

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

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**Dated: 15.03.2023**

**Meeting ID: IA/IND2/13457/13/03/2023  
MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE  
(INDUSTRY-2 SECTOR PROJECTS)  
HELD ON 13<sup>th</sup> March, 2023**

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

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

**(ii) Confirmation of minutes:** The EAC, having taken note that final minutes were issued after incorporating comments received from the EAC members on the minutes of its Meeting (ID: IA/IND2/13456/09/03/2023) held on 09<sup>th</sup> -10<sup>th</sup> March, 2023 conducted through Video Conferencing (VC), confirmed the same. After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

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

**13<sup>th</sup> March, 2023 (Monday)**

**Agenda No. 01**

**Proposed Project of Distillation Facility for 12000 KL/Annum of Petroleum Waste oil & Mixture of Hydrocarbons (Solvent & Hydrocarbon Recovery System) located at Village-Sugarpur, Tehsil-Nuh, District Nuh (Mewat), State- Haryana by M/s. Prayagraj Impex LLP - Consideration of Environmental Clearance.**

**[IA/HR/IND2/413254/2023, IA-J-11011/180/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Eco Chem Sales & Services (NABET certificate no. NABET/EIA/2023/SA 0156 and validity upto 15<sup>th</sup> March 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project of Distillation Facility for 12000 KL/Annum of Petroleum Waste oil & Mixture of Hydrocarbons located at Village-Sugarpur, Tehsil-Nuh, District Nuh (Mewat), State- Haryana by M/s. Prayagraj Impex LLP.

All activities (Petrochemical-based processing (processes other than cracking & reformation and not covered under the complexes) are listed at S.No. 5 (e) of the Schedule of Environment Impact Assessment (EIA) Notification 2006 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

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

<b>S. No</b>	<b>Product/by-product</b>	<b>Existing Quantity</b>	<b>Proposed Quantity (kL/Annum)</b>	<b>Total Quantity (kL/Annum)</b>
1	Acetone	0	2000	2000
2	Toluene	0	2000	2000
3	Xylene	0	2000	2000
4	Mineral Oil (MTO)	0	1000	1000
5	Hydrocarbon C-5 to C-9	0	1000	1000
6	Medium Grade Light	0	3000	3000

	Density Fuel Oil			
7	Low-Grade Fuel Oil	0	1000	1000

The Standard Terms of Reference have been obtained vide F. No. IA-J-11011/326/2020-IA-II(I) dated- 01<sup>st</sup>June, 2022. It was informed that there is no litigation is pending against the project.

The Committee desired the following information before going for presentation of the Project based on observations made from KML and PFR submitted:

- (i) Certificate from DM should be obtained that project site is not falling under Aaravali protected Area.
- (ii) Abuilding structure exists in the project site. Please obtain recommendation from SPCB that there is no violation of project under EIA Notification, 2006 as amended from time to time.
- (iii) Canal is located at a distance of 766m away from the project site. Therefore, NOC from irrigation department to be obtained.
- (iv) Background VOC and HC levels.
- (v) Status of approval of project required under hazardous waste rules.

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

**Agenda No. 02**

**Proposed 200 KLPD Grain based Distillery to produce Ethanol for EBP Programme and 5.0 MW Co-generation power plant at Survey No. 83 of Village Bodduvanipalem, Tehsil Korisapadu, District Bapatla, State Andhra Pradesh by M/s. Sarvani Bio Fuels Private Limited - Consideration of Environmental Clearance.**

**[IA/AP/IND2/416288/2023, IA-J-11011/39/2023-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. SV Enviro Labs & Consultants (NABET certificate no. NABET/EIA/2124/RA 0240 and validity 24.10.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for establishment of 200 KLPD Grain based Distillery to produce Ethanol for EBP Programme and 4.5 MW Co-generation power plant at

Survey No. 83 of Village Bodduvanipalem, Tehsil Korisapadu, District Bapatla, State Andhra Pradesh by M/s. Sarvani Bio Fuels 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 g(a), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

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

<b>S. No.</b>	<b>Name of the unit</b>	<b>Name of the product/ by-product</b>	<b>Production Capacity</b>
1.	Distillery (Grain as Raw material)	Ethanol	200 KLPD
2.	Co-generation power plant	Power	4.5 MW
3.	DWGS Drier	DDGS	98.0 TPD
4.	Fermentation Unit	Carbon di-oxide	150.0 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 there is no litigation is pending against the project.

Total land area required is 5.94 hectares. Greenbelt will be developed in total area of 1.98 hectares i.e., 33.33% of total project area. The estimated project cost is Rs. 226.0 Crores. Capital cost of EMP would be Rs. 31.65 Crores and recurring cost for EMP would be Rs. 3.54 Crores per annum. Industry proposes to allocate Rs. 2.5 Crores towards Extended EMP (CER). Total Employment will be 200 persons as direct & indirect. Broken Rice and maize will be used as raw materials for the proposed production of ethanol.

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

project site. No forest with 10 Km radius from the project site. Water bodies such as Gundlakamma Reservoir Project is at a distance of 510.0 meters due South west direction for which HFL & RL of the river and project site were certified on 20.02.2023 by the Executive Engineer GRP Division No. 2 Ongole, Prakasam District, Andhra Pradesh.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 49.17  $\mu\text{g}/\text{m}^3$ , 12.39  $\mu\text{g}/\text{m}^3$ , 16.45  $\mu\text{g}/\text{m}^3$  with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> (Base line Concentrations for PM – 48.4  $\mu\text{g}/\text{m}^3$ , SO<sub>2</sub> – 10.6  $\mu\text{g}/\text{m}^3$  & NO<sub>x</sub> – 14.4  $\mu\text{g}/\text{m}^3$  were taken from the secondary sources). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement will be 3016 m<sup>3</sup>/day (Fresh Water – 794 m<sup>3</sup>/day & Recycled Water – 2222 m<sup>3</sup>/day) which will be met from Surface Water. NOC obtained for drawl of 3016 KLD of water from Gundlakamma Reservoir from the office of Chief Engineer (Projects) vide Proceedings No. CE (P)/OGL/DEE2/AEE4/Industrial Water/Vol. 1/95 Dated:16.02.2023. Effluent (MEE condensate/spent lees/cooling tower blowdowns) of 1204 m<sup>3</sup>/day will be treated through Condensate Polishing Unit of capacity 1250 m<sup>3</sup>/day. The Boiler Blowdowns, WTP rejects, washings, domestic waste water will be around 138.0 m<sup>3</sup>/day will be treated in ETP of capacity 150.0 m<sup>3</sup>/day. Spent Wash of 1200 m<sup>3</sup>/day from distillation will be sent to decanter followed by MEE & dryer to produce DDGS. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement during the operation phase will be 5.0 MW and will be met from cogeneration power plant (Captive Source). During the construction phase the power will be met through Andhra Pradesh State Power Distribution Corporation Limited (APSPDCL) for the same necessary permissions will be obtained. A 50.0 TPH (Rice Husk/Coal) fired boiler will be installed with Electrostatic Precipitator as APCE with a stack height of 60 m for controlling the particulate emissions within the statutory limit of 30 mg/Nm<sup>3</sup> for the proposed boiler. A 1 x 2500 KVA DG set will be used as standby during power failure with stack height (7 m) will be provided as per CPCB norms to the proposed DG sets.

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

- APCE Electro Static Precipitator with a stack height of 60 meters is 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> (150.0 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) (98.0 TPD) will be sold as cattle feed/ fish feed /Prawn feed.
- Fly ash (63.0 TPD) will be supplied to brick manufacturers in closed trucks.
- Used oil (1.0 Kilolitres per annum) will be sold to authorized recyclers. The CPU rejects will be returned back to MEE for further treatment.

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.

Total land of 5.94 Hectares is under possession of M/s. Sarvani Bio Fuels Private Limited. Sale deed was executed on 23.12.2022 and proceedings of land conversion were obtained from RDO Chirala vide proceedings No. D. Dis. No. D/266/2023 Dated: 23.02.2023. EAC found the information satisfactory.

