100 KLPD	-	100 KLPD
2	Co-generation power plant for distillery/sugar mill	Power	40 MW	10 MW	50 MW
3	Sugar mill	Sugar	7500 TCD	2500 TCD	10000 TCD

SEIAA, Maharashtra has issued Environmental Clearance to the existing Industry for a capacity of sugar mill from 4500 TPD & 7500 TCD, Co-generation 14.5 MW to 40 MW and new molasses based distillery of capacity 100 KLPD vide File No. SIA/MH/IND2/54869/2017 dated 30.04.2021. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEF&CC, Nagpur, vide File no EC-1610/RON/2022-NGP/9807dated 3<sup>rd</sup> June 2022. EAC found the certified compliance report satisfactory.

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

Total plant area after expansion will be 23.06 Ha (existing plant area – 5.79 Hectares and additional land required 3.10 Hectares for proposed capacity) which is under possession of the company and converted to industrial use. 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 7.69 Hectares i.e. 33% of the total plant area out of that 0.84 Ha has already been developed as greenbelt & plantation and the same will be maintained & remaining will be developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 293 Crores. Capital cost of EMP would be Rs. 45 Crores and recurring cost for EMP would be Rs. 2.93 Crores per annum. Industry proposes to allocate Rs. 3.5 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 184 persons as direct & indirect.

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

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 5.43  $\mu\text{g}/\text{m}^3$ , 1.36  $\mu\text{g}/\text{m}^3$ , 18.78  $\mu\text{g}/\text{m}^3$  and 17.4  $\mu\text{g}/\text{m}^3$  with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 795 m<sup>3</sup>/day (sugar mill 615 m<sup>3</sup>/day and distillery 180 m<sup>3</sup>/day) which will be met from Khulgapur Barrage constructed on embankment of Manjra River. Agreement has been done by Latur Irrigation Department & Twentyone Sugars Ltd dated 30.03.2019. Effluent generation from the sugar co-generation power plant will be 686 m<sup>3</sup>/day which will be treated through existing ETP of capacity 800 m<sup>3</sup>/day and after expansion, existing ETP capacity will be increased by 400 m<sup>3</sup>/day to accommodate effluent generation. CPU for Sugar mill is 1000 m<sup>3</sup>/day and existing CPU will be enhanced by 200 m<sup>3</sup>/day to accommodate condensate generated after expansion. Effluent from Distillery will be treated through proposed CPU of capacity 1000 m<sup>3</sup>/day. Spent wash will be



concentrated in Multi Effect Evaporator & concentrated spent wash will be burnt in incineration boiler as fuel. Domestic waste water will be treated in STP of capacity 80 KLPD. The plant is being/will be based on Zero Liquid discharge system and treated effluent/water is being/will not be discharged outside the factory premises.

Power requirement of distillery/ sugar mill after expansion will be 16 MW which will be sourced from co-generation power plant. Existing sugar mill has 160 TPH bagasse fired boiler & distillery has 25 TPH incineration boiler. The 25 TPH boiler will be modified to 50 TPH (not yet constructed) by up gradation of proposed 25 TPH capacity. ESP with a stack of height of 74 m is installed with the existing 160 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. ESP with a stack of height of 70 m will be installed for controlling the particulate emissions from the proposed 50 TPH boiler within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed incineration boiler. Industry has 2x 625 KVA & 2x 750 KVA DG set which will be used as standby during power failure and stack height (10 m) will be provided as per CPCB norms to the proposed DG sets.

#### **Details of Process emissions generation and its management:**

- Electrostatic precipitator (ESP) with a stack of height of 74 m is installed with the existing 160 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. Electrostatic precipitator (ESP) with a stack of height of 70 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the existing 25 TPH incineration boiler which will be upgraded to 50 TPH.
- Air cooled condensers with 160 TPH capacity boiler. PP shall consider Air cooled condensers with Proposed 50 TPH capacity distillery boiler.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> (70 TPD) generated during the fermentation process is being/will be collected in proposed bottling plant.

