

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

Dated: 21.03.2023

**Meeting ID: IA/IND2/13463/16/03/2023
MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE
(INDUSTRY-2 SECTOR PROJECTS)
HELD ON 16th March, 2023**

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

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

(ii) Confirmation of minutes: The EAC, having taken note that final minutes were issued after incorporating comments received from the EAC members on the minutes of its Meeting (ID: IA/IND2/13462/15/03/2023) held on 15th March, 2023 conducted through Video Conferencing (VC), confirmed the same. After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

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

16th March, 2023 (Thursday)

Agenda No. 01

Expansion of Sugarcane Crushing Unit from 4500 TCD to 12000 TCD, Co-generation Unit from 14 MW to 39.60 MW and Establishment of 180 KLD Multi feed (Grain/ Cane Juice/ BH-Molasses & C-Molasses) based Distillery Unit at Sy. No. 98/1, 98/2, 100/3, 100/4, 101/1B, 101/2, 101/1A, 101/3A, 101/3B, 102/3F, 102/3E, 102/3D, 102/3K, 102/3B, 102/3A, 103/15, 103/14, 103/13, 103/12, 103/11, 103/10, 103/9, 103/8, 103/7, 103/6, 103/5, 103/4, 103/3, 103/2, 103/1, 104/2, 104/3, 104/4A, 104/4B, 104/1B, 104/1A, 105/1A, 105/1B, 106/1A, 106/1B, 106/1K, 107/3, 107/4, 107/5, 107/6, 107/7, 107/8, 107/9, 107/10, 108/3, 108/2, 183/1, 184/1, 184/2, 185/1 of Alagawadi Village, Raibag Taluk, Belagavi District, Karnataka State by M/s. Alagawadi Bireshwar Sugars Private Limited - Consideration of Environmental Clearance..

[IA/KA/IND2/420514/2023, IA-J-11011/57/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Environmental Health & Safety Consultants Pvt. Ltd. (NABET certificate no. NABET/EIA/2124/RA 0241 and validity: 22.08.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project "Expansion of Sugarcane Crushing Unit from 4500 TCD to 12000 TCD, Co-generation Unit from 14 MW to 39.60 MW and Establishment of 180 KLD Multi feed (Grain/ Cane Juice/ BH-Molasses & C-Molasses) based Distillery Unit" located at Alagawadi Village, Raibag Taluk, Belagavi District, Karnataka State by M/s. Alagawadi Bireshwar Sugars Private Limited.

During deliberation committee noted the following issues:

- The committee noted that a representation has been received against the proposal vide letter dated 01.03.2023 through email as well as speed post sent by Shri. Anirudha R J Nayak, Advocate. He has also circulated the representation to all the EAC members.
- The committee asked the PP to furnish point wise reply to all the issues/concerns raised in the representation.

- While discussing the Public Hearing issues it was noted that several court cases are pending against the project. However, PP has mentioned that no Court case is pending against the project on the Parivesh portal. The committee suggested to issue a warning letter to environmental consultant M/s. Environmental Health & Safety Consultants Pvt. Ltd for not placing the facts. Further, the committee asked PP to submit detailed status of court cases pending against the project.
- PP shall prepare a detailed point wise action plan alongwith budget and timelines to address all the issues raised in Public Hearing. PP shall also come out with the common issues raised in PH and representation received from Shri. Anirudha R J Nayak, Advocate.
- The committee noted that existing 4500 TCD sugar unit is still in construction stage. Therefore, PP shall revise EIA report by considering impact due to 12000 TCD (instead of 4500 to 12000 TCD) sugar unit and 39.60 MW (instead of 14 to 39.6 MW) & provide EMP accordingly.
- Proposed sugar, cogen power plant and distillery shall be based on ZLD concept. Accordingly, EIA/EMP report should be modified.
- PP shall carry out HAZOP study as well as risk assessment study

The committee will appraise the complete proposal after receiving above information. In view of above, committee suggested to return the proposal in present form. Accordingly, proposal was returned in present form.

Agenda No. 02

Grain Based Fuel Ethanol Distillery Plant (100 KLPD) along with Power Generation of 3.0 MW located at Plot No 2, Village Dhing, Teshil Nagaon, Dist. Nagaon, Assam by M/s. North Eastern Energy Resources Ltd. Unit-2 promoted by M/s. NECCON Power and Infra Ltd. - Consideration of Environmental Clearance.

[IA/AS/IND2/ 402695/2022, IA- J-11011/441/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Mantras Green Resources Ltd. (NABET certificate no. NABET/EIA/1922/RA 0201 and validity 29.04.2023) made a detailed presentation on the salient features of

the project and informed that the proposal is for Environmental Clearance to the proposed Grain Based Fuel Ethanol Distillery Plant (100 KLPD) along with Power Generation of 3.0 MW located at Plot No 2, Village Dhing, Teshil Nagaon, Dist. Nagaon, Assam by M/s. North Eastern Energy Resources Ltd. Unit-2 promoted by M/s. NECCON Power and Infra Ltd.

During presentation of proposal, EAC noted that consultant of this project is M/s. Mantras Green Resources Ltd and its authorized EIA coordinator of the consultant was not present in the meeting. Further, the committee suggested that authorized EIA coordinator who has visited the site shall present the case. The committee also noted that the details of the application form mentions that M/s. Basant Ketan is the name of the company where as the documents were in the name of **M/s. North Eastern Energy Resources Ltd. Unit-2 and some where it is mentioned as** M/s. North Eastern Energy Resources Ltd. Unit-2 promoted by M/s. NECCON Power and Infra Ltd. It was noted that kml file uploaded in the parivesh portal is not in desired format. Amid this committee suggested PP to submit a fresh application and decided to return the proposal.