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

S. No.	Description	Capital Cost in Lakhs	Recurring Cost in Lakhs/Annum
1.	Air Pollution		
	Pollution Control Equipment for 50 TPH Boiler (ESP & Stack height – 60 meters)	400.0	24.0
	Dust Suppression	--	5.0
	OCEMS	20.0	4.0
2.	Water Pollution		

	RWH water harvesting pond along with collection pits	20.0	2.0
	CPU, MEE & RO	2500.0	270.0
3.	Noise Pollution		
	PPE (Ear Plugs, Ear muffs, Insulations, Barriers)	60.0	6.0
4.	DWGS Handling, DDGS Drying, Handling, Storage, weighing bagging etc.,	100.0	10.0
5.	Environmental Monitoring & Management		
	Ambient Air, Stack, Noise, Soil, Water & Waste Water etc.,	--	20.0
6.	Landscaping/Green Belt Development		
	Plantation	15.0	5.0
7.	Occupational Health & Safety		
	Annual health Check-up, OHC, Fire Fighting	50.0	8.0
	<b>Total</b>	<b>3165.0</b>	<b>354.0</b>

#### **Details of CER with proposed activities and budgetary allocation:**

<b>S. No.</b>	<b>Activity</b>	<b>Budget (Lakhs)</b>
1.	Development of Village Roads and roads connecting to the NH - 16 Upgradation of drinking water facilities by installation of water purifiers in Bodduvanipalem and Tammavaram Villages	80.0
2.	Plantation on the Village roads	30.0
3.	Provision of fund for upgradation to digital classrooms in MPUP School at Tammavram and Bodduvanipalem villages	30.0
4.	Solar street lighting system along the roads of Bodduvanipalem and Tammavaram villages	60.0
5.	To support the public health centers with Infrastructural facilities	25.0
6.	Skill Development centers for youth Organizing training programs for youth/residents	25.0
	<b>Total</b>	<b>250.0</b>

During deliberations, EAC discussed following issues:

- PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises.
- PP shall increase the allocation of Occupational Health Safety to Rs. 0.5 Crore. However, PP has increased the capital cost to Rs. 0.30 Crores. But EAC suggested them to comply with 0.5 Crore allocation.
- Boiler ash (TPD) generated from Coal based operations shall be supplied to cement plants.

- PP shall allocate at least Rs. 2.5 Crore towards Extended EMP (CER). Accordingly, PP submitted the revised CER details increasing the budgetary allocation to Rs. 2.5 Crore.
- During presentation, PP explained that power generation capacity will be 4.5 MW. Accordingly, PP confirmed that they will be installing the 4.5 MW power plant with back pressure Turbine set suitable to 45 kg/cm<sup>2</sup> (g) pressure and 450°C temperature at the power generation plant. Accordingly, capacity of cogeneration power plant has been reduced from 5 MW to 4.5 MW.
- PP shall submit the details of RWH structure proposed. PP informed that RWH storage pond of 60 days storage capacity shall be constructed within an area 1000 square metres.

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 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). As proposed, Cogeneration power plant capacity shall not exceed 4.5 MW.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

- (v). NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the surface water for the distillery 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. No ground water shall be used for the plant operations.
- (vi). Total fresh water requirement shall not exceed 794 m<sup>3</sup>/day, which will be sourced from surface water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vii). Spent Wash/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (viii). 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 conducted on monthly basis and report submitted to SPCB and RO, MOEFCC. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and Total Dissolve Solids shall be monitored and report submitted to the Ministry's Regional Office.
- (ix). APCE ESP with a stack height of 60 meters will be installed with the Rice Husk/Coal fired 50 TPH boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm<sup>3</sup>. SO<sub>2</sub> and NO<sub>x</sub> emissions shall be less than 100 mg/Nm<sup>3</sup>. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired

efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

- (x). PP shall use Rice Husk / Coal as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. Fly ash (63 TPD) generated shall be supplied to brick manufacturing plants in closed trucks. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises.
- (xi). CO<sub>2</sub> (150.0 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.
- (xii). PP shall allocate at least Rs. 0.5Crore/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xiii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xiv). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xv). 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.
- (xvi). 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.

- (xvii). The green belt of at least 5-10 m width has already been developed in 1.98 hectares i.e., 33.33 % of total project area shall be maintained 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.
- (xviii). PP proposed to allocate Rs. 2.5 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xix). 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.
- (xx). 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.
- (xxi). 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.

- (xxii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xxiii). 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. 03**

**Proposed expansion of Distillery capacity from 400 KLPD to 600 KLPD for production of Ethanol by expanding the sugarcane crushing capacity from 15000 TCD to 20000 TCD to augment the requirement of sugarcane syrup/juice as raw material during sugarcane crushing season under EBP programme located at Sy. No. 16 & 17 of Saidapur Village, Sy. No. 45, 46, of Handigund Village, Sy. No. 74 & 75 of MadbhaviSameerwadi, Rabakavi - Banahatti Taluk, Bagalkot District by M/s. Godavari Biorefineries Ltd – Consideration of Amendment in Environmental Clearance**

**[IA/KA/IND2/ 297999/2023, J-11011/191/2007-IA II(I)]**

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter No. J-11011/191/2007-IA II (I) dated 09.04.2021 for the project Proposed expansion of Distillery capacity from 400 KLPD to 600 KLPD for production of Ethanol by expanding the sugarcane crushing capacity from 15000 TCD to 20000 TCD to augment the requirement of sugarcane syrup/juice as raw material during sugarcane crushing season under EBP programme by M/s Godavari Biorefineries Ltd located at Sy. No. 16 & 17 of Saidapur Village, Sy. No. 45, 46, of Handigund Village, Sy. No. 74

& 75 of Madbhavi Sameerwadi, Rabakavi - Banahatti Taluk, Bagalkot District.

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

Sl. No.	Para of EC issued by MoEF&CC	Details as per the EC					To be revised/ read as					Justification /reason
		Sl. No.	Product details	Existing quantity	Proposed quantity	Total quantity	Sl. No.	Product details	Existing quantity	Proposed quantity	Total quantity	
1.	Point No.6 ,The distillery configuration	During sugarcane crushing season 100 % sugarcane syrup/sugarcane juice only					During sugarcane crushing season 100 % sugarcane syrup/sugarcane juice only					At the end of the sugarcane crushing season, the distillery will operate with C/B Heavy molasses to produce RS/ethanol from 400 KLPD plant. The 200 KLPD plant will be idle.  Therefore, using grain as feed stock, it is proposed to produce 200 KLPD ethanol under EBP programme.  The captive power plant capacity will be expanded from 5.5 MW to 14MW using excess steam from sugar plant boiler. The Old 1.5 MW turbine will be dismantled.
		1	Sugarcane crushing capacity, TCD	15000	5000	20000	1	Sugarcane crushing capacity, TCD	15000	5000	20000	
		2	Co-generation power plant, MW	46	-	46	2	Co-generation power plant, MW	46	-	46	
		3	Distillery KLD with Captive power plant MW	400	200	600	3	Distillery KLD with Captive power plant MW	400	200	600	
				5.5	-	5.5			5.5 (1.5 MW TG set will be dismantled)	10	14	
		During sugarcane crushing season 100 % sugarcane syrup/sugarcane juice only					During sugarcane crushing season 100 % sugarcane syrup/sugarcane juice only					
		1	Rectified Spirit (KLPD)	400	200	600	1	Rectified Spirit (KLPD)	400	200	600	
2	Ethanol	380	190	570	2	Ethanol	380	190	570			

