

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

Dated: 29.08.2022

Meeting ID: IA/IND2/13313/23/08/2022

MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE

(INDUSTRY-2 SECTOR PROJECTS)

HELD ON 23rd - 24th August, 2022

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

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

(ii) Confirmation of minutes: The EAC, having taken note that final minutes were issued after incorporating comments received from the EAC members on the minutes of its Meeting (ID: IA/IND2/13302/11/08/2022) held during 11th- 12th August, 2022 conducted through Video Conferencing (VC), confirmed the same. After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

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

23rd August, 2022 (Tuesday)

Agenda No. 1

Establishment of 105 KLPD Grain based Distillery with Electricity Generation of 3 MW located at: Gat No. 94/2, Mandurne, Taluka Chalisgaon, District Jalgaon, Maharashtra by M/s. Kailasbapu Agro Industries Producer Company Ltd. (KAIPCL) – Consideration of Environmental Clearance.

[IA/MH/IND2/271141/2022 , IA-J-11011/28/2021-IA-II(I)]

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

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

Agenda No. 2

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/ 278384/2022, 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 5.5	200 -	600 5.5	3	Distillery KLD with Captive power plant MW	400 5.5 (1.5 MW TG set will be dismantled)	200 10	600 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	

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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.																																																																																																																																			
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					5 Boiler blow down	10	10		
					6 Cooling tower bleed	30	30		
13. Details of solid waste generation and its management for distillery plant	Type of solid waste	Quantity generated after expansion MT/month	Disposal	Type of solid waste	Quantity generated after expansion MT/month	Disposal		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.			
	Fly ash	1350	Sold to brick manufacturers and also mixed with bio-organic manure.	Fly ash	1350	Sold to brick manufacturers and also mixed with bio-organic manure.			
				DDGS	4200	Sold as cattle feed			

During deliberations, PP informed that there is no boiler addition, existing boiler of 4 MW will be upgraded to 14 MW to generate power by using excess steam. Further, EAC discussed following issues:

- EAC noted that a complete plant will be installed of 200 KLPD grain based distillery. PP informed that fermentation tank installed has already 60 hours retention time for grain based operations. Also, industry has already installed 12 fermenters. EAC desired to submit the design of fermentation tank already submitted in EIA/EMP report for 60 hours retention time. EAC suggested that if fermentation tank will be added then they have to go for expansion. PP ensured that no fermenter is being added.
- PP shall ensure that grain based operation will only be limited to 200 KLPD and not more than that.
- Steam & mass balance of integrated unit shall be submitted. Justification regarding steam generation and upgradation of co-generation power plant from 4 MW to 14 MW.
- Clarity is lacking in no. of boilers shown in document submitted. EAC

directed that PP shall commit that no additional boiler shall be installed.

- 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.
- Clarification regarding Consents submitted and consent mentions that NOx emission standards will be 50 mg/Nm³ 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.
- Clarification regarding discrepancy in total area of integrated 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. PP noted the same and agreed to submit revised details in Form-4.
- Status of bio-composting practice being discarded or not.

PP shall submit afresh incorporating all the above points alongwith addendum EMP report in form 4.

Accordingly, the proposal was returned in the present form.

Agenda No. 3

Proposed Fuel Ethanol plant of production capacity of 2 x 120 KLPD under EBP programme under B2 category of grain-based Fuel Ethanol and 2 x 3 MW of captive power plant, to be installed located at Survey No: 79(p), 81(p), 83(p), 91(p), 95(p), 96(p), Potharam Village, Bejjanki Mandal, Siddipet District, Telangana by M/s. Whitefield Bio Products Private Limited– Consideration of Environmental Clearance

[IA/TG/IND2/285058/2022, IA-J-11011/255/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Pioneer Enviro Laboratories and Consultants Private Limited (NABET certificate no. NABET / EIA/ 1922 / SA 0148 and validity 21st September, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 2 x 120 KLPD grain based ethanol plant and 2 x 3 MW co-generation power plant located at

Survey No: 79(p), 81(p), 83(p), 91(p), 95(p), 96(p), Village Potharam, Tehsil Bejjanki Mandal, District Siddipet, State Telanganaby M/s. Whitefield Bio Products Private Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product	Production capacity
1	Grain based Distillery	Ethanol	240 KLPD
2	Co-generation power plant	Power	6 MW
3	DWGS dryer	DDGS	194 TPD
4	Fermentation unit	Carbon di-oxide	182 TPD

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

Total land required is 6.8 Ha. Greenbelt will be developed in total area of 2.34 Ha. i.e. 33% of total project area. The estimated project cost is Rs. 392.79 crores. Capital cost of EMP would be Rs. 39.6 crores and recurring cost of EMP would be Rs. 7.66 Crores per annum. Industry proposes to allocate Rs. 3.92 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment will be 240 persons as direct & indirect.

There are no National parks / Wild life sanctuaries, Biosphere Reserves, Tiger / Elephant reserves, Wildlife corridors etc. within 10 Km radius. Anntha Sagar Reserve Forest is located within 10 km distance. Water bodies:Totapalli Cheruvuis at a distance of 3.0 Km, Mohitummeda River is at

a distance of 4.3 Km, Sanigaram Cheruvuis at a distance of 4.9 Km, Yellamma Gedda Vaguis at a distance of 8.7 Km.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.2 \mu\text{g}/\text{m}^3$, $0.1 \mu\text{g}/\text{m}^3$, $7.1 \mu\text{g}/\text{m}^3$, and $1.1 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be $960 \text{ m}^3/\text{day}$ which will be met from Surface water (Mohidummedha Vagu). Application has been submitted to Irrigation department dated 28-04-2022. Effluent (Condensate/spent lees/blow down etc.) of $1444 \text{ m}^3/\text{day}$ quantity will be treated through Condensate Polishing Unit of capacity $1450 \text{ m}^3/\text{day}$. Raw stillage ($1440 \text{ m}^3/\text{day}$) 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.

The power requirement will be 6 MW and will be met from the proposed 6 MW co-generation power plant. 2 x 30 TPH biomass / coal fired boiler will be installed. Electro Static Precipitator with a stack height of 48 m will be installed for controlling the particulate emissions within the statutory limit of $30 \text{ mg}/\text{Nm}^3$ for the proposed boiler. 2 x 1000 KVA DG set will be used as standby during power failure and stack height (3 m above building) will be provided as per the CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- Electro Static Precipitator with a stack height of 48 m will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2 generated (182 TPD) during the fermentation process will be collected by utilizing CO_2 scrubbers and sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (194 TPD) will be sold as cattle

feed / fish feed / prawn feed.

- Boiler ash (110.4 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (0.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (0.4 TPD) and STP Sludge (0.8 Kg/day) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self certification in the form of notarized affidavit declaring that the proposed capacity of 2 x 120 KLPD will be used for manufacturing fuel ethanol only.

Total land of 6.8 Hectares is under possession of the company and land use conversion has been completed vide proceeding no. 2200671451 dated 20-07-2022.EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Commitment that NOC for surface water withdrawal shall be obtained before start of construction activities.
- Commitment that trees present on project site shall be retained as much as possible and in worst condition only they shall be translocated. Greenbelt development shall be completed in 1st year after start of construction activities.
- CER activities are different in presentation and documents submitted. PP agreed the same and committed to submit the revised CER activities table. CER activities budget i.e. Rs. 3.92 Crores shall be spent before commissioning of the plant.
- Commitment to install brick manufacturing plant inside plant premises. PP agreed regarding the same.
- Maintain the approach road to highway.
- Environment head should report to CEO and Environmental policy shall be submitted.

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

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form

along with the EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 240 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the

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

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). NOC from the concerned authority for supply of surface water shall be obtained before start of construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974 till the project proponent shall obtain such permission.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. CLU certificate shall be obtained before start of construction activities.
- (v). Total fresh water requirement shall not exceed 4.0 KL/KL of ethanol production and will be met from Surface water (Mohidummedha Vagu). Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond having 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (vii). ESP/bag house with stack of 48 m height shall be provided with 2x30 TPH capacity biomass/coal fired boiler to control particulate emission within 30 mg/Nm³ for coal as fuel. SO₂ and NO_x emissions shall be less

than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.

- (viii). Boiler ash shall be utilized for brick making within proposed brick manufacturing plant. PP shall use biomass like rice husk/bagasse (biomass) as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ generated will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.
- (x). PP shall allocate Rs. 50 lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
 - (a) Metering and control of quantities of active ingredients to minimize waste;
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch

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

- (xv). The green belt of at least 5-10 m width shall be developed in 2.3 Ha nearly 33.82% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed in 1st year after start of construction activities. Trees present on project site shall be retained as much as possible and in worst condition only they shall be translocated.
- (xvi). PP proposed to allocate Rs. 3.92 Crores for Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration. CER activities budget i.e. Rs. 3.92 Crores shall be spent before start of construction activities only and not in phased manner.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking shall be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. PP shall strengthen and maintain the approach road to highway and carry out avenue plantation.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control

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

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

Agenda No. 4

Establishment of 100 KLPD Grain based Distillery alongwith 2.4 MW electricity generation located at Gat No. 89/1, 90/1, 90/2, 90/3, 90/4, 90/5 Balhegaon, Tal: Yeola, Dist: Nashik, Maharashtra by M/s. Alcochem Agro Industries Pvt. Ltd.- Consideration of Environmental Clearance.

[IA/MH/IND2/257716/2022, IA-J-11011/66/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET certificate no. NABET/EIA/1821/RA 0135 and validity 04th October, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for Environmental Clearance to the project for 100 KLPD Grain based Ethanol Plant & 2.4 MW

co-generation power plant (imported coal/biomass based) located at Village Balhegaon, TehsilYeola, District Nashik, State Maharashtra by M/s. AlcochemAgro Industries Pvt. Ltd. (AAIPL).

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery (Rice & Maize)	Ethanol	100 KLPD
2	Cogeneration Power Plant	Power	2.4 MW
3	DWGS Dryer	DDGS	84 TPD
4	Fermentation unit	Carbon Di-oxide	45 TPD

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

Total land area required is 12.57 Ha. Greenbelt will be developed in total area of 4.17 Ha. i.e. 33.17% of total project area. The estimated project cost is Rs. 119.05 Crores. Capital cost of EMP would be Rs. 13.93 Crores and recurring cost for EMP would be Rs.1.30 Crores per annum. Industry proposes to allocate Rs. 2.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 150 persons as direct & indirect.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: River Narandiis at a distance of 3 Km in North direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.161 \mu\text{g}/\text{m}^3$, $0.040 \mu\text{g}/\text{m}^3$, $1.92 \mu\text{g}/\text{m}^3$ and $0.192 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be $345 \text{ m}^3/\text{day}$ which will be met from groundwater. Application for permission to abstract ground water for industrial use has been submitted to CGWA dated 17.06.2022. Effluent (Condensate/spent lees/blowdown etc.) of $603 \text{ m}^3 /\text{day}$ quantity will be treated through Condensate Polishing Unit of capacity $850 \text{ m}^3 /\text{day}$. Raw stillage (483 TPD) 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 2.4 MW and will be met from proposed 2.4 MW co-generation power plant. 24 TPH imported coal/ biomass fired boiler will be installed. ESP with a stack height of 55 m will be installed for controlling the particulate emissions within the statutory limit of $30 \text{ mg}/\text{Nm}^3$ for the proposed boiler. 33 KVA DG set will be used as standby during power failure and stack height (4.5 m) will be provided as per CPCB norms to the proposed DG set.

Details of Process emissions generation and its management

- ESP with a stack height of 55 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2 (45 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be collected in proposed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (84 TPD) will be sold as cattle feed.

- Boiler ash (14 TPD) will be used for brick manufacturing in proposed brick manufacturing unit inside plant premises.
- CPU sludge (0.6 TPD) and STP Sludge (0.001 TPD) will be used as manure.

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

Total land of 12.57 Hectares is under possession of the company and land use conversion from Sub divisional Office, Yewala.; Government of Maharashtra has been completed vide letter no. Permit/SR-07/2022 dated 10.08.2022. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Mass balance for energy versus fresh water requirement. PP has submitted the same.
- Prescribed emission standard has been taken as 150 mg/Nm³. ESP efficiency has been taken as 71% efficiency. Clarification regarding the same and revised stack height calculations. PP shall ensure ESP should be designed for 99.99 % efficiency. PP has submitted the detailed calculations.
- Dhamangaon village is the sink of air pollutants, hence, PP committed that 1000 trees will be planted in the village.
- Plan for reducing sulphur emission from boiler stack. PP has submitted that FGD will be followed through use of CaCO₃ in dry type control process.
- Air cooled condensers are proposed with the 24 TPH capacity rice husk/coal fired boiler.
- Solar power plant having 0.5 MW shall be installed.
- PP shall ensure that risk of hazard from storage tanks leakage/bursting should not go beyond plant premises. In case the same cannot be ensured, then PP shall purchase additional land for the same.
- Filter press shall be installed instead of sludge drying beds.
- Revise greenbelt species list with native species.
- Road connectivity shall be clarified, no direct entry shall be done on road. PP agreed regarding the same.
- Reporting of environmental head shall be clarified.

- PP informed that some horticulture plants will be cut while start of construction activities.

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

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

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. All public hearing issues shall be properly addressed as per timeline and budget submitted.
- (iii). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iv). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from ground water. Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption. Air cooled condensers shall be installed with the proposed 24 TPH capacity rice/husk coal fired boiler.
- (v). Spent wash shall be dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP

comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. 10 KLPD capacity STP shall be installed to treat the sewage generated from factory premises.

- (vi). ESP/bag house with 55.0 m stack height shall be provided with 24 TPH biomass/coal fired boiler to control particulate emission within 30 mg/Nm³ for coal as fuel. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. For controlling sulphur dioxide emissions, dry CaCO₃ shall be implemented. For controlling sulphur emissions, dry type CaCO₃ control process shall be implemented. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/systems will be conducted annually.
- (vii). Boiler ash shall be utilized for brick making in proposed in-house brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (viii). CO₂ generated will be bottled and supplied to manufacturers of beverages /collected in proposed bottling plant.
- (ix). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (x). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

- (xi). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiii). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv). The green belt of at least 5-10 m width shall be developed in nearly 4.17 Ha i.e. 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Additional 1000 trees shall be planted in Dhamangaon village as committed.
- (xv). PP proposed to allocate Rs. 2.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project

area, 20% shall be allotted solely for parking purposes with facilities like rest rooms etc.

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

Agenda No. 5

Establishment of distillery unit of 220 KLPD capacity, to produce 220 KLPD ethanol using sugarcane syrup or 120 KLPD ethanol using grains and generate 10 MW captive power and 4.0 MW power plant located at Survey No. 229/1, 230 Village Basarkod, Tehsil Muddebihal, District Vijayapur, State Karnataka by M/s. Nadahalli Ethanol & Allied Industries Ltd. –Consideration of Environmental Clearance

[IA/KA/IND2/230639/2021, IA-J-11011/394/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s.Samrakshan (NABET certificate no. NABET/EIA/1922/SA 0138 (Rev.01) and validity 20th October, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for establishment of distillery unit of 220 KLPD capacity to produce 220 KLPD ethanol using sugarcane syrup and 120 KLPD ethanol using grain along with 10 MW co-generation power plant and 4.0 MW co-generation power plant located at Survey No. 229/1, 230 Village Basarkod, Tehsil Muddebihal, District Vijayapur, State Karnataka by M/s. Nadahalli Ethanol & Allied Industries Ltd.

All distilleries with capacity more than 200 KLPD are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

S. No.	Unit	Product / by-product	Total quantity
During sugarcane crushing season			
1.	Distillery	Rectified Spirit (RS) and Ethanol using Sugarcane syrup as raw material	220 KLPD
2.	Sugarcane milling	Sugarcane syrup/juice extraction	3000 TCD
3.	Co-generation power plant	Power	10 MW
4.	Fermentation	Carbon di-oxide	166 TPD

	unit		
Or During off season – non sugarcane crushing season			
1.	Distillery	Rectified Spirit (RS) and Ethanol using Grains as raw material	120 KLPD
2.	Co-generation power plant	Power	4 MW
3.	Fermentation unit	Carbon di-oxide	90.6 TPD
4.	DDGS plant	Distillers Dry Grain Soluble	64 TPD

In any case capacity of distillery shall not be increased beyond 220 KLPD during operation.

Standard Terms of Reference have been obtained vide F. No. IA-J-11011/394/2021-IA-II(I) dated 22.10.2021. It was informed that no litigation against the proposal.

Public Hearing for the proposed project had been conducted by the Karnataka State Pollution Control Board on 06th July, 2022 at project site chaired by Additional Deputy Commissioner, Vijayapura. The main issues raised during the public hearing and their action plan are;

Regarding employment opportunities, PP informed that proposed project will generate 210 nos. employment. Locals will be given preference.