The committee will appraise the complete proposal after receiving above information. In view of above, committee suggested to return the proposal in present form. Accordingly, proposal was returned in present form.

Agenda No. 03

Establishment of 110 KLPD Molasses (C & B Heavy) / Cane Juice / Syrup / Grain based Distillery with 1.5 MW electricity generation in existing premises of 4200 TCD Sugar Factory & 15 MW Cogeneration Plant located at Survey No. 25/1, 26, 40/1, 40/a, 42, 43, 44/1, 45, 58, 59, 60, 61 & 65, A/P: Nagarhalli - Malli, Taluka - Jewargi, District - Kalburgi, State - Karnataka by M/s. The Ugar Sugar Works Ltd. (TUSWL) - Consideration of Environmental Clearance.

[IA/KA/IND2/405304/2022, IA-J-11011/188/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET certificate no. NABET/EIA/2124/SA 0177 and validity 10.10.2024) made a detailed presentation on the salient

features of the project and informed that the proposal is for Environmental Clearance to the Establishment of 110 KLPD Molasses (C & B Heavy) / Cane Juice / Syrup / Grain based Distillery with 1.5 MW electricity generation located at Survey No. 25/1, 26, 40/1, 40/a, 42, 43, 44/1, 45, 58, 59, 60, 61 & 65, A/P: Nagarhalli - Malli, Taluka - Jewargi, District - Kalburgi, State - Karnataka by M/s. The Ugar Sugar Works Ltd. (TUSWL).

During deliberation committee noted the following issues:

- Existing 4,200 TCD Sugar Factory is operational on the basis of Consent to Operate because Environmental Clearance is not applicable. Latest CTO (Air and Water) has been issued on 25.10.2021 and is valid till 30.06.2026. Certified CTO compliance report has been issued dated 14.11.2022 from RO, KSPCB; Kalaburagi. The committee discussed the following partial/non-compliances of CTO w.r.t molasses storage, OCEMS, spillage, open storage of bagasse, unpaved internal roads, non preparation of Environmental Management Plan etc. The committee found that PP has not still complied the partial/ non-compliance points. The committee suggested to comply with the partial/non-compliance points (covered storage for bagasse and paved internal roads) and submit action taken report along with photographs.
- PP shall carry out HAZOP study as well as risk assessment study.
- PP shall revise the EIA/EMP report w.r.t ZLD for existing sugar unit, cogen power plant and proposed distillery.

The committee will appraise the complete proposal after receiving above information. In view of above, committee suggested to return the proposal in present form. Accordingly, proposal was returned in present form.

Agenda No. 04

Proposed Expansion of distillery project (Ethanol) from 60 KLPD to 200 KLPD based on Multi feed (Syrup/B-Heavy Molasses/ C- Heavy Molasses) as raw material along with 3 MW Co-generation plant for distillery at Warananagar, Tal- Panhala, Dist- Kolhapur by M/s.

**Shree Tatyasaheb Kore Warana Sahakari Sakhar Karkhana Ltd. -
Consideration of Environmental Clearance.**

[IA/MH/IND2/ 407823/2023, IA-J-11011/413/2006-IA II (I)]

The Project Proponent and the accredited Consultant M/s. Ultratech Environmental Consultancy & Laboratory (NABET certificate no. NABET/EIA/2023/RA0194 and validity 06th June 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for Environmental Clearance to the Proposed Expansion of distillery from 60 KLPD to 200 KLPD based on Multi feed (Syrup/B-Heavy Molasses/ C- Heavy Molasses) as raw material along with 3 MW Co-generation plant for distillery by M/s. Shree Tatyasaheb Kore Warana Sahakari Sakhar Karkhana Ltd. (STKWSSKL) located at Warananagar, Tal-Panhala, Dist. Kolhapur, Maharashtra State.

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

The details of products and capacity as under:

Sr. No.	Name of unit	Name of the product/ by-product	Existing Production capacity	Additional production capacity	Total production capacity
1	Distillery (Syrup/B-Heavy Molasses/ C-Heavy Molasses)	RS/ENA	60 KLPD	-	60 KLPD
		Ethanol	-	140 KLPD	200 KLPD
		Fusel Oil	15 KL/M	-	15 KL/M
		CO ₂	-	150 TPD	150 TPD
2	Co-gen power plant for	Electricity	44 MW	3 MW	47 MW

Sr. No.	Name of unit	Name of the product/ by-product	Existing Production capacity	Additional production capacity	Total production capacity
	distillery/ sugar mill				
3	Sugar Mill	Sugar Crushing	10,000 TCD	-	10,000 TCD

EAC, MoEFCC, New Delhi has issued Environment Clearance (EC) to the existing industry for capacity 60 KLPD Molasses Based Distillery vide File no. F. No. J-11011/413/2006-IA-II (I) dated 6th July, 2007. State Environment Impact Assessment Authority (SEIAA), Maharashtra has issued the EC to Sugar factory of capacity 10000 TCD vide file no. SEAC-2019/CR-534/TC-2 dated 11th December, 2014. Also, SEIAA, Maharashtra has issued the EC to 44 MW co-gen plant by the name, M/s. Urjankur Shree Tatayasaheb Kore Warana Power Company Limited. Vide letter no. SEAC-2008/CR-13/TC-2 dated 10th June, 2009. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Nagpur vide Letter no- EC- -5-130//2009(ENV)/NGP/10886 dated 3rd January, 2023. Action Taken Report has been submitted through mail to IRO, MOEFCC, Nagpur on 16th January 2023 for partial compliances. PP informed that 3 piezometer wells have been installed to monitor the ground water quality. EAC found the information satisfactory.