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Sl No.	Product	B heavy Molasses	Grain	Total production																																																																																																												
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2	Ethanol (KLPD)	380	190	570																																																																																																												
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2.	10.b Total water requirement	<p>The fresh water requirement for distillery scenario;</p> <table border="1"> <tr> <th>Sl. No.</th> <th>Particulars</th> <th colspan="4">Proposed scenario after expansion (KLD)</th> </tr> <tr> <td></td> <td>Feed stock (any one of the raw materials will be used at given time)</td> <td>C Heavy</td> <td>B Heavy</td> <td>cane syrup</td> <td>Cane syrup</td> </tr> <tr> <td></td> <td></td> <td>320</td> <td>400</td> <td>400</td> <td>600</td> </tr> <tr> <td>1</td> <td>Fresh water for process</td> <td>1172</td> <td>1248</td> <td>869</td> <td>1654</td> </tr> <tr> <td></td> <td>Fresh water for boiler</td> <td>160</td> <td>160</td> <td>160</td> <td>160</td> </tr> <tr> <td></td> <td>Domestic water requirement</td> <td>25</td> <td>25</td> <td>25</td> <td>25</td> </tr> <tr> <td></td> <td>Total Fresh water quantity</td> <td>1357</td> <td>1433</td> <td>1054</td> <td>1839</td> </tr> <tr> <td>2</td> <td>Reuse from distillery CPU</td> <td>1856</td> <td>1856</td> <td>2054</td> <td>1866</td> </tr> <tr> <td>3</td> <td>Total water requirement</td> <td>2688</td> <td>2731</td> <td>3185</td> <td>3520</td> </tr> </table>	Sl. No.	Particulars	Proposed scenario after expansion (KLD)					Feed stock (any one of the raw materials will be used at given time)	C Heavy	B Heavy	cane syrup	Cane syrup			320	400	400	600	1	Fresh water for process	1172	1248	869	1654		Fresh water for boiler	160	160	160	160		Domestic water requirement	25	25	25	25		Total Fresh water quantity	1357	1433	1054	1839	2	Reuse from distillery CPU	1856	1856	2054	1866	3	Total water requirement	2688	2731	3185	3520	<p>The freshwater requirement for distillery operation scenario;</p> <p>During sugarcane crushing season</p> <table border="1"> <tr> <th>Sl. No.</th> <th>Particulars</th> <th colspan="4">Proposed scenario during sugarcane crushing season</th> </tr> <tr> <td></td> <td>Feed stock (any one of the raw materials will be used at given time)</td> <td>C Heavy</td> <td>B Heavy</td> <td>cane syrup</td> <td>Cane syrup</td> </tr> <tr> <td></td> <td></td> <td>320</td> <td>400</td> <td>400</td> <td>600</td> </tr> <tr> <td>1</td> <td>Fresh water for process</td> <td>1172</td> <td>1248</td> <td>869</td> <td>1654</td> </tr> <tr> <td></td> <td>Fresh water for boiler</td> <td>160</td> <td>160</td> <td>160</td> <td>160</td> </tr> <tr> <td></td> <td>Domestic water requirement</td> <td>25</td> <td>25</td> <td>25</td> <td>25</td> </tr> <tr> <td></td> <td>Total Fresh water quantity</td> <td>1357</td> <td>1433</td> <td>1054</td> <td>1839</td> </tr> <tr> <td>2</td> <td>Reuse from distillery CPU</td> <td>1856</td> <td>1856</td> <td>2054</td> <td>1866</td> </tr> <tr> <td>3</td> <td>Total water requirement</td> <td>3213</td> <td>3289</td> <td>3108</td> <td>3705</td> </tr> </table> <p>During sugarcane crushing off season</p>	Sl. No.	Particulars	Proposed scenario during sugarcane crushing season					Feed stock (any one of the raw materials will be used at given time)	C Heavy	B Heavy	cane syrup	Cane syrup			320	400	400	600	1	Fresh water for process	1172	1248	869	1654		Fresh water for boiler	160	160	160	160		Domestic water requirement	25	25	25	25		Total Fresh water quantity	1357	1433	1054	1839	2	Reuse from distillery CPU	1856	1856	2054	1866	3	Total water requirement	3213	3289	3108	3705	<p>In the off season, B heavy Molasses and/or grain will be used as raw material for ethanol production.</p>
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			SI no.	Particulars	Proposed scenario during sugarcane crushing off season								
			B	Feed stock (B Heavy Molasses and/or grain will be used at given time)	B Heavy 400 KLD		Grain 200 KLD						
			1	Fresh water for process	1248		696						
				Fresh water for boiler	160								
				Domestic water requirement	25								
				Total Fresh water quantity	2129								
			2	Reuse from distillery CPU	2897								
			3	Total water requirement	5026								
3	Point No.7. Estimated project cost and EMP Capital cost	The estimated project cost is Rs. 760.859 Crores including existing investment of Rs. 630.299 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 96.175 Crores and the Recurring cost (operation and maintenance) will be about Rs. 5.43 Crores per annum.	The estimated project cost is Rs. 885.859 Crores including existing investment of Rs. 760.859 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 121.175 Crores and the Recurring cost (operation and maintenance) will be about Rs. 5.43 Crores per annum.				Additionally, Rs.125 Crores will be invested for grain-based distillery and Rs.25 crores will be additional EMP Budget.						
10.b	Raw spent wash	SI. No.	Particulars	After expansion				a) During sugarcane crushing season					
				C Heavy	B Heavy	Suga cane Syrup	Sugarca ne syrup	SI. No.	Particulars	During sugarcane crushing season			
				320 KLD	400 KLD	400 KLD	600 KLD			C Heavy	B Heavy	Suga cane Syrup	Sugarcan e syrup
		1	Raw spent wash	1931	1789	1792	1700	1	Raw spent wash	1931	1789	1792	1700
		2	Concentrated spent wash	401	295	173	159	2	Concentrated spent wash	401	295	173	159
		3	Spent lees	443	497	564	452	3	Spent lees	443	497	564	452
		4	Total Condensate	1530	1490	1618	1541	4	Total Condensate	1530	1490	1618	1541
		5	Boiler blow down	10	10	10	10	5	Boiler blow down	10	10	10	10
		6	Cooling tower bleed	30	30	30	30	6	Cooling tower bleed	30	30	30	30
								During sugarcane crushing off season					
				SI No.	Particulars	During sugarcane off crushing season							
					Feed stock	B Heavy	Grain 200 KLPD						



						400 KLPD		
					1	Raw spent wash	1789	779
					2	Concentrated spent wash/slop	295	393
					3	Spent lees	497	240
					4	Total Condensate	1490	879
					5	Boiler blow down	10	10
					6	Cooling tower bleed	30	30
	13. Details of solid waste generation and its management for distillery	<b>Type of solid waste</b>	<b>Quantity generated after expansion MT/month</b>	<b>Disposal</b>	<b>Type of solid waste</b>	<b>Quantity generated after expansion MT/month</b>	<b>Disposal</b>	DDGS is generated when grain is used as feed stock
		Distillery Plant			Distillery Plant			
		Yeast sludge	1800	By composting	Yeast sludge	1800	By composting	
		Bottom ash	1350	Sold to brick manufacturers and also mixed with bio-organic manure.	Bottom ash	1350	Sold to brick manufacturer and also mixed with bio-organic manure.	

The proposal was earlier considered by the EAC (Ind-2) in its meeting/meeting ID: IA/IND2/13313/23/08/2022 held during 23.08.2022 wherein EAC returned the proposal in the present form and desired certain requisite information/inputs. Information desired by the EAC and responses submitted by the project proponent is as under:

<b>S. No</b>	<b>ADS by MOEFCC</b>	<b>Reply of PP</b>
1	EAC noted that a complete plant will be installed of 200 KLPD grain-based distillery. PP informed that the fermentation tank installed has already 60 hours of retention time for grain-based operations. Also, the	<ul style="list-style-type: none"> <li>The industry has got the Environmental Clearance for the enhancement of Sugar plant capacity from 15000 TCD to 20000 TCD and distillery capacity from 400 KLPD to 600 KLPD under the EBP programme. The plant is installed and is in operation.</li> <li>During the sugarcane crushing offseason, the 400 KLPD distillery will be used for ethanol production using B Heavy Molasses</li> </ul>