Regarding cutting of trees, there will be no tree cutting in the proposed project. Green belt of 33 % will be maintained i.e. 13200 trees @ of 2500 per hectare will be planted. Budgetary provision of Rs. 40 Lakhs is made.

Regarding air pollution control measures, for boiler ESP and stack of 48 m will be provided. The emission of particulate matter will be controlled below 50 mg/Nm³. For ESP Rs. 800 Lakhs is earmarked.

Regarding improvement in infrastructure to help the villagers to tackle electricity problems and along with that to help them to shift to organic farming, PP informed that spent wash from distillery unit will be converted in to potash powder. This will be given to farmers as potash rich manure to help them to practice organic farming.

Regarding development of village and benefit to kids of that region, the Company will be undertaking and implementing CER activities by giving donations to promote various social, cultural, education and philanthropic activities; an amount of Rs. 2.7 Crores is earmarked for CER for Infrastructure development programs in Governments schools, providing RO drinking water facility, solar street lighting facility, sanitary facility.

Total land area required is 15.82 hectares. Greenbelt will be developed in total area of 5.26 hectares i.e., 33.24 % of total project area. The estimated project cost is Rs. 579.44 Crores. Capital cost of EMP would be Rs. 22.3 Crores and recurring cost for EMP would be Rs. 2.45 Crores per annum. Industry proposes to allocate Rs. 2.7 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 210 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km distance. No Reserve forests/ protected forests within 10 km distance. Water bodies are; Krishna River flowing is at a distance of 10.5 Km in the South direction and Basarkod lake is at 0.5 km towards North East direction.

Ambient air quality monitoring was carried out at 8 locations during October to December 2021 and the baseline data indicates the ranges of concentrations as: PM₁₀ (32.47 – 81.35 µg/m³), PM_{2.5} (16.22 – 40.21 µg/m³), SO₂ (4.17 – 4.86 µg/m³) and NO₂ (9.8– 9.15 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.71 µg/m³, 1.68 µg/m³ and 2.47 µg/m³ with respect to PM₁₀, SO₂ and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total freshwater requirement will be 192 m³/day for sugarcane syrup-based distillery or 572 m³/day for grain-based distillery, which will be met from Krishna River. Government of Karnataka vide order No. CI 143 SPI 2022 dated 30.05.2022 has given in-principle approval for allocating 600 KLD of water from River Krishna. Application has been submitted to Water Resource Department dated 10.06.2022.

In Syrup/juice-based distillery unit, Sugarcane condensate of 2685 KLPD will be treated in sugar plant ETP of 2800 KLD capacity and treated effluent will be taken to sugar plant for cooling tower makeup, imbibition, washing and

CO₂ scrubber and for softener plant. Total raw spent wash generation is 1320 KLPD, out of which 264 KLD will be recycled back to process. Remaining will be treated in the Bio-digester, bio-methanated spent wash of 1056 KLPD will be concentrated in MEE. Concentrated spent wash of 382 KLPD will be sent to drier to produce potash powder of 61 TPD. Potash Powder will be given to Fertilizer industry and farmers. Lean effluents from distillery viz., spent lees, condensate of MEE, boiler blow down and cooling tower bleed, and DM plant reject will be treated in Condensate Polishing Unit of 1500 m³/day capacity and recycled for cooling tower makeup and part will be used in fermentation dilution. In Grain based distillery unit, Raw spent wash (720 KLPD) will be sent to decanter. Out of 720 KLPD, 144 KLD will be recycled back to process. Remaining 501 KLPD will be concentrated and dried to get 64 TPD of DDGS and will be given for Cattle feed. Lean effluents from distillery viz., spent lees, condensate of MEE, boiler blow down and cooling tower bleed, and DM plant reject will be treated in Condensate Polishing Unit of 1500 m³/day capacity and recycled for cooling tower makeup and process dilution through softener plant. Domestic sewage will be treated in Modular Anaerobic Baffled Reactor (ABR) Sewage Treatment Plant of capacity 10 KLD. The treated sewage will be reused for gardening. 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 7 MW during sugarcane syrup-based distillery which will be met from proposed 10 MW co-generation power plant and 2.6 MW during grain-based distillery which will be met from 4 MW co-generation power plant. 60 TPH and 30 TPH biomass fired boilers will be installed. During sugarcane crushing season 60 TPH boiler will be used and during off season 30 TPH will be used. Individual ESP of efficiency 99.99% / bag house with a common stack of height 48 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boilers. 650 KVA DG set will be used as standby during power failure and stack height (8 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- Individual ESP of efficiency 99.99% / bag house with a common stack of height 48 m will be installed with both the boilers for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boilers.

- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (166 TPD during the sugar syrup-based production and 90.6 TPD during the grain-based production) will be scrubbed in water. Scrubbed CO₂ will be sent to bottling plant for production of liquefied CO₂ to be used for commercial purpose.

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

- DDGS (Distilled Dried Grains Stillage) (1920 MT/month) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (210 MT/month) will be mixed with press mud and given to farmers to use as manure
- CPU sludge (6 MT/month) will be dried and used as manure.
- Used oil (1.5 kilolitres/annum) will be sold to KSPCB authorized re-processor/ recyclers.

Total land of 15.82 Hectares is under possession of the company and land use conversion has been completed as per Government of Karnataka vide order No. CI143 SPI 2022 dated 30.05.2022. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Commitment that no sugar shall be produced of 3000 TCD proposed capacity and sugarcane syrup shall be used as raw material for distillery only. Commitment that only maximum 220 KLPD alcohol will be produced.
- PH proceedings mentions 3000 TCD sugar mill in subject whereas in Form-2 and documents, PP has mentioned 5000 TCD sugar mill. PP explained the same that they have mentioned maximum capacity in EC application whereas minimum requirement is 3000 TCD for ethanol production. EAC suggested that EC will only mention 3000 TCD sugar mill.
- Total project cost i.e. Rs. 180 Crores is too low. Clarification regarding the same and submit the detailed break up of cost. PP has revised the total capital cost to Rs. 579. 44 Crores.
- Government road is passing through the plant. Access to villagers shall be done. No vehicles shall be parked in the road and ensure safety of

people passing through the road. PP informed that there is already alternative road for villagers and they are not using this Government Road. PP has submitted letter issued by Tehsildar, Muddebihal stating that Govt. of Karnataka has already constructed an alternative road for the public to travel from different villages. The old road is constructed only to reach entrance of the company.

- Commitment that ground water shall not be abstracted at any circumstances.
- Approach road to industry shall be maintained and developed by PP.
- Bag house shall be installed instead of ESP and prescribed standards shall be 30 mg/Nm³.
- Ground water has high concentrations of fluoride and soil nutrient in study area is less in NPK as submitted in baseline results. Sugarcane development will consume NPK, hence PP shall utilise CER funding for improving NPK content in soil of study area and potable ground water shall also be made available to the villagers. Revised CER activities shall be submitted. PP has submitted CER activities as discussed.
- Revised list of native species for greenbelt shall be submitted. Pomegranate and guava trees will not be considered as greenbelt. Slide of greenbelt shall be modified and submitted again.
- PP shall ensure that risk hazard of storage tanks leakage/bursting should not go beyond plant premises. In case the same cannot be ensured, then PP shall purchase additional land for the same.
- Proper Traffic management shall be implemented. Impact of vehicular emissions in total ambient air quality shall also be considered.

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

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

the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

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

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

- (i). Sugarcane syrup from 3000 TCD sugar mill shall be used as raw material for distillery only and not for producing sugar.
- (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. All public hearing issues shall be properly addressed as per timeline and budget submitted.

- (iii). NOC from the Concerned Local authority for supply of river water shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iv). Total Fresh water requirement shall not exceed 192 m³/day for sugarcane syrup-based distillery or 572 m³/day for grain-based distillery which will be met from Krishna River. No ground water abstraction shall be permitted. Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (v). Spent wash shall be concentrated in MEE and dried to form powder in cane juice based distillery or spent wash shall be concentrated and dried to form DDGS in grain based distillery. The condensate, spent lees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (vi). ESP of efficiency 99.99% / bag house along with stack of adequate height (48 m) shall be provided with 60 TPH & 30 TPH biomass fired boiler to control particulate emission within 50 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. Coal shall not be used as fuel. At no time, the emission shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (vii). Boiler ash will be used as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. PP shall meet 10% of the

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

- (viii). Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be 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). CO₂ generated will be bottled and supplied to manufacturers of beverages /secondary uses.
- (x). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
 - (a) Metering and control of quantities of active ingredients to minimize waste;
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f)

Use of high pressure hoses for equipment clearing to reduce wastewater generation.

- (xv). The green belt of at least 5-10 m width shall be developed in nearly 5.26 Ha i.e. 33.24% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of plant.
- (xvi). PP proposed to allocate Rs. 2.7 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 20% shall be allotted solely for parking purposes with facilities like rest rooms etc. Approach road from the industry to the State Highway shall be maintained and developed by PP.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

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

Agenda No. 6

Expansion of Distillery (45 to 150 KLPD) using C & B Heavy Molasses / Cane Syrup for Ethanol Production with 1.9 MW Captive Power Generation, Enhancement in Cane Crushing (4800 to 7500 TCD) and Cogeneration Plant Capacity (14 to 24 MW located at Dhawarwadi, Tal.: Karad , Dist.: Satara, Maharashtra State by M/s. Jaywant Sugars Ltd.- Consideration of Environmental Clearance

[IA/MH/IND2/256234/2022, J-11011/111/2016-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET Certificate no. : NABET/EIA/1821/RA 0135 and validity 04th October, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of existing distillery unit from 45 KLPD to 150 KLPD, sugar mill from 4800 TCD to 7500 TCD and co-generation power plant from 14 MW to 24 MW (bagasse as fuel) located

at Village Dhawarwadi, Tehsil Karad, District Satara , State Maharashtra by M/s. Jaywant Sugars Ltd.

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

The details of products and capacity as under:

No.	Name of unit	Name of the product/by-product	Existing Production capacity	Additional production capacity	Total production capacity
1	Distillery	Ethanol	45 KLPD C-Molasses based	105 KLPD C/B-Heavy Molasses / Sugar Syrup	150 KLPD C/B-Heavy Molasses / Sugar Syrup
		RS/ENA	45 KLPD C-Molasses based	-	45 KLPD C-Molasses based
2	Co-generation power plant for sugar mill	Power	14 MW	10 MW	24 MW
3	Sugar mill	Sugarcane juice / syrup	4800 TCD	2700 TCD	7500 TCD
4	Co-generation power plant for distillery	Power	0	1.9 MW	3.8 MW
5	Fermentation unit	Carbon dioxide	38 TPD	86 TPD	124 TPD

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 45 KLPD vide File No. J-11011/111/2016-IA-II(I) dated

13.11.2017. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Nagpur vide File No-EC-664/RON/2017/NGP/8767 dated 22.10.2021. Action Taken Report has been submitted to IRO, MoEFCC, Nagpur dated 17.03.2022 for 4 partial compliances and 3 non compliances and Certified Action Taken Closure Report has been obtained by IRO, MoEFCC, Nagpur dated 29.04.2022. EAC found the information given by PP satisfactory.

Existing sugar factory & co-generation powerplant is operational on the basis of Consent to Operate because the sugar factory crushing capacity is 4800 TCD & co-generation power plant capacity is 14 MW. Hence, Environmental Clearance is not applicable. Latest CTO (air and water) has been issued on 20.02.2022 and is valid till 31.07.2022. Application for CTO renewal is submitted to MPCB on 10.06.2022. Certified CTO compliance report has been issued dated 09.05.2022 from Sub-Regional Officer; MPCB, Satara (MS).

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that nolitigation is pending against the proposal.

Total plant area after expansion will be 37.50 Ha (existing plant area -23.32 Ha and additional land required – 14.18 Ha. for proposed capacity) which is under possession of the company and converted to industrial use. Out of the total plant area, 12.37 Ha. i.e. 33% of total plant area is to be developed under green belt. 5.9 Ha. i.e. 15% of the total plant area has already been developed as green belt and 6.4 Ha Ha i.e. 18% of total plot area will be developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 200 Crores. Capital cost of EMP would be Rs. 55.05 Crores and recurring cost for EMP would be Rs. 3.30 Crores per annum. Industry proposes to allocate Rs. 1.5 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 45 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Some reserve forests falls in the study area in South at a location of 0.01 km. Water bodies: Tarali River is at a distance of 4.6 Km in West direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4.863 $\mu\text{g}/\text{m}^3$, 1.22 $\mu\text{g}/\text{m}^3$, 5.49 $\mu\text{g}/\text{m}^3$ and 1.67 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 511 m³ /day (sugar mill 11 m³/day and distillery 500 m³/day) which will be met from Tarali River. NOC has been obtained from Koyna Irrigation Division, Govt. of Maharashtra vide letter no. J.K./K.C.V.K/P.SH./3658/2019 dated 16.07.2019. Existing effluent generation is 269 m³/day from sugar mill treated in full-fledged ETP and 326 m³/day from distillery which is treated through Condensate Polishing Unit of capacity 450 m³/day. Proposed total effluent generation from sugar factory after expansion will be 501 m³/day and that from the distillery will be 1279 m³/day which will be treated through upgraded Condensate Polishing Unit of capacity 900 m³/day. In molasses based operation, spent wash generated from the analyser column during distillation will be concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt in incineration boiler. Domestic waste water will be treated in STP of capacity 15 KLPD. The plant is being based on Zero Liquid discharge system and treated effluent/water is not to be discharged outside the factory premises.

Total power requirement of distillery & sugar mill after expansion will be 11.8 MW which will be sourced from 24 MW co-generation power plant in sugar mill & proposed 1.9 MW co-generation power plant in Distillery. Existing distillery has 21 TPH Spent wash + coal fired boiler. Under expansion additional 21 TPH Spent wash+ Coal/Bagasse fired boiler will be installed in distillery. Existing sugar mill has 70 TPH bagasse fired boiler. Additionally, one more 70 TPH bagasse fired boiler will be installed in sugar mill. ESP with a stack of height of 70 M is installed for existing incineration boiler (21 TPH) in distillery. For proposed incineration boiler (21 TPH); ESP with a stack height of 80 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. In sugar mill, for existing 70 TPH bagasse boiler, wet scrubber with a stack of height of 70 m is installed and for proposed 70 TPH bagasse boiler, ESP with a stack height of 70 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Industry has existing 320, 250 & 1010 KVA DG sets which will be used as standby during power failure and stack height (7 m & 4.5 m) are provided as per CPCB norms to the DG sets.

Details of Process emissions generation and its management:

- Wet scrubber with a stack of height 70 m installed with the existing 70 TPH bagasse fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. The PP has proposed to replace wet scrubber with ESP. With the proposed 70 TPH bagasse fired ESP with a stack of height 70 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.
- ESP with a stack of height 70 m is installed with the existing 21 TPH incineration boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. ESP with a stack of height 80 m will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System is installed with the stack and data transmitted to CPCB/SPCB servers.
- CO₂ (124 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors/collected in installed bottling plant.

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

- Concentrated spent wash (240 m³/day) will be burnt in incineration boiler.
- Boiler ash from incineration boiler (69 TPD) after expansion will be used for brick manufacturing in existing own brick manufacturing plant inside plant premises. Also, bagasse ash from sugar factory boilers after expansion (46 TPD) will be utilized in brick manufacturing.
- Used oil (0.2 MT/M) will be sold to authorized recyclers.
- CPU sludge (36 MT/M) and STP Sludge (0.5 MT/M) will be used as manure.
- Press mud (300 TPD) will be used as manure in sugar mill.
- Bagasse (2250 TPD) will be used as fuel in sugar mill.
- Molasses (192 TPD) will be used as raw material in distillery.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of 105 KLPD & 2700 TCD will be used for manufacturing fuel ethanol only.

During deliberations, EAC discussed following issues:

- Wet scrubber shall be replaced with ESP in the existing 70 TPH boiler to achieve PM emissions less than 50 mg/Nm³. Prescribed standard of PM shall be 30 mg/Nm³ for boilers using coal as fuel and 50 mg/Nm³ with bagasse as fuel.
- CER activities shall be submitted in detailed form.
- PP shall submit annexures of Action Taken Report. Action plan for all partial /non-compliances along with time & budget. Monitoring data of AAQM for 7 stations. Noise monitoring data shall also be submitted.
- Traffic management plan shall be submitted.
- Filter press shall be installed instead of sludge drying beds.
- EMC hierarchy shall be submitted.
- Risk assessment report shall be submitted and tolerance level at the boundary level shall be zero otherwise additional land shall be purchased.
- For sulphur emissions control, PP has submitted that dry scrubbing using CaCO₃ will be implemented.
- NOC for natural stream passing through the plot. PP showed the same.
- Commitment that 2700 TCD sugar mill expansion shall be utilized only for sugar syrup to produce ethanol not for sugar manufacturing.
- Stream is passing through the plant site, way to parking and entry shall be clarified for trucks. Stream is not visible in kml file whereas stream has been replaced by road completely. Stream is showing discontinuation in the kml file. PP shall ensure that industrial activities do not disturb natural path of stream.
- It was informed to the Committee that prior clarification needs to be obtained as distance of RF is 0.01 km from project site as per Form-2. However, the committee desired letter from Forest Department stating that proposed additional land is not on the forest land before start of construction activities.