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 there is no litigation is pending against the project.

Total plant area after expansion will be 55.47 ha which is under possession of the company and converted to industrial use. No any additional land will be acquired for the expansion of project as the same will be carried out within existing premises. Out of the total plant area 20.2 Ha. i.e., 36.41 % of the total plant area has already been developed as greenbelt & plantation and the same will be maintained. Industry has planned for development of additional green belt on an area 2.2 Ha. The estimated project cost is Rs.186.15 Crores. Capital cost of EMP would be Rs. 27.60 Crores and recurring cost for EMP would be Rs. 1.12 Crores per annum. Industry proposes to allocate Rs 2.50 Crores towards extended EMP (Corporate

Environment Responsibility). Total Employment after expansion will be 287 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. present within 10km distance. Protected forest: Jakhale at distance 3.8 km, Goroli at distance 6.3k, Manpadali at 6.6 km from project site in south direction and reserve forest : Talsande at distance 5.5 km from project site in SE direction. River Warana is at a distance 3 Km in NE direction. Water body Talsande Lake is at distance of 5.7km towards NE direction, Manpadali Lake at distance 6 km towards SE direction, Kandra Nala at distance 6.6. km towards W direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $1.22 \mu\text{g}/\text{m}^3$, $4.60 \mu\text{g}/\text{m}^3$ and $1.07 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , SO_2 & NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total freshwater requirement of distillery complex after expansion will be $921.5 \text{ m}^3/\text{day}$ (during off season) and $786 \text{ m}^3/\text{day}$ (during season) which will be met from Warana River. NOC has been obtained from Irrigation Department, Kolhapur Vide letter no. Permission Letter No.- 5208/Year 2022 dated 4th July 2022.

Existing effluent generation us $489 \text{ m}^3/\text{day}$ from 60 KLPD distillery using C-Molasses which is treated in Condensing Polishing Unit (600 CMD Capacity). Proposed effluent generation will be $652 \text{ M}^3/\text{day}$ and $892 \text{ M}^3/\text{day}$ from distillery using Syrup and B- heavy molasses as raw Material respectively which will be treated through upgraded Condensing Polishing Unit (1000 CMD capacity)

In Existing 60 KLPD distillery: Spent wash ($480 \text{ m}^3/\text{day}$) is treated though bio-methanation followed concentrated in Multi Effect Evaporator (MEE) and concentrated spent wash is forwarded to bio-composting along with other filler materials. Bio-compost is used as manure.

Expansion 140 KLPD distillery: Spent wash will be treated through bio-methanation followed MEE and spray Dryer. Spent wash powder will be used as manure. Domestic waste water will be treated in STP of capacity 20

M3/day. The plant will be based on Zero Liquid discharge system and treated effluent will not be discharged outside the factory premises.

Total power requirement of distillery after expansion will be 3.0 MW which will be sourced from proposed 3.0 MW co-generation power plant in distillery. Existing co-gen plant has two no. of bagasse fired boilers of capacity 115 TPH each. Under expansion of distillery industry has planned to install one 40 TPH bagasse fired boiler. APCE as ESP with a stack of height of 100 m is already installed with the existing 115 TPH boilers for controlling the particulate matter emissions within the statutory limit of 50 mg/Nm³. For the proposed 40 TPH APCE as ESP with a stack height of 65 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Industry has existing 2500 KVA DG set which is used as standby during power failure and stack height (25 m) is provided as per CPCB norms. Industry proposed one DG sets of capacity 500 KVA to which stack of 6 m height will be provided.

Details of Process emissions generation and its management:

- APCE as ESP with a stack height of 100 m is installed with the existing two boilers of capacity 115 TPH each for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.
- APCE ESP with a stack of height of 65 m will be installed for proposed 40 TPH boiler to control the particulate emissions within the statutory limit of 50 mg/Nm³.
- Online Continuous Emission Monitoring System is installed with the existing boilers and data is transmitted to CPCB/SPCB servers. Same practices will be followed with the proposed 40 TPH boiler.
- CO₂ (150TPD) generated during the fermentation process will be bottled in CO₂ bottling plant and sold to beverage industries.

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

- Concentrated spent wash (96 m³/day) from existing 60 KLPD is being converted to bio-compost and used as manure.

- Concentrated spent wash (130 m³/day) generated from expansion of distillery by 140 KLPD will be forwarded to spray dryer to form spent wash powder. It will be used as manure.
- Total Boiler ash (54.75 TPD) after expansion of distillery will be given to brick manufacturing/ cement manufacturing industries.
- CPU sludge (3.2 TPD) will be used as manure.
- Yeast Sludge (15 TPD) and 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 expansion capacity of distillery 60 KLPD to 200 KLPD will be used for manufacturing fuel ethanol only.

Capital cost and recurring cost of EMP are given below:

Sr. No	Attribute	Budget in (Rs lakh)	
		Capital	Recurring
1.	Air Pollution Control System		
	Proposed ESP & stack for 40 TPH Boiler	300	20
	Existing ESP Upgradation to Achieve 50 mg/Nm ³ Particulate Matter	100	10
	CO ₂ Plant for Distillery	700	10
2.	Water & Wastewater management		
	MEE	480	15
	Distillery CPU Up-gradation (Capacity 600 CMD to 1000 CMD)	150	10
	Sugar CPU (Capacity - 1000 CMD)	250	15
	Spentwash Dryer	600	10
3.	Solid Waste Management	25	5
4.	Green Belt Development	50	5
5.	Online Monitoring System & Environment Monitoring (stack, Ambient Air, Water, Soil and Noise) and meteorology	25	5
6.	Rain Water Harvesting	30	2
7.	Health & Safety	50	5
	Total	2760	112