	<p>industry has already installed 12 fermenters. EAC desired to submit the design of the fermentation tank already submitted in the EIA/EMP report for 60 hours of retention time</p>	<p>as feedstock. As the 200 KLPD plant will be idle, it is now proposed to use the grain as feedstock in the new plant to produce ethanol. For grain-based production, the additional infrastructure viz., grain silo, milling plant, liquefaction, and decantation sections will be added. The fermenters already in use are adequate. Details of fermenters as under;</p>																								
		<table border="1"> <thead> <tr> <th colspan="2">For 400 KLD</th> <th colspan="2">For 200 KLPD</th> <th colspan="2">For total 600 KLD</th> </tr> <tr> <th>Fermenter and cap.</th> <th>Wash holding tanks</th> <th>Fermenter And cap.</th> <th>Wash holding tanks</th> <th>Fermenter and capa.</th> <th>Wash holding tanks</th> </tr> </thead> <tbody> <tr> <td>8 No's</td> <td>2 No's</td> <td>4 No's</td> <td>1 No's</td> <td>12 No's</td> <td>3 No's</td> </tr> <tr> <td>7600 kl</td> <td>325 kl</td> <td>4000 kl</td> <td>2500 kl</td> <td>11600 kl</td> <td>2825 kl</td> </tr> </tbody> </table>	For 400 KLD		For 200 KLPD		For total 600 KLD		Fermenter and cap.	Wash holding tanks	Fermenter And cap.	Wash holding tanks	Fermenter and capa.	Wash holding tanks	8 No's	2 No's	4 No's	1 No's	12 No's	3 No's	7600 kl	325 kl	4000 kl	2500 kl	11600 kl	2825 kl
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2	<p>PP shall ensure that grain-based operation will only be limited to 200 KLPD and not more than that</p>	<p>we will ensure that while operating the distillery using grain as feedstock the production of ethanol is limited to 200 KLPD only</p>																								
3	<ul style="list-style-type: none"> <li>• Steam &amp; mass balance of integrated unit shall be submitted.</li> <li>• Justification regarding the steam generation and upgradation of the cogeneration power plant from 4 MW to 14 MW</li> </ul>	<p>The steam requirement for the distillery is 115 TPH. This is met from a 40 TPH incineration boiler and steam from a cogeneration boiler of 130 TPH. While exporting steam distillery from the cogeneration plant, steam passes through PRDS (Pressure Reducing and De-superheating Station to reduce steam pressure from 66kg/cm<sup>2</sup> to 4 kg/cm<sup>2</sup>) to the distillery, instead of passing the steam through PRDS it is now proposed to take the steam directly to the turbine. Thereby, we will be enhancing captive power generation. This will ensure that there is no wastage of energy which is presently happening. Therefore, it is justified that there is no additional steam generation or additional installation of a new boiler. It is only energy saving and energy generation.</p>																								
4	<p>Clarity is lacking in no. of boilers shown in the document submitted. EAC directed that PP shall</p>	<ul style="list-style-type: none"> <li>• No additional boiler will be installed.</li> <li>• The details of the operating boilers attached to sugar Cogen and distillery are in Annexure B;</li> <li>• As regards the commitment that no</li> </ul>																								

	commit that no additional boiler shall be installed	additional boiler shall be installed it is to clarify that the steam generation from the existing boilers is adequate for the operation of all the facilities.
5	Additional fresh water to be consumed in grain-based distillery and NOC for the additional fresh water withdrawal shall be submitted. Also, commitment to reduce fresh water consumption to 2.5 KL/KL of ethanol production	<ul style="list-style-type: none"> <li>• Fresh water requirement for grain-based distillery will be met from already sanctioned quantity by Karnataka State Water Resource Department. The total Fresh Water drawl permission is granted by GOK to draw 7689 KLD from the Ghataprabha river flowing at a distance of 6.5 km towards the south.</li> <li>• During sugarcane crushing season water requirement for Sugar, Cogen and distillery is 3433 KLD</li> <li>• During the sugarcane crushing season water requirement is 2927 KLD. This includes the freshwater requirement for the grain-distillery.</li> </ul>
6	Clarification regarding Consent submitted and consent mentions that NOx emission standards will be 50 mg/Nm <sup>3</sup> which is practically not achievable. PP informed that they have applied for amendment in CTO. PP shall also mention how to achieve latest Norms for particulate emissions from boiler	<ul style="list-style-type: none"> <li>• Karnataka State Pollution Control Board vide letter No. PCB/108/HPI/2022/4701 dated 12.10.2022 has amended the standards in the consent. But the standards for SOx and NOx is not changed, we have again approached the Board for modification.</li> <li>• The boilers fitted with wet scrubber are upgraded by Modifying the scrubber to meet the standards by increasing the number of spraying Nozzles, modifying the inside scrubber compartment to increase the efficiency</li> <li>• For 130 TPH and 120TPH boiler ESP fields are increased from 3 fields to 4 fields to meet PM &lt;50 mg/Nm<sup>3</sup></li> </ul>
7	Clarification regarding discrepancy in total area of integrated	The total area for the integrated complex Sugar, Co-generation and distillery unit is given in Annexure C

	complex. Greenbelt area to be clarified and area shall be considered in totality of sugar & distillery not segregating the two units when they are in same premises	
8	Status of bio-composting practice being discarded or not	As per the EC granted on 9.04.2021, The bio-composting practice is permitted for 3 years.

EAC found the response submitted by PP for ADS satisfactory.

During deliberations, EAC discussed following issues:

- PP informed that the period of sugarcane crushing season is generally from October to April every year. During this period sugarcane syrup is used as raw material to produce ethanol. During the sugarcane non crushing season B Heavy Molasses and Grain depending on the availability will be used during the period generally varies from May to August every year.
- It will be ensured that the ultimate production capacity will not exceed 600 KLPD at any given point of time as per the present EC granted by MOEF & CC vide No.J11011/191/2007-IA-II(I) dated 09.04.2021.
- Bagasse is used as only fuel in the sugar plant and Cogen boilers. As regards to upgradation of APCD for Cogeneration boilers it is to be clarified that recently in the year 2022, the ESP of Cogen plant has been upgraded from 3 field to 4 field with this modification we are able to control emission of particulate matter to less than 50 mg/Nm<sup>3</sup> during the current sugar cane crushing operation.
- Wet scrubbers in the sugar plant has been upgraded by increasing the numbers of spraying nozzles and modifying the inside compartment with baffles to increase the efficiency. The sugar plant boilers are low pressure boiler and operated with 100 % bagasse, after the modification of wet scrubber we are able to control the particulate emission to less than 50 mg/Nm<sup>3</sup>
- As per the recent analysis report, the existing boiler SO<sub>x</sub> and NO<sub>x</sub> emission is less than 100 mg/Nm<sup>3</sup>. Since the bagasse is the fuel for boiler, the SO<sub>x</sub> and NO<sub>x</sub> emission will be less than 100 mg/Nm<sup>3</sup> by

- maintaining the required Fuel and Air ratio during the boiler operation.
- In sugar and Cogen boilers, only bagasse is used as fuel and no coal will be used.
  - The spent wash generated is concentrated in MEE and the concentrate is used as fuel in incineration boiler. The lean effluent such condensate and spent lees is treated in Biological treatment plant followed by multigrade filtration, activated carbon filter and RO, recycled in process and cooling tower.

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 detailed deliberations EAC found the justification for amendment sought satisfactory and recommended for amendment in EC as proposed by the project proponent with the following additional conditions:

1. 200 KLPD grain based distillery shall be operated during the non crushing period of sugarcane. Total production capacity of distillery shall not exceed 600 KLPD at any given point of time as per the present EC granted by MOEF & CC vide No.J11011/191/2007-IA-II(I) dated 09.04.2021.
2. Spent Wash/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., shall be treated in the 'Condensate Polishing Unit' (CPU) comprising RO. The spent wash of molasses based distillery shall be concentrated in MEE and concentrated spent wash shall be incinerated in the incineration boiler. Other lean effluents Spent lees, MEE Condensates and utility effluents shall be treated in the condensate polishing unit (CPU) comprising RO. The treated permeate will be reused in cooling tower water makeup and recycled in process. The RO rejects will be taken back to MEE. Treated effluent will be recycled/reused for make up water of cooling towers/process etc. No wastewater or treated water from integrated unit of sugar mill and distillery shall be discharged outside the premises and Zero Liquid Discharge shall be maintained for all the units namely sugar, Distillery and Cogen Power Plant.

3. 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 conducted on monthly basis and report submitted to SPCB and RO, MOEFCC. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and Total Dissolve Solids shall be monitored and report submitted to the Ministry's Regional Office.
4. As proposed, the existing spentwash + coal fired 40 TPH boiler shall be upgraded from 2 field ESP to 6 field ESP to achieve particulate emissions of  $30 \text{ mg/Nm}^3$ . As proposed, the existing bagasse + coal fired 130 TPH boiler shall be upgraded from 3 field ESP to 4 field ESP to achieve particulate emissions of  $30 \text{ mg/Nm}^3$ . As proposed, the existing bagasse fired 120 TPH boiler shall be upgraded from 3 field ESP to 4 field ESP to achieve particulate emissions of  $50 \text{ mg/Nm}^3$   $\text{SO}_2$  and  $\text{NO}_x$  emissions shall be less than  $100 \text{ mg/Nm}^3$ . At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
5. 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.
6. As per the EC granted on 9.04.2021, the bio-composting shall be abandoned by 08.04.2024.
7. 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-11011/191/2007-IA II (I) dated 09.04.2021 shall remain unchanged.