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

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form

along with the EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed expansion capacity of 105 KLPD & 2700 TCD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if

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

- (ii). Sugarcane syrup from the expanded capacity of 2700 TCD sugar mill shall be used as raw material for distillery only and not for producing sugar.
- (iii). PP shall obtain letter from Forest Department stating that proposed additional land is not on the forest land before starting of construction activities.
- (iv). NOC for natural stream passing through the plot has been obtained. All conditions shall be followed as mentioned in NOC. PP shall ensure that industrial activities do not disturb natural path of stream.
- (v). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. All public hearing issues shall be properly addressed as per timeline and budget submitted.
- (vi). NOC from the Concerned Local authority for surface water supply shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (vii). Total Fresh water requirement shall not exceed 511 m³/day which will be met from Tarali River. Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (viii). Spent wash shall be concentrated in MEE and incinerated. The condensate, spent lees and utilities effluent shall be treated in the ETP

comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

- (ix). ESP/bag house with stack of adequate height (80 m) shall be provided with 21 & 70 TPH biomass/slop/coal fired boiler to control particulate emission within 30 mg/Nm³ for coal as fuel. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. For sulphur emissions control, dry scrubbing using CaCO₃ shall be implemented. Wet scrubber shall be replaced with ESP with existing 70 TPH boiler to achieve emission of 50 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (x). The APCD's installed with the existing 70 TPH bagasse fired boiler and 21 TPH Incineration boiler shall be upgraded /Modified by July 31st, 2024 to meet the Particulate Matter emission norms of 50mg/Nm³ and 30 mg/Nm³ respectively. SO₂ and NO_x emissions from 21 TPH Incineration boiler shall be less than 100 mg/Nm³.
- (xi). Boiler ash will be utilized for brick making in brick manufacturing unit inside premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (xii). Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly 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.

- (xiii). CO₂ generated will be bottled and supplied to manufacturers of beverages /secondary uses.
- (xiv). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xv). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xvi). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xvii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xviii). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xix). The green belt of at least 5-10 m width shall be developed in 12.38 Ha i.e. nearly 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of plant. Additional 10 m wide greenbelt shall be developed on both sides of water stream and towards the direction of forest.

- (xx). PP proposed to allocate Rs. 1.5 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xxi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 20% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xxii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xxiii). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xxiv). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring

functions. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

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

Agenda No. 7

Proposed 300 KLPD Grain based Ethanol Plant along with 8.0 MW Co-generation Power Plant located at Village Jhamujhara, Tehsil Kamakshyanagar, District Dhenkanal, Odisha by M/s. Globus Spirits Limited- Consideration of Environmental Clearance

(IA/OR/IND2/ 286554/2022, IA-J-11011/284/2022-IA-II(I))

The Project Proponent and the accredited Consultant J.M. EnviroNet Pvt Ltd. (NABET certificate no. NABET/EIA/2023/RA 0186 and validity till 07th February, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 300 KLPD Grain based Ethanol Plant along with 8.0 MW Co-generation power plant (Biomass/coal) located at Village Jhamujhara, Tehsil Kamakshyanagar, District Dhenkanal, State Odisha by M/s. Globus Spirits Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/ by-product	Production capacity
1.	Grain based Distillery	Ethanol	300 KLPD
2.	Co-generation power plant	Power	8.0 MW
3.	DWGS dryer	DDGS	148 TPD
4.	Fermentation unit	Carbon di-oxide	230 TPD

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

Total land area required is 10.11 hectares. Greenbelt will be developed in total area of 3.37 hectares i.e., 33% of total project area. The estimated project cost is Rs. 250 Crores. Capital cost of EMP would be Rs. 30.0 Crores and recurring cost for EMP would be Rs. 3.0 Crores per annum. Industry proposes to allocate Rs. 2.5 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 200 persons as direct.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance. Reserve forests: Machhia RF is adjacent in south direction, Sunajhari RF is at a distance of 3 km in North direction, Anlaberani RF is at a distance of 5 km in NNW direction, Bhairpur RF is at a distance of 7 km in NE direction, Suniamaru RF is at a distance of 7.5 km in North direction, Rupabalia RF is at a distance of 8.5 km in East direction, Sundaeakhol RF is at a distance of 8.5 km in NW direction, Kadalipal RF is at a distance of 9 km in NW direction. Water bodies: Indrajitnala is at a distance of 4 km in West direction, Parjang branch canal is at a distance of 7.5 km in WNW direction, Budhia Nala is at a distance of 9 km in North direction, Rengali right main canal is at a distance of 9 km in SSW direction, Gumura Nala is at a distance of 10 km in NNW direction, Brahmani River is at a distance of 4 km in East direction, Bega Nadisa at a distance of 8.5 km in WSW direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.65 µg/m³, 0.26 µg/m³, 1.0 µg/m³ and 1.31 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and

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

Total fresh water requirement will be 1656 m³/day which will be met from river Brahmani. NOC has been obtained from Industrial Promotion & Investment Corporation of Odisha Limited (IPICOL) vide letter no. GM/SLNA/CBPL/177/21/1470 dated 08.06.2021. Effluent (Condensate/spent lees/blowdown etc.) of 1566 m³/day will be treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 1800 KLPD. Raw stillage (1944 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 20 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 6.0 MW and will be met from proposed 8.0 MW Co-generation power plant. 70 TPH biomass/coal fired boiler will be installed. Bag house with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 2 x 1500 kVA DG set will be used as standby during power failure and stack height (9 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- Bag house with a stack height of 60 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (230 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors.

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

- DDGS (Distilled Dried Grains Stillage) (148 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (144 TPD) will be supplied to brick manufacturers in covered vehicles/ utilized for brick making in proposed in-house brick

manufacturing plant.

- Used oil & grease (1.0 KL/annum) generated from plant machinery/gear boxes as hazardous waste will be sold out to the CPCB authorized recyclers.
- CPU sludge (1.8 TPD) and STP Sludge (10 kg/day) will be used as manure.

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

Total land of 10.11 Hectares is allotted to the company by Odisha Industrial Infrastructure Development Corporation (IDCO) vide letter no. HO/P&A/LAE-8090/2021/15495 dated 21.06.2022 for establishment of industry. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Greenbelt has to be uniform and greenbelt development shall complete by December, 2023.
- 10% of total power requirement shall be sourced from solar energy.
- Undertaking that ash shall be supplied to cement/brick manufacturing plant and PP shall install its own brick manufacturing plant until MOUs are obtained.
- ESP shall be replaced by bag filter to achieve norms for 30 mg/Nm³. PP committed to explore the same. Revised cost for 5 field ESP or bag house shall be incorporated in EMP. Prescribed standard shall be 30 mg/Nm³.
- 15% of total plant area shall be allotted for parking.
- PP shall ensure that no direct entry on road is made for industry and maintain the approach road of 2 km to Highway.
- PP shall ensure that no ground water is abstracted.

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

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

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 300 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently

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

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). NOC from the Concerned Local authority for surface water supply shall be obtained before starting construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project.
- (v). Total fresh water requirement shall not exceed 4.0 KL/KL of ethanol production and will be met from River Brahmani. Ground water abstraction shall not be permitted. Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond having 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

- (vii). Bag house along with stack of 60 m height shall be provided to biomass/coal fired boiler to control particulate emission within 30 mg/Nm³ for coal as fuel. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- (viii). Boiler ash shall be supplied to brick manufacturers in covered trucks/ utilized for brick making in proposed in-house brick manufacturing plant. PP shall use biomass like rice husk/bagasse/coal as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ generated will be bottled and supplied to manufacturers of beverages /collected in proposed bottling plant.
- (x). PP shall allocate Rs. 50 lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
 - (a) Metering and control of quantities of active ingredients to minimize

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

- (xv). The green belt of at least 5-10 m width shall be developed in 3.37 Ha i.e. nearly 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt has to be uniform and greenbelt development shall complete by December, 2023, 20 m wide greenbelt shall be developed within the plant towards Machhia forest adjacent to the plant.
- (xvi). PP proposed to allocate Rs. 2.5 Crores for Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking shall be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. No direct entry on road for industry and maintain the approach road of 2 km to Highway.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall

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

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

Agenda No. 8

Proposed project 200 KLPD grain-based Ethanol and 6.0 MW of cogeneration power located at Peddavaram Village, Nandigama Mandal, NTR District, Andhra Pradesh by M/s. Crux Bioethanol India Private Limited-Consideration of Environmental Clearance

[IA/AP/IND2/285296/2022, IA-J-11011/262/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Pioneer Enviro Laboratories and Consultants Private Limited (NABET CERTIFICATE No. NABET/EIA/1922/SA 0148(Rev.01) and validity 21-09-2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 200 KLPD

grain-based ethanol and 6.0 MW co-generation power plant (coal/biomass based) located at Village Peddavaram, Tehsil Nandigama Mandal, District NTR, State Andhra Pradesh by M/s. Crux Bioethanol India Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 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:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1	Grain based distillery	Ethanol	200 KLPD
2	Cogeneration power plant	Power	6.0 MW
3	DWGS dryer	DDGS	162 TPD
4	Fermentation unit	Carbon di-oxide	152 TPD

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

Total land area required is 10.46 Ha. Greenbelt will be developed in total area of 3.45Ha i.e. 33 % of total project area. The estimated project cost is Rs.248.9 Crores. Capital cost of EMP would be Rs. 30.20 Crores and the Recurring cost for EMP will be Rs.2.50 Crores per annum. Industry proposes to allocate Rs.2.48 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 200 persons as direct.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve Forest/Protected Forest: Venkataya Palem Reserve Forest is at a distance of 2.2 km, Jaggayyapeta Reserve Forest is at a distance of 2.6

km&Gudimetla Reserve Forest is at a distance of 4.2 Km. Water bodies: Krishna River is at a distance of 1.0 km.

AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.08 $\mu\text{g}/\text{m}^3$, 0.048 $\mu\text{g}/\text{m}^3$, 2.79 $\mu\text{g}/\text{m}^3$, 0.42 $\mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 , and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement is 800 m^3/day which will be met from Krishna River. Application has been submitted to Irrigation Department, Govt. of Andhra Pradesh dated 31/05/2022. Effluent of 1204 m^3/day quantity will be treated through condensate polishing unit of capacity 1300 m^3/day . Raw stillage (1200 m^3/day) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 10 m^3/day will be installed to treat sewage generated from factory premise. The plant will be based on zero Liquid discharge system and no effluent / treated water will be discharged outside factory premises.

Power requirement will be 6.0 MW and will be met from proposed 6.0 MW co-generation power plant. 50 TPH coal/biomass fired boiler will be installed. ESP with the stack height of 55 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3 for the proposed boiler. 1 X 1024 KVA and 1 X 500 KVA DG sets will be used as standby during power failure and stack (7 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP with a stack height of 55 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2 generated (152 TPD) during the fermentation process will be collected by utilizing CO_2 scrubbers and sold to authorized vendors.

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

- DDGS (Distilled Dried Grains Stillage) (162 TPD) will be sold as cattle/fish feed/ prawn feed.
- Boiler Ash (92 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (1 Kilolitres per annum) will be sold to authorised recyclers.
- CPU Sludge (20 Kg/Day) will be used as manure.

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

The total land envisaged for the proposed project is 10.46 Ha. (25.85 acres). Entire land has been taken on lease for 20 years from the sister company M/s. Crux Biotech India Private Limited, and the land use conversion has been completed vide R. Dis. A2/924/2011 dated 29/06/2011 and C.No. A11/940154/2022 dated 29/03/2022 and C.No. A11/940155/2022 dated 29/03/2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Greenbelt shall be 33% of total plant area and native species shall be developed.
- Commitment that NOC for surface water withdrawal shall be obtained before start of construction activities.
- Commitment to install own brick manufacturing plant inside plant premises. PP has submitted the same.
- Commitment that CER budget shall be spent before commissioning of the plant.
- Low sulphur coal with 0.5 % sulphur content shall be used.
- EMC hierarchy wherein EMC head shall directly report to Head of Organisation.
- 15% of total area shall be allotted for parking purposes.
- PP shall meet norms of 30mg/Nm³, 100 mg/Nm³ and 100 mg/Nm³ for PM, SO₂ and NO_x emissions from boiler.
- Filter press shall be installed for sludge drying.

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

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

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

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 200 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). NOC from Concerned Local authority for surface water supply shall be obtained before starting construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (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. CLU certificate shall be obtained before start of construction activities.
- (v). Total fresh water requirement shall not exceed 4.0 KL/KL of ethanol production and will be met from River Krishna. Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond having 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be

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

- (vii). ESP/bag house alongwith stack of 55 m height shall be provided to biomass/coal fired boiler to control particulate emission within 30 mg/Nm³ for coal as fuel. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- (viii). Boiler ash will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse/coal as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ generated will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.
- (x). PP shall allocate Rs. 50 lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.

- (xiv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in 3.6 Ha i.e. nearly 34.42% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. No trees shall be cut for establishment of plant.
- (xvi). PP proposed to allocate Rs. 2.48 Crores for Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking shall be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind

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

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

Agenda No. 9

Expansion of Molasses / Sugarcane juice based Distillery from 105 KLPD to 305 KLPD for Ethanol production by using C & B Heavy Molasses / Cane Juice with enhancement of Sugarcane crushing from 4,900 TCD to 7,900 TCD & Co-generation Plant Capacity from 14 MW to 32 MW located at Pavansoot Nagar, Anandgaon (Sarni) Post.: Javanban Tal.: Kaij, Dist.: Beed, Maharashtra State M/s. Yedeshwari Agro Products Ltd. – Consideration of Environmental Clearance

[IA/MH/IND2/284855/2022, J-11011/175/2015-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET Certificate no. NABET/EIA/1821/RA 0135 and validity 04th October, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of existing distillery unit from 105 KLPD to 305 KLPD, sugar mill from 4900 TCD to 7900 TCD and co-generation power plant from 14 MW to 32 MW (bagasse based) located at Pavansoot Nagar, Anandgaon (Sarni) Post Javanban, Tehsil Kaij, District Beed, State Maharashtra by M/s. Yedeshwari Agro Products Ltd.

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

The details of products and capacity as under:

No.	Name of unit	Name of the product/by-product	Existing Production capacity	Additional production capacity	Total production capacity
1	Distillery	Ethanol	105 KLPD C-Molasses based/ Sugar Juice.	200 KLPD C/B-Heavy Molasses/ Sugar Syrup	305 KLPD C/B-Heavy Molasses/ Sugar Syrup
		Or RS/ENA	105 KLPD C-Molasses based / Sugar Juice.	-	105 KLPD C-Molasses based / Sugar Juice.
2	Co-generation power plant for sugar mill	Power	14 MW	18 MW	32 MW

3	Sugar mill	Sugarcane juice / syrup	4900 TCD	3000 TCD	7900 TCD
4	Fermentation unit	Carbon dioxide	81 TPD	169 TPD	250 TPD

Note: In any case, capacity of distillery shall not exceed 305 KLPD during operation.

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 105 KLPD Molasses / Sugarcane Juice based Distillery vide File No. J-11011/175/2015-IA-II (I) dated 07.07.2021. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Nagpur vide File No-EC-584/RON/2017/NGP/9542 dated 04.04.2022. Action Taken Report has been submitted to IRO, MoEFCC, Nagpur dated 26.07.2022 for 1 observation & 1 partial compliance. Existing Sugar Factory & co-generation power plant is operational on the basis of Consent To Operate because the sugar factory crushing capacity is 4900 TCD & co-generation power plant capacity is 14 MW. Hence, Environmental Clearance is not applicable. Latest CTO (air and water) has been issued on 21.09.2021 and is valid till 31.07.2022. Application for CTO renewal is submitted to MPCB on 20.07.2022. Certified CTO compliance report has been issued dated 12.05.2022 from Sub-Regional Officer, MPCB, Jalna (MS). PP informed that greenbelt/plantation will be completed in 6.5 Ha by 30th September, 2022. Committee was satisfied with the response.