Details of CER with proposed activities and budgetary allocation:

Sr. No.	CER activity	Total (Rs. Lacs)
1	Drinking water facility in ZP schools @ Jakhale, Pokle, Kodoli, Satave, Pargaon, Talsande)	50
2	Infrastructure development in ZP schools @ Pokle, Male, Kodoli, Satave, Pargaon, Talsande, Kekale.	75
3	Solar street lamp @ Warananagar, Shahapur, Sawale, Kodoli, Male, Pokale, Zakale Villages.	50
4	Infrastructure development in PHC of Bahirewadi, Mohare, Kakhe, Satve, Borpadale, Borpadale, Jakhale, Kekale, Kodoli, Amrutnagar villages.	50
5	Tree Plantation in Warananagar, Borpadale, Pokle, Jakhale, Male, Satave, Talsamde, Wathar villages.	25
	Total	Rs. 250.00

During deliberations, EAC discussed following issues:

- PP shall abandon the bio composting practised in the existing Industry within 2 years.
- Condensate from Sugar unit will be used for distillery after treatment in season. Zero liquid Discharge system will be implemented for sugar unit.
- ESP shall be upgraded with additional fields with a stack height of 100 m is installed to the existing two boilers of capacity 115 TPH each for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. APCE ESP with a stack of height of 65 m will be installed with the proposed 40 TPH boiler to control the particulate emissions within the statutory limit of 50 mg/Nm³.
- PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises.
- PP has submitted revised details of capital and recurring cost of EMP and CER as suggested by EAC.
- The Committee noted that the plantation done in the 18 Ha as per the existing EC is not reflecting on ground. Accordingly, the Committee suggested that PP shall submit the month-wise action plan for thickening greenbelt. Accordingly, PP has submitted detailed month-wise action plan for development of greenbelt which is given below:

Action Plan for Green Belt Development

Total plot Area	:	55.47 ha
Green Belt – Existing (33.8% of total Plot Area)	:	18 ha
Green Belt - Proposed (4% of total Plot area)	:	2.2 ha

Existing 18 ha area for Green Belt with 27150 no of plants. We will plant plants @ 2500 per hecter i.e., 45000 trees on 18 ha land. Balance 17850 plants will be planted within next two seasons timeline. Additionally, we will develop green belt on 2.2 ha with 5500 no of plants. Total 23350 Number of plants will be planted within next two seasons timeline.

Action plan of Green Belt development

Month & Year	Pricing	No. of trees planted
June 2023	Rs. 10,00,000.00	5,000 Nos.
July 2023	Rs. 10,00,000.00	5,000 Nos.
August 2023	Rs. 10,00,000.00	5,000 Nos.
September 2023	Rs. 4,00,000.00	1,670 Nos.
June 2024	Rs. 4,00,000.00	1,670 Nos.
July 2024	Rs. 4,00,000.00	1,670 Nos.
August 2024	Rs. 4,00,000.00	1,670 Nos.
September 2024	Rs. 4,00,000.00	1,670 Nos.
Total	Rs. 50,00,000.00	23,350 Nos

The committee suggested that indigenous species shall only developed as part of greenbelt and replacement of non-indigenous / alien species with native tree species shall be followed strictly. No invasive or alien or non-native tree species shall be selected for plantation. EAC also suggested that Coconut; Guava; Bougainvillea, Royal Palm or any other garden palm varieties shall not be considered as part of greenbelt development.

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 140 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP

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

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (iv). NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing water from Warana River for the distillery activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission. No ground water shall be used for the plant operations.
- (v). PP shall abandon the bio composting practised in the existing Industry within 2 years. The existing 05 lagoons shall be emptied , the effluent treated and the lagoons dismantled after composting is stopped. The sludge settled in the lagoons shall be disposed as specified in the rules and C&D waste disposed as specified in the C&D Waste Management Rules.
- (vi). Total fresh water requirement shall not exceed 560 m³/day, which will be sourced from Warana River. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vii). The spent wash shall be concentrated in MEE and concentrated spent wash shall be incinerated in the incineration boiler. Other lean effluents

Spent lees, MEE Condensates and utility effluents shall be treated in the condensate polishing unit (CPU) comprising of three stage RO. The treated permeate will be reused in cooling tower water makeup and for molasses dilution. The RO rejects will be taken back to MEE. Treated effluent will be recycled/reused for make up water of cooling towers/process etc. No wastewater or treated water from integrated unit of sugar mill and distillery shall be discharged outside the premises and Zero Liquid Discharge shall be maintained for all the units namely sugar, Distillery and Cogen Power Plant. STP shall be installed to treat sewage generated from factory premises. PP shall ensure to implement Zero Liquid Discharge (ZLD) in existing and expansion of sugar factory and cogeneration plant including proposed Distillery.

- (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). ESP shall be upgraded with additional fields with a stack height of 100 m is installed to the existing two boilers of capacity 115 TPH each for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. APCE ESP with a stack of height of 65 m will be installed for proposed 40 TPH boiler to control the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. ESP (5 field) with a stack of height of 65 M will be installed with the 40 TPH bagasse fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Coal shall not be used as fuel in the boiler. 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). Boiler ash (54.75 TPD) after expansion of distillery will be given to brick manufacturing/ cement manufacturing industries. PP shall meet

15% of the total power requirement from solar power by generating power inside plant premises.