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

- Concentrated spent wash (297 m<sup>3</sup>/day) is being/will be burnt in incineration boiler.
- Incineration Boiler ash & Sugar co-generation boiler Ash (61.4 TPD) will be generated. Incineration boiler ash will be used for fertilizer & sugar

co-generation boiler ash will be utilized in proposed in-house brick manufacturing plant.

- Used oil (2676 Kilolitres / annum) will be sold to authorized recyclers.
- ETP/CPU sludge (0.25 TPD) will be used as manure.
- Press mud (546 TPD) will be used as manure in sugar mill.
- Bagasse (2800 TPD) will be used as fuel for boiler in sugar mill.
- Molasses (400 TPD) will be used as raw material in Distillery unit.

As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed distillery capacity of 100 KLPD & sugar mill capacity of 2500 TCD will be used for manufacturing fuel ethanol only.

During deliberations, PP informed that existing EC has been obtained of 100 KLPD distillery for production of RS/ENA/AA dated 30<sup>th</sup> April, 2021 and some construction work carried out for existing EC has been presented before the committee. They have elaborated that construction work completed includes foundation work for the distillation etc. and storage tanks for ethanol. Further, PP informed that the existing 100 KLPD EC is for RS/ENA/AA and current expansion has been proposed under EBP. Further, EAC discussed the following issues:

- Affidavit stating time for completion of existing 100 KLPD distillery.
- Revised GLC for 200 KLPD distillery shall be submitted. 25 TPH boiler will upgrade to 50 TPH and stack height will be 70 m. Calculations and justification shall be submitted. Prescribed norms for PM shall be 30 mg/Nm<sup>3</sup>.
- Revised CER activities shall be submitted.
- Atleast 20% parking area shall be allotted of total land area.
- Detailed traffic management plan shall be submitted.
- Greenbelt development with tree density of 2500 trees per hectares 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. 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 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed distillery capacity of 100 KLPD & sugar mill capacity of 2500 TCD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the

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

- (ii). 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). Total Fresh water requirement after expansion shall not exceed 795 m<sup>3</sup>/day and will be met from Khulgapur Barrage constructed on embankment of Manjra 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.
- (iv). The spent wash shall be concentrated and incinerated. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (v). ESP alongwith 74 m high stack of adequate height shall be provided to biomass fired boiler to control particulate emission within 50mg/Nm<sup>3</sup> and Bag house/ ESP with 70.0 metre high stack shall be provided with proposed 50 TPH incinerator (Multi fuel ) boiler to control particulate emissions within 30 mg/Nm<sup>3</sup>. SO<sub>2</sub> and NO<sub>x</sub> emissions shall be below 100 mg/Nm<sup>3</sup>. At no time, the emission levels should exceed beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually. Air cooled condensers shall be installed with the boilers.

- (vi). Boiler ash will be used as fertilizer/utilized 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). Filter press shall be installed in place of Sludge drying beds.
- (viii). Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and Total Dissolve Solids shall be monitored and report submitted to the Ministry's Regional Office.
- (ix). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors/collected in proposed bottling plant.
- (x). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiv). The company shall undertake waste minimization measures as below
  - (a) Metering and control of quantities of active ingredients to minimize

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

- (xv). The green belt of at least 5-10 m width shall be developed in 7.69 ha nearly 33% of the total project area with tree density @2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.
- (xvi). PP proposed to allocate Rs. 3.5 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.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 20% shall be allotted solely for parking purposes with facilities like rest rooms etc. There shall be no direct entry/ exit of vehicles coming or going from the company. All entry or exit of vehicles to and from the highway shall be through slip roads. All the roads around the plant shall be strengthened and maintained by the company.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall

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

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

## **Agenda No. 5**

### **Onshore Oil & Gas Exploration, Development Drilling and Production of hydrocarbons in AA/ONDSF/TULAMARA/2018 DSF Block in South Tripura and Gomati Districts of Tripura by M/s. Oil India Limited-Amendment in Terms of Reference**

**[IA/TR/IND2/281716/2022, IA-J-11011/202/2021-IA-II(I)]**

The proposal is for amendment in the Terms of Reference (ToR) granted by the Ministry vide file no. IA-J-11011/202/2021-IA-II(I) dated 30<sup>th</sup> July, 2021 for the project Onshore Oil & Gas Development Drilling and Production of hydrocarbons in AA/ONDSF/TULAMARA/2018 in South Tripura and Gomati Districts of Tripura by Oil India Limited.

2. The project proponent has requested for amendment in the ToR with the details as under:

<b>S. No.</b>	<b>Para of ToR issued by MoEF&amp;CC</b>	<b>Details as per the ToR</b>	<b>To be revised/ read as</b>	<b>Justification/ reasons</b>
1.	Title of project	Four (4) number of wells have been proposed. Two wells have been prioritized. Based on the outcome of these two wells, decision will be taken for drilling of additional two (02) no. appraisal wells in the DSF block.	Four (4) number of development wells have been proposed for drilling and setting up of one (01) no. production installation along with workover operations/ servicing of wells. Further, wellhead production installation with assorted pipelines will be constructed.	ToR is within the validity period. Proposed facility is the associated activity of the project for which cumulative pollution will be studied.

During deliberations, EAC discussed following issues:

- PP should also include treatment and disposal of produced water in their EIA/EMP report. Details of injection wells, if any.
- Details of DG sets/gas generation unit/flare along with environmental impacts to be incorporated in the EIA/EMP report.
- It was reported that part of contract area has been operated by M/s. ONGC. In this regard, PP shall ensure that abandoned wells and drilling site has been restored to natural condition. Certified compliance report of existing unit where production installation is being proposed shall be submitted at the time of grant of EC.



**Accordingly, EAC recommended for amendment in ToR.**

**Agenda No. 6**

**Grain Based Distillery of 250 KLD with 6.5 MW Cogeneration Power Plant located at Plot No. IV/A-10, Bokaro Industrial Area, Phase-IV, PO- Balidih, Bokaro, Jharkhand by M/s. Bokaro Spirits and Allied Industries Pvt. Ltd. – Consideration of Environment Clearance**

**[IA/JH/IND2/255089/2022, IA-J-11011/53/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Paramarsh Servicing Environment and Development (NABET certificate no. NABET/EIA/2124/RA0224 and validity 01<sup>st</sup> May, 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project 250 KLPD Grain Based Ethanol Plant along with 6.5 MW cogeneration power plant located at Plot No. IV/A-10, Bokaro Industrial Area, Phase-IV, Post Office Balidih, State Jharkhand by M/s. Bokaro Spirits and Allied Industries Pvt. Ltd.

All non-molasses based distillery Project having capacity more than 200 KLD 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:**

<b>S.No.</b>	<b>Name of the Unit</b>	<b>Name of product/ by-product</b>	<b>Production Capacity</b>
1.	Grain based distillery	Ethanol/ENA	250 KLPD
2.	Cogeneration Power Plant	Power	6.5 MW
3.	DWGS Dryer	DDGS	155 TPD
4.	Fermentation Unit	CO <sub>2</sub>	156 TPD

Standard Terms of Reference have been obtained vide F. No. IA-J-11011/53/2022-IA-II(I) dated 15<sup>th</sup> February, 2022. It was informed that no litigation is pending against the project.

Public Hearing for the proposed project had been conducted by the Jharkhand State Pollution Control Board on 04<sup>th</sup> July, 2022 at Project Site chaired by Deputy Collector, Bokaro. The main issues raised during the public hearing and their action plan:

**Regarding employment**, skill development for 100 nos. local youths (as per their skills) from villages within 10 km. radius.

