GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-2 SECTOR)
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Dated: 13.10.2022

Meeting ID: IA/IND2/13349/11/10/2022

MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE

(INDUSTRY-2 SECTOR PROJECTS)

HELD ON 11th October, 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/IND2/13348/10/10/2022) held on 10th October, 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: -

11th October, 2022 (Tuesday)

Agenda No. 1

200 KLPD Grain based Manufacturing Unit along with 4.5 MW Co-Generation Power Plant located at Plot No. 1, Upcoming Industrial Area, Aduwal, Tehsil Nalagarh, District Solan, Himachal Pradesh by M/s Bharat Spirits Pvt. Ltd.- Re-consideration of Environmental Clearance

[IA/HP/IND2/271432/2022; IA-J-11011/157/2022-IA-II(I)]

The proposal was earlier considered by the EAC (Ind-2) in its meeting (ID: IA/IND2/13341/23/09/2022) held on 23.09.2022, wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13349/11/10/2022) held on 11th October, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

S. No.	ADS by MOEFCC	Reply of PP	Remarks by EAC
1.	EAC members noted that kml file showing plant layout submitted to EAC members is different and layout shown during EAC meeting & uploaded on the website are different. Undertaking confirming the final plant layout shall be submitted	The revised layout plan as per the kml submitted with ADS reply. Further, undertaking confirming that the kml submitted with application and plant layout being submitted now are final.	Affidavit stating that there is change of layout plan in the KML file, which is final. Accordingly, EAC suggested to submit an affidavit.

	along with correct kml file showing plant layout.		
2.	Project site is towards upstream and encroaching the khad. Project site is obstructing the natural flow of Mahadev Khad. EAC suggested to construct embankment and PP shall commit the same. Time bound action plan for protecting the stream shall be submitted. Also, commit that no discharge of treated water/wastewater shall be done in Khad.	As desired embankment will be done by constructing PCC retaining wall and wire crate apron bunds on the khad bank and budget of Rs. 2,04,65,575 has been earmarked for this purpose as per the planning and estimate. Layout plan showing the positioning as well as sections of the retaining wall is also submitted with ADS reply. In addition to the above mentioned, for taking extra precaution pp has shifted the CO_2 recovery plant so that there is no chance of obstruction to the khad. Also, realigned the layout and will forgo 650.6 sq.m. of land (hatched in the layout plan enclosed). Also, PP has committed that they will not use the said part of the land and will undertake tree plantation in this area to control erosion. Further, the undertaking	PP shall commit that industry shall construct strong RCC retaining wall of sufficient height along the khad instead of PCC wall as per given proposal in ADS reply submitted and presented. PP has committed that strong RCC retaining wall of sufficient height along the khad of the plot area will be constructed in order to protect Khad. They should also develop 20 m thick greenbelt within the plant premises towards khad side.

		mentioning construction of retaining wall and no treated water/wastewater will be discharged into the khad is submitted with ADS reply.	
3.	PP informed that under CER activities pond rejuvenation will be done. EAC suggested to revise CER activities including school upgradation, supply of potable water, solar lighting etc. in addition to pond rejuvenation.	Rs. 2.15 Cr. i.e. 1% of the proposed cost has been reserved under CER. As suggested, revised CER activities are submitted.	CER activities shall be completed within 1 year.
4.	OHS budget shall be increased from Rs. 10 Lakhs to Rs. 50 Lakhs.	As advised by EAC, OHS budget has been increased to Rs. 50 Lakhs. Revised EMP budget mentioning the same is submitted with ADS reply.	EAC found the information satisfactory.
5.	Revised freshwater consumption shall be submitted and requirement shall not exceed 4 KL/KL of ethanol production.	Revised water consumption as well as water balance considering fresh water 4 KL/KL of ethanol production is submitted with ADS reply.	800 m3/day fresh water requirement has been informed by PP.EAC found the information satisfactory.

6.	Details of condensate polishing unit along with RO considering correct effluent quality. Revised characteristics of inlet of condensate shall be submitted.	Revised scheme of condensate polishing unit; ETP along with RO and STP is submitted. Revised characteristics of inlet and outlet of condensate are submitted with ADS reply.	EAC found the information satisfactory.
7.	Commitment that no coal shall be used. If coal is used then standard shall be 30 mg/Nm3 for PM emission	Undertaking mentioning that coal will not be used as fuel in the proposed boiler is submitted with ADS reply.	EAC found the information satisfactory.
8.	The Committee noted that dispersion of the pollutants was shown opposite to the wind rose diagram. The Committee asked them to carry out fresh air quality modelling and submit revised isopleths as per dominant wind direction.	Air Quality Modelling has been performed again using AERMOD (V18.7.169) and similar results have been observed in the isopleths prepared. As the project site is located in hilly terrain at 350m elevation from sea level and the elevation of study area in the downwind direction of the project site gradually varies from 350m to 1100m in the East direction due to mountains. This results in obstruction to the	EAC desired that PP shall submit angle of dispersion for higher concentrations in AQ modelling and also mark project site location.

		wind flow causing irregular and distinct pattern of pollutant dispersion. Thus due to mountains and valley impacts isopleths/GLC are showing dispersion in both the north and south directions.	
9.	Revised baseline data for CO level shall be submitted.	Revised baseline data for CO level collected for 1-week from 24.09.2022. The test results of additional monitoring are submitted. The obtained data of CO collected in September month (monsoon season) are slightly lower than the earlier data collected in March month. This is because rain/ precipitation in monsoon season scavenge the air pollutants from the atmosphere due to wash down effect. PP has also correlated Secondary data of CPCB for the region and are comparable with the test results. CPCB data also shows same trend as higher CO in March month and lower in September month.	EAC found the information satisfactory.

		Details are submitted in ADS reply.	

The committee satisfied with the response of PP.

The Project Proponent and the accredited Consultant M/s. Eco Paryavaran Laboratories and Consultants Pvt. Ltd (NABET certificate no. NABET/EIA/2023/RA 0211 and validity 17.12.2023) 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 along with 4.5 MW Co-Generation Power Plant (Rice Husk/Rice straw based) located at Plot No. 1, Upcoming Industrial Area, Aduwal, Tehsil Nalagarh, District Solan, Himachal Pradesh by M/s. Bharat Spirits Pvt. Ltd.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Total Production capacity
1.	Distillery (Grain-Broken rice etc.)	Ethanol	200 KLPD