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

Total plant area after expansion will be 43.8 Ha (existing plant area 18.72 Ha and additional land required 25.08 Ha. for proposed capacity) which is under possession of the company and converted to industrial use. Out of the total plant area, 14.45 Ha. i.e. 33% of total plant area is to be developed under green belt. Out of which, 4.68 Ha. i.e. 11% of the total plant area has already been developed as green belt and 9.77 Ha. i.e. 22% of total plant area will be developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs 140.86 Crores. Capital cost of EMP would be Rs. 54.10 Crores and recurring cost for EMP would be Rs. 5.34 Crores per annum. Industry proposes to allocate Rs. 1.2 Crores towards

extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 478 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Some reserve forests fall in the study area. Manjara River is flowing at a distance of 8 Km from West to East direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.815 \mu\text{g}/\text{M}^3$, $0.205 \mu\text{g}/\text{M}^3$, $8.57 \mu\text{g}/\text{M}^3$ and $0.667 \mu\text{g}/\text{M}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be $1128 \text{ m}^3/\text{day}$ (sugar mill $57 \text{ M}^3/\text{day}$ and distillery $1071 \text{ M}^3/\text{day}$) which will be met from Manjara River. NOC has been obtained from Irrigation Division, Govt. of Maharashtra vide letter no. AZ068760 dated 01.01.2022. Existing effluent generation is $292 \text{ m}^3/\text{day}$ from sugar mill which is treated in full-fledged ETP and $881 \text{ m}^3/\text{day}$ from distillery which is treated through Condensate Polishing Unit of capacity $1000 \text{ m}^3/\text{day}$. Proposed total effluent generation from sugar factory after expansion will be $507 \text{ m}^3/\text{day}$ and that from the distillery will be $2572 \text{ m}^3/\text{day}$ which will be treated through Existing Condensate Polishing Unit of capacity $1000 \text{ m}^3/\text{day}$ & Proposed Condensate Polishing Unit of capacity $2000 \text{ m}^3/\text{day}$. Spent wash generated from the analyser column during distillation is being/will be concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt in incineration boiler. Domestic waste water will be treated in STP of capacity 75 KLPD. The plant is being/will be based on Zero Liquid discharge system and treated effluent/water will not be discharged outside the factory premises.

Total power requirement of distillery & sugar mill after expansion will be 10.6 MW which will be sourced from 32 MW co-generation power plant in sugar mill. Existing distillery has 22 TPH spent wash + coal /bagasse fired boiler. Under expansion additional 30 TPH spent wash + coal / bagasse fired boiler will be installed in distillery. Existing sugar mill has 70 TPH bagasse fired boiler. Additionally, one more 70 TPH bagasse fired boiler will be installed in sugar mill. Two ESPs with a common stack of height of 75 m is installed for existing incineration boiler (22 TPH) in distillery & (70 TPH) in sugar mill. For proposed boilers incineration (30 TPH) and sugar mill (70

TPH); two ESPs with a common stack of height of 85 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Industry has existing 625 KVA DG set & proposed 625 KVA DG set will be used as standby during power failure and stack height (3 mARL each) are provided as per CPCB norms to the DG sets.

Details of Process emissions generation and its management:

- Two ESPs with a common stack of 75 m height are installed for the existing boilers for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Two ESPs with a stack of height of 85 M will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boilers.
- Online Continuous Emission Monitoring System is installed with the stack and data transmitted to CPCB/SPCB servers.
- CO₂ (250 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors/collected in proposed bottling plant.

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

- Concentrated spent wash (488 m³/day) will be burnt in incineration boiler.
- Boiler ash (120 TPD) from incineration boiler after expansion will be used for brick manufacturing in own brick manufacturing plant inside plant premises. Also, bagasse ash from sugar factory boilers after expansion (42 TPD) will be utilized in brick manufacturing.
- Used oil (0.53 MT/M) will be sold to authorized recycler / burnt in own boilers.
- CPU sludge (77 MT/M) and STP Sludge (0.5 MT/M) will be burnt in Incineration Boiler.
- Press mud (9880 MT/M) will be used as manure in sugar mill.
- Bagasse (71100 MT/M) will be used as fuel in sugar mill.
- Molasses (5880 MT/M) will be used as raw material in distillery.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of 200 KLPD & 3000 TCD will be used for manufacturing fuel ethanol only.

During deliberations, EAC discussed following issues:

- PP has committed that air cooled condensers shall be installed with the proposed boiler. Within 2 years, existing cooling towers shall also be replaced with air cooled condensers.
- Bio-composting shall be stopped for existing distillery within 2 years.
- High concentration of SO₂ and NO₂ was recorded in the ambient air. Additional measures shall be implemented for controlling emissions of SO₂ and NO₂ in the flue gases. PP has submitted that FGD followed by dry type control process will be implemented to control sulphur emissions.
- PM emission standards shall be 50 mg/Nm³ for biomass as fuel and 30 mg/Nm³ for coal as fuel. NO₂ and SO₂ emission standards shall be less than 100 mg/Nm³. Standards shall be achieved within 2 years for the existing boilers.
- Approach road to industry shall be maintained.
- Photographs of existing greenbelt and greenbelt planted till date shall be submitted as CCR reported partial compliance for greenbelt. PP has committed that by 30th September, 2022, remaining 6.5 Ha area will be covered under greenbelt.
- Greenbelt shall consist of species requiring less water for growth. PP agreed regarding the same. Ash shall be used as manure in greenbelt development inside plant premises.
- Concentrated Spent wash storage shall be for 5 days only before being used as fuel in incineration boiler.
- The existing bio-digestors will be dismantled within the next 02 years.

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

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form

along with the EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed expansion capacity of 200 KLPD & 3000 TCD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if

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

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. All public hearing issues shall be properly addressed as per timeline and budget submitted.
- (iii). NOC from the Concerned Local authority for surface water supply shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iv). Total Fresh water requirement shall not exceed 1128 m³/day which will be met from Manjra River. Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (v). Spent wash shall be concentrated in MEE and incinerated. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Bio-composting shall be stopped for existing distillery within 2 years. Concentrated Spent wash storage shall be for 5 days only before being used as fuel in incineration boiler. Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (vi). ESP/bag house alongwith stack of adequate height (85 m) shall be provided with 30 biomass/slop/coal & 70 TPH biomass fired boiler to control particulate emission within 30 mg/Nm³ for coal as fuel. SO₂ and

NO_x emissions shall be less than 100 mg/Nm³. Dry scrubbing of flue gases using CaCO₃ shall be implemented to control sulphur emissions. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

- (vii). The APCD with the existing 70 TPH biomass fired boiler and 22TPH incineration (biomass/slop/coal) boiler shall be upgraded /modified to meet the PM emission norms of 50mg/Nm³ and 30 mg/Nm³ respectively within the next 02 years. SO₂ and NO_x emissions from 22TPH boiler shall be less than 100 mg/Nm³
- (viii). Boiler ash will be utilized for brick making in brick manufacturing unit inside premises/used as manure within own premises for greenbelt development. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and RO, MOEFCC. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and Total Dissolve Solids shall be monitored and report submitted to the Ministry's Regional Office.
- (x). CO₂ generated will be bottled and supplied to manufacturers of beverages /secondary uses.
- (xi). Air cooled condensers shall be installed with the proposed boiler. Within 2 years, existing cooling towers shall also be replaced with air cooled condensers.
- (xii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the

duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

- (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. Firefighting 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. Filter press shall be installed for sludge drying.
- (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 shall be developed in 14.45 Ha i.e. nearly 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. By 30th September, 2022, remaining 6.5 Ha area will be covered under greenbelt and 33% greenbelt percentage shall be achieved in existing area.
- (xviii). PP proposed to allocate Rs. 1.2 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply

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

- (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, 20% shall be allotted solely for parking purposes with facilities like rest rooms etc. Approach road shall be maintained by industry.
- (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/Managing 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 12th August, 2021. A report along with

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

Agenda No. 10

Proposed Expansion of distillery capacity from 180 KLPD to 245 KLPD to produce Ethanol using molasses or grains under EBP programme and increasing the capacity of captive power plant from 5.4 MW to 8.4 MW located at Village Hoolageri, Tehsil Badami, District Bagalkot, State Karnatakaby M/s. Karthik Agro Industries Private Limited – Consideration of Environmental Clearance

[IA/KA/IND2/282034/2022, J-11011/224/200/-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Samrakshan, NABET certificate no. NABET/EIA/1992/SA 0138 (Rev. 01) and validity 20th October 2022)made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of existing distillery unit from 180 KLPD to 245 KLPD distillery & co-generation power plant from 5.4 MW to 8.4 MW (biomass based) located at Village Hoolageri, Tehsil Badami, District Bagalkot, State Karnataka by M/s. Karthik Agro Industries Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16thJune, 2021, a special provision in the EIA Notification, 2006, Category B2) is made wherein expansion of molasses based distilleries & grain based distilleries to be used completely for Ethanol Blended Petrol (EBP) Programme only, as per self-certification in form of an affidavit by the Project Proponent, shall be appraised as category 'B2' projects.

The details of products and capacity as under:

S. No	Name of the unit	Name of the product/ by-product	Existing production capacity	Additional production capacity	Total production capacity
1	Distillery (molasses/ grain)	Ethanol/ENA/ RS	180 KLPD Ethanol/ENA/ RS	65 KLPD Ethanol	180 KLPD Ethanol/ENA/ RS and

					65 KLPD Ethanol
2	Co-generation power plant for distillery	Power	5.4 MW	3 MW	8.4 MW
3	DWGS dryer	DDGS	103 TPD	37 TPD	140 TPD
4	Fermentation unit	Carbon dioxide	74 TPD	30 TPD	104 TPD

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 180 KLPD vide File No. J-11011/224/2008-IA-II(I) dated 17/03/2022. Certified Compliance report of existing EC for 65 KLPD has been obtained from Integrated Regional Office, MoEFCC, Bangalore vide File no. EP/12.1/619/KAR/571 dated 07/09/2021 during the expansion proposal from 65 KLPD to 180 KLPD. Establishment work is under progress for 180 KLPD distillery. Since, the application is now made for grant of EC within six months of the previous EC, hence PP has submitted self certified six monthly compliance as per provisions of MOEFCC OM dated 08th June, 2022.

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

Total plant area after expansion will be 16.18 Hectares which is under possession of the company and converted to industrial use. No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area 6.4 Hectares i.e., 39.52 % of the total plant area has already been developed as greenbelt and the same will be maintained. The estimated project cost is Rs. 69.37 Crores. Capital cost of EMP would be Rs. 24.65 Crores and recurring cost for EMP would be Rs. 2.46 Crores per annum. Industry proposes to allocate Rs. 2.0 Crores towards extended EMP (Corporate Environment Responsibility). Total employment after expansion will be 253 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forest: Unnamed Reserve Forest is located adjacent to project site

in North direction. Water bodies: Ghataprabha river is flowing at a distance of 8 Km in North direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.52 µg/m³, 0.418 µg/m³ and 1.73 µg/m³ with respect to PM₁₀, SO₂ and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion of grain based distillery will be 1278 m³/day and molasses based distillery will be 1007 m³/day which will be met from Ghataprabha river. NOC has been granted by Department of Water Resource vide letter no. Ja. Sam. E. 47 NIN 2018 dated 07/09/2020.

Existing 180 KLPD molasses-based distillery effluent generation is 1721 m³/day and from grain-based distillery effluent generation is 1157 m³/day. Effluent comprising of MEE condensate, boiler blow down and cooling tower bleed, CO₂ scrubber reject and softener effluent is treated in Condensate Polishing Unit of capacity of 1000 m³/day. Total effluent generation after expansion from molasses-based distillery will be 1841 m³/day and grain-based distillery will be 1821 m³/day. Effluent comprising of MEE condensate, spent Leese (during the molasses as feed stock), Boiler blow down and cooling tower bleed, CO₂ scrubber reject and softener effluent will be treated in Condensate Polishing Unit of capacity 2000 m³/day (existing capacity 1000 m³/day and proposed additional capacity 1000 m³/day). The treated effluent will be recycled for cooling tower water makeup and for grain soaking/molasses dilution. In molasses-based operation, spent wash will be concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt as fuel in incineration boiler. In grain-based operation, raw stillage (1490 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. Domestic waste water is being/will be treated in STP of capacity 8 KLD. The plant is being/will be based on Zero Liquid discharge system and treated effluent/water is being/will not be discharged outside the factory premises.

Total power requirement of distillery after expansion will be 7 MW which will be sourced from existing 5.4 MW and proposed 3 MW co-generation power plant. Existing distillery has 16 TPH biomass fired boiler. 55 TPH biomass fired boiler will be installed for the grain based distillery. If the distillery operates on molasses as feedstock, an additional incineration boiler of 40

TPH will be installed and the existing 16 TPH boiler will be converted to incineration boiler to meet the steam requirement and dispose the concentrated spent wash. ESP with a common stack of height 52 m is installed with the existing and proposed boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. ESP with stack height 100 m will be installed with the proposed 40 TPH boiler for molasses based distillery operations. 1x 500 KVA DG set will be used as standby during power failure and stack height (3 m ARL) is provided as per CPCB norms to the DG set.

Details of process emissions generation and its management:

- ESP with a common stack of height 52 m is installed with the 16 TPH boiler for controlling particulate emissions within the statutory limit of 50 mg/Nm³. The proposed 55 TPH bagasse/rice husk boiler will have ESP as control device and connected to the existing 52 m stack, ESP with stack height 100 m will be installed with the proposed 40 TPH incineration boiler for molasses based distillery operations.
- Online Continuous Emission Monitoring System is being installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (104 TPD) generated during the fermentation process will be collected in installed bottling plant.

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

- Concentrated spent wash (247 m³/day) will be burnt in incineration boiler.
- DDGS (Distillery Dried Grain Solubles) (140 TPD) is being/will be sold as cattle feed.
- Boiler ash (139 TPD) will be given to farmers to be used as manure/sold to brick manufacturers.
- Used oil (0.2 Kilolitres per annum) is being/will be sold to authorized recyclers.
- CPU sludge (3 TPD) is being/will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the

proposed expanded capacity of 65 KLPD will be used for manufacturing fuel ethanol only.

During deliberations, EAC discussed the following issues:

- Clarification regarding existing and proposed boiler. PP has explained the same.
- MOU with brick manufacturers shall be submitted.
- Commitment that CER budget shall be spent before commissioning of the plant operations.
- 10% of total power requirement shall be sourced from solar energy.
- Revised greenbelt species shall be submitted. Additional greenbelt towards forest side in North.
- No coal shall be used as fuel. PP agreed the same.
- EMC head shall report directly to Head of Organization.
- Filter press shall be installed for sludge drying.

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

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

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 65 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). NOC from the Concerned Local authority for surface water supply shall be obtained before starting construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iv). Total fresh water requirement shall not exceed 4.0 KL/KL of ethanol production and will be met from Ghataprabha river. Prior permission

shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond having 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

- (v). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed in grain based operations and in molasses based operations, spent wash shall be concentrated and incinerated in boiler. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for makeup water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (vi). ESP/ bag house along with common stack 52m. Of adequate height shall be provided with the existing 16 TPH and proposed 55TPH to biomass fired boiler to control particulate emission within 50mg/Nm³ for biomass as fuel. ESP/ bag house along with stack 100m. of height shall be provided with the proposed 40 TPH Incineration boiler. Particulate matter emission from boilers shall be less than 30mg/Nm³. SO₂ and NO_x emissions from the Incineration boiler shall be less below than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- (vii). Boiler ash shall be supplied to brick manufacturers in covered trucks/given to farmers to be used as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. No coal shall be used as fuel in the boilers except for the 40 TPH incineration boiler. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (viii). Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and 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). CO₂ generated will be bottled and supplied to manufacturers of beverages /collected in proposed bottling plant.
- (x). PP shall allocate Rs. 50 lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in 6.4 Ha i.e. nearly 39.52% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map.

Greenbelt shall be developed before commissioning of the plant. Additional greenbelt shall be developed of 20 m width towards forest side in North.

- (xvi). PP proposed to allocate Rs. 2.0 Crores for Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking shall be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in

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

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

24th August, 2022 (Wednesday)

Agenda No. 1

Proposed 125 KLPD Grain based Ethanol Plant along with 3.0 MW Cogeneration Power Plant located at Plot No. SP1-2, RIICO Industrial Area, Village Guwadi & Majhari, Tehsil Shahabad, District Baran Rajasthan by M/s. Carya Chemicals & Fertilizers Private Limited- Consideration of Environmental Clearance

[IA/RJ/IND2/ 286307/2022, J-11011/232/2015-IA II (I)]

The Project Proponent and the accredited Consultant J.M. EnviroNet Pvt Ltd. (NABET certificate no. NABET/EIA/2023/RA 0186 and validity 07th February, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for proposed 125 KLPD Grain based Ethanol Plant along with 3.0 MW Cogeneration power plant (Biomass based) at Plot No. SP1-2, RIICO Industrial Area, Village Guwadi & Majhari, Tehsil Shahabad, District Baran Rajasthan by M/s. Carya Chemicals & Fertilizers Private Limited.