**Regarding medical check-up camps**, Health checkup camp and Eye Camp will be organized in 10 nos. villages within 10 Km. radius (@ 2.5 Lakhs each).

**Regarding Ambulance**, Modern and Sophisticated ambulance ( 3 Nos. @ 50 lakhs each) will be provided for local PHC in consultation with Civil Surgeon, Bokaro

Total land area required is 5.66 hectares. Greenbelt will be developed in total area of 1.86 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 340 Crores. Capital cost of EMP would be Rs. 8.1 Crores and recurring cost for EMP would be Rs. 1.65 Crores per annum. Industry proposes to allocate Rs. 3.5 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 100 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 from the project site. Water bodies: River Damodar is at a distance of 6 Km in NE direction.

Ambient air quality monitoring was carried out at 8 locations during October to December, 2021 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (34.2 – 98.2 µg/m<sup>3</sup>), PM<sub>2.5</sub> (20.5 – 59.0 µg/m<sup>3</sup>), SO<sub>2</sub> ( 8.4 – 33.2 µg/m<sup>3</sup>) and NO<sub>2</sub> (12.6 – 57.3 µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.58 µg/m<sup>3</sup>, 0.12 µg/m<sup>3</sup> and 0.35 µg/m<sup>3</sup> with respect to PM, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1600 m<sup>3</sup>/day which will be met from ground water. Application has been submitted to CGWA vide Application No. 21-4/856/JH/IND/2022 dated 18.04.2022. Effluent of 1198 m<sup>3</sup>/day quantity will be treated through Condensate Polishing Unit of capacity 1500 KLPD. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 25 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 6 MW and will be met from proposed 6.5 MW cogeneration power plant. 55 TPH Coal/ Biomass fired boiler will be installed. ESP with a stack of height of 75 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm<sup>3</sup> for the proposed boiler. 1010 KVA DG set will be used as standby during power failure and stack height (15 m) will be provided as per CPCB norms to the proposed DG sets.

#### **Details of Process emissions generation and its management:**

- ESP with a stack of height of 75 m will be installed for controlling the particulate emissions from the 55 TPH boiler within the statutory limit of 50 mg/NM<sup>3</sup> for the proposed boiler.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> generated from the process will be bottled/made solid ice and utilized/sold to authorized vendors.

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

- ETP (CPU) Sludge (42 TPA) will be used as organic manure.
- Boiler Ash (26250 TPA) will be used for brick manufacturing within plant premises/adjoining area.
- Used Oil (1 KL/Annum) will be disposed off through authorized vendors.

PP has reported that the total land is in industrial area and lease deed has been signed between Jharkand Industrial Area Development Authority and

the company dated 8<sup>th</sup> October, 2021 EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- High concentration of air pollutants have been reported. Justification regarding the same.
- CER activities shall include solar power supply, upgradation of schools, potable water supply and two villages shall be taken into consideration. Medical check-up shall not be part of CER. The CER fund allocation as per Form 2 is Rs. 5.1 crores
- Greenbelt development shall be with tree density @2500 trees per hectares.
- 10% of total power requirement shall be sourced from solar power.
- The green belt shall be developed along the periphery and road located between plant and green belt.
- The fluoride levels in Ground water are high. Provision of potable water be included as part of CER activities.
- Particulate matter emission norms shall be 30 mg/Nm<sup>3</sup>.
- Installation of brick manufacturing plant within premises/adjoining area.

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

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the 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 EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee

has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance, 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. All public hearing commitments shall be complied as given in EIA/EMP report.
- (ii). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before construction of the plant and drawing the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

- (iii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (iv). Total Fresh water requirement shall not exceed 1600 m<sup>3</sup>/day 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.
- (v). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (vi). Bag house with 75 .0 metre highstack shall be provided with 55 TPH boiler to control particulate emission within 30mg/Nm<sup>3</sup>. SO<sub>2</sub> and NO<sub>x</sub> emissions shall be below 100 mg/Nm<sup>3</sup>. At no time, the emission levels should exceed beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- (vii). Boiler ash will be used for brick manufacturing plant proposed inside plant premises/adjointing area. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used 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.
- (viii). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors/collected in proposed bottling plant.