2.	Co-generation power plant	Power	4.5 MW
3.	DWGS dryer	DDGS	117 TPD
4.	Fermentation unit	Carbon di-oxide	153 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 7.83 hectares. Greenbelt will be developed in total area of 2.64 hectares i.e., 33.78% of total project area. The estimated project cost is Rs. 215.14 Crores. Capital cost of EMP would be Rs. 10.85 Crores and recurring cost for EMP would be Rs. 0.96 Crores per annum. Industry proposes to allocate Rs. 2.15 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 650 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/protected forests: Sobal PF is at a distance 8 km in SE direction, Aduwal PF is at a distance of approx. 2 km in NW direction, Khobla PF is at a distance of approx. 3.5 km in E direction, Shilnun PF is at a distance of approx. 8.5 km in SE direction., Ratwari PF is at a distance of approx. 5.5 km in NE direction, Kala Amb PF is at a distance of approx. 7.5 km in NE direction, Sihal PF is at a distance of approx. 6.4 km in NE direction, Dhagoh PF is at a distance of approx. 6.1 km in NE direction, Rajween PF is at a distance of approx. 5.8 km in NE direction, ChikniPalsara PF is at a distance of approx. 7.9 km in SE direction, Jaglog PF is at a distance of approx. 7.9 km in NW direction, Kalti PF is at a distance of approx. 9.5 km in NE direction, JoharJohru PF is at a distance of approx. 9.2 km in W direction. Conservation plan for schedule I species has been submitted to Deputy conservator of forest, Nalagarh Forest Division, HP. dated 25.05.2022 and a budget of 0.05 Crores has been earmarked for the same. Water Bodies: Mahadev Khad is adjacent to project site, Kundlu Ki Khad is at a distance of 3 km in N direction, ChikniKhad is at a distance of 6.5 km in S direction, Sutlej River is at a distance of 9.5 km in S direction, Hydel Channel is at a distance of 7 km in W direction, Sirsa Nadi is at a

distance of 9.5 km in SW direction. A Khad is adjacent to project site for which NOC has been obtained from Jal Shakti Division Nalagarh vide letter no. JSV-NLG-CB-WA-1-/2022-9052 dated 27.08.2022 stating that the proposed plant and Machinery area of the industry is located outside the river flood plain and there is no water body/ river running through this proposed plant and machinery area.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.70 µg/m^3, 0.90 µg/m^3, 0.53 µg/m^3 and 2.25 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2 and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 830 CMD which will be met from ground water (Process water & domestic water). NOC has been obtained by Jal Shakti Division, Nalagarh, HP. vide letter no. JSV-NLG-CB-WA-GroundWater/2022-157-58 dated 06.04.2022. Effluent (Low TDS) of 1127 CMD quantity will be treated through Condensate Polishing Unit of capacity 1400 CMD and effluent (High TDS) of 88 CMD quantity will be treated through ETP of capacity 120 KLPD followed by RO. Raw stillage (1345 KLPD raw spent wash from distillation) will be sent to the decanter followed by MEE and dryer to produce DDGS. STP of capacity 50 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 3.5 MW and will be met from proposed 4.5 MW co-generation power plant. Power connection of 1 MW will be obtained from Himachal Pradesh State Electricity Board. 40 TPH rice husk/ rice straw fired boiler will be installed. Electrostatic Precipitator with a stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boiler. 750 KVA and 500 KVA DG set will be used as standby during power failure and stack height (7 m above roof level) 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 30 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 (153 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (117 TPD) will be used as cattle feed.
- Boiler ash (53 TPD) will be supplied to block manufacturing unit.
- Used oil (0.45 Kiloliters per annum) will be sold to authorized recyclers.
- CPU Sludge (10 TPD) and STP Sludge (0.008 TPD) from STP 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 7.83 Hectares is under possession of the company and possession of the industrial plot has been obtained from Himachal Pradesh State Industrial Development Corporation Limited, Baddi, Distt. Solan, HP vide letter no. HPSIDC/EE/I.A./Aduwal/295/P-1/-597 dated 27.06.2022.

During deliberations, EAC discussed following issues:

- Affidavit stating that there is change of layout plan in the KML file, which is final. Accordingly, EAC suggested to submit an affidavit.
- PP shall commit that industry shall construct strong RCC retaining wall of sufficient height along the khad instead of PCC wall as per given proposal in ADS reply submitted and presented. PP has committed that strong RCC retaining wall of sufficient height along the khad of the plot area will be constructed in order to protect Khad. They should also develop 20 m thick greenbelt within the plant premises towards khad side.

- EAC desired that PP shall submit angle of dispersion for higher concentrations in AQ modelling and also mark project site location. P has submitted the isopleths as desired.

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 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.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from ground water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). As committed, strong RCC retaining wall of sufficient height along the khad of the plot area will be constructed in order to protect Khad. They should also develop 20 m thick greenbelt within the plant premises towards khad side.

(vii). 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 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 the sewage generated from factory premises.

(viii). Electrostatic precipitator with a stack height of 30 meters will be installed with 40 TPH rice husk/ rice straw fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3. As committed, coal shall not be used 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. Performance assessment of pollution control devices/ systems will be conducted annually.

(ix). Boiler ash (53 TPD) will be supplied to block manufacturing unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(x). CO2 (153 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and it shall be sold to authorized vendors.

(xi). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(xiii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.

(xiv). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed 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 2.64 hectares i.e., 33.78% 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 the plant. No trees shall be cut as part of construction.

(xvii). PP proposed to allocate Rs. 2.15 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable 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.

(xviii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Approach road to project site 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/ 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 12thAugust, 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

Expansion of Existing 150 KLPD Molasses based Distillery to 400 KLPD Molasses Based Distillery / 400 KLPD Grain based Distillery producing Ethanol for EBP at Gut No. : - 61/A village Akiwat, Takaliwadi Road, Takaliwadi in Shirol tahsil of Dist.:- Kolhapur, State- Maharashtra by M/s. Shri. Gurudatt Sugars Ltd- Consideration of Environmental Clearance

[IA/MH/IND2/400306/2022, IA-J-11011/368/2022-IA-II (I)]

The Project Proponent and the accredited Consultant M/s. sd engineering services pvt. Ltd (NABET certificate no. NABET/EIA/2023/SA 0166 and validity Aug. 12, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for Expansion of Existing 150 KLPD Molasses based Distillery to 400 KLPD Molasses Based Distillery / 400 KLPD Grain based Distillery producing Ethanol for EBP located at Gut No. 61/A, Village Akiwat, Tehsil Shirol, District Kolhapur , State Maharashtra by M/s Shree Gurudatt Sugars Ltd

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

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

The details of products and capacity as under;

S. No.	Name of unit	Name of Product/ By-Product	Existing Production Quantity	Additional production capacity	Total production capacity
1A	Distillery (C Molasses Based) **or**	Ethanol	150 KLPD	250 KLPD	400 KLPD
1B	Distillery (Grain Based)	Ethanol	0	400 KLPD	400 KLPD
2	DWGS Dryer	DDGS	0	0	256 TPD
3	Fermentation Section	Carbon di-oxide	0	0	200 TPD

Note: At any given time, maximum capacity shall not go above 400 KLPD.

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 150 KLPD Distillery plant vide File No. J-11011/41/2015-IA II (I) dated 07-06-2019. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEF&CC, Nagpur vide File no-EC-1048/RON/2019-NGP/9203 dated 25-01-2022.