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

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/ by-product	Production capacity
1.	Grain based Distillery	Ethanol	125 KLPD
2.	Co-generation power plant	Power	3.0 MW
3.	DWGS dryer	DDGS	61 TPD
4.	Fermentation unit	Carbon di-oxide	96 TPD

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

Total land area required is 9.14 hectares. Greenbelt will be developed in total area of 3.05 hectares i.e., 33% of total project area. The estimated project cost is Rs. 160 Crores. Capital cost of EMP would be Rs. 25.0 Crores and recurring cost for EMP would be Rs. 2.5 Crores per annum. Industry proposes to allocate additional Rs. 2.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 150 persons as direct.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Reserve forest (RF)/ Protected forest (PF): Somera Bhoyal PF is at a distance of 1.0 km in East direction, Bhoyal RF is at a distance of 2.0 km in North direction, Nonera PF is at a distance of 4.0 km in SW direction, Jhirniya Pharedua PF is at a distance of 5.0 km in NE direction, Sarokra PF is at a distance of 6.0 km in SSE direction, Dabar PF is at a distance of 6.0 km in ESE direction, Sahroi PF is at a distance of 8.0 km in NW direction, Thana Kasba PF is at a distance of 8.0 km in ENE direction, Bichi PF is at a distance of 8.0 km in South direction, Harota PF is at a distance of 9.5 km in NW direction & Nauda Basai PF is at a distance of 9.5 km in North direction. Water bodies: Tilpasi Nadi is at a distance of 2.5 km in NNE direction, Kuno River is at a distance of 2.5 km in West direction, KaraiNadi is at a distance

of 3.5 km in South direction & Sarsa Nadi is at a distance of 7.0 km in NNW direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.50 µg/m³, 0.20 µg/m³, 0.75 µg/m³ and 0.87µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 700 m³/day which will be met from Kuno river Anicut. NOC has been obtained from Water Resource Department, Division Kota vide letter no. 3722 dated 04.04.2022. Effluent (Condensate/spent lees/blowdown etc.) of 689 m³/day will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 850 KLPD. Raw stillage (810 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 20 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 2.5 MW and will be met from proposed 3.0 MW Co-generation power plant. 27 TPH biomass fired boiler will be installed. ESP with a stack height of 45 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. One 500 kVA DG set will be used as standby during power failure and stack height (5 m) will be provided as per CPCB norms to the proposed DG set.

Details of Process emissions generation and its management:

- ESP with a stack height of 45 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (96 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors.

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

- DDGS (Distilled Dried Grains Stillage) (61 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (27 TPD) will be supplied to brick manufacturers in covered vehicles/ utilized for brick making in proposed in-house brick manufacturing plant.
- Used oil & grease (0.3 KL/annum) generated from plant machinery/gear boxes as hazardous waste will be sold out to the CPCB authorized recyclers.
- CPU sludge (0.85 TPD) and STP Sludge (10 kg/day) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 125 KLPD will be used for manufacturing fuel ethanol only.

Total land of 36.42 Hectares has been allotted to the company by RIICO (Rajasthan State Industrial Development & Investment Corporation Ltd.) out of which 9.14 hectares is kept for the installation of Grain based Ethanol Plant vide letter no. U(16)-3/15-16/2073 dated 02.07.2015 for establishment of industry. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- 10% of total power requirement shall be sourced from solar energy.
- Greenbelt shall be developed by December, 2023.
- Increase CER cost from Rs. 1.5 Crores to Rs. 2 Crores and submit revised CER plan. PP has submitted that Rs. 30 Lakhs shall be invested for developing greenbelt outside the plant premises.
- EMC head shall report directly to Head of Organization.
- Filter press shall be installed for sludge drying.
- Commitment that no trees will be cut.
- Undertaking that briquetting plant will be installed.
- Coal shall not be used as fuel as committed by PP.
- Distance of dam from project site for sourcing fresh water. Is approx. 4 km for which RIICO has already made provision.
- Prescribed standards of PM shall be 30 mg/Nm³ and 100 mg/Nm³ for NO_x and SO₂ emissions.
- PP shall ensure that risk hazard of storage tanks leakage/bursting should not go beyond plant premises. In case the same cannot be

ensured, then PP shall purchase additional land for the same.

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

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

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 125 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). NOC from Concerned Local authority shall be obtained for surface water supply before starting construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project.
- (v). Total fresh water requirement shall not exceed 4.0 KL/KL of ethanol production and will be met from Kuno river Anicut. Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond having 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be

treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

- (vii). ESP along with stack of 45 m height shall be provided to biomass/coal fired boiler to control particulate emission within 30mg/Nm³ for coal as fuel. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- (viii). Boiler ash shall be supplied to brick manufacturers in covered trucks/utilized for brick making in proposed in-house brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ generated will be bottled and supplied to manufacturers of beverages /collected in proposed bottling plant.
- (x). PP shall allocate Rs. 50 lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.

- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below
 - (a) Metering and control of quantities of active ingredients to minimize waste;
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in 3.05 Ha i.e. nearly 33.37% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed by December, 2023.
- (xvi). PP proposed to allocate Rs. 2.0 Crores for Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking shall be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. The industry shall strengthen and maintain the road connecting plant to the main road.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should

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

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

Agenda No. 2

Proposed 300 KLPD Grain based Ethanol Plant along with 7.0 MW Cogeneration Power Plant located at Village Dungaria, Tehsil Seoni, District Seoni, Madhya Pradesh by M/s. Hydrise Industries Private Limited – Consideration of Environmental Clearance

[IA/MP/IND2/287931/2022, IA-J-11011/305/2022-IA-II(I)]

The Project Proponent and the accredited Consultant J.M. EnviroNet Pvt Ltd. (NABET certificate no. NABET/EIA/2023/RA0186 and validity 07thFebruary, 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 300 KLPD Grain based Ethanol Plant along with 7.0 MW Co-generation power plant (Biomass based) located at Village Dungaria, Tehsil Seoni, District Seoni, Madhya Pradesh by M/s. Hydrise Industries Private Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/ by-product	Production capacity
1.	Grain based Distillery	Ethanol	300 KLPD
2.	Co-generation power plant	Power	7.0 MW
3.	DWGS dryer	DDGS	148 TPD
4.	Fermentation unit	Carbon di-oxide	230 TPD

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

Total land area required is 11.75 hectares. Greenbelt will be developed in total area of 3.88 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 330 Crores. Capital cost of EMP would be Rs. 33.0 Crores and recurring cost for EMP would be Rs. 3.0 Crores per annum. Industry proposes to allocate additional Rs. 3.5 Crores towards Extended EMP

(Corporate Environment Responsibility). Total Employment will be 200 persons as direct.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forests(RF)/ Protected forest(PF): Raghadei PF is at a distance of 0.8 Km in NNW direction, Chhiriya PF is at a distance of 3.0 Km in SW direction, Kariapahar RF is at a distance of 4.0 Km in NNW direction, Amargarh RF is at a distance of 4.5 Km in SSW direction, Kanjal PF is at a distance of 5.0 Km in NNW direction, Pipariya PF is at a distance of 6.0 Km in NNW direction, Khursipar PF is at a distance of 7.5 Km in South direction & Dungariya PF is at a distance of 8.5 Km in NNW direction); Water bodies: Chichband Tank is at a distance of 1.3 km in East direction, Bori Tank is at a distance of 7.0 Km in SE direction, Bubarria Tank is at a distance of 5.0 Km in WNW direction, Sagar Nadi is at a distance of 7.5 Km in North direction & GhevraNadi is at a distance of 6.5 Km in NE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.609 $\mu\text{g}/\text{m}^3$, 0.244 $\mu\text{g}/\text{m}^3$, 0.761 $\mu\text{g}/\text{m}^3$ and 0.914 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1635 m³/day which will be met from Chizband Dam. Application has been submitted to Water Resource Department, Seoni M.P. for surface water abstraction of 1800 m³/day from Chizband Dam vide letter no. 452B/Works/2019 dated 03.08.2022. Effluent (Process Condensate/DM Plant reject/CT blow down etc.) of 1615 m³/day will be treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 1950 KLPD. Raw stillage (1944 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 30 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 7.0 MW and will be met from proposed 7.0 MW co-generation power plant. 60 TPH biomass fired boiler will be installed. ESP with a stack height of 57 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 2

x 1500 kVA DG sets will be used as standby during power failure and stack height (9 m) will be provided as per CPCB norms to the proposed DG set.

Details of Process emissions generation and its management:

- ESP with a stack height of 57 meters will be installed for controlling the particulate matter emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (230 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors.

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

- DDGS (Distilled Dried Grains Stillage) (148 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (62 TPD) will be utilized for brick making in proposed in-house brick manufacturing unit.
- Used oil (0.5 Kilolitres per annum) generated from the plant machinery/ gear boxes as hazardous waste will be sold out to the CPCB authorized recycler.
- CPU sludge (1.95 TPD) and STP Sludge (15 kg/day) will be used as manure.

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

Total land of 11.75 Hectares is allotted to the company by M.P. Industrial Development Corporation Limited, Regional Office Jabalpur vide registration no. MP368082022A1720491 dated 15.07.2022 for establishment of industry. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Increase CER budget from Rs. 2.0 Crores to Rs. 3.5 Crores.
- 10% of total power requirement shall be sourced from solar power.
- Greenbelt of 20 m width shall be developed towards forest side.

- It was informed that prior NOC is required as a drain is passing adjacent to project site. However, committee desired that PP shall obtain NOC from State Irrigation Department for the same before start of construction activities and commitment that no effluent/treated water from the plant premises shall be discharged into the drain.
- Company shall install brick manufacturing plant inside plant premises.
- Filter press shall be installed for drying of sludge.
- EMC hierarchy where EMC head shall report directly to Head of Organisation.
- 15% coal as auxiliary fuel shall be used only.
- PP shall install air cooled condenser with the proposed boiler. PP has submitted that air cooled condenser will not be applicable to the project as per recommendation of supplier because in project back pressure steam turbine will be used where process steam is the main driver and power generation is incidental. Supporting document has been submitted.

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

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

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

made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 300 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). PP shall obtain NOC from State Irrigation Department for the drain adjacent to plant site before start of construction activities and commitment that no effluent/treated water from the plant premises shall be discharged into the drain.
- (iii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

- (iv). NOC from the Concerned Local authority for surface water supply shall be obtained before starting construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (v). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project.
- (vi). Total fresh water requirement shall not exceed 4.0 KL/KL of ethanol production and will be met from Chizband Dam. Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond having 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vii). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (viii). ESP/bag house alongwith stack of 57 m height shall be provided to biomass/coal fired boiler to control particulate emission within 30 mg/Nm³ for coal as fuel. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. 15% Coal shall only be used as auxiliary fuel. 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.
- (ix). Boiler ash shall be utilized for brick making in proposed in-house brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall

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

- (x). CO₂ generated will be bottled and supplied to manufacturers of beverages /collected in proposed bottling plant.
- (xi). PP shall allocate Rs. 50 lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xiii). The unit shall make 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. Filter press shall be installed for drying of sludge.
- (xv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xvi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed

before commissioning of the plant. Greenbelt of 20 m width shall be developed towards forest side on West side.

- (xvii). PP proposed to allocate Rs. 3.5 Crores for Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xviii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking shall be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xix). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xx). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xxi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

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

Agenda No. 3

Expansion of 300 KLPD (Molasses/ Grains) Distillery to 700 KLPD (Grains/ Cane Syrup) for Ethanol Production along with Electricity Generation From 13 to 30 MW, located at Village: Yadrav, Tal: Raibag, Dist: Belgaum, Karnataka State by M/s. Hermes Distillery Pvt. Ltd. (HDPL) – Consideration of Environmental Clearance

[IA/KA/IND2/282018/2022, J-11011/143/2014-IA-II (I)]

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET Certificate no. NABET/EIA/1821/RA 0135 and validity 04th October, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for Expansion of 300 KLPD (Molasses/ Grain) Distillery to 700 KLPD (Grains/ Cane Syrup) for Ethanol Production and co-generation power plant capacity from 13 MW to 30 MW located at Village Yadrav, Tehsil Raibag, District Belgaum, State Karnataka by M/s. Hermes Distillery Pvt. Ltd.

As per the MoEFCC Notification S.O. No. 2339 (E) dated 16th June, 2021, a special provision in the EIA Notification, 2006 –(Schedule5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with ZLD producing Ethanol or expansion of distilleries (Cane Syrup) having prior EC for existing unit 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 Centre 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:

Sr. No.	Name of Unit	Products & By Products	Capacity (KLPD)		
			Existing	Expansion	Total
1.	Distillery	Molasses based (RS/ENA/Ethanol)	100 KLPD	--	100 KLPD
		Grain based (RS/ENA/Ethanol)	100 KLPD	--	100 KLPD
		Molasses/ Grain based (RS/ENA/Ethanol)	100 KLPD	--	100 KLPD
		Grain based (Ethanol)	--	400 KLPD	400 KLPD
		Cane Syrup based (Ethanol)	--	700 KLPD	700 KLPD
2.	Co-generation power plant	Power	13 MW	17 MW	30 MW
3.	Fermentation Unit	Carbon di-oxide	215 TPD	315 TPD	530 TPD
4.	DWGS Dryer	DDGS	160 TPD	320 TPD	480 TPD

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 100 KLPD Molasses based Distillery along with 13 MW co-generation power plant vide File No. J-11011/143/2014-IA-II (I) dated 31.01.2017 & for Expansion from 100 KLPD to 300 KLPD Molasses/Grains based Distillery vide File No. J-11011/143/2014-IA-II (I) dated 26.02.2019 & Amendment in EC for Expansion of 100 KLPD to 300 KLPD Distillery dated 19.05.2021 & dated 27.06.2022. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Bangalore vide File No-EP/12.1/4/2014-15/KAR dated 11.05.2022. Action taken report submitted along with undertaking for compliance which is mentioned in IRO report dated 11.05.2022.

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

Total plant area after expansion will be 15.61 Ha (existing plant area 8.12 Ha and additional land 7.49 Ha. for proposed capacity) which is under possession of the company and converted to industrial use. Out of the total plant area, 5.15 Ha. i.e. 33% of total plant area will be under green belt. Out of total Green Belt area, 2.7 Ha area of land is already under green belt which is 17% of TPA and 2.4 Ha of area which is 16 % of TPA will be developed under expansion. The estimated project cost is Rs 450 Crores. Capital cost of EMP would be Rs. 19.50 Crores and recurring cost for EMP would be Rs. 6.4 Crores per annum. Industry proposes to allocate Rs. 3.55 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 280 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve Forest is 0.65 Km from the project site. Water bodies: River Krishna is at a distance of 4.5 Km from site flows in North West to North East direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $2.45 \mu\text{g}/\text{M}^3$, $0.613 \mu\text{g}/\text{M}^3$, $13.4 \mu\text{g}/\text{M}^3$ and $2.60 \mu\text{g}/\text{M}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion of distillery will be 2191 M^3 /day which will be met from Krishna River. NOC has been obtained from Irrigation Division, Govt. of Karnataka vide letter no. KA/1140/2016-17/4219 dated 27.12.2016. Application for renewal of agreement submitted on 17.02.2021. Other Existing effluent generation is 1880 M^3 /day from Molasses and Grains based distillery which is treated through Condensate Polishing Unit (capacity 2000 M^3 /day). Proposed total effluent generation from the distillery will be 3009 M^3 /day which will be treated through proposed Condensate Polishing Unit (capacity 1500 M^3 /day). In molasses/ Cane Syrup based operation, spent wash generated from the analyser column during distillation will be concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt in incineration boiler. In grain distillery raw stillage ($2058 \text{ MT}/\text{day}$) will be sent to decanter followed by MEE and dryer to produce DDGS. Domestic waste water will be treated in STP (Capacity of STP in 25 KLD). The plant is being based on Zero Liquid

discharge system and treated effluent/water is not to be discharged outside the factory premises.

Total power requirement of distillery after expansion will be 16.5 MW which will be sourced from 30 MW co-generation power plant in distillery. Existing distillery has 35 TPH Spentwash + Coal fired boiler, 36 TPH Bagasse based Boiler, 39 TPH Spent wash + Coal /Bagasse fired boiler (Yet to be implemented). Under expansion additional 110 TPH Coal / Bagasse fired boiler will be installed in distillery. ESPs with stack height of 72 m, 62 m, 50 m is installed for existing boilers. For proposed boiler (110 TPH); ESP with a stack of height of 90 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Industry has existing 1x 750 KVA DG set & proposed 1x 750 KVA DG set will be used as standby during power failure and stack height (6 M each) are provided as per CPCB norms to the DG sets.