- (xi). CO₂ (150 TPD) generated during the fermentation process will be bottled in CO₂ bottling plant and sold to beverage industries.
- (xii). PP shall allocate at least Rs. 0.5 Crore/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xiii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xiv). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xv). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xvi). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xvii). The green belt of at least 5-10 m width has already been developed in 20.2 hectares i.e., 36.41 % of total project area which shall be thickened with tree density @ 2500 trees per hectares, mainly along the plant periphery by September, 2024. 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. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. Coconut; Guava; Bougainvillea, Royal Palm or any other garden palm varieties shall not be considered as part of greenbelt development.

- (xviii). PP proposed to allocate Rs. 2.50 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed in consultation with District Administration.
- (xix). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. PP shall ensure no direct entry or exit of the vehicles from Main Road/Highway and it shall be through slip road only
- (xx). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xxi). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night

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

- (xxii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xxiii). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 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. 05

Establishment of Grain Based Ethanol Distillery capacity 200 KLPD with 5.0 MW co-generation power plant at Village – Nagpura, Tehsil and District - Durg, Chhattisgarh, by M/s. Chlorophyll Bio-fuels Private Limited - Consideration of Environmental Clearance.

[IA/CG/IND2/418390/2023, IA-J-11011/112/2022-IA-II(I)]

The M/s. Chlorophyll Bio-fuels Private Limited and the accredited Consultant Paramarsh Servicing Environment and Development (NABET certificate no NABET/EIA/2124/RA0224 and validity May 01, 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 200 KLD Grain based Ethanol Plant & 5.0 MW Co-generation power plant (fuel to be used) located at Village – Nagpura, Tehsil and District - Durg, Chhattisgarh, by M/s. Chlorophyll Bio-fuels Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol

Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S.No	Name of unit	Name of the product/by-product	Production capacity
1.	Distillery	Ethanol	200 KLD
2.	Co-generation power plant	Power	5.0 MW
3.	DWGS dryer	DDGS	148 TPD
4.	Fermentation unit	Carbon di-oxide	120.5 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 there is no litigation is pending against the project.

Total land area required is 12.2466 hectares. Greenbelt will be developed in total area of 4.1690 hectares i.e., 34.04 % of total project area. The estimated project cost is Rs. 229.0Crore. Capital cost of EMP would be Rs. 35.50 Crores and recurring cost for EMP would be Rs. 3.40 Crores per annum. Industry proposes to allocate Rs. 3.5 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 145 persons as direct & indirect. PP informed that broken rice / maize will be used as raw material for the proposed project.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance. Reserve forests: Mangata Reserve Forest at a distance of 8.50 km in South West direction. Water bodies: Shivnath River is at a distance of 2.53 Km in South direction, Sonbarsa River at distance of 6.0 km in North direction, Chitwar Nala at distance of 2.70 km in South direction, Borai Nala at distance of 6.0 km in South direction and Pond in village Nagpura at distance of 0.94 km in South West direction. As per the certificate issued by the Office of the Executive Engineer, Tandula Water Resource Division, Durg, Chhattisgarh vide letter number 926/tak/2023 dated 21.02.2023, the project site is above the HFL there was no flood in this area in the last 25 years.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.69µg/m³, 0.64µg/m³, 0.89µg/m³ and 0.98µg/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 800.0 m³/day which will be met by the Chhattisgarh State Industrial Development Corporation (CSIDC). The permission has been issued vide no. CSIDC/Number – 4/2021 – 22/14330 dated 11/03/2022 to M/s Chlorophyll Bio-fuels Private Limited. Effluent (Condensate/spent lees/blow down etc.) of 920m³/day quantity will be treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 1500 KLPD. Raw stillage (650 KLPD quantity of raw spent wash from distillation) 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 4.5 MW and will be met from proposed 5.0 MW cogeneration power plant. 45 TPH rice husk (308 TPD)/Coal fired boiler will be installed. We will ensure that coal shall be used in emergency case only. Electrostatic Precipitator with a stack height of 45 m will be installed with the 45 TPH boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. 1500 × 1Nos DG set will be used as standby during power failure and stack height (10 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- Electrostatic Precipitator with a stack height of 45 meters will be installed with the 45 TPH boiler 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 (120.5 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) (148 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (8.71 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises/supplied to brick manufacturers/ given to farmers to be used as manure.
- Used oil (0.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (1.0 TPD) and STP Sludge (0.03 TPD) will be used as manure.

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

Total land of 12.2466 Hectares is under possession of the company and Land conversion order issued on dated 03.02.2023 under section 59(2) (5) read with Section 172 of Chhattisgarh Land Revenue Code 1959. EAC noted that conversion has been done by revenue department, Chattisgarh and found the information satisfactory.

Village	Khasra Number	Area (ha)	Land use conversion order and date
Nagpura	473/2, 774/4, 491/1, 504/2, 447, 475, 470, 471/3, 467/2, 476, 478, 479, 480, 481, 482, 463, 477, 485, 503, 468/2, 504/4, 468/1, 467/1, 483, 471/1, 471/2, 495, 497, 487, 461, 462/3, 468/3, 460, 464, 469, 472, 473/3, 492, 504/1, 504/3, 491/2, 491/3, 455/2, 468/4, 466/1	12.2466	Land conversion order issued on dated 03.02.2023 under section 59(2) (5) read with Section 172 of Chhattisgarh Land Revenue Code 1959
Total		12.2466	

Capital cost and recurring cost of EMP are given below:

S. No	Description	Capital Cost (in Crores)	Recurring Cost (in Crores /Annum)
1	Air pollution control system (ESP) on 45 TPH low pressure boiler	1.8	0.35
2	Scrubbing system, compressing system, liquefying system and storage for CO2 removal	2.23	0.5
3	Spent wash treatment including concentration-using MEE (Multiple effect evaporator).	21.5	1.5
4	Condensate Polishing unit	4.65	0.75
5	Rainwater harvesting systems	0.5	0.02
6	OCEMS- Online Continuous Emission/Effluent Monitoring System	0.24	0.02
7	Occupational Health Management	0.5	0.1
8	Green Belt Development	0.55	0.1
9	Environment monitoring	---	0.03
10	Solid/ hazardous waste management	0.1	0.03
11	CER	3.43	--
	Total	35.5	3.4

Details of CER with proposed activities and budgetary allocation:

S. No	Description	Total (Lakh)
1	Providing sanitation and drinking water facilities in village Nagpura, Borai and Daba in consultation with the competent authority	50
2	Maintenance of Existing Infrastructure/Roads in village Nagpura, Borai and Daba in consultation with the competent authority	62
3	Setting up solar panels/Solar light distribution in village Nagpura, Borai and Daba	48
4	Avenue Plantation in nearby villages and roads in village Nagpura, Borai and Daba	60
5	Education-Construction/ operation./provision of facilities e.g. school building, Class rooms, Play ground, Laboratory, Library, Computer class, Toilets, Drinking Water Facilities etc. for a village schools in village	55

	Nagpura, Borai and Daba in consultation with the competent authority	
6	Training & Skill Development of local youths in village Nagpura, Borai and Daba	75
	Total	350

During deliberations, EAC discussed following issues:

- EAC suggested CER cost be increased to Rs. 3.5 Cores and PP shall submit revised details of CER with commitment that all proposed activities of CER shall be completed before the commissioning of the plant in consultation with District Administration. PP has submitted an undertaking to increase the CER to Rs. 3.5 Crore with the commitment to complete all activities proposed in CER before commissioning of the plant.
- EAC suggested PP to develop the proposed greenbelt within one year. PP has given that proposed greenbelt shall be developed within one year from issuance of EC. Indigenous species shall only developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop atleast 20 variety of species as a part of greenbelt.
- EAC suggested that Industry shall meet 15% of the total power requirement from solar power by generating power inside plant premises. Accordingly, PP has given commitment for the same.
- EAC suggested that details of rain water harvesting structure proposed shall be given. PP submitted an undertaking that a rain water storage pond of 60 days capacity an area 2500 square meter and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- ESP with a stack height of 45 meters will be installed with the Rice Husk/Coal fired 45 TPH boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. As proposed by PP, Coal shall be back up fuel which shall be used in emergency only. Low sulphur coal with maximum sulphur content of 0.5% shall only be used.

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). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (iv). NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the surface water for the distillery activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission. No ground water shall be used for the plant operations.
- (v). Total fresh water requirement shall not exceed 800 m³/day, which will be sourced from Chhattisgarh State Industrial Development Corporation (CSIDC). No ground water recharge shall be permitted within the premises. No ground water abstraction shall be permitted. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

- (vi). Spent Wash/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (vii). ESP with a stack height of 45 meters will be installed with the Rice Husk/Coal fired 45 TPH boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. 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. Performance assessment of pollution control devices/systems will be conducted annually.
- (viii). Boiler ash (8.71 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. PP shall use Rice Husk / Coal as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises.
- (ix). CO₂ (120.5 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.
- (x). PP shall allocate at least Rs. 0.5 Crore/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width has already been developed in 4.1690 hectares i.e., 34.04 % of total project area shall be maintained with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Thick green belt shall be developed between the plant boundary and parking area. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop atleast 20 variety of species as a part of greenbelt.
- (xvi). PP proposed to allocate Rs. 3.50 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/ 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. 06

Establishment of 200 KLPD grain-based ethanol plant with 5.0 MW co-generation of power at Begrajpur village, Khatauli Paragana, Muzaffarnagar district, Uttar Pradesh by M/s. Crystal Balaji Industries Private Limited – Consideration of Amendment in Environmental Clearance.

[IA/UP/IND2/296613/2023, IA-J-11011/365/2021-IA-II (I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry EC Identification No. - EC21A060UP124327 vide dated 24.11.2021 for establishment of 200 KLPD grain-based ethanol plant with 5.0 MW co-generation of power at Begrajpur village, Khatauli Paragana, Muzaffarnagar district Uttar Pradesh by M/s. Crystal Balaji Industries Private Limited.

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

S.No.	Para of EC issued by MoEF&CC	Details as per the EC	Amendment Sought for	Justification/ reasons
1	10	1 No. Boiler of 50 TPH	Boiler Type will change. 1 No. 50 TPH waste to energy boiler shall be installed.	The new boiler has RDF & NRSW as a primary fuel. Since the RDF and NRSW have some plastics and moister content therefore to use these fuel boiler shall be modified. Use of RDF and NRSW will be a great help of central Govt.
2	14	Fuel Used for boiler shall be biomass based.	Fuel used for boiler shall be RDF, NRSW and biomass combination.	
3	Project	Biomass	Proposed RDF-530	

	Summary	Quantity 425 TPD as per project summary point 13	MT/D, NRSW-275 MT/D, or Biomass 480 MT/D or any combination.	Mantra of "3R" & "Waste mission" which emphasis reducing reusing and recycling the waste.
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During deliberations, EAC discussed following issues:

- EAC suggested that PP shall ensure that RDF used as a fuel in the boiler shall not contain any form of Chlorinated Compounds such as PVC etc. In this regard, PP shall obtain certificate from seller of RDF authenticating that RDF does not contain any form of Chlorinated Compounds.
- Air Emissions norms as applicable for the boiler shall be monitored.