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 land area required is 5.40 hectares, which is under possession of the company. Out of the total plant area, 1.782 Hectares i.e. 33% will be developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 250 Crores. Capital cost of EMP would be Rs. 15.52 Crores and recurring cost for EMP would be Rs. 3.10 Crores per annum. Industry proposes to allocate Rs. 2.5 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 160 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance. Krishna River is at a distance of 3.6 Km in West direction. Interstate boundary of Maharashtra & Karnataka is at 4 km in West Direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.1µg/m3, 0.73µg/m3 and 0.9µg/m3 with respect to PM10, PM2.5 & SO2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 314 CMD which will be met from Krishna River. The total effluent generated after expansion (max. 2246 m3/day) will be treated in CPU of capacity 1800 m3/day. After proposed expansion, total raw spent wash generation will be 3200 CMD. In Existing molasses based operation, spent wash generated is concentrated in Multi Effect Evaporator and concentrated spent wash is burnt in incineration boiler. In proposed molasses based operation Bio digester + Dryer will be used. In grain based operation, raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. Domestic waste water will be treated in STP of capacity 50 KLPD. The plant is being/will be based on Zero Liquid discharge system and no effluent will be discharged outside the factory premises.

Total Power requirement of distillery after expansion will be 8.2 MW which will be met from existing 26.5 MW co-generation power plant. Existing Distillery unit has 22 TPH (Conc. SW + Bagasse/Coal) Incineration boiler. In proposed expansion, 71 TPH bagasse fired boiler will be installed. ESP with a stack height of 82m is already installed with existing boiler of 22 TPH for controlling the particulate emissions within the statutory limit of 30 mg/Nm3. ESP with stack height of 61m will be installed for proposed 71 TPH Boiler. Industry has 2 No's of 625 kVA DG set which will be used as standby during power failure and adequate stack height is provided as per CPCB norms.

Details of Process emissions generation and its management

- ESP with stack height of 61m will be installed for proposed 71 TPH boiler for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- After expansion, CO2 generated (200 TPD) during the fermentation process will be collected in bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (256 TPD) will be sold as cattle feed / fish feed/ prawn feed.
- In existing operation, boiler ash (50 TPD- Coal Ash) is supplied to brick manufacturers & potash rich ash which (4.5 TPD) is sold to Organic fertilizer manufacturer. For the proposed bagasse fired boiler, ash (10 TPD) will be utilized in proposed in-house brick manufacturing unit.

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 250 KLPD molasses based distillery and proposed 400 KLPD grain based distillery will be used for manufacturing fuel ethanol only.

During deliberations, EAC discussed following issues:

- EAC noted that there are 3 non/partial compliances in Certified Compliance Report related to greenbelt development, CER cost investment & storage of biomass. PP shall submit time bound action plan for greenbelt development in 55 acres as it is an integrated complex constituting sugar and distillery unit. CCR reports that only 3.5 acres land has been developed under greenbelt. Committee desired to submit time bound action plan to develop 33.33% greenbelt in 6 months. PP has submitted that they have total land of 55 acres plant area +31 acres of additional area, PP undertake that they will develop greenbelt in the 28.38 acres i.e. 33% of total area as per guidelines. Plantation will have approximate 29000 trees & Rs. 70 Lakhs will be allocated for the same and plantation will be completed in 6-8 months. However, the committee noted that IRO mentioned that

as per existing EC area of unit is 55 acres and so far they have developed greenbelt in 3.4 acres of land only. The committee suggested that 33% greenbelt shall be developed within the 55 acres of land otherwise they have to amend the existing EC dated 07-06-2019.

- Committee noted that PP has submitted proposal for use of 400 KLPD effluent for the gardening purpose. The committee suggested that the proposed proposal considered under EBP programme should be based on ZLD otherwise it cannot be considered under B2 category. PP should revise their water balance and commitment to achieve ZLD.
- PP committed to install air cooled condensers.
- PP also informed that from the existing molasses based expansion, spent wash will be treated through bio-digester followed by MEE & incineration. However, for expansion PP suggested for bio-digester+ MEE+ dryer. PP has submitted that they will make the entire distillery operation based on grain with Zero Discharge operation. However, the committee noted that the proposal is also for additional capacity of molasses for which they have not committed for ZLD.
- CER budget shall be utilized in 1 year only.
- OHS budget shall be Rs. 1 Crores.
- PP shall commit to install own brick manufacturing unit.
- Revised EMP cost shall be submitted which is on lower side.

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. Further, Committee suggested that proposal may be recommended for grant of EC subject to (1) amendment in the existing EC dated 07-06-2019 w.r.t. addition of land for greenbelt development (2) Submission of detailed time bound action plan for development of greenbelt in 33% of total plant area.

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). EC shall be subject to (1) grant of amendment in the existing EC dated 07-06-2019 w.r.t. addition of land for greenbelt development (2) Submission of detailed time bound action plan for development of greenbelt in 33% of total plant area.

(ii). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the expanded capacity of 250 KLPD molasses based distillery and proposed 400 KLPD grain based distillery 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.

(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 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.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from Krishna River. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). Spent wash shall be dried to form DDGS to be used as cattle feed in grain based operation and in molasses based operation, concentrated spent wash will be dried to form powder. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.

(vii). As committed, industry shall install air cooled condensers.

(viii). ESP (5 field & 99.9% efficiency) & stack height of 61 m will be provided with 71 TPG bagasse fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

(ix). In existing operation, boiler ash (50 TPD- Coal Ash) is supplied to brick manufacturers & potash rich ash which (4.5 TPD) is sold to Organic fertilizer manufacturer. For the proposed bagasse fired boiler, ash (10 TPD) will be utilized in proposed in-house brick manufacturing plant. 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.

(x). CO2 generated (200 TPD) during the fermentation process will be collected in bottling plant.

(xi). PP shall allocate at least Rs. 1 Crores/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(xiii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.

(xiv). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge,

process inorganic & evaporation salt shall be disposed of to the TSDF. 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 1.782 Hectares 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. Greenbelt development shall be completed before commissioning of the plant.

(xvii). PP proposed to allocate Rs. 2.5 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, potable 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.

(xviii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.