## **Agenda No. 04**

### **Proposed Naphtha Hydro Treatment Unit (NHDT) & 90 KTPA Semi Regenerative Type Catalytic Reforming Unit (CRU), by M/s. Indian Oil Corporation Limited Located at Noonmati Village, Guwahati Taluk, Kamrup District, Assam – Consideration of Amendment in Environmental Clearance**

**[IA/AS/IND2/298150/2023, J-11011/197/2017-IA II(I)]**

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter No. J-11011/197/2017-IA II(I) dated 15.02.2021 for the project proposed Naphtha Hydro Treatment Unit (NHDT) & 90 KTPA Semi Regenerative Type Catalytic Reforming Unit (CRU), by M/s. Indian Oil Corporation Limited Located at Noonmati Village, Guwahati Taluk, Kamrup District, Assam.

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

<b>S. No .</b>	<b>Particular s of EC issued by MoEF&amp;CC</b>	<b>Details as per the EC</b>	<b>To be revised/read as</b>	<b>Justifications/reasons</b>
1	Specific condition (iii) of Para 13; Page 3 of 6	The treated effluent of 4.2 KLPH shall be sent for deep sea discharge through diffuser recommended by NIO.	The effluent shall be treated in the ETP & treated effluent shall be recycled/reused in the Refinery Processes.	There is no sea nearby Guwahati for deep sea discharge. However, presently Treated Effluent is being used in Refinery Processes.
2	General Condition (iv) of Para	The company shall undertake all relevant	Amendment is sought from Honorable MoEF&CC .The	Public hearing was exempted for CRU project under para 7(ii) of EIA Notification, 2006 as per

	13.1; Page 5 of 6	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	CER allocation for CRU project is not applicable vide MoEF&CC letter no F.No.22-65/2017-1A.III	clause 1 of Additional TOR received from MoEFCC vide F.No. J-11011/197/2017-IA.II(I) dated 07.07.2017.
3	Specific condition (vi) of Para 13;	Total fresh water requirement for the	The additional fresh water requirement shall not exceed	Necessary Permission in this regard has been obtained vide letter no No



	Page 3 of 6	proposed project shall not exceed 162 KLPH to be met from Sea water. Necessary permission in this regard shall be obtained from the concerned regulatory authority.	162 m <sup>3</sup> /hr after commissioning of CRU project, which will be met from River Brahmaputra	.WR(ED)Tech/2336/1989/P t-III/70 dated 21.1.2023 There is no sea nearby Guwahati Refinery for sourcing fresh water. Amendment is sought from Honorable MoEF&CC with regards to use of water of river Brahmaputra as fresh water instead of sea water
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During deliberations, EAC discussed following issues:

- EAC noted that amendments sought at Sl. No (1) & (3) are factual corrections and are acceptable. However, amendment sought at Sl. No (2) is a general condition imposed to all Industries, which cannot be dropped.

After detailed deliberations EAC found the justification for amendment sought at Sl. No (1) & (3) satisfactory and recommended for amendment in EC as proposed at Sl. No (1) & (3) by the project proponent with the following additional conditions:

- 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-11011/197/2017-IA II(I) dated 15.02.2021 shall remain unchanged.

## **Agenda No. 05**

**Proposed Project of 150 KLD Grain Based Ethanol Plant along with 4.5 MW Co-generation Power Plant located at Khasra no. 239/1, 239/2 KHA, Village-Natwarpur, Tehsil & District-Raigarh, Chhattisgarh by M/s. B R Refinery LLP - Consideration of Environmental Clearance.**

**[IA/CG/IND2/420811/2023, IA-J-11011/96/2023-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. GRC India Pvt Ltd (NABET certificate no. NABET/EIA/2124/RA0213 and valid till 15.02.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project Greenfield Project of 150 KLD Grain Based Ethanol Plant along with 4.5 MW Cogeneration Power Plant located at Khasra no. 239/1, 239/2 KHA, Village-Natwarpur, Tehsil & District-Raigarh, Chhattisgarh by M/s. B R Refinery LLP.

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 g(a), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

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

<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	4.5 MW
3	DWGS dryer	DDGS	75 TPD
4	Fermentation unit	Carbon di-oxide	98 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 there is no litigation is pending against the project.

Total land area required is 5.52 hectares. Greenbelt will be developed in total area of 1.82 hectares i.e., 33% of total project area. The estimated project cost is INR Rs. 198 Crores. Capital cost of EMP would be INR Rs. 29.2 Crores and recurring cost for EMP would be INR Rs. 3.15 Crores per annum. Industry proposes to allocate Rs. 3.00 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 70 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance. Reserve forest distances- Sambalpuri Protected forest is approx. 0.275 km towards South. For which PP has submitted clarification letter No. 265/2023/raigarh dated 10.03.2023 authenticating that Sambalpuri Protected forest is 0.275 km away from the proposed site and confirmed that there is no forest land in proposed project area. Barkachhar Reserved forest is approx. 1.6 km towards North West. Jhargurha Protected forest is approx. 1.9 km towards North East. Kumbahal Protected forest is approx. 3.2 km towards South. Dhanubansh Reserve forest is approx. 4.0 km towards North East. Balbhadarpur Protected forest is approx. 4.4 km towards North East. Patrapali Protected forest is approx. 5.8 km towards South. Sarapali Protected forest is approx. 5.9 km towards South. Garhdongari Reserved forest is approx. 6.4 km towards North. Boirdadar Reserved forest is approx. 4.5 km towards SW. Jamji Aria Protected forest is approx. 6.7 km towards NE. Chuhapali Protected forest is approx. 7 km towards SE. Bhagora Protected forest is approx. 7.4 km towards SSE. Mahuapali Protected forest is approx. 8 km towards South. Lamidarha Protected forest is approx. 8.4 km towards WSW. Sikosimal Protected forest is approx. 8.4 km towards SE. Barlia Protected forest is approx. 8.5 km towards West. Kukurda Reserved forest is approx. 8.5 km towards South. Kharudaldali Protected forest is approx. 8.8 km towards ENE. Kolairahal Protected forest is approx. 9.2 km towards SE. Dungapani Protected forest is approx. 9.5 km towards West. Keradungri Protected forest is approx. 9.6 km towards WNW. No major River or water body is present within 10 km study area.

AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be  $0.34 \mu\text{g}/\text{m}^3$ ,  $0.14 \mu\text{g}/\text{m}^3$ ,  $1.81 \mu\text{g}/\text{m}^3$ ,  $1.2 \mu\text{g}/\text{m}^3$  and  $0.61 \mu\text{g}/\text{m}^3$  with respect to  $\text{PM}_{10}$ ,  $\text{PM}_{2.5}$ ,  $\text{SO}_2$ ,  $\text{NO}_2$  and  $\text{CO}$ . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement for distillery including CPP will be 599 KLD which will be met from ground water. The application for permission of withdrawal of ground water has been submitted to CGWA having application no. 21-4/8276/CT/IND/2023 dated 03.03.2023. Effluent (Condensate/spent lees/blowdown etc.) of 632 KLD quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 800 KLD. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP capacity of 10 KLD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3.96 MW and will be met from proposed 4.5 MW cogeneration power plant. 45 TPH Coal based/Biomass boiler will be installed. Stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of  $30 \text{ mg}/\text{Nm}^3$  for the proposed boiler. 750 kVA DG set will be used as standby during power failure and stack height (30 m) will be provided as per CPCB norms to the proposed DG sets.

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

- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- Stack height of 60 meters will be installed for controlling the particulate emissions from DG Set.
- $\text{CO}_2$  (98 TPD) generated during the fermentation process will be collected by utilizing  $\text{CO}_2$  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) (75 TPD) will be sold as cattle feed/fish feed/ prawn feed.

- Boiler ash (57.64 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 (2 Kilolitres per annum) will be sold to authorized re-cycler.
- ETP sludge (0.0863 TPD) and STP Sludge (0.001 TPD) will be disposed through local agency.

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 is 5.52 hectare. Total land is under the possession of company. Current land use is agricultural use. The application has been submitted to the competent authority for land use conversion from agricultural to industrial use having application nos. 2023020100070, 202302042100075, 2023020100071 and 2023020100073, dated 02.03.2023. EAC found the information satisfactory.