After detailed deliberations, EAC recommended the proposal with the following additional conditions:

- PP shall ensure that RDF used as a fuel in the boiler shall not contain any form of Chlorinated Compounds such as PVC etc. In this regard, PP shall obtain certificate from seller of RDF authenticating that RDF does not contain any form of Chlorinated Compounds. Air Emissions norms as applicable for the boiler shall be monitored.
- ESP (5 fields) with a stack height of 72 meters will be installed with the boilers of capacity 50 TPH Biomass/RDF fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. 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. Performance assessment of pollution control devices/ systems will be conducted annually
- 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.

- 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

All other terms and conditions in the EC issued vide EC identification no. EC21A060UP124327 vide dated 24.11.2021 remain unchanged

Agenda No. 07

Establishment of 150 KLPD Grain based distillery along with 3.5 MW Electricity Generation at: Survey No. 32/2, 3, 4, 33/2,4,5, At/post: Nagral SP village, Tal.: Guledgudda, Dist.: Bagalkot, Karnataka by M/s. Vismaya Bio-Refineries & Allied Industries Pvt. Ltd. (VBRAIPL) - Consideration of Environmental Clearance.

[IA/KA/IND2/416795/2023, IA-J11011/57/2023-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET certificate no. NABET/EIA/2124/SA 0177 and validity 10.10.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for Environmental Clearance to the project for Establishment of 150 KLPD Grain based distillery along with 3.5 MW Electricity Generation at: Survey No. 32/2, 3, 4, 33/2,4,5, At/post: Nagral SP village, Tal.: Guledgudda, Dist.: Bagalkot, Karnataka by M/s. Vismaya Bio-Refineries & Allied Industries Pvt. Ltd. (VBRAIPL).

The committee noted that the proposed land area for the project is in 2 parts which is bisected by road. As per layout map, it appears that proposed plant is very congested for conforming with safety requirements. Accordingly, EAC suggested that PP shall furnish the Engineering drawing for the proposed project and carry out HAZOP study

as well as risk assessment study.

The committee will appraise the complete proposal after receiving above information. In view of above, committee suggested to return the proposal in present form. Accordingly, proposal was returned in present form.

Agenda No. 08

Proposed Grain Based 200 KLD Fuel Ethanol Plant & 6.0 MW Co-Generation Power Plant located at Khasara no 142/1,142/2, 142/3, 146/8, 142/5, at village Agariya, District- Narsinghpur, Madhya Pradesh By M/s. Mahakaushal Sugar And Power Industries Ltd.- Consideration of Environmental Clearance.

[IA/MP/IND2/ 419588/2023, IA-J-11011/356/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Creative Enviro Services (NABET certificate no. NABET/EIA/2023/SA-0162 and validity 13.06. 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 200 KLPD Grain based Ethanol Plant & 6.0 MW Co-generation power plant (fuel to be used) located at Khasara 142/1,142/2, 142/3, 146/8, 142/5, at village Agariya, District Narsinghpur, Madhya Pradesh of M/s. Mahakaushal Sugar And Power Industries Ltd.

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

The details of products and capacity as under:

No	Sr	Name of Unit	Name of the product/by product	Production Capacity
1		Grain Based Fuel ethanol Unit	Ethanol	200 KLPD
2		Co-Generation Power Plant	Power	6 MW
3		DWGS Dryer	DDGS	102-110 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 there is no litigation is pending against the project.

Total land area required is 5.9286 hectares. Greenbelt will be developed in total area of 2.0 hectares i.e., 34% of total project area. The estimated project cost is Rs. 179 Crores. Capital cost of EMP would be Rs. 34.06 Crores and recurring cost for EMP would be Rs. 1.2015 Crores per annum. Industry proposes to allocate Rs. 2.50 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 98+50 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors / Reserve forest/Protected forest etc. within 10 km distance.. Water bodies: River Sher is at a distance of 5.25 Km in ESE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.75 $\mu\text{g}/\text{m}^3$, 1.12 $\mu\text{g}/\text{m}^3$, 3.11 $\mu\text{g}/\text{m}^3$ and 7.79 $\mu\text{g}/\text{m}^3$ 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 800 m^3 /day which will be met from Shinduri River for which consent has been obtained from WRD of Govt of MP vide no Vra. P. Ni. M./31/ Tech/ ra Sat-990/2021/503 dated 14.09.2021. Effluent (Condensate/spent lees/blow-down etc.) of 1599 m^3 /day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 1600 KLPD. Raw stillage (1538 KLPD :quantity of raw spent wash from distillation) 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 5555 KWH and will be met from proposed 6 MW cogeneration power plant. 50 TPH coal/rice husk fired boiler will be installed. APCE of ESP 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. 2X1000 KVA of 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:

- APCE of ESP with a stack height of 60 meters will be installed with the 50 TPH boiler 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 (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) (102-110 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (60 TPD) will be used for brick manufacturing in proposed brick manufacturing plant supplied to brick manufacturers to be used as manure.
- Used oil (1 Kilolitre per annum) will be sold to authorized recyclers.
- CPU sludge (0.2 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 200 KLPD will be used for manufacturing fuel ethanol only.

Total land of 5.9286 Hectares is under possession of the company and is owned by the proponent which has been covered for industrial purposes

vide letter no Prastu-01/A.V.A./2015 dated 14.08.2015 and 189 and 192 /A-2/ 21-22 dated 30.09.2021. EAC found the information satisfactory.