(xix). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should

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

(xx). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

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

Proposed Expansion of Distillery from 90KLPD to 240KLPD for Ethanol production by using B-Heavy Molasses & Cane Syrup with Captive Power Generation 2MW to 5MW, enhancement of Sugarcane crushing from 4,900TCD to 7,500TCD & Co-generation Plant Capacity

from 18 MW to 21 MW, Village-Ankushnagar, Tal. Ambad, Dist. Jalna, State- Maharashtra by M/s. Karmayogi Ankushrao Tope Samarth Sahakari Sakhar Karkhana Ltd. (KATSSSKL)- Consideration of Environmental Clearance

[IA/MH/IND2/400276/2022, IA-J-11011/370/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Technogreen Environmental Solutions (NABET certificate no. NABET/EIA/2124/IA0081 and validity 05th July 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for proposed expansion of existing Distillery from 90 KLPD to 240 KLPD for Ethanol production with co-generation power plant from 2 MW to 5 MW, enhancement of Sugarcane crushing from 4,900 TCD to 7,500 TCD & Co-generation power plant from 18 MW to 21 MW located at Village Ankushnagar, Tehsil Ambad, District Jalna, State Maharashtra by M/s. Karmayogi Ankushrao Tope Samarth Sahakari Sakhar Karkhana Ltd. (KATSSSKL)

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 (B-Heavy Molasses & Cane Syrup)	Ethanol	90 KLPD	150 KLPD	240 KLPD
		ENA	60 KLPD	-	60 KLPD

	Co-generation Power plant for distillery	Power	2MW	3MW	5MW
	Fermentation unit	CO2	68 TPD	102 TPD	170 TPD
2	Sugar mill	Sugar (TCD)	4900	2600	7500
		Sugar	112700 TPA	-	112700 TPA
		Sugar Syrup	-	650 TPD	650 TPD
3	Cogeneration power plant for sugar mill	Power	18MW	3MW	21MW

Note: At any given time, maximum capacity of distillery shall not go above 240 KLPD.

SEIAA has issued Environmental Clearance to the existing Industry for a capacity of Expansion of distillery from 30 KLPD to 60 KLPD vide File No. SIA/MH/IND2/49815/2018 dated 16.03.2020 and 18 MW bagasse-based power plant vide File No.J-13012/24/08-IA-II/TCJ Dated on 29.04.2009. CTO under No Increase In Pollution load to Enhance Alcohol production (Ethanol) from 60 KLPD to 90 KLPD by using B-Heavy Molasses/Cane Juice as raw materials under change in product-mix has been obtained vide letter no. No:- Format1.0/CAC/UAN No.MPCBCONSENT-0000144332/CO/2208001514 dated 30.08.2022. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Nagpur vide File no- EC-1697/RON/2022-NGP/10366 dated 26.09.2022. Action Taken Report has been submitted to IRO, MOEFCC, Nagpur dated 30.09.2022 for partial compliances. Existing sugar unit is operational on the basis of consent to operate because unit capacity is 4900 TCD, hence environmental clearance is not applicable. Latest CTO (air and water) has been issued on 30.08.2022 and is valid till 31.08.2023. Certified CTO compliance report has been issued dated 29.09.2022 from Sub regional officer, Jalna , Maharashtra Pollution Control Board. 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 no litigation is pending against the project .

Total plant area after expansion will be 141 Ha 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 49.29 Hectares i.e., 34% of the total plant area has already been developed as greenbelt & plantation and the same will be maintained in and around plant premises. The estimated project cost is Rs. 240 Crores. Capital cost of EMP would be Rs. 13.85Crores and recurring cost for EMP would be Rs. 0.484Crores per annum. Industry proposes to allocate Rs.2.40 towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 450 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. present within 10km distance. No Reserve forests/protected forests present within 10km distance. Water bodies:Paithan Canal is at a distance of 6.63 km in NNE direction, River Godavari is at a distance of 3.88 km.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4.6µg/m^3, 0.9µg/m^3, 529mg/m^3 with respect to PM_{10}, NO_X and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total freshwater requirement for sugar, distillery & co-gen after expansion will be 805 m3/day during season and 225 m3/day during off season which will be met from Godawari river. Application has been submitted to Godavari Marathwada Irrigation Development Corporation dated 30.08.2022 by vide letter no. 1/3697. Existing effluent generation is 274 m3/day from sugar millwhich is treated through ETP of capacity 550m3/day. Existing effluent generation from distillery for 60KLPD capacity (using C- Molasses) is 170 m3/day & for 90KLPD capacity (using B-heavy Molasses/syrup) is 185 m3/ day which is treated through Condensate Polishing Unit of capacity 800m3/day. Proposed effluent generation will be 100m3/day from sugar mill which will be treated through existing ETP of capacity 550m3/day & proposed effluent generation from distillery for Syrup will be 1135 m3/ day which will be treated through Condensate Polishing Unit of capacity 1000m3/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 22TPH incineration boiler.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 Sugar & Cogeneration unit after expansion will be 10.855MW and of distillery unit after expansion will be 3.5MW which will be sourced from existing & proposed Co-generation Power plant in sugar mill & Cogeneration.Existing sugar mill and Cogeneration 95TPH bagasse-based Boiler & distillery has 22TPH Bagasse & Conc. Spent wash-based incineration Boiler. Proposed 55TPH bagasse-based boiler will be installed in Sugar mill & Cogeneration & 20TPH bagasse-based boiler will be installed in distillery.

Electrostatic Precipitator with a stack of height of 76m is installed with the 95 TPH existing boiler and Electrostatic Precipitator with a stack of height of 60m is installed for 22TPH existing Boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm3.Electrostatic Precipitator with a stack height of 60m will be installed for 55TPH boiler for sugar & Cogeneration and Electrostatic Precipitator with a stack height of 45m will be installed for 20TPH boiler for distillery for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 for the proposed boiler. Industry has 1010KVA DG set of stack height 6.1mwhich will be used as standby during power failure and 1050KVA DG set of stack height 6.1m 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 of height of 76m is installed with the 95 TPH existing boiler and Electrostatic Precipitator with a stack of height of 60m is installed for 22TPH Boiler existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm3.
- Electrostatic Precipitator with a stack height of 60m will be installed for 55TPH boiler for sugar & Cogeneration and Electrostatic Precipitator with a stack height of 45m will be installed for 20TPH boiler for distillery will be installed for controlling the particulate

emissions within the statutory limit of 50 mg/Nm3 for the proposed boiler.

- Online Continuous Emission Monitoring System is will be installed with the stack and data will be transmitted to CPCB/SPCBs ervers.
- CO2(170TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and collected in proposed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- Concentrated spent wash for season (85.34 m3/day) & Off season (122 m3/day) will be burnt in incineration boiler.
- Boiler ash (43.2 TPD) is being/will besupplied to brick manufactures.
- CPUsludge(3.0TPD)is being/willbeusedasmanure.
- Yeast Sludge (18 TPD) is being/willbeused as manure.
- Pressmud(67500 TPD)is being/willbeusedasmanure
- Bagasse(420,000TPD)is being/willbe used as fuel incogeneration power plant.
- Molasses(44100TPD)is being/willbeusedas raw material for distillery
- B- heavy molasses (58800MTD) is being/willbeusedas raw material for distillery
- Sugar cane syrup (650 TPD) will be used as raw material for distillery to produce ethanol.

As per Notification S.O2339 (E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of 150KLPD & 2600 TCD will be used for manufacturing fuel ethanol only.

During deliberations, EAC discussed following issues:

- Committee suggested that bio-composting of the existing unit shall be

discontinued. Accordingly, PP informed that no bio-composting is being done in the existing unit.