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

<b>S. No</b>	<b>Particulars</b>	<b>Capital Cost (INR Cr.)</b>	<b>Annual Recurring (INR Cr.)</b>
1.	Air pollution control system ESP on stack of 45 TPH low pressure boiler, Stack, Industrial vacuum cleaner, road sweeping machine.	7.45	0.75
2.	Ambient air quality management system (AAQMS) and Continuous emission monitoring system (CEMS)	0.85	0.15
3.	Scrubbing system, compressing system, liquefying system and storage for CO <sub>2</sub> removal.	4.5	0.5
4.	Treatment system for spent wash, DWGS centrifuge decanter, DDGS dryer for ZLD system, Construction of Garland drains, Water Reservoir and Web Camera for ZLD System	6	0.5

5.	Condensate Polishing unit for water treatment and recycle, STP	4.5	0.5
6.	Rainwater harvesting systems	0.75	0.15
7.	Occupational Health Management	0.5	0.15
8.	Noise Reduction Systems	0.45	0.05
9.	Green Belt Development	0.7	0.12
10.	Environment monitoring	---	0.30
11.	Environment management cell	0.5	0.05
12.	CER	3	---
<b>Total</b>		<b>29.2</b>	<b>3.15</b>

**Details of CER with proposed activities and budgetary allocation:**

<b>S. No.</b>	<b>Description</b>	<b>Budget (INR Cr.)</b>
1.	a. Development of Village Roads b. Upgradation of drinking water facility by Installation of RO and water Purifier in nearby i.e. Primary School Bangursiya, Primary and School Patrapali.	0.70
2.	Installation of solar panels (30 nos.) i.e. Primary School Bangursiya, Primary & School Patrapali.	0.60
3.	Upgradation of medical facility in nearby hospital as Donating medical equipment like Beds, Stretcher, Portable Oxygen Cylinder (330 Litre), Oxygen Concentrator (0.5 to 5 Litre), AC (Window AC of 1.5 Ton), in Primary Health Center Bhagora and Primary Health Centre Bangursiya.	0.60
4.	Development of smart class, distribution of benches, Fans, drinking water facility, Upgradation of sanitary facility (One for male and one for female), Distribution of IT gadgets (students of class 12), Printers, Computers in Primary School Bangursiya, Primary and School Patrapali.	0.60
5	Awareness Programs (10 nos.) for local farmers to increase soil productivity	0.5

<b>Total</b>	<b>3.0</b>
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During deliberations, EAC discussed following issues:

- EAC noted that there are several existing trees in the proposed plot and sought PP/consultant regarding number of trees present in plot area and number of trees that are required to cut for the project. As proposed site contains several existing trees, EAC suggested PP to do census of the existing trees and efforts shall be made to retain maximum number of trees. Prior permission of DFO shall be obtained prior to cutting of trees. Industry shall compensate the cutting the existing trees by planting 10 times the number of trees cut.
- EAC noted that soil is deficient in nutrient within study area. Therefore PP shall make nutrient management part of CER by increasing the budget allocation towards CER to Rs. 3.00 Crore.
- PP shall prepare on site and off site disaster management plan and obtain approval from Districts level Disaster Management Authority.
- EAC noted that Environmental monitoring recurring cost proposed is Rs. 3.00 Lakhs which is very low. PP shall increase it to Rs. 30 Lakhs and shall submit the revised EMP details.
- EAC noted that no details of fly ash and boiler ash management plan was not submitted in PFR. PP has informed that boiler ash shall be used for refilling of low lying areas. It may be noted that low lying area filling cannot be done without prior approval of SPCB. EAC suggested that ash generated from coal based operations shall be supplied to cement plants.
- Industry shall maintain approach road to nearest highway.

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 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). 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). PP shall carry out census of the existing trees and efforts shall be made to retain maximum number of trees. Prior permission of DFO shall be obtained prior to cutting of trees. Industry shall compensate the cutting the existing trees by planting 10 times the number of trees cut.
- (v). NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the distillery 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. No ground water shall be used for the plant operations.
- (vi). Total fresh water requirement shall not exceed 599 m<sup>3</sup>/day, which will be sourced from ground water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vii). Spent Wash/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid

Discharge' system and no effluent/treated water will be discharged outside factory premises.

- (viii). ESP with a stack height of 60 meters will be installed with the 45 TPH Biomass /Coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm<sup>3</sup>. SO<sub>2</sub> and NO<sub>x</sub> emissions shall be less than 100 mg/Nm<sup>3</sup>. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/systems will be conducted annually.
- (ix). PP shall use Biomass / Coal as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. Boiler ash (57.64 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. Ash generated from coal based operations shall be supplied to cement plants. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (x). CO<sub>2</sub> (98 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.
- (xi). PP shall allocate at least Rs. 0.5 Crore/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xiii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire

fighting system shall be as per the norms. PESO certificate shall be obtained.

- (xiv). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xv). PP shall prepare on site and off site disaster management plan and obtain approval from Districts level Disaster Management Authority.
- (xvi). 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.
- (xvii). The green belt of at least 5-10 m width has already been developed in 1.82 hectares i.e., 33.0 % of total project area shall be maintained 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.
- (xviii). PP proposed to allocate Rs. 3.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xix). 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.

- (xx). 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.
- (xxi). 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.
- (xxii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xxiii). 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. 06**

**Proposed 100KLPD Grain based Distillery (For Fuel Ethanol) along with 2.5 MW Co-generation Power Plant located at Village BelneKh,**

**TalukaKankavali, District Sindhudurg, Maharashtra by M/s. Kokan Biofuels Pvt. Ltd. - Consideration of Environmental Clearance.**

**[IA/MH/IND2/415918/2023, IA-J-11011/4/2023-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. MITCON Consultancy and Engineering Services Ltd. (NABET certificate no. NABET/EIA/2124/RA 0229\_Rev 02 and validity 05.02.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 100 KLPD Grain based Distillery Plant located at Village BelneKh, Taluka Kankavali, District Sindhudurg, Maharashtra by M/s. Kokan Biofuels Pvt. 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 g(a), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

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

<b>S. No.</b>	<b>Name of unit</b>	<b>Name of the product and by-product</b>	<b>Production capacity</b>
1	Distillery	Ethanol	100 KLPD
2	Cogeneration Power Plant	Power	2.5 MW
3	DWGS Dryer	DDGS	51 MT/D
4	Fermentation unit	Carbon di-oxide	83 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 there is no litigation is pending against the project.

Total land area required is 7.16 hectares. Greenbelt will be developed in Total area of 2.36 hectares i.e. 33% of Total project area. The estimated

project cost is Rs. 150.40 Crore. Capital cost of EMP would be Rs. 30.365 Crores and recurring cost for EMP project would be Rs. 1.535 Crores per annum. Industry proposes to allocate Rs. 2.25 Crores towards Extended EMP (Corporate Environmental Responsibility). Total Employment will be 300 (Construction 150 and Operation 150) as direct and indirect. Broken Rice and Maize will be used as raw materials of manufacturing of ethanol.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. However, western ghat lies within 10 km radius of the project boundary. Water bodies: Belnenadi/ Achara River is at a distance of 1.26 km in the North direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be  $0.0224 \mu\text{g}/\text{m}^3$ ,  $0.0334 \mu\text{g}/\text{m}^3$ ,  $2.6 \mu\text{g}/\text{m}^3$ ,  $1.23 \mu\text{g}/\text{m}^3$  with respect to  $\text{PM}_{2.5}$ ,  $\text{PM}_{10}$ ,  $\text{SO}_2$  and  $\text{NO}_x$ . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 405 CMD which will be met from surface water. Permission shall be obtained from the Ministry of Soil and Water Conservation department, Ratnagiri. Effluent (Condensate/spent lees/blowdown etc.) of 1006 CMD quantity will be treated through Condensate Polishing Unit of capacity 1010 CMD. Raw stillage 1042 KLPD quantity of (raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 10 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 2.097 MW and will be met from own 2.5 MW co-generation power plant. 25 TPH bagasse/coal fired boiler will be installed. APCE ESP with a stack height of 46 m will be installed for controlling the particulate emissions within the statutory limit of  $50 \text{ mg}/\text{Nm}^3$  for the proposed boiler. 1000 kVA DG set will be used as standby during power failure and stack height 12 m will be provided as per CPCB norms to the proposed DG sets.