Details of Process emissions generation and its management:

- ESPs with stack height of 72 m, 62 m, 50 m is installed for existing boilers in distillery. For proposed boiler (110 TPH); ESP with a stack of height of 90 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.
- Online Continuous Emission Monitoring System is installed with the stack and data transmitted to CPCB/SPCB servers.
- CO₂ (530 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors/collected in installed bottling plant.

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

- Concentrated spent wash (421 m³/day) will be burnt in incineration boiler.
- DDGS 480 TPD will be sold as cattle feed
- Boiler ash (300 TPD) from boiler after expansion will be used for brick manufacturing/ will be given to reprocessor for recovery of potash and shall also utilize bagasse ash as fertilizer.

- Used oil (1.0 MT/A) & Contaminated Cotton Waste (0.5 MT/A) will be forwarded to authorized reprocessed. Empty Containers (200 Nos./A) will be forwarded to authorized re-seller.
- CPU sludge (5 MT/D) and Yeast Sludge (125 MT/D) will be burnt in Incineration Boiler.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of 400 KLPD based on grains/ 700 KLPD Cane Syrup will be used for manufacturing fuel ethanol only.

During deliberations, EAC noted that land documents for additional land were not complete and registered ownership of additional land with Revenue Department is not with the PP as reported. **EAC also advised that the same should not be repeated in future as such activities are treated as concealment of facts.** EAC suggested to submit valid land ownership documents for further consideration.

Accordingly, proposal was returned in present form.

Agenda No. 4

Proposed a Grain based 210 KLD Ethanol production plant with ZLD along with 5.0 MW Captive Power Plant under Ethanol Blended Petrol Programme of the Government of India, located at Khasra no 1413, 1360/1, 1360/2, 1385/1, 1385/2, 1360/3, 1411/1, 1386, 1387, 1396, 1397, 1398, 1399, 1400, 1403, 1405, 1406, 1412, 1358/1, 1358/2, 1395/1, 1395/2, 1401/1, 1401/2, 1402/2, 1404/2, 1404/4, 1411/2 & 1411/3 in Village Ranka, Tehsil- Berla, District-Bemetara, Chhattisgarh by M/s. Suyash Biofuels Industries Private Limited – Consideration of Environmental Clearance

[IA/CG/IND2/284357/2022, IA-J-11011/270/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Gaurang Environmental Solutions Pvt. Ltd. (NABET certificate no. NABET/ EIA/ 2023/ RA0192 (Rev 01) and validity 19th January, 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 210 KLPD grain

based ethanol plant & 5.0 MW co-generation power plant (Biomass /Coal) located at Village Ranka, Tehsil Berla, District Bemetara, State Chhattisgarh by M/s. Suyash Biofuels Industries Private Limited

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1.	Distillery (Grain based)	Ethanol	210 KLD
2.	Co-generation power plant	Power	5.0 MW
3.	DWGS dryer	DDGS	100 TPD
4.	Fermentation unit	Carbon di-oxide	150 TPD

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

Total land area required is 5.25 hectares. Greenbelt will be developed in total area of 1.7325 hectares i.e., 33% of total project area. The estimated project cost is Rs. 192.0 Crores. Capital cost of EMP would be Rs. 33.4 Crores and recurring cost for EMP would be Rs.1.2 Crores per annum. Industry proposes to allocate Rs. 2.88 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 250 persons as direct.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Bailari Reserve forest is at a distance of 12.3 km in ESE direction. NBWL application is not applicable. Water bodies: Seonath River is at a distance of 1.7 KM Km

in WNW direction, Sarar Nala 2.8 KM West, Jai Nala 6.8 Km NNE, Gadaria Nala 7.5 KM ESE, Kotri Nala, 7.8 KM East, Kharun River, 8.4 KM SE, Deorani Jethani Nala, 10.5 KM SSE, Mahannadi Main Canal 10.9 KM SSE, Karua Nala, 10.9 KM WNW & Tendula Canal, 11.1 KM SW. Seonath River is at a distance of 1.7 KM Km in WNW direction for which NOC is under process with Govt. of Chattisgarh.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 88.63421 $\mu\text{g}/\text{m}^3$, 45.14826 $\mu\text{g}/\text{m}^3$, 10.26133 $\mu\text{g}/\text{m}^3$ and 23.54547 $\mu\text{g}/\text{m}^3$ with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 935.5 m³/day which will be met from Surface water body: Ranka- Buddhajong Anicut. NOC has been received from SIPB - Directorate of Industries, Chhattisgarh vide letter no 1115/SIPB/2021/162 dated 04.01.2022. Effluent (Condensate/spent lees/blowdown etc.) of 229 m³/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 260 KLPD. Raw stillage (approx. 1102 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 20 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 4.2 MW and will be met from proposed 5.0 MW cogeneration power plant. 60 TPH biomass (rice husk etc)/coal fired boiler will be installed. APCE like ESP (Electro-Static Precipitator) with a stack height of 66 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boiler. 1000 KVA x 2 Nos- DG set will be used as standby during power failure and stack height (30 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP with a stack height of 66 m will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (150 TPD) generated during the fermentation process will be

collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage (100 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (46 TPD) will be utilized in brick making in proposed brick manufacturing plant within premises/adjacent to premises.
- Used/Spent oil (0.4 KL/Annum) will be sold to CPCB authorized recyclers.
- ETP sludge (0.13 TPD)& STP sludge (2 kg/day) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 210 KLPD will be used for manufacturing fuel ethanol only.

Total land of 5.25 Hectares is under possession of the company and land use conversion application has been submitted to Court of sub-divisional officer, (Raipur), Berla, District-Bemetara Chattisgarh dated 30.06.2022 & 22.07.2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Village road/approach road to plant site shall be maintained which is connecting to NH-30.
- CLU certificate shall be obtained before start of construction activities.
- NOC for fresh water withdrawal shall be obtained before start of construction activities.
- Rain water storage provision for 60 days shall be made.
- Brick manufacturing plant shall be installed within premises/land adjacent to premises.
- NOx emission values are almost same in case of coal and rice husk. Conformation of stack height shall be submitted. Distance of incremental increase in 160 m as informed by PP. Additional measures shall be submitted for controlling PM emissions. PP has submitted the same.
- Emission norms shall be 30 mg/Nm³ for coal as fuel, 100 mg/Nm³

- and 100 mg/Nm³ for PM, SO₂ and NO_x respectively.
- PP informed that the proposed site is not located within CPA of Raipur.
- CER budget shall be spent before commissioning of plant and activities like school upgradation of nearby two schools, solar power installation, road maintenance also etc.
- OHS budget shall be increased from Rs. 5 Lakhs to Rs. 50 Lakhs.
- EMC hierarchy where EMC head shall report to Head of Organization and industry shall comply with Environment Policy also.

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

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

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

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 210 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). NOC from the Concerned Local authority for surface water supply shall be obtained before starting construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (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. CLU certificate shall be obtained before start of construction activities.

- (v). Total fresh water requirement shall not exceed 4.0 KL/KL of ethanol production and will be met from Ranka- Buddhajong Anicut. Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond having 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (vii). ESP/bag house along with adequate stack height (66 m) shall be provided to biomass/coal fired boiler to control particulate emission within 30 mg/Nm³ for coal as fuel. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- (viii). Boiler ash shall be utilized in brick making in proposed brick manufacturing plant within premises/adjacent to premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ generated will be bottled and supplied to manufacturers of beverages /collected in proposed bottling plant.
- (x). PP shall allocate Rs. 50 lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in 1.75 Ha i.e. nearly 33.33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.
- (xvi). PP proposed to allocate Rs. 2.88 Crores for Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for

parking of vehicles for raw materials and finished products and no parking shall be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road/approach road to plant site shall be maintained which is connecting to NH-30.

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

Agenda No. 5

Proposed expansion of Distillery unit from 140 KLPD to 500 KLPD to produce 500 KLPD Ethanol using sugarcane syrup during sugarcane crushing season and to produce 220 KLPD Ethanol using B heavy molasses during non-crushing season and expansion of captive power plant from 4.5 MW to 14.5 MW under EBP programme located at Siddapur Village, Jamakhandi Taluk, Bagalkot District, Karnataka by M/s. Siddapur Distilleries Limited– Consideration of Environmental Clearance

[IA/KA/IND2/282816/2022,J-11011/10/2017-IA-II(I)]

The Project Proponent and the accredited Consultant M/s.Samrakshan (NABETcertificate no. NABET/EIA/1992/SA 0138 (Rev. 01) and validity 20th October 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of Distillery unit from 140 KLPD to 500 KLPD to produce 500 KLPD Ethanol using sugarcane syrup during sugarcane crushing season and to produce 220 KLPD Ethanol using B heavy molasses during non-crushing season and expansion of co-generation power plant from 4.5 MW to 14.5 MW located at Village Siddapur, Tehsil Jamakhandi, District Bagalkot, State Karnataka byM/s. Siddapur Distilleries Limited.

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

The details of products and capacity as under:

Sl. No.	Name of unit	Name of the product/by-product	Existing Production capacity	Additional production capacity	Total production capacity
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1	a	Distillery (C-Heavy Molasses) Old plant in operation	ENA	70 KLPD	-	70 KLPD
	b	Distillery (B-Heavy Molasses)	Rectified Spirit/Ethanol	(70 old +70 new =140) KLPD	-	140 KLPD/130 KLPD
	c	Distillery (sugarcane syrup during sugarcane crushing season) From existing plant 140 (70+70) KLPD Ethanol and 360 KLPD from proposed new distillery unit	Ethanol	140 KLPD	360 KLPD	500 KLPD
	d	Distillery (B heavy Molasses) during non-crushing season	Ethanol	140 KLPD	-	220 KLPD
2	a	Co-generation power plant	Power	4.5 MW	10 MW	14.5 MW
	b	Bio-gas based power plant	Power	2 MW	-	2 MW
3		Carbon di- oxide plant	Carbon di- oxide	90 TPD	120 TPD	210 TPD
4		MEE plant	MEE condensate	1500 KL	500 KL	2000 KL

Ministry has issued Environmental Clearance to the existing distillery vide no F. No. J-11011/10/2017-IA-II(I) dated 30.03.2021 under EBP for expansion of the distillery from 70 KLPD to 140 KLPD capacity to manufacture Ethanol with B/C – Heavy molasses as feedstock and to co-generation power plant of 4.5 MW. Later Environmental Clearance was

granted by MoEFCC vide EC no. IA-J11011/10/2017-IA-II(I) dated 11.04.2022 for Expansion of Distillery plant from 140 KLPD to 220 KLPD RS to produce 210 KLPD Ethanol using multi feed stocks. This expansion is not yet installed. Certified Compliance report of existing 140 KLPD EC has been obtained from Integrated Regional Office, MoEF&CC, Bangalore vide File no- EP/12.1/04/2018-19/KAR/1442 dated 23/02/2022.

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

Total plant area after expansion will be 30.75Ha, which is under possession of the company and converted to industrial use. No additional land will be acquired for the expansion project as the same will be done within existing plant premises. 10.32 Hectares i.e. 33.5 % of the total plant area has already been developed as greenbelt & plantation and the same will be maintained. The estimated project cost is Rs. 175 Crores. Capital cost of EMP would be Rs. 94.42 Crores and recurring cost for EMP would be Rs. 3.04 Crores per annum. Industry proposes to allocate Rs.1.77 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 368 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridor etc. within 10 km distance. Reserve forests/protected forests: Siddapur Reserve Forest is at a distance of 100 m in South direction, Hulyal Reserve Forest is at a distance of 3 Km in North East direction, Jamkhandi Reserve Forest is at a distance of 6 Km in North direction, Mantur Reserve Forest is at a distance of 7 Km in South East direction and Banahatti Reserve Forest is at a distance of 5.2 Km in North West direction. Waterbodies: KattiKere is at a distance of 6 km in North direction, Jamakhandi Kere is at a distance of 7 Km in North direction.

AAQ modelling study for point sources emissions indicates that the maximum incremental GLCs after the proposed project would be 8.07 $\mu\text{g}/\text{m}^3$, 1.37 $\mu\text{g}/\text{m}^3$ and 2.20 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, SO₂ and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 1137m³/day, which will be met from Krishna River for which withdrawal permission has been obtained from Krishna Bhagya Jala Nigam Limited vide letter No. 5554 dated 31/01/2014.

Existing effluent generation is 922 m³/day which is treated in Condensate Polishing Unit. Spent wash is treated in CSTR bio-digester of 850 KL capacity and later sent to MEE plant of 1500 KL capacity, biogas generated from the bio-digester is used as supplementary fuel in incinerator, concentrated spent wash is used as a fuel in incineration boiler. Spent lees is treated by physico-chemical treatment and recycled for molasses dilution and cooling tower makeup. Condensate from MEE is treated in stripper column and reused for cooling tower makeup/molasses dilution, boiler blowdown and cooling tower bleed is used in ash quenching and dust suppression. Domestic sewage of 3.4 KLD is treated in septic tank and soak pit. Proposed effluent generation will be 2372 m³/day from distillery which will be treated through proposed Condensate Polishing Unit of capacity 2500m³/day. In molasses-based operation, spent wash generated from the analyzer column during distillation will be bio-methanated and concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt in incineration boiler/concentrated spent wash will be converted into potash powder form by spray dryer technology/ concentrated spent wash will be used for bio-composting for organic manure preparation and organic manure will be sold to farmers in packed form. Domestic waste water will be treated in proposed Sewage Treatment Plant. The plant will be based on Zero Liquid Discharge (ZLD) system and treated effluent/water will not be discharged outside the factory premises.

Total power requirement of distillery after expansion will be 7.95 MW which will be sourced from existing 4.5 MW co-generation power plant, 2 MW Bio gas generation set and proposed 10.0 MW co-generation power plant. It is proposed to enhance existing co-generation power plant from 4.5 MW to 14.5 MW. Existing distillery has 25 TPH slop/biogas/biomass fired incineration boiler and 12 TPH biogas fired waste heat recovery boiler. 55 TPH bagasse fired conventional boiler and 10 TPH BMSW drier will be installed in distillery. ESP with a stack height of 50 m is installed with the existing 25 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ and ESP with a stack of height of 54 m will be installed with proposed 55 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. 1x1000 KVA DG set

with stack height (31m AGL) is provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP with a stack of height of 50 m is installed with the existing 25 TPH boiler and ESP with a stack of height of 54 m will be installed with proposed 55 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data. will be transmitted to CPCB/SPCB servers.
- CO₂ (210 TPD) generated during the fermentation process is being/will be collected by utilizing CO₂ scrubbers and bottled / made into solid ice and sold to authorized vendors/collected in proposed bottling plant.

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

- Concentrated spent wash (208 m³/day) will be burnt in incineration boiler.
- Boiler Fly ash (47.4 TPD) and bottom ash (18.1 TPD) is being/will be sold to brick manufacturers in covered trucks.
- Potash powder (92 TPD) is being/will be given to farmers to be used as manure.
- Yeast sludge (141 TPD) is mixed with the Press Mud and converted into organic manure/dried and sold to the brick manufacturer.
- Used oil (0.3 Kiloliters per annum) is being/will be sold to authorized recyclers.

As per Notification S.O2339(E) dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the expanded capacity from 140 KLPD to 500 KLPD to produce 500 KLPD from sugarcane syrup during sugarcane crushing season and to produce 220 KLPD from B heavy molasses during non-crushing season will be used for manufacturing fuel ethanol only.

During deliberations, EAC noted that PP has not complied and started construction of earlier EC which was granted vide EC no. IA-J11011/10/2017-IA-II(I) dated 11.04.2022 for Expansion of Distillery plant

from 140 KLPD to 220 KLPD. However, PP want to do further expansion without implementing the EC dated 11.04.2022. Therefore, EAC desired that first PP shall surrender earlier EC and then apply afresh for expansion from 140 KLPD to 500 KLPD under Ethanol Blending Programme.

Accordingly, proposal was returned in present form.

Agenda No. 6

Proposed establishment of Grain based Ethanol Distillery of capacity 190 KLD along with Co gen power plant – 4.0 MW located at Plot No. 803(P), 803/881, 208/805 (P), 234/1055 Village: Talajaring, Tehsil & Block: Junagarh, District: Kalahandi, Odisha by M/s. Indian Potash Limited –Consideration of Environmental Clearance

[IA/OR/IND2/286494/2022, IA-J-11011/286/2022-IA-II(I)

The project proponent and the accredited Consultant M/s. Environmental and Technical Research Centre (NABET certificate no.NABET/EIA/1922/IA0050 and validity 01stNovember, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 190 KLPD grain based ethanol Plant & 4.0 MW co-generation power plant (biomass based) located at Plot no. 803(P), 803/881, 208/805 (P), 234/1055, Village Talajaring, Block & Tehsil Junagarh, District Kalahandi, State Odishaby M/s.Indian Potash Limited.