- Two partial compliances were discussed related to CO2 recovery and advertisement of EC. PP informed that they have submitted action taken report to IRO, MOEFCC.
- Fresh water consumption shall be reduced to 2.5 KL/KL of ethanol produced in proposed distillery. PP shall submit action plan for the same and revised water balance reducing fresh water consumption. PP has submitted that total freshwater requirement for sugar, distillery & co-gen after expansion will be 805 m3/day during season and 225 m3/day during off season.
- PP shall ensure that study of risk perceived from existing unit & proposed unit is conducted, zone of influence is predicted and precautionary/mitigation measures are in place. PP noted the same.
- Approach road to highway shall be metalled and maintained by industry.
- Revised name of species of greenbelt shall be submitted. PP has submitted the same.
- CER cost shall be increased from 0.75% to 1% i.e. 2.40 Crores from 1.80 Crores. PP has submitted the revised cost details.
- Revised cost of EMP shall be submitted including cost of CEMS. EMP cost has been increased to Rs. 13.85 Crores and recurring cost per annum is Rs. 0.484 Crores.

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 150KLPD& 2600 TCDshall 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 expanded capacity of 2600 TCD shall be used as raw material for distillery only and not for producing sugar.

(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 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.

(v). Total freshwater requirement for sugar, distillery & co-gen after expansion will be 805 m3/day during season which will be met from Godawari river. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). Concentrated spent wash will be burnt in incineration boiler. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent from existing and proposed expansion of sugar and distillery unit shall be recycled/reused for make-up water of cooling towers/process etc. and no wastewater or treated water shall be discharged outside the plant premises of sugar and distillery unit and zero discharge shall be maintained. STP shall be installed to treat sewage generated from factory premises.

(vii). Electrostatic Precipitator (5 field & 99.9% efficiency) & stack height of 60m will be installed for 55 TPH bagasse fired boiler for sugar & Cogeneration and Electrostatic Precipitator (5 field & 99.9 % efficiency) with a stack height of 45m will be installed for 20TPH slop/bagasse fired boiler for distillery for controlling the particulate

emissions within the statutory limit of 50 mg/Nm3 for the proposed 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.

(viii). Boiler ash (43.2 TPD) is being/will be supplied to brick manufactures. 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.

(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(170TPD)generatedduringthefermentationprocesswillbecollected by utilizingCO2scrubbersandcollectedinproposedbottling plant.

(xi). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(xiii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.

(xiv). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for sludge drying.

(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 49.29 Hectares i.e., 34% 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. Existing greenbelt shall be maintained.

(xvii). PP proposed to allocate Rs. 2.40 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.

(xviii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project

area, 20% shall be allotted solely for parking purposes with facilities like rest rooms etc. Entry/exit to industry should be through service road only and PP shall maintain the approach/link road to plant site.

(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 12thAugust, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 4

Proposed 45 KLPD Grain Based Distillery Plant (Ethanol) along with 2.5 MW Cogeneration Power Plant at Plot No. G-38, MIDC Industrial Area Gadhinglaj, Tal: Gadhinglaj, Dist.: Kolhapur, Maharashtra by M/s. Mysmart Indulink Pvt Ltd – Consideration of Environmental Clearance

[IA/MH/IND2/ 400562/2022, IA-J- 11011/372/2 022-IA-II(I)

The Project Proponent and the accredited Consultant M/s. Techno Green Solution (NABET certificate no. NABET/EIA/2124/IA0081 and validity 05th July 2024)made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 45 KLPD Grain Based ethanol Plant along with 2.5 MW co-generation Power Plant (coal/biomass based) located at Plot No. G-38, MIDC Industrial Area Gadhinglaj, Tehsil Gadhinglaj, District Kolhapur, State Maharashtra by M/S MysmartIndulink Pvt Ltd

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:

Sr No	Name of Unit	Name of the products /by products	Production capacity
1	Distillery	Ethanol	45 KLPD
2	Power Plant	Power	2.5 MW
3	DWGS Dryer	DDGS	23 TPD

4	Fermentation	Carbon Dioxide	36 TPD

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

Total land area required is 4.22 hectares. Greenbelt will be developed in total area of 1.51 hectares i.e., 35.78 % of total project area. The estimated project cost is Rs. 55.00 Crores. Capital cost of EMP would be Rs. 9.75 Crores and recurring cost for EMP would be Rs. 0.59 Crores per annum. Industry proposes to allocate Rs.1.10 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 70 persons as direct & 100 Persons indirect.

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Reserve Forest/Protected Forest:Hadalge protected forest is at a distance of 2 km. Water bodies: Hiranvakesh River is at a distance of 3.7 Km in South direction from project site.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.63µg/m3, 0.05 µg/m3, 1.47 µg/m3 and 0.951µg/m3 with respect to PM10, PM2.5, SO2 & NOx . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement is 240 m3/day which will be met from MIDC Industrial Area Gadhinglaj. Confirmation for availability of water has been received by MIDC vide Letter no. DE/GAD/C95047/of 2022 dated 2nd September 2022. Effluent (Condensate/ Spent lees /blowdown) of 281 m3/day quantity will be treated through Condensate polishing unit of capacity 300 m3/day. Raw Stillage (301 KLPD: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP will be installed to treat sewage generated. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 1.8 MW and will be met rom proposed 2.5 MW cogeneration power plant. 20 TPH coal/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 30 mg/Nm3 for the proposed boiler. 1000 kVA DG set will be used as standby during power failure and stack height (6 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- ESP with a stack height of 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 (36 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

- DDGS (Distilled Dried Grains Stillage) (23 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (Coal Ash 46.35 TPD or Bagasse Ash:3.62 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil will be sold to authorized recyclers
- CPU & STP sludge will be used as manure.

As per Notification S.O 2339(E), dated 16thJune,2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 45 KLPD will be used for manufacturing fuel ethanol only.

Total 10.0 ha land is offered by MIDC and payment made, out of which distillery is being proposed to setup on 4.2 ha by M/s MysmartIndulink Pvt Ltd. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Revised CER activities including supply of potable water supply instead of RO facilities shall be submitted. PP has submitted revised CER activities including potable water supply as one of the activities.
- Revised tree species shall be submitted indigenous to area of project site. PP has submitted the revised list of tree species.
- Revised cost of EMP shall be submitted including OCEMS cost. PP has increased the capital cost to Rs. 9.75 Crores and Rs. 0.59 Crores as recurring cost per annum.

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 45 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 MIDC supply 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.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from MIDC supply. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). Spent wash 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. STP shall be installed to treat the sewage generated from factory premises.

(vii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 45 meters will be installed with 20 TPH coal/biomass fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3. SO_2 and NOx 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 (Coal Ash 46.35 TPD or Bagasse Ash:3.62 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(ix). CO2 (36 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and sold to authorized vendors/collected in installed bottling plant.