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

- APCE Electro Static Precipitator with a stack height of 46 m is 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> (83 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) (51TPD) will be sold as a by-product.
- Boiler Coal ash (25.2 TPD) will be supplied to cement plant/brick manufacturers.
- Agri based Bagasse Ash (42.6 TPD) will be used as a manure.
- Used oil (0.6 KL/A) will be sold to authorized recyclers.
- CPU sludge (2.0 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.

Total land of 7.16 Hectares is under possession of the company and land use conversion application has been submitted to District collector office dated 18.10.2022. EAC found the information satisfactory.

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

S. No	Construction phase (with Break-up)	Capital Cost	O & M
		(Amount in lakhs)	(Amount in lakhs)
1.	Environmental monitoring	0	1.5
2.	During site preparation	2	0
3.	Noise and solid waste management	1.5	0
4.	Water and waste water	5	0
5.	Occupational health	3	2.5
6.	Greenbelt development	5	5
	<b>Total</b>	<b>16.5</b>	<b>9</b>
Sr. No	Operation Phase (with Break-up)	Capital Cost	O & M
		(Amount in lakhs)	(Amount in lakhs)

			<b>lakhs)</b>
1.	Air pollution (Stack, ESP & OCEMS)	760	25
2.	Water Pollution (CPU, STP, decanter and dryer)	1830	60
3.	Environmental Monitoring (Air, water, waste water, Soil, Solid waste, Noise)	35	3
4.	Occupation health	65	8
5.	Green belt	30	5
6.	Solid waste	25	3.5
7.	Rain water harvesting	50	5
8.	CER Cost	225	-
	<b>Total</b>	<b>3020</b>	<b>144.5</b>

### Details of CER with proposed activities and budgetary allocation:

<b>CER activity</b>	<b>2023-24 (Lakh)</b>	<b>2024-25 (Lakh)</b>	<b>Total (Lakh)</b>
Providing 150 Nos. of Solar street lamps	20	30	50
Providing RO Water filters in nearby schools and villages	20	30	50
Providing Ambulance to the nearby Govt. Hospitals	40	40	80
Providing 100 Nos. of computers in nearby school/ colleges, necessary furniture, projectors, Air conditioners for computer lab, science lab equipment	20	25	45
<b>Total</b>	<b>100</b>	<b>125</b>	<b>225</b>

During deliberations, EAC discussed following issues:

- EAC noted that 1600 existing trees are proposed for cutting in the proposed plot area. The PP/consultant informed that prior permission of DFO shall be obtained prior to cutting of trees. Industry shall compensate the cutting of 1600 existing trees by planting 7695 trees in Nandgaon Village.
- PP informed that the proposed site i.e village Belne does not fall under draft Eco sensitive Zone of Western Ghats SO 3072 (E) dated 06.07.2022. Adjacent village Savdav falls under the said notification which is about 2.31 away from the proposed project site.
- EAC found the capital and recurring cost of EMP during operational phase low. Accordingly, PP submitted revised details of Capital and



recurring cost of EMP to Rs. 30.20 Crores and Rs. 14.45 Crores respectively.

- Five field ESP shall be installed.
- Project site is away from the main road. The committee suggested to acquire land to connect the site with the main road. PP informed that Pucca approach road from the project site to highway shall be constructed and maintained properly.

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). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (iv). NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the surface water for the distillery 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. No ground water shall be used for the plant operations.

- (v). Total fresh water requirement shall not exceed 405 m<sup>3</sup>/day, which will be sourced from surface water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent Wash/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (vii). 5 field ESP with a stack height of 46 meters will be installed with the 25 TPH Biomass /Coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm<sup>3</sup>. SO<sub>2</sub> and NO<sub>x</sub> emissions shall be less than 100 mg/Nm<sup>3</sup>. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/systems will be conducted annually.
- (viii). PP shall use Biomass / Coal as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. Boiler ash (42.6 TPD) will be given to farmers to be used as manure. Ash generated from coal based operations (25.2 TPD) shall be supplied to cement plants/brick manufacturers in closed trucks. 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> (83 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.
- (x). PP shall allocate at least Rs. 0.65Crore/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's

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

- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiv). The company shall undertake waste minimization measures as below  
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). PP shall carry out census of the existing trees and efforts shall be made to retain maximum number of trees. Prior permission of DFO shall be obtained prior to cutting of trees. Industry shall compensate the cutting the existing trees by planting 10 times the number of trees cut.
- (xvi). The green belt of at least 5-10 m width has already been developed in 2.36 hectares i.e., 33.0 % of total project area shall be maintained 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.

- (xvii). PP proposed to allocate Rs. 2.25 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xviii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xix). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xx). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xxi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.

- (xxii). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 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. 07**

**Proposed project for 400 KLPD Grain based Distillery (fuel to be used) located at Jambunathanahalli Village, Hospet Taluk, Vijayanagara District, Karnataka State by M/s. Hampi Sugars Pvt. Ltd. - Consideration of Environmental Clearance.**

**[IA/KA/IND2/419412/2023, IA-J-11011/392/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Environmental Health & Safety Consultants Pvt. Ltd. (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 400 KLPD Grain based Distillery (fuel to be used) located at Jambunathanahalli Village, Hospet Taluk, Vijayanagara District, Karnataka State by M/s. Hampi Sugars Pvt. Ltd.

PP informed that allotment of land for the proposed project is yet to be done, which is at final stage by Govt. of Karnataka. EAC informed that PP shall apply for EC after land is under possession of PP. Further, it was decided to return the proposal at present form.

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

### **Agenda No. 08**

**Proposed 200 KLPD Grain based Ethanol Plant along with 4.5 MW Co-generation Power Plant at Village Hegasanahalli, Tehsil & District Raichur, Karnataka by M/s. Mysore Petro Chemicals Limited - Consideration of Environmental Clearance.**

**[IA/KA/IND2/420752/2023, IA-J-11011/98/2023-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. J.M. EnviroNetPvt. Ltd. (NABET certificate no. NABET/EIA/2023/SA 0172 and validity till 7<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 proposed 200 KLD Grain Based Ethanol Plant along with 4.5 MW Co-generation Power Plant at Village Hegasanahalli, Tehsil & District Raichur, Karnataka by M/s. Mysore Petro Chemicals 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 g(a), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

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

<b>S. No.</b>	<b>Name of unit</b>	<b>Name of the product/ by-product</b>	<b>Production capacity</b>
1.	Distillery (Grains-broken rice, maize, bajra & sorghum)	Ethanol	200 KLPD
2.	Co-generation power plant	Power	4.5 MW
3.	DWGS dryer	DDGS	88 TPD
4.	Fermentation unit	Carbon di-oxide	154 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 there is no litigation is pending against the project.

Total land area required is 8.094 hectares. Greenbelt will be developed in total area of 2.68 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 240.15 Crores. Capital cost of EMP would be Rs. 26.7 Crores and recurring cost for EMP would be Rs. 2.00 Crores per annum.

Industry proposes to allocate Rs. 3.00 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 157 persons as direct.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Reserved Forests (RF)/ Protected Forests (PF), Tiger/ Elephant Reserves, Wildlife Corridors etc. present within 10 km distance. Water bodies: DoddaHalla at a distance of 1.5 km in SE direction, KonadHalla at a distance of 1.6 km in SSW direction, Krishna River at a distance of 4.5 km in North direction and RajasabTalav at a distance of 8.6 km in SSW direction. NOC has been obtained from office of the Asst. Executive Engineer, KBJNL, NRBC, Extn. Sub Division, Raichur vide Letter no. KBJNL/NRBC/EXTN.SUB DIVISION/PB/2022-23/108 dated 03.03.2023 stating that there were no instances of natural disaster like flooding/natural calamities etc till date. Hence, the above said project is free from flood zone.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be  $0.398 \mu\text{g}/\text{m}^3$ ,  $0.159 \mu\text{g}/\text{m}^3$ ,  $0.795 \mu\text{g}/\text{m}^3$  and  $0.928 \mu\text{g}/\text{m}^3$  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 822 CMD which will be met from surface water (Krishna river). The company has already applied to Raichur City Municipal Council, Raichur for extraction of surface water from Krishna River dated 15.02.2023 & is under process. Effluent (Process Condensate) of 830 CMD will be treated through Condensate Polishing Unit /Process Condensate Treatment Plant of capacity 1000 CMD & Effluent (20 CMD CT Blow down, 100 CMD DM Plant Reject, Washing & 26 CMD Boiler Blow Down) of 146 CMD will be treated through Effluent Treatment Plant of capacity 180 CMD. Raw stillage (1163 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 Effluent discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3.8 MW and will be met from proposed 4.5 MW Co-generation power plant. 50 TPH Coal or biomass like rice husk fired boiler will be installed. APCE ESP with a stack height of 60 m will be installed for



controlling the particulate emissions within the statutory limit of 30 mg/Nm<sup>3</sup> during coal-based boiler operations. A 1000 KVA DG set will be used as standby during power failure and stack height (6.5 m) will be provided as per CPCB norms to the proposed DG set.