- (ix). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (x). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xi). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiii). The company shall undertake waste minimization measures as below  
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv). The green belt of at least 5-10 m width shall be developed in 1.87 ha nearly 33% of the total project area with tree density @2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.
- (xv). PP proposed to allocate Rs. 5.1 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, 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.

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



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

### **Agenda No. 7**

**Proposed establishment of Grain based Ethanol Distillery of capacity 100 KLPD along with Co-generation power plant – 3.0 MW located at Village - Narkhera, Tehsil – Bazpur, Distt – Udham Singh Nagar, Uttarakhand By M/s. ORB Petrochemical India Private Limited – Consideration of Environment Clearance**

**[IA/UK/IND2/282605/2022, IA-J11011/201/2022-IA-II(I)]**

The ORB Petrochemical India Private Limited and the accredited Consultant M/s. Environmental and Technical Research Centre (NABET certificate no.NABET/EIA/1922/IA0050 and validity 18 August 2022 ) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 100 KLPD Grain based Ethanol Plant & 3.0 MW Co-generation power plant (biomass based) located at Khata No. 146, Khasra No. 150/3/2, Khata No. 146, Khasra No. 150/3/1, Khata No. 49, Khasra No. 150/3/1, Khata No. 121, Khasra No. 150/3/2, Khata No. 69, Khasra No. 150/1, Khata No. 69, Khasra No. 150/1, Khata No. 117, Khasra No. 150/3/2, Village Narkhera, Tehsil Bazpur, District Udham Singh Nagar, State Uttarakhand by M/s. ORB Petrochemical India Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> 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:**

<b>S. No.</b>	<b>Name of unit</b>	<b>Name of the product / by-product</b>	<b>Production capacity</b>
1.	Distillery	Ethanol	100 KLD

2.	Co-generation power plant	Power	3.0 MW
3.	DWGS dryer	DDGS	55 TPD
4.	Fermentation unit	Carbon di-oxide	72 TPD

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

Total land area required is 5.2593 hectares. Greenbelt will be developed in total area of 1.74 hectares i.e., 33 % of total project area. The estimated project cost is Rs.110 Crores. Capital cost of EMP would be Rs.22.80 Crores and recurring cost for EMP would be Rs. 1.80 Crores per annum. Industry proposes to allocate Rs. 2.20 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 100 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 from the project site. Reserve Forest: Gulzapur Reserve forest is at distance of 8.08 km in north west direction. Water bodies: Dabka River is at a distance of 6.49 Km in North west direction from project site.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.43  $\mu\text{g}/\text{m}^3$  , 0.26  $\mu\text{g}/\text{m}^3$  , 0.30  $\mu\text{g}/\text{m}^3$  and 0.97  $\mu\text{g}/\text{m}^3$  with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1712 m<sup>3</sup> /day which will be met from ground water. Application has been submitted to Central Ground Water Authority dated 11.06.2022. Effluent (Condensate/spent lees/blowdown etc.) of 730 m<sup>3</sup>/day quantity will be treated through Condensate Polishing Unit of capacity 1000 m<sup>3</sup>/day. Raw stillage (615 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 20 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 1.955 MW and will be met from proposed 3.0 MW cogeneration power plant. 30 TPH biomass fired boiler will be installed. ESP with a stack height of 65 m will be installed for controlling the particulate

emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler. 1000 kVA DG set will be used as standby during power failure and stack height (6.3 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 65 meters will be installed with the 25 TPH capacity boiler 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.
- CO<sub>2</sub> (72 TPD) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (55 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (6.51 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (1.0 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (1.2 TPD) and STP Sludge (0.2 TPD) will be used as manure.

As per Notification S.O 2339(E), dated 16<sup>th</sup> 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.