(x). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. 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 nearly 1.51 hectares i.e., 35.78 % 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 the plant. No trees shall be cut as part of construction.

(xvi). PP proposed to allocate Rs. 1.10 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, potable 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, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Approach road to project site shall be maintained.

(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 12thAugust, 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

Drilling of Infill Development wells in Wavel field in Gandhinagar Taluka in Gandhinagar District, Gujarat by Joshi Technologies International Inc-India Project - Consideration of Environmental Clearance

[IA/GJ/IND2/150670/2020 , IA-J-11011/92/2020-IA II (I)]

The Project Proponent and the accredited Consultant M/s Kadam Environmental Consultants (NABET certificate no. NABET/EIA/2023/SA 0164, valid up to 19th March 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project of Proposed Drilling of Infill Development wells in Wavel field in Gandhinagar Taluka in Gandhinagar District, Gujarat by M/s Joshi Technologies International Inc-India Project.

All project i.e. Offshore and Onshore Oil & Gas Exploration, Development & Production are listed at S. No. 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:

JTI proposes drilling of up to 2 (two) infill development wells in the Wavel oil field for development of field.

The proposed wells will be drilled from existing well (WA#7) by directional drilling method.

Co-ordinates for WA#7: 23.202044 (N) 72.654906 (E)

Wavel (WA) oil field, was discovered by ONGC in 1962. ONGC drilled Six (6) Nos. of wells and established production installation at Survey No 107, Opp Sarita Udhyan, Indroda, behind airforce camp, Indorda 382007, Taluka and District: Gandhinagar. The field was handed over by ONGC to Larsen & Toubro Limited and Joshi Technologies international Inc -India Project for development in the year 1995. The PSC for the field was signed with GOI on 20th February, 1995. JTI had acquired L&T Participating Interest and became operator of field w.e.f. 31st March, 2004. JTI drilled 1 development / infill well in 2006, which was drilled prior to 14th September, 2006 for which No Objection Certificate and Common Consent and Authorization was issued by Gujarat Pollution Control Board. There are two operational wells in the field currently. The installation located at Survey No 107, Opp Sarita Udhyan, Indroda, behind air force camp, Indorda 382007, Taluka and District: Gandhinagar has valid Consent to Operate from GPCB for Crude oil: 900 m3 /Month Associated Natural Gas: 60,000 m3 /Month The Government of Gujarat re-granted the mining lease for crude oil and natural gas for Wavel oil field on 20th March, 2018 to Joshi Technologies international Inc - India Project. Total block area of Wavel Oil field is 9 sq. km.

Existing industry is operational on the basis of Consent To Operate because existing industry is operational prior to EIA Notification 2006. Thus Environmental Clearance was not applicable. Latest CTO (air & water) has been issued on AWH-10502; Dated 14/11/2019; valid up to 28/10/2024. Certified CTO compliance report has been issued vide letter no. GPCB/CTE-GNR-82(2)/ID-28700/682906, dated 13/09/2022 from RO, GPCB, Gandhinagar. EAC found the information satisfactory.

Standard Terms of Reference have been obtained vide letter no. IA-J-11011/92/2020-IA II (I) Dated 08/05/2020.It was informed that no

litigation is pending against the project and or any direction/order passed by any court of law against the project.

Public Hearing for the proposed project had been conducted by the Gujarat Pollution Control Board on 4th March, 2022, at 11.00 hrs at EPS Wavel, Survey No. 107, Opp. Sarita Udhyan, Behind Air Force Camp, Sector – 8, Village Indroda, Taluka & District Gandhinagar, Gujarat chaired by Additional District Magistrate, Gandhinagar. The main issues raised during the public hearing and their action plan:

Regarding CER, Industry proposes to allocate Rs. 0.4 Crores towards Extended EMP (Corporate Environment Responsibility).

Regarding compensation to land loser, PP informed that in this proposed project, existing land is to be used for drilling of two wells, Hence no additional land has to be taken. This land is leased from the Government. The company will lease the land from the government till the oil is produced in the existing wells and in the future when the production stops, the land will be returned to the government after bringing the land back to its original condition.

Regarding disposal of waste water, JTI has an ETP plant of 200 m3 / day capacity at Dholka. The wastewater generated from proposed project site will be sent to Dholka by road tanker and after treatment in ETP, treated water will be injected into the water injection well. this will help to increase the production. This is an international system in which water injection maintains pressure in the well and increases oil production. Waste water will be discharged at the time of drilling. It will be stored in site HDPE lined peat and if it is found to have high oil / grease content after analysis, it will be treated in ETP and disposed in our water injection well. So it will not affect the village.

Regarding Record of waste water, The company has two road tankers with GPS location system and their ID, password is also given to GPCB. In addition, records of this daily transport are maintained.
Regarding Type of Drilling mud, Jti will use water based mud. The main content is bentonite, which is only clay, hence not considered as hazardous waste.

Regarding Generation and Disposal of drilling mud, JTI has appointed a Mumbai-based OFI company to look into whether there is mud hazardous waste at the time of drilling. They take mud samples every five meters and perform analysis wherever drilling takes place. If there is a hazards we will send for incineration within one month of completion of drilling and if there is no hazard it will be disposed of at the landfill site within 2-3 months after drying.

Regarding Generation and disposal of solid waste, If the percentage of oil in the oil content is high then this oil will be sent for incineration and after drying the mud which has low oil content it will be sent to GPCB approved landfill site and this is done in the existing project as well.

Regarding Job Opportunities - local employment, The current project employs 50% locals. The need for high scale technical manpower requires certified persons who bring in contracts. But for helper or working class jobs JTI will try to provide employment to the locals.

Regarding Disaster Management Plan, JTI has prepared Disaster Management Plan and submitted it to the Collector. At the time of drilling, JTI will follow all the safety precautions.

Regarding Hot Flaring, Hot flare is not a permanent activity. Drilling time is 30-40 days. There is a possibility of gas leakage during drilling of oil zone in last 5-6 days. If gas will be encountered, it will be sent to EPS Wavel. Thus hot flare will not be done.

Regarding Greenbelt Development, JTI will participate with GPCB in helping to plant trees every year for the next five years.

Total number of proposed wells are two. These wells will be drilled from existing well by directional drilling, thus additional land is not required for the proposed project operation. Greenbelt will be developed within project site boundary and within various identified locations of LIZ (likely impact zone area) of 1.5 km. During construction and operation phase; JTI will participate with GPCB in helping to plant trees every year for the next five years. The estimated project cost is Rs. 20 Crore. Capital cost of EMP would be Rs. 1.22 crore and recurring cost for EMP would be Rs. 0.0098 crore per

annum. Industry proposes to allocate Rs. 0.44 Crores towards Extended EMP (Corporate Environment Responsibility). Total employment will be about 40-50 persons at the drilling rig for a short duration of about 30-40 days at each well.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Reserve forests/protected forests: Indroda (Within the Block in NE direction), Lokawada(2 km in NE direction), Borij(2.41 km in NE direction). Conservation plan for schedule I species - Indian peafowl (*Pavocristatus*) has been submitted to Chief Wildlife Warden (CWLW) dated 28.06.2022 and a budget of INR 3,50,000/- has been earmarked for the same. Sabarmati River (0.8 km from nearest well) and Narmada main canal (1.0 km from nearest well) are passing through the block area.