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

The details of products and capacity as under:

S.No	Name of unit	Name of the product / by	Production
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		-product	capacity
1.	Distillery	Ethanol	190 KLD
2.	Co-generation power plant	Power	4.0 MW
3.	DWGS dryer	DDGS	90 TPD
4.	Fermentation unit	Carbon di-oxide	133 TPD

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

Total land area required is 15.37 Ha. Greenbelt will be developed in total area of 5.1 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 219 Crores. Capital cost of EMP would be Rs.32.80 Crores and recurring cost for EMP would be Rs. 3.10 Crores per annum. Industry proposes to allocate Rs. 2.46 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 125 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance. Karlapat wildlife sanctuary is at 11.76 km in south direction. Reserve Forest/Protected Forest: Pariagarh Reserve forest at distance of 0.45 km in west direction. Water bodies: Hati River is at a distance of 6.25 Km in North West direction. Canal is at 10 m for which NOC has been obtained from Office of the Chief Construction Engineer, Upper Indravati Project, Mukhiguda, Kalahandi, Odisha stating that no record of flood in IDCO MSME park in the last 25 years have been recorded, hence they have no objection for the upcoming plant.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.87 $\mu\text{g}/\text{m}^3$, 0.52 $\mu\text{g}/\text{m}^3$, 0.62 $\mu\text{g}/\text{m}^3$ and 0.94 $\mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 954 m^3/day , which will be met from surface water. NOC / permission letter (GM/SLNA/IPL/369/21 Dated 06/12/2021) has been granted by Industrial Promotion & Investment Corporation of Odisha Limited (IPICOL). Effluent (Condensate/spent lees/blowdown etc.) of 993 m^3/day quantity will be treated through

Condensate Polishing Unit /Effluent Treatment Plant of capacity 1000 m³/day. Raw stillage (1235 m³/day) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 20 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3.8 MW and will be met from proposed 4.0 MW co-generation power plant. 40 TPH biomass fired boiler will be installed. ESP with a stack height of 70 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 1000 kVA DG set will be used as standby during power failure and stack height (6.3 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- Electrostatic Precipitator with a stack height of 70 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (133 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (90 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (6.17 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (1.25 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (1.9 TPD) and STP Sludge (0.2 TPD) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 190 KLPD will be used for manufacturing fuel ethanol only.

Total land of 15.378 Hectares (38 Acre) is under possession of the company and land use of proposed land is already converted to industrial. Land has been allotted by Odisha Industrial Infrastructure Development Corporation (IDCO) vide letter no. IDCO/HO/P&A-LA-E-8275/2021-22/4288 dated 04.06.2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Irrigation canal is adjacent to the boundary at 10 m distance. NOC has been obtained from concerned authority. PP shall submit the same.
- Coal shall not be permitted as fuel as committed by PP.
- Commitment that CER budget shall be utilized before commissioning of the plant.
- EMC head shall directly report to Executive Director.
- Additional greenbelt of 20 m width shall be developed towards Reserve forest side in West.
- Filter press shall be installed for drying of sludge.
- Approach road to national highway shall be maintained.

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

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

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

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 190 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). PP shall ensure that irrigation canal shall be maintained and no treated effluent/waste water shall be discharged in the canal.
- (iii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iv). NOC from Concerned Local authority for surface water supply shall be obtained before starting construction of plant, State Pollution Control

Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

- (v). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. CLU certificate shall be obtained before start of construction activities.
- (vi). Total fresh water requirement shall not exceed 4.0 KL/KL of ethanol production and will be met from surface water. Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond having 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vii). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (viii). ESP alongwith stack of 70 m height shall be provided to 40 TPH biomass fired boiler to control particulate emission within 50mg/Nm³ for biomass as fuel. 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.
- (ix). Boiler ash will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Coal shall not be permitted as fuel. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

- (x). CO₂ generated will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.
- (xi). PP shall allocate Rs. 50 lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xiii). The unit shall make 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. Filter press shall be installed for drying of sludge.
- (xv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xvi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Additional greenbelt of 20 m width shall be developed towards Reserve forest side in West.

- (xvii). PP proposed to allocate Rs. 2.46 Crores for Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xviii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking shall be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Approach road to national highway shall be maintained.
- (xix). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xx). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xxi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring

functions. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

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

Agenda No. 7

Establishment of 150 KLPD Grain Based Ethanol Plant under Ethanol Blended Petrol (EBP) Programme located at Village Chelluru, Tehsil Rayavaram, District Konaseema (Formerly East Godavari), State Andhra Pradesh by M/s. Sri Sarvaraya Sugars Limited - Consideration of Environmental Clearance

[IA/AP/IND2/287453/2022, IA-J-11011/298/2022-IA-II(I)]

The Project Proponent and the accredited Consultant SV Enviro Labs & Consultants (NABET certificate no. NABET/EIA/2124/RA0240 and validity 24th October, 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 150 KLPD Grain based Ethanol Plant & 15 MW (Existing) Co-generation power plant (coal/biomass) located at Village Chelluru, Tehsil Rayavaram, District Konaseema (Formerly East Godavari), State Andhra Pradesh by M/s. Sri Sarvaraya Sugars Limited.

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

The details of products and capacity as under:

S. No.	Name of the unit	Name of the product/ by-product	Production Capacity
1.	Grain Based Distillery	Ethanol	150 KLPD
2.	Co-generation power plant	Power	15 MW (Existing) Requirement – 4.5 MW
3.	DWGS Drier	DDGS	73.0 TPD
4.	Fermentation Unit	Carbon di-oxide	60.0 TPD

Standard ToR and Public Hearing is not applicable as the project falls under category B2as per OM dated 16th June, 2021. It was informed that no litigation is pending against the proposal.

Total land area required is 8.093 hectares. Greenbelt will be developed in total area of 2.67 hectares i.e., 33 % of total project area. The estimated project cost is Rs.175 Crores. Capital cost of EMP would be Rs. 15.88 Crores and recurring cost for EMP would be Rs. 2.0 Crores per annum. Industry proposes to allocate Rs. 2.65 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 120 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km radius from project site. Water bodies: Mandapeta Canal is at a distance of 1.25 Km in NE direction.

Total water requirement will be 2550 m³/day (Fresh Water – 674 m³/day & Recycled Water – 1876 m³/day) which will be met from Ground Water. NOC has been obtained by M/s. Sarvaraya Sugars Limited from APWALTA, Tadepalli Guntur District Andhra Pradesh vide letter no. PRR05-11028/22/2018-SLNA-GIS-CORD dated 20.11.2020. Effluent (Condensate/spent lees/blow down etc.) of 1114 m³/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 1200 KLPD. Raw stillage (863 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 10 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 4.5 MW and will be met from Existing 15 MW co-generation power plant. 70 TPH (biomass/coal) fired boiler is already installed. ESP with a stack height of 60 m is installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the existing boiler. An existing 1 x 500 kVA DG set will be used as standby during power failure and stack height (7 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- Electro Static Precipitator with a stack 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.
- CO₂ (60 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant

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

- DDGS (Distilled Dried Grains Stillage) (73.0 TPD) will be sold as cattle feed / fish feed /Prawn feed.
- Boiler ash (31.0 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.
- The CPU & STP sludge or rejects will be used for Ash Quenching or returned back to MEE for further treatment.
- Used oil (1.0 Kilolitres per annum) will be sold to authorized recyclers.

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

Total land of 20.0 Hectares (Proposed) is under possession of the company since 1958 and was certified by Panchyati Secretary Chelluru, Rayavaram

Mandal vide letter no. 2250 dated 26.06.2021 stating the survey numbers in which Sarvaraya Sugars Limited establishments situated are being used for non-agriculture purpose only.

During deliberations, PP informed that the Sugar Plant was first set up in the year 1956 at Chelluru, East Godavari District with an initial sugar cane crushing capacity of 800 TCD. The sugar went into production during 1959 – 60 sugar season. The crushing capacity has been increased in stages to 5000 TCD. During the year 1963 – 64 Industrial alcohol plant went into production. Later in the year 2003 – 04 expansion of distillery unit from 22.5 KLPD to 52.5 KLPD vide Order No. J-11011/128 /2003-IA II (I) Dt: 22.03.2004 was obtained for manufacture of ENA and Ethanol from Molasses. The existing sugar mill & molasses based distillery unit is operating on the basis of CFO vide order No. APPCB/ VSP/RJY/319/HO/CFO/2014 – 164 Dt: 27.10.2014 for a production of Rectified Spirit 52.5 KLPD, Power Generation of 15 MW and Sugarcane Crushing Capacity of 5000 TCD and CFO renewal obtained vide order no. APPCB/ VSP/RJY/319/HO/CFO/2014 – 164 Dt: 24.10.2016 valid up to 31.12.2021. In the recent years due to non-availability of improved varieties of sugar cane, land preparation, high cost of inputs etc., the production of sugar cane was decreased. Due to the COVID – 19 and other reasons the production was further decreased. From the past 2 years the sugar industry is in non – operation mode and procuring molasses from outside for production of ENA & Ethanol. Later CFO obtained vide Consent Order No. APPCB/VSP/RJY/HO/CFO/2021 Dt: 16.11.2021 for only Distillery Unit with a production capacity of Rectified Spirit 52.5 KLPD and Power Generation 15 MW.

As per the latest OM, PP has to submit certified compliance report from IRO/SPCB for the existing distillery unit as proposed project is interlinked with the integrated project of sugar and distillery in which proposed project will be established after demolition of sugar unit. Therefore, the committee desired to submit certified compliance report from IRO/SPCB for the existing distillery unit.

Accordingly, proposal was returned in present form.

Agenda No. 8

Proposed Drilling of Development Wells in AA/ONDSF/Disaijan/2018 Block (Kordoiguri) located in Doom Dooma Revenue Circle, Dist:

**Tinsukia, Assam by M/s. Invenire Energy Pvt. Ltd (IEPL)-
Consideration of Environmental Clearance**

[IA/AS/IND2/191486/2021, IA-J-11011/7/2021-IA-II(I)]

The Project Proponent and the accredited Consultant ABC Technolabs India Pvt. Ltd. (NABET Certificate No. NABET/EIA/1922/RA0155 and validity 07th November 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project Proposed Drilling of Development Wells in AA/ONDSF/Disaijan/2018 Block (Kordoiguri) located at Village Keseruguri, Darjijan, TehsilKordoiguriDoom Dooma, District Tinsukia, State Assam by M/s. Invenire Energy Pvt. Ltd (IEPL).

All Offshore and onshore oil and gas exploration, development & production are listed at S.N. 1(b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

S.No.	Unit	Total Quantity
1	Drilling of developmental Wells	5 No.s
2	Quick Production Facility (QPF)	2000 BOPD

Co-ordinates of proposed wells:

Block	Well	Lat	Long	Village Name
Disaijan/	KESERUGURI-1 (KSG-1)	27°38'40.91"N	95°27'21.24"E	Keseruguri Gaon
	KESERUGURI-2 (KSG-2)	27°38'22.3947"N	95°28'0.3513"E	Keseruguri Gaon
	DARJIJAN-1 (DRJ-1)	27°38'15.7938"N	95°27'2.4588"E	Darjijan Gaon No.2
AA/ONDSF/ 2018 Block	KORDOIGURI-1 (KRD-1)	27°39'2.09"N	95°28'3.1497"E	Kordoiguri No. 3
	KORDOIGURI-2 (KRD-2)	27°39'25.4906"N	95°28'46.0436"E	Kordoiguri No. 3

Standard Terms of References (ToRs) have been obtained vide File No. IA-J-11011/7/2021-IA-II(I) dated 13th January 2021. It was informed that no litigation is pending against the proposal.

Public Hearing for the proposed project had been conducted by the Assam Pollution Control Board on 23rd March, 2022 at Kordoiguri High School field, Tinsukia District chaired by Additional Deputy Commissioner of Tinsukia District, Assam. The main issues raised during the public hearing and their action plan:

Regarding employment for local people, PP informed that local people will be given preference.

Regarding fund requirement for social development, IEPL has earmarked Rs. 1.44 Crore for various social development under CER.

Regarding Pollution control for various drilling activities and accident prevention, IEPL has earmarked funds for Environmental management plan and safety i.e. Rs. 1.25 Crore as capital cost and Rs. 0.4225 Crore as recurring cost per annum.

Regarding preservation of Biodiversity/wildlife, IEPL has earmarked Rs. 5 Lakhs for biodiversity/wildlife conservation.

Total land area required is 15 hectares. Greenbelt will be developed in total area of 4.95 hectares i.e., 33% of total project area (Total for 5 no.s of well locations). The estimated project cost is Rs. 72Crores. Capital cost of EMP would be Rs. 1.25 Crores and recurring cost for EMP would be Rs. 0.4225 Crores per annum. Industry proposes to allocate Rs. 1.44 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 50 persons as direct & indirect.

PP reported that Dibru-Saikhowa National Park is at a distance of 1.57 Km in North West direction from project site (nearest well KORDOIGURI-2 (KRD-2). ESZ for same is finalized vide Notification No. S.O.460(E) dated 28th January 2020. The Eco-sensitive Zone is spread over an area of 658.251 square kilometres with an extent varying from 0 kilometres to 8.7 kilometres around the boundary of Dibru-Saikhowa National Park. The project site is located 1.57 Km from notified ESZ. Conservation plan for schedule I species has been submitted to Principal Chief Conservator of Forest & Wildlife (PCCF-

WL), Assam dated 13th June 2022 and a budget of 0.05 Crores has been earmarked for the same. Water bodies: Brahmaputra River is at a distance of 0.9 Km in South East direction.

Ambient air quality monitoring was carried out at 8 (eight) locations during 09th October, 2020 to 03rd January, 2021 and the baseline data indicates the ranges of concentrations as: PM10 (34-53 µg/m³), PM2.5 (15-26 µg/m³), SO₂ (5.1- 8.1 µg/m³) and NO₂ (9.1-15.2 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.03 µg/m³, 0.14 µg/m³ and 0.64 µg/m³ with respect to PM10, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement is 25 m³/day of which will be met from Tanker Supply. Effluent of 7 m³/day quantity will be treated through Mobile Effluent Treatment Plant of capacity 10 KLD. STP of capacity 5 KLD will be installed to treat sewage generated from well sites. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside.

Power requirement will be 2010 KVA and will be met from proposed Diesel Generator sets. 3x 670 KVA DG set will be used as standby during power failure and stack height (9 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

No Process emissions generation.

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

- Drill cutting generated from Water based Mud, not contaminated with oil which are inert materials of shale, sand, and clay will fall into the lined waste pits.
- Spent /Residual drilling mud will be disposed as per Hazardous Waste Rules, 2016.
- Food waste will be stored in compost pits on a daily basis or disposed off nearby municipal disposal site via local vendors.
- Non-combustible waste containing metallic residues, glass and packaging wastes including drums, wooden pallets, plastic containers,

plastic foils will be properly segregated and storage of recyclable waste in designated bins onsite. Recyclables will be periodically sold to local waste recyclers.

- Used Lubricating oil will be collected in metal drums kept in secured area and will be disposed through authorised recyclers.
- Wastes/ residues containing oil will be collected in metal drums kept in secured area and will be disposed through authorised recyclers.
- Discarded containers/barrels/ liners contaminated with hazardous waste will be disposed as per Hazardous Waste Rules, 2016.

During deliberations, EAC discussed the following issues:

- Details regarding mobile ETP's shall be submitted with its capacity and chemicals to be used for the treatment.
- Details regarding quick production facilities (QPF). PP explained that it is a module based facility. Crude Oil and water will be separated in this facility. QPF facility will be Skid mounted type Early Production Facilities. EAC desired to submit details regarding treatment of effluent generated from separation of produced crude as well as disposal of treated effluent from crude oil separation.
- Regarding injecting of treated water in wells, PP informed that they have their own one well which is shut down where they will inject treated water. The committee desired to submit the details of the same.
- Co-ordinates of wells along with ownership shall be submitted.
- PP informed that nearest drilling well is 700 m away from the river.
- CER budget shall be spent before commencing the operations. Increase budget for skill development and submit revised CER activities.
- OHS budget shall be Rs. 50 lakhs instead of Rs. 25 Lakhs.
- Revise cost of EMP as per discussion. Air quality monitoring cost shall be revised to Rs. 1 Lakhs and restoration of site shall be revised to Rs. 50 Lakhs. Drill site making cost will be Rs. 1.5 -2 Crores.
- Action plan for each point raised in Public Hearing along with expenditure and time. PP shall work in consultation with DM.
- Preventive mechanism to control oil spills during monsoon season. PP explained the mechanism for the same.
- In case of blow out during drilling then details of contingency plan for controlling the spill shall be submitted. Detailed HIRA shall be submitted.
- Conservation plan species specific shall be submitted not only for

preventing the animals for entering on oil site but for their conservation also. Detailed conservation plan in consultation with local people shall be submitted.