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

- APCE ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm<sup>3</sup> during coal based boiler operations.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> (154 TPD) generated during the fermentation process will be collected and sold to vendors as per local demand.

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

- DDGS (Distilled Dried Grains Stillage) (88 TPD) will be sold as cattle feed.
- Boiler Ash (96 TPD) generated from coal based operations will be given to nearby cement manufacturers and Ash (52 TPD) generated during biomass based operations will be given to brick manufacturers in covered vehicles.
- Used oil (0.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (1 TPD), ETP Sludge (0.18 TPD) and STP Sludge (0.01 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 200 KLPD will be used for manufacturing fuel ethanol only.

Total land of 8.094 Hectares is under possession of the company and it is already industrial in nature. EAC found the information satisfactory.

### **Capital cost and recurring cost of EMP are given below:**

<b>S.</b>	<b>Description</b>	<b>Capital</b>	<b>Recurring</b>
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<b>No.</b>			<b>Cost (Crores)</b>	<b>Cost/annum (Crores)</b>
1.	Air Pollution management	Boiler stack + ESP + Online Monitoring System	15.0	0.6
2.	Effluent Treatment	ZLD System, Condensate polishing unit, ETP and STP	10.0	0.8
3.	Environment monitoring	Lab instrument, Online monitoring System, Third party monitoring, audit	0.2	0.2
4.	Solid waste management	Ash handling & management	0.5	0.3
		Others		
5.	Greenbelt & plantation development	Plantation for greenbelt	0.5	0.1
6.	Rain water harvesting	Required infrastructure	0.5	-
	<b>Total</b>		<b>26.7</b>	<b>2.0</b>

**Details of CER with proposed activities and budgetary allocation:**

<b>S. No</b>	<b>PROPOSED ACTIVITIES</b>	<b>IMPLEMENTATION OF EMP FOR SOCIAL AND INFRASTRUCTURE DEVELOPMENT ON THE BASIS OF PHYSICAL TARGETS</b>		<b>TOTAL BUDGET ALLOCATED (RS. IN LAKHS)</b>
		<b>Year 1</b>	<b>Year 2</b>	
1	<b>Up gradation of School infrastructure &amp; Educational facilities-</b> Provide Interactive smart class equipments /gadgets/solar panels like desktop computers,	Rs. 50 Lakhs (Govt school at Village Hanumandodd i) (4 nos potable water facilities - Rs. 2 lakhs, 4 nos. sanitized	Rs. 50 Lakhs (Govt school at Village Hegasanahalli) (4 nos potable water facilities - Rs. 2 lakhs, 4 nos. sanitized toilets- Rs 18 lakhs, solar panels	100

	<p>projectors, Interactive White Boards and distributing materials, bags, equipments etc. to students, Benches, installation of potable water facilities, construction of sanitized toilets etc.</p>	<p>toilets- Rs 18 lakhs, solar panels installation- Rs. 20 lakhs, Rs 10 lakhs for desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, sports equipments, etc)</p>	<p>installation- Rs. 20 lakhs, Rs 10 lakhs for desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, sports equipments, etc)</p>	
2	<p><b>Social Infrastructure Development-</b> Installation of Solar Street Light, Solar Lanterns, assistance to Anganwadi centres, Village Pond &amp; RWH pond Infrastructure Development, etc.</p>	<p>Rs. 30 Lakhs Village- Hegasanahalli (Rs. 6 Lakhs for 150 nos. solar street light, Rs. 10 Lakhs for local ponds&amp; RHW pond development, Rs. 14 lakhs will be provided to give assistance to Anganwadi</p>	<p>Rs. 30 lakhs Village- Hanumandoddi (Rs. 6 Lakhs for 150 nos. solar street light, Rs.10 Lakhs local ponds &amp; RHW pond development, Rs. 14 lakhs will be provided to give assistance to Anganwadi Centres)</p>	60

		Centres)		
3	<b>Skill development for youth-</b> Organizing Training programmes for youth/residents in Skill Development centre in collaboration with District/State government	Rs. 20 Lakhs Village- Hegasanahalli (Benefit to be extended to 125 persons)	Rs. 20 Lakhs Village- Hanumandoddi (Benefit to be extended to 125 persons)	40
3	<b>Up gradation of Healthcare facilities-</b> Provision of oxygen cylinders, ambulance, Health Check-up camps, medical instruments etc.	Rs. 35 Lakhs (PHC at Village Hanumandoddi) (Provision of 5 oxygen cylinders- Rs. 2.5 lakhs, 1 ambulance facility-Rs 10 lakhs, Health Check-up camps-Rs 5 lakhs, Medical instruments-Rs 17.5 lakhs etc.)	Rs. 35 Lakhs (PHC at Village Hegasanahalli) (Provision of 5 oxygen cylinders- Rs. 2.5 lakhs, 1 ambulance facility-Rs 10 lakhs, Health Check-up camps-Rs 5 lakhs, Medical instruments-Rs 17.5 lakhs etc.)	70
4	<b>Plantation-</b> Plantation/ Avenue plantation along roadside, tree plantation in nearby schools/colleges/vacant land/Panchayat bhavan, etc.	Rs. 15 lakhs Village Hanumandoddi (3000 no. of plants to be planted)	Rs. 15 Lakhs Village- Hegasanahalli(3000 no. of plants to be planted)	30
<b>TOTAL</b>				<b>300</b>

During deliberations, EAC discussed following issues:

- PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- EAC noted that Environmental proposed recurring cost proposed is Rs. 1.01 Crores per annum which is very low. Accordingly, PP increased it to Rs. 2.00 Crores per annum along with the revised EMP details. PP submitted in writing to increase the EMP recurring cost to Rs. 2.00 Crores. However, PP has not submitted the revised details of break up of EMP recurring cost.
- PP shall submit revised proposed activities to monitorable activities increasing budget allocation towards CER to Rs 3.00 crore. PP submitted the revised details of CER increasing the budgetary allocation towards CER to Rs. 3.00 Crore
- Sludge management in CPU shall be proposed. Accordingly, PP informed that filter press will be installed in CPU for sludge management.
- PP informed that maximum incremental GLCs for the proposed project for PM<sub>10</sub> is 0.398 µg/m<sup>3</sup> at a distance of 100 m in East direction from project boundary.
- Greenbelt shall be developed within one year from issuance of EC. PP agreed to it.

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

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

The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 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). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to

be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

- (iv). NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the surface water for the distillery 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. No ground water shall be used for the plant operations.
- (v). Total fresh water requirement shall not exceed 822 m<sup>3</sup>/day, which will be sourced from Krishna river. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent Wash/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (vii). 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 conducted on monthly basis and report submitted to SPCB and RO, MOEFCC. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and Total Dissolve Solids shall be monitored and report submitted to the Ministry's Regional Office.
- (viii). ESP with a stack height of 60 meters will be installed with the 50 TPH Coal or biomass like rice husk fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm<sup>3</sup>. SO<sub>2</sub> and NO<sub>x</sub> emissions shall be less than 100 mg/Nm<sup>3</sup>. At no time, the

emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

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- (x). CO<sub>2</sub> (154 TPD) generated during the fermentation process will be collected and sold to vendors as per local demand.
- (xi). PP shall allocate at least Rs. 0.5 Crore/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
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- (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 within one year in 2.68 hectares i.e., 33.0 % of total project area shall be maintained 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.
- (xvii). PP proposed to allocate Rs. 3.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xviii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xix). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

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

**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. O N Tiwari	Member
5.	Shri. J.S. Kamyotra	Member
6.	Dr. Sanjay V. Patil (VSI)	Member
7.	Shri A. N. Singh, Scientist 'E'	Member Secretary
<b>MoEFCC</b>		
8.	Dr.MahendraPhulwaria	Scientist 'C'
9.	Mr. Kanaka Teja	Research Assistant

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