Ambient Air Quality monitoring was carried out at 8 Locations during 24th October, 2020 to 15th January, 2021 and base line data indicates the ranges of concentrations as: PM_{10} (82-96 µg/m^3), $PM_{2.5}$ (28-36 µg/m^3), SO_2 (7.9-9.1 µg/m^3) and NO_2 (12.6-14.2 µg/m^3). AAQ modeling study for point source emissions indicates that maximum incremental GLCs after the proposed project would be 0.59 µg/m^3, 0.59 µg/m^3, 1.64 µg/m^3 with respect to PM_{10}, SO_x and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 20 m^3/day which shall be met by procuring RO water from local supplier. Domestic: 2.04 KLD (from each well this waste water will be disposed through septic tanks). Industrial: 5 KLD (per well of effluent generated during exploratory drilling activity will sent in HDPE lined pit for evaporation). Produced water generated after drilling of proposed wells will separated at installation located at Indorda, Taluka and District Gandhinagar and is transported to JTI's GGS located at Village Rasikpura, Taluka and District Kheda via road tanker for further treatment in ETP and treated effluent is injected into re-injection well. Design Capacity of Dholka ETP is 200 KLD.

Power requirement for each drilling well will be met from Diesel engines. The capacity of the diesel engine that shall be used for operating the rig and the circulation system is expected to be of 750-1000 HP (2 nos. – One standby) which will be run by High Speed Diesel. This generator shall consume approximately 2-2.5 m3 of fuel per day, when in operation, stack height (9m) will be provided as per CPCB norms to the proposed DG Sets.

Details of Process emissions generation and its management

There is no process stack involved in the said project for Drilling of Infill Development wells in Wavel field in Gandhinagar.

Details of Solid waste/ Hazardous waste generation and its management

During drilling of one well; ~ 30 MT drill cutting fluid will be sent to TSDF.
Drill cuttings and drilling mud will be disposed off in accordance with the Gazette Notification dated 30th August 2005 - G.S.R 546 (E), Section C 'Guidelines for Disposal of Solid Waste, Drill Cuttings and Drilling Fluids for Offshore and Onshore Drilling Operation'.

During deliberations, EAC discussed following issues:

- PP shall commit that mobile STP shall be installed. Proposal for the same shall be submitted. PP has submitted the details that 2.04 KLD of Sewage generated will be treated in Onsite Mobile Prefabricated / Pre structured STP (capacity 2.5 KLD) and treated water will be further reused for flushing to the tune of 1.45 KLD and remaining 0.55 will be utilized for general washings within the site.
- CER activities shall be completed within 1 year. PP has increased the CER cost from Rs. 0.4 Cr to Rs 0.44 Cr per year per well.
- Revised cumulative GLC including flare emissions & DG sets shall be submitted and flare height shall be clarified. Flare height is 9 m and revised GLC has been submitted considering DG sets and flare. 0.59 µg/m3, 0.59 µg/m3, 1.64 µg/m3, 0.032 µg/m3, 0.097 µg/m3 w.r.t PM, SO2, NOx, THC & CO have been reported as incremental GLC.
- Latitude and longitude of re-injection well & Dholka oil field shall be submitted. PP informed that DK-25 (Latitude – 22.703930 and

longitude – 72.536141) & DK-45 (Latitude – 22.697706 and longitude – 72.539969).

- Undertaking for typographical error in BOD value 15 instead of 1.5 presentation shall be submitted. PP confirmed that this has happened due to typographical error, actual value may be read as 1.5 mg/l.

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

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

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

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

(i) The project proponent shall prepare a site specific conservation plan and wildlife management plan in case of the presence of Schedule-1 species in the study area, as applicable to the project, and submit to Chief Wildlife Warden for approval. The recommendations shall be implemented in consultation with the State Forest/Wildlife Department in a time bound manner.

(ii) No drilling activities shall be carried out within 500 m from the water bodies.

(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) No pipelines or its part shall be laid in the Forest land/Protected Area without prior permission/approval from the Competent Authority.

(v) Total fresh water requirement shall not exceed 20 m3/day and will be met through Tankers Supply. Prior permission shall be obtained from the concerned regulatory authority.

(vi) The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. Mobile ETP coupled with RO shall be installed to reuse the treated water in drilling system. Mobile STP shall also be installed. Size of the waste shall be equal to the hole volume+ volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.

(vii) As proposed, produced water generated after drilling of proposed wells shall be separated at installation located at Indorda, Taluka and District Gandhinagar and transported to JTI's GGS located at Village Rasikpura, Taluka and District Kheda via road tanker for further treatment in ETP (200 KLPD) and treated effluent is injected into re-injection well. Treated effluent shall meet the water quality standards for re-injection well as per the CPCB/SPCB guidelines. PP shall monitor water quality of treated effluent regularly and maintain records.

(viii) During production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.

(ix) The project proponent also to ensure trapping/storing of the CO2 generated, if any, during the process and handling.

(x) Approach road shall be made pucca to minimize generation of suspended dust.

(xi) The project proponent shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.

(xii) The company shall construct the garland drain to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated.

(xiii) Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.

(xiv) Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.

(xv) The project proponent shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At fixed installations or plants use of ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.

(xvi) The project proponent shall develop a contingency plan for H2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H2S detectors in locations of high risk of exposure along with self-containing breathing apparatus.

(xvii) Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.

(xviii) On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable DGH / Indian Petroleum Regulations. After completion of

drilling of any well, the owner or operator shall restore the well site, remove or fill all pits used to contain produced fluids or industrial waste and remove all drilling supplies and equipment not needed for production.

(xix) As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility (Rs. 0.44 Crores), and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within 1 year as proposed.

(xx) No lead acid batteries shall be utilized in the project/site.

(xxi) Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xxii) Oil content in the drill cuttings shall be monitored and report & shall sent to the Ministry's Regional Office.

(xxiii) The project proponent shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.