Capital cost and recurring cost of EMP are given below:

Capital Investment for proposed Environmental Protection (Rs. in Lacs)		
S. No.	Particular	Proposed Cost
1.	ESP + Stack + On line Monitoring equipment	240
2	M.E.E	1100
3	Waste Water Treatment Plant for Process Condensate	450
4	Decanter & Dryer	1550
5	Green Belt development	7.25 @ 11
6	Occupational Health & Safety	50.00
7	Misc RWH etc	5.0
	Total	3406
Total Recurring Cost (EMP + Plantation + Monitoring)		
Sr	Particular	Proposed Amount (Rs in Lacs) per annum – Recurring
1	Maintenance of Plantation and Plant site 7500 @ Rs 45/- per plant	2.25
2	Occupational health and Safety exp. @ 100 no Rs 25000 per workers	25
3	Environmental Monitoring cost	12.93 @ 13.0
4	O&M cost for APC, CPU, etc	80.0
	Grand Total	120.25

Details of CER with proposed activities and budgetary allocation:

Proposed Capital Budget for Corporate Environment Responsibility (CER)			
	Major Activity Heads	Physical Nos. & Village	Total (Rs. In

			Lakhs)
1	RWH pits in the surrounding villages	4 nos. each in Agriya, Bachai, Narsighpur, Villages	20.00
2	Repair/ maintenance/ provision of infrastructure facility to School for library, playground and Laboratory	04 primary /middle school at village Agriya, Bachai, Narsighpur, villages	50.00
3	Impart training to the local villagers for skill development & providing employment to them in the industry	Training to 50 unemployed youth of Agriya, Bachai, Narsighpur, Villages	70 .00
4	Deepening of existing bore wells/ponds in nearby villages for drinking water. Construction of new borewell in nearby villages as per requirement	04 villages namely Agriya, Bachai, Narsighpur, Villages	30.00
5	Provision of solar units and lights at school and streets of villages	Agriya, Bachai, Narsighpur,	40.00
7	Health (Infrastructure for Primary Health Center, Veterinary Hospitals/ Dispensaries) at Agriya, Narsinghpur, Bachai etc	in Village Agriya, Narsinghpur, Bachai	40.00
		Total	250

During deliberations, EAC discussed following issues:

- EAC noted that AAQ modelling study for point source emissions indicates that the maximum incremental GLCs for the proposed project would be 12.5 $\mu\text{g}/\text{m}^3$ and 12.2 $\mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x were on the higher side and suggested to revise it reducing maximum GLCs of them by taking air pollution control measures. Accordingly, PP has submitted Industry will use coal as auxiliary fuel only. However the maximum GLCs were calculated on worst case

scenario basis on 100% use of coal hence the value came on higher side. In accordance with the revised calculation the maximum GLC of SO₂ is reduced from 12.5 to 3.11 ug/m³ and MGLC of NO_x reduced to 7.79 ug/m³.

- EAC suggested PP to submit engineering drawing layout for the proposed project. Accordingly, PP has submitted the same.
- EAC suggested CER cost be increased to Rs. 2.5 Crores and PP shall submit revised details of CER activities. Accordingly, PP submitted revised CER activities increasing the CER budget to Rs. 2.50 Crores.
- EAC suggested that net fresh water requirement for the proposed project shall not exceed 800 KLPD i.e 4kL/kL of alcohol produced.

The committee was not satisfied with the engineering drawing provided by the PP as it was noted that area considered for individual sections seems to be insufficient/small which may pose risk. Accordingly, it was suggested to add some more area and submit the revised plant layout. It was also suggested to revise the incremental GLCs for NO_x taking account into the following factors:

- Emission concentration considered for assessing the impact,- it be 100mg/Nm³
- Meteorological conditions considered, i.e. mixing height, wind velocity, temperature fluctuations,
- Is the value a spike or persistent,
- Measures proposed to control NO_x emissions,
- Type of boiler

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

Agenda No. 09

Greenfield Project of Grain Based Distillery Plant of 360 KLD and Cogeneration Power Plant of 9.0 MW located near Vill. Panimura Jungle, Block- Tarbha, Dist- Subranpur of Odisha State by M/s Mash Bio-fuels Private Limited (MBFPL)- Consideration of amendment of Environmental Clearance

[IA/OR/IND2/244936/2021, IA-J-11011/368/2021-IA-II(I)]

The proposal was earlier considered in EAC meeting held on 09th -10th January, 2023, EAC recommended the proposal for grant of amendment of Environmental Clearance. The proposal was referred back to the EAC by the authority for deliberations on usage of coal, its impact and the ash management plan proposed.

During deliberations EAC discussed following issue:

- PP has informed that low sulphur coal with maximum Sulphur content of 0.5 % shall only be used which is within permissible limit by concerned authorities.
- PP has informed that as per commitment while granting EC brick manufacturing plant shall be installed for management of fly ash. Further, boiler ash shall be used as raw material in ash brick plant.
- EAC suggested that total fresh water requirement for the proposed project shall not exceed 1440 KLPD.

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

- ESP (5 fields) with a stack height of 71 meters will be installed with the boilers of capacity 75 TPH Biomass/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. 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. Performance assessment of pollution control devices/ systems will be conducted annually
- 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.

- 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.
- Total fresh water requirement for the proposed project shall not exceed 1440 KLPD.

All other terms and conditions in the EC issued vide letter no. EC22A060OR158403 dated 04.03.2022 remain unchanged.

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.	Shri. J.S. Kamyotra	Member
5.	Dr. Rahul Ramesh Rao Mungikar	Member
6.	Dr. Onkar Nath Tiwari	Member
7.	Dr. Sanjay V. Patil (VSI)	Member
8.	Dr. Siddhartha Singh (IMD)	Member
9.	Shri A. N. Singh, Scientist 'E'	Member Secretary
MoEFCC		
10.	Dr. Mahendra Phulwaria	Scientist 'C'
11.	Mr. Kanaka Teja	Research Assistant