PP has reported that the total land of 5.2593 Hectares is under possession of the company and land use of proposed land is already converted to non-agricultural by SDM, Bazpur, District Udham Singh Nagar. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Village road/approach road to plant site shall be maintained by industry.

- Rainwater storage capacity of 60 days shall be facilitated.
- Efficiency of ESP as shown is 98%, clarify.
- Clarify regarding stack height submitted as discrepancy in documents.
- Commitment that brick manufacturing unit shall be installed.
- Atleast 15% parking area shall be allotted in total land area.
- Lagoons shall not be installed for spent wash storage, instead RWH storage tanks shall be constructed.
- CER activities shall include solar power distribution, upgradation of schools etc.

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 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iv). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production 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.

- (v). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (vi). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (vii). ESP alongwith 65 metre high stack shall be provided with 25 TPH capacity biomass fired boiler to control particulate emission within  $50\text{mg}/\text{Nm}^3$ . Coal shall not be used as fuel. At no time, the emission levels should exceed beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- (viii). Boiler ash will be used for brick manufacturing 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.
- (ix).  $\text{CO}_2$  generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors/collected in proposed bottling plant.
- (x). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiv). The company shall undertake waste minimization measures as below  
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 1.74ha. nearly 33% of the total project area with tree density @2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.
- (xvi). PP proposed to allocate Rs. 2.20 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.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no

parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road/approach road to plant site shall be maintained by industry.

- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Managing Director/CEO as per company hierarchy.
- (xxi). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12<sup>th</sup> August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

## **Agenda No. 8**



**Grain Based Distillery Plant (Fuel Ethanol 100 KLPD) along with Power Generation of 3.0 MW located at Khasra no. 238/55 & 239/55, Village: Rayanwali, Tehsil: Suratgarh, District: Ganganagar, State: Rajasthan (India), by M/s. Progressive Bioenergy Private Limited – Consideration of Environment Clearance**

**[IA/RJ/IND2/279353/2022, IA-J-11011/ 212/2022-IA-II(I)]**

The Committee noted that the EMP report of the said project has been prepared by accredited Consultant M/s. AmplEnviron Pvt. Ltd. (NABET Certificate No. NABET/EIA/2023/IA0061 and validity 22<sup>nd</sup> October, 2023). However, as per information received by QCI-NABET, "the approval of Sh. Vipin Kumar as FAE/EC, shall be suspended for a period of 6 months from the date of NABET communication". EAC observed that Mr. Vipin Kumar joined the meeting for presenting the proposal as EIA co-ordinator which is not in line with the recent direction of the QCI-NABET. Thereafter, EAC suggested that the accredited environmental organization (ACO) shall authorize an accredited person for 5(ga) category or PP shall authorize another accredited consultant for presenting the proposal before EAC for further consideration.

**Accordingly, proposal was deferred due to above reasons. Above information shall be submitted online to the PARIVESH portal for further consideration by EAC.**

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**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 31<sup>st</sup> 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**

<b>S. No.</b>	<b>Name and Address</b>	<b>Position</b>
1.	Shri S. C. Mann	Chairman
2.	Dr. J. S. Sharma	Member
3.	Prof. Y. V. Rami Reddy	Member
4.	Dr. Sanjeev Chaudhari (11.08.2022; one day)	Member
5.	Dr. Onkar Nath Tiwari	Member
6.	Shri J. S. Kamyotra	Member
7.	Dr. Rahul Ramesh Rao Mungikar	Member
8.	Dr. Seshagiri Rao Ambati	Member
9.	Dr. Sanjay V. Patil (VSI)	Member
10.	Shri A.N. Singh, Scientist 'E'	Member Secretary
<b>MoEFCC</b>		
11.	Dr. Mahendra Phulwaria	Scientist 'C'
12.	Mr. Kanaka Teja	Research Assistant
13.	Ms. Meetika Gupta	Research Associate

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