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

Agenda No. 9

Proposed Sugar Expansion (4900 TCD to 15000 TCD), 22.5 to 100 MW Cogeneration & 90 KLPD to 1100 KLPD Distillery Project located at Village Upalave, Taluka Phaltan, District Satara, Maharashtra by M/S. Swaraj Green Power & Fuel Ltd (Formerly Known as Swaraj India Agro Ltd.) – Consideration of Environmental Clearance

[IA/MH/IND2/ 270054/2014, IA-J-11011/180/2021-IA-II(I)]

The Project Proponent and the accredited Consultant Ultra-Tech Environmental Consultancy & Laboratory (NABET certificate no. NABET/EIA/2023/RA00194 and validity 09th March, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for Environmental Clearance to the project for expansion in sugar mill capacity from 4900 TCD TO 15000 TCD, co-generation power plant from 22.5 to 100 MW & distillery from 90 KLPD TO 1100 KLPD located at Village Upalave, Tehsil Phaltan, District Satara, State Maharashtra by M/s. Swaraj Green Power & Fuel Ltd (Formerly Known as Swaraj India Agro Ltd.).

As per the provision of EIA Notification No. S. O. 1533 (E) dated 14.09.2006 as amended vide Notification No S.O. 3067 (E); dated 13.06.2019, the proposed expansion project is listed as activity 5 (j)& 1(d) – Sugar & Cogen respectively; Category 'B' at State Level & 5(g)(i)(ii)-Distillery at Centre Level. As the Sugar, Cogen & Distillery projects are located in same premises as an integrated project complex, the entire proposal of expansion of Sugar, Co-generation power plant and Distillery establishment is being submitted at 'Ministry of Environment, Forests and Climate Change (MoEFCC); New Delhi' for grant of EC.

The details of products and capacity as under:

Sr No	Unit	Products/by products	Existing production capacity	Proposed production capacity	Total production capacity
1	Sugar mill	Sugar	4900 TCD	10100 TCD	15000 TCD
2	Co-generation power plant	Power	22.5 MW	77.5 MW	100 MW
3	Molasses based distillery	Ethanol	90 KLPD	1010 KLPD	1100 KLPD
		ENA	60 KLPD	-	60 KLPD
		RS	90 KLPD	1010 KLPD	1100KLPD

Ministry/SEIAA has issued Environmental Clearance to the existing capacity of 60 KLPD distillery based on C-molasses and 19.5 MW to 22.5 MW Cogeneration unit vide F.No.J-11011/91/2014-IA II (I) dated 12th July 2016. CTO has been obtained under No Increase In Pollution Load from MPCB for 60 KLPD to 90 KLPD capacity dated 22nd December, 2021. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC Nagpur vide File no- EC-224/RON/2016-NGP/8586 dated 02nd September 2021. Action Taken Report has been submitted to IRO, MOEFCC, Nagpur dated 18th November 2021 for two partial compliances and 4 non-compliances and Certified Action Taken Report has been obtained by IRO, MOEFCC, Nagpur dated 24th May 2022. Existing sugar factory & co-generation power plant is operational on the basis of Consent to Operate because the sugar factory crushing capacity is 4900 TCD. Hence, Environmental Clearance is not applicable. Latest CTO (air and water) has been issued on 11.10.2021 and is valid till 31.07.2022. Application for CTO renewal is submitted to MPCB. Certified CTO compliance report for existing sugar mill has been obtained by RO, MPCB dated 27th June, 2022. EAC found the information provided by PP satisfactory.

Standard Terms of Reference have been obtained vide F. No. IA-J-11011/180/2021-IA-II(I) dated 14.05.2021. It was informed that no litigation is pending against the project.

Public Hearing for the proposed project has been conducted by the Maharashtra Pollution Control Board on 20th October, 2021 at Project Site chaired by Additional District Magistrate, Satara. The main issues raised during the public hearing and their action plan:

Regarding wastewater generated and disposal, PP Informed that project will be based on Zero Liquid Discharge (ZLD) system.

Regarding benefit to the local farmers, PP informed that ethanol production will improve the financial condition of the factory. If the factory becomes financially strong, sugarcane growing farmers can be given extra price. The alternative will only benefit the farmers.

Regarding air pollution and water pollution, PP informed that fly ash will be transported to brick manufacturers in covered trucks, ESP will be installed as APCE with adequate stack height.

Regarding time of completion of the project, PP informed that expansion will be done in phases, the entire project will be operational in 2.5 years.

Regarding employment to local people and CER funds, PP informed that local people will be given preference in the employment and CER funds of Rs. 4.75 crores will be utilized in nearby villages only.

Total plant area is 26.63 Ha which is under possession of industry. No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area, 8.7 Hectares i.e. 33 % has already been developed as greenbelt. The estimated project cost is Rs. 950 Crores. Capital cost of EMP would be Rs. 47.35 Crores and recurring cost for EMP would be Rs. 79.45 Lakh per annum. Industry proposes to allocate Rs. 9.0 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 440 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Reserve forests/protected forests, etc. within 10 km radius of study area. Water bodies: Banganga River is at a distance of 2.0 Km in North East.

Ambient air quality monitoring was carried out at 8 locations during 01stOctober, 2020 to 31stDecember, 2020 and the baseline data indicates the ranges of concentrations as: PM₁₀ (44–74 µg/m³), PM_{2.5} (19-33 µg/m³), SO₂ (10-26 µg/m³) and NO_X (15-31µg/m³) and CO (0.5-2.3 mg/m³). AAQ modelling study for point source emissions indicates that the maximum

incremental GLCs after the proposed project would be 5.27 $\mu\text{g}/\text{m}^3$, 4.88 $\mu\text{g}/\text{m}^3$ & 4.0 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5} & SO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 100 m³/day which will be met from Rain Water Harvesting tank and remaining 2860 m³/day will be met from Rain Water Harvesting tank & Condensate from Sugar CPU. Effluent generated after expansion of sugar & cogeneration power plant will be 1180 m³/day which will be treated in 1200 m³/day ETP and used for green belt development in own premises. Process effluent generated after distillery expansion will be 1485 m³/day (lees, MEE Condensate, cooling & boiler blow down) which will be treated in CPU of Capacity 4500 m³/day. Raw spent wash generated after expansion of distillery will be 2895 m³/day which will be concentrated in MEE & concentrated spent wash 430 m³/day will be used as fuel for 35 TPH and 75 TPH Incineration Boiler. Air cooled condenser are provided with the existing Boiler of 110 TPH & 35 TPH capacity and air cooled shall be provided with the additional 300 TPH & 75 TPH boiler to be installed. Domestic effluent generated after expansion of sugar, cogeneration power plant & distillery will be 95 m³/day which will be treated in proposed STP of capacity 100 m³/day. The plant will be based on Zero Liquid discharge system and treated effluent/water will not be discharged outside the factory premises.

Total power requirement after expansion of sugar, co-generation power plant & distillery will be 21.5 MW which will be sourced from 100 MW co-generation power plant. Existing sugar mill has 110 TPH bagasse fired boiler. ESP with stack of height 70 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Under expansion, 300 TPH bagasse fired boiler will be installed. ESP with a stack of height 100 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. Existing Distillery has 35 TPH slop/biomass fired boiler with 70 m stack and ESP. Under expansion, 75 TPH slop/biomass fired boiler with 85 m stack height & ESP is proposed. 2 x 1000 KVA capacity DG sets are existing which are used as standby during power failure and stack height 6 M (ARL) is provided as per CPCB norms. No new DG set will be installed under expansion unit.

Details of process emissions generation and its management:

- ESP with a stack of height 100 m will be installed for 300 TPH Boiler & ESP with a stack height of 85 m will be installed with proposed 75 TPH incineration boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- Carbon di-oxide (1200 TPD) is being/will be bottled and supplied to manufacturers of beverages /secondary uses.

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

- Boiler ash (90 TPD) will be utilized for brick making in proposed in-house brick manufacturing plant.
- Used Oil (9 KL/annum) is being/will be send to authorized re-processor.
- ETP sludge (7.0 TPD) & CPU Sludge (18.5 TPD) is being/will be used as manure.

During deliberations, PP informed that Zero Liquid Discharge is maintained in sugar premises also and no fresh water is being used from ground/surface sources. All condensate is collected, evaporated and then remains are incinerated in boilers and power is generated. Advance predicted control (APC) for oil leakage has been installed. Further, EAC discussed following issues:

- CER activities budget to be increased to Rs. 9 Crores from Rs. 4.75 Crores. PP has submitted the increased budget commitment along with activities to be conducted under CER.
- Parking area shall be increased from 15% to 18%. PP has agreed the same.
- Native species shall be planted instead of non-indigenous species. While doing greenbelt development, cognizance of slope shall be taken on North side.
- Air cooled condensers will be installed with the proposed boiler.
- Prescribed standard of PM shall be taken as 50 mg/Nm³ not 150 mg/Nm³ for biomass as fuel and 30 mg/Nm³ for coal as fuel. Also, 100 mg/Nm³ for nitrogen and sulphur emissions standard.

- Revised EMP budget by considering 5 field ESP or bag house not 3 field ESP. PP assured that best technology will be installed where only smoke will be released and no ash particles will be dispersed.

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

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

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

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

Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. All public hearing issues shall be properly addressed as per timeline and budget submitted.
- (ii). Total Fresh water requirement shall be met from rainwater harvesting tank & sugar mill condensate. 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. Air cooled condensers shall be installed with the proposed boiler in sugar and distillery.
- (iii). Spent wash shall be concentrated and incinerated in boiler. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make-up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (iv). ESP alongwith stack of adequate height (100 m) shall be provided with 300 TPH bagasse fired boiler & ESP/bag house with stack of 85 m with 75 TPH biomass/coal fired boiler to control particulate emission within 50 mg/Nm³ for biomass as fuel (in 100 TPH biomass fired boiler) and 30 mg/Nm³ for coal as fuel (in 75TPH incineration boiler). SO₂ and NO_x emissions shall be below 100 mg/Nm³. At no time, the emission levels should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve

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

- (v). Boiler ash shall be utilized for brick making in proposed in-house brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (vi). Air cooled shall be provided with the proposed 300 TPH & 75 TPH boiler.
- (vii). CO₂ generated will be bottled and supplied to manufacturers of beverages /collected in proposed bottling plant.
- (viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (x). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xi). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xii). The company shall undertake waste minimization measures as below
 - (a) Metering and control of quantities of active ingredients to minimize waste;
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f)

Use of high pressure hoses for equipment clearing to reduce wastewater generation.

- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of operations. While doing greenbelt development, cognizance of slope shall be taken on North side.
- (xiv). PP proposed to allocate Rs. 9.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 18% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xvi). 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.

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

Agenda No. 10

Grain Based 100 KLD Fuel Ethanol Plant & 3.0 MW Co- Generation Power Plant (By Product: 40 TPD of CO₂ Generation & DDGS : 45 (RICE)- 66 (MAIZE) located at Plot no 3,4,9,10 Sector F-I Maneri Industrial Area Dist Mandla, Madhya Pradesh by M/s. Orient Ethanol Industries Pvt Limited Environmental Clearance- reg.

[IA/MP/IND2/ 285652/2022, IA-J-11011/279/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Creative Enviro Services (NABET certificate no. NABET/EIA.1922/RA-0176 and validity 22nd October, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 100 KLPD Grain based Ethanol Plant & 3.0 MW co-generation power plant (biomass/coal) located at Plot no 3,4,9,10 Sector FI Maneri Industrial Area, Village Maneri , Tehsil Mandla , District Mandla, State Madhya Pradesh by M/s. Orient Ethanol Industries Pvt Limited.

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

The details of products and capacity as under:

Sr No	Name of Unit	Name of the product/by product	Production Capacity
1	Grain Based distillery	Ethanol	100 KLPD
2	Co-generation power plant	Power	3 MW
3	DWGS Dryer	DDGS	45 TPD (Rice)/ 66 TPD (Maize)
4	Fermentation Unit	Carbon Di-oxide	40 TPD

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

Total land area required is 6.6 hectares. Greenbelt will be developed in total area of 2.2 hectares i.e., 34% of total project area. The estimated project cost is Rs. 115.24 Crores. Capital cost of EMP would be Rs. 29.2550 Crores and recurring cost for EMP would be Rs. 0.845 Crores per annum. Industry proposes to allocate Rs. 1.25 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 195 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forests : Dasrthpur RF is at a distance of 6.75 km in NE direction, Parariya RF is at a distance of 6.50 km in ESE direction, Bhaundi RF is at a distance of 6.25 km in South direction, Bamhnipurwa RF is at a distance of 8.50 km in SW direction. Water bodies: Mareri Damis is at a distance of 0.7Km in East direction, River Jhamil is at a distance of 1.75 km.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.04 µg/m³ ,0.204 g/m³ , 4.09 µg/m³ and 4.26µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 395 m³ /day which will be met from MPIDC Water Supply. NOC has been obtained vide no MPIDC ROJBP/TEC/2022/1795 dated 07.07.2022. Effluent (Condensate/spent lees/blow-down etc.) of 910.40 m³ /day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 1200 KLPD. Raw stillage (840 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 20 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3 MW and will be met from proposed 3 MW cogeneration power plant. 26 TPH biomass/coal fired boiler will be installed. ESP with a stack height of 45 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 1000 KVA DG set will be used as standby during power failure and stack height (30 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

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

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (45-66 TPD) will be sold as

cattle feed / fish feed / prawn feed.

- Boiler ash (20 TPD) will be used for brick manufacturing in proposed brick manufacturing plant/ supplied to farmers to be used as manure.
- Used oil (1 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (0.1 TPD) and STP Sludge (0.05 TPD) will be used as manure.

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

Total land of 6.6 Hectares is allocated to industry by MPIDC hence land use conversion is not required. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Revised cost of EMP shall be submitted including CEMS provision. PP has revised the cost from Rs. 28.6550 Crores to Rs. 29.2550 Crores.
- Revised CER activities have been provided including provision of solar light in nearby villages.
- Revised greenbelt species shall be submitted. Scientific names shall be included.
- 10% power requirement shall be sourced from solar power.
- Recharge well will not be allowed inside plant premises , instead RWH storage for 60 days shall be there.

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

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

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

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of

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

- (iii). NOC from Concerned Local authority for MPIDC water supply shall be obtained before starting construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
- (iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project.
- (v). Total fresh water requirement shall not exceed 4.0 KL/KL of ethanol production and will be met from MPIDC water supply. Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond having 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.
- (vii). ESP alongwith stack of 45 m height shall be provided with 26 TPH biomass/coal fired boiler to control particulate emission within 30 mg/Nm³ for coal as fuel. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- (viii). Boiler ash shall be utilized in brick making in proposed brick manufacturing plant within premises/given to farmers as manure. PP

shall use biomass like rice husk/bagasse as fuel for the proposed boiler. As proposed by PP, low sulphur coal with maximum sulphur content of 0.4% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

- (ix). CO₂ generated will be bottled and supplied to manufacturers of beverages /collected in proposed bottling plant.
- (x). PP shall allocate Rs. 50 lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xiv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in 2.20 Ha i.e. nearly 33.33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest

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

- (xvi). PP proposed to allocate Rs. 1.25 Crores for Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking shall be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set

up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/ Managing Director/CEO as per company hierarchy.

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

ANNEXURE

GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

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

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

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

S. No.	Name and Address	Position
1.	Shri S. C. Mann	Chairman
2.	Dr. J. S. Sharma	Member
3.	Prof. Y. V. Rami Reddy	Member
4.	Dr. Sanjeev Chaudhari (23.08.2022; one day)	Member
5.	Dr. Onkar Nath Tiwari	Member
6.	Shri J. S. Kamyotra	Member
7.	Dr. Rahul Ramesh Rao Mungikar	Member
8.	Dr. Siddhartha Singh (24.08.2022; one day)	Member
9.	Dr. Seshagiri Rao Ambati	Member
10.	Dr. Sanjay V. Patil (VSI)	Member
11.	Shri A.N. Singh, Scientist 'E'	Member Secretary
MoEFCC		
12.	Dr. Mahendra Phulwaria	Scientist 'C'
13.	Mr. Kanaka Teja	Research Assistant
14.	Ms. Meetika Gupta	Research Associate