(xxiv) 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

Proposed 100 KLPD Grain Based Distillery along with 3.0 MW Co-generation Power Plant under Ethanol Blended Petrol Programme (EBP) located at Marang Marcha, Chitarpur, P.O. Sandhi, District Ramgarh, Jharkhand by M/s. Dhage Patil Agro Products Pvt. Ltd. – Consideration of Environmental Clearance

[IA/JH/IND2/289915/2022; IA-J-11011/336/2022-IA-II(I)]

PP informed via mail dated 11th October, 2022 that the proposed land is not under possession of company and registered ownership of land with Revenue Department is not with the PP. Therefore, PP will not be able to present their case in EAC. **Accordingly, proposal was returned in present form.**

Agenda No. 7

Proposed Expansion of Distillery Capacity 60 KLPD to 240 KLPD to Produce Rectified Spirit/ Extra Neutral Alcohol/ Ethanol Based on Sugarcane Juice/ Syrup/"C"/"B" Heavy Molasses located at Gat No. 196/1, Village Pravara Nagar Loni, Tehsil Rahata, District Ahmednagar, State Maharashtra by M/s. Padmashree Dr Vitthalrao Vikhe Patil Sahakari Sakhar Karkhana Ltd.– Consideration of Environmental Clearance

[IA/MH/IND2/215302/2021, IA-J-11011/251/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Mantras Green Resources Ltd., Nashik (NABET Certificate No.- NABET/EIA/1922/RA 0201 and validity Nov 07, 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 Sugarcane Juice/ Syrup/"C"/"B" Heavy Molasses based Distillery Capacity from 60 KLPD to 240 KLPD to produce Rectified Spirit/ Extra Neutral Alcohol/ Ethanol located at Gat No. 196/1, Village Pravara Nagar Loni, Tehsil Rahata, District Ahmednagar, State

Maharashtra by M/s. Padmashree Dr VitthalraoVikhe Patil Sahakari Sakhar Karkhana Ltd.

All Distillery projects which are more than 100 KLPD Capacity 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:

Sr. no.	Unit	Product/ By-product	Existing Capacity	Proposed Capacity	Total Capacity
1.	Sugar Crushing unit	Sugar	7200 TCD	-	7200 TCD
2.	Distillery Unit	Rectified Spirit or ENA or Ethanol	60 KLPD	180 KLPD	240 KLPD
3.	Co-generation power plant (Incineration boiler)	Power	8 MW	-	8 MW

Existing industry is operational on the basis of Consent To Operate because Distillery was established in the year 1975 for capacity of 32 KLPD, New plant of 60 KLPD was installed in 1984. Thus Environmental Clearance was not applicable. Latest CTO (air and water) has been issued on 30/08/2022 and is valid till 31/08/2023. Certified CTO compliance report has been issued dated 26.09.2022 from SRO, SPCB.

The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 44thEAC meeting held on 22ndNovember, 2021 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide F. no. IA-J-11011/251/2021-IA-II(I); dated 8th

December 2021. It was informed that no litigation is pending against the proposal.

Public Hearing for the proposed project had been conducted by the SRO Ahmednagar Pollution Control Board on 17.02.2021 at M/s. Padmashree Dr.Vitthal rao Vikhe Patil Sahakari Sakhar Karkhana Ltd., Gat No. 196/1, Pravara Nagar Loni, Rahata, Ahmednagar, Maharashtra chaired by the Additional District Magistrate, Ahmednagar. The main issues raised during the public hearing and their action plan:

Regarding greenbelt development, 1.33 Ha i.e. 33% has already been developed and same will be densified with the proposed expansion with tree density of 2500 trees per Ha.

Regarding fertilizer for farmers, PP informed that the unit is already having existing sugar unit of 7200 TCD crushing capacity, press mud generated from sugar unit will be mixed with fly ash and the manure will be prepared, which will be available for the local farmers.

Regarding Environment Management Cell, P informed that Environment Cell is already with the factory and a person with M.Sc. Environment along with three educational qualified person are engaged in the cell.

Regarding power supply to villages, PP informed that the factory has already provided the electricity on outer roads and will provide electricity with solar LEDS on the internal roads also. Rs. 1.92 Crores has been earmarked for generation of electricity through solar power and its distribution.

Regarding employment, PP informed that the priority should be given to the local peoples only.

Regarding health services to people, PP informed that there is OPD at the factory and if there is serious injury then the medical service is provided at Pravara Medical hospital. Recently the factory has made one Cardiac Ambulance also.

Regarding social projects will be implemented in the nearby schools and public places, PP informed that activities such as construction of school building, digitization of school etc, have been carried out in the nearby school and same will continue.

Regarding water pollution, EMP Cost of Condensate Polishing unit of 2500 KLD capacity, Multiple effect evaporator for Spent wash concentration and Bio-methanation Plant will be Rs. 8.00 Crores and O&M Cost for the project will be Rs. 1.00 Crores/Annum.

Regarding ash dispersion, The Electrostatic precipitator with stack height of 85 m shall be installed, so there is no any problem on crop and human health due to boiler ash. Capital Cost for ESP for Controlling PM emission and stack of 85 meters height as per CPCB calculations. EMP Cost – Rs. 40.00 Crores and O&M Cost – Rs. 200 Lakhs/Annum.

Total plant area after expansion will be 4.04 Ha. 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 1.33 Hectares i.e. 33% of the total plant area has already been developed as greenbelt & plantation and the same will be developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 313.38 Crores. Capital cost of EMP would be Rs.51.07 Crores and recurring cost for EMP would be Rs.3.75 Crores per annum. Industry proposes to allocate Rs. 3.13 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 300 persons as direct & indirect.

There are no any national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/ElephantReserves, Wildlife Corridors etc. within 10 km distance. No major water body present within 10 km radius of project site.

Ambient air quality monitoring was carried out at 8 locations during March 2021 to May 2021 and the baseline data indicates the ranges of concentrations as: PM10 39.3 µg/m3 to 58.5 µg/m3), PM2.5 (20.2 µg/m3 to 36.6 µg/m3), SO2 (10.3 µg/m3 – 24.9 µg/m3) and NO2 (13.8 µg/m3-28.8 µg/m3).AAQ modelling study for point source emissions indicates that the total maximum incremental GLCs after the proposed project would be 58.5 µg/m3, 24.9 µg/m3 and 28.8 µg/m3 with respect to PM10, SO2 and NOX.

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

Total fresh water requirement after expansion will be 743 CMD which will be met from Irrigation Department (Pravara Canal). NOC has been obtained by Irrigation Department vide letter no. 3647/ year 2021, dated 31.12.2021. Existing effluent generation is 720 CMD which is treated through Condensate Polishing Unit of capacity 1350 CMD. Proposed effluent generation will be 1063 CMD which will be treated through proposed Condensate Polishing Unit of capacity 2500 CMD. Raw spent wash will be concentrated in MEE and burnt in incineration boiler. Domestic waste water is being/will be send to aeration tank of CPU. The plant is being/ will be based on Zero Liquid discharge system and treated effluent will not be discharged outside the factory premises.

Total power requirement of distilleryafter expansion will be 2.4 MW whichwill be sourced from existing 8 MW co-generation power plant in sugar mill. Existing unit has 160 TPH boiler in Sugar mill. 65 TPH slop/bagasse fired boiler will be installed. ESP 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 boiler. Industry has 500 KVA DG set which will be used as standby during power failure and stack height (6.5 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- ESP 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 boiler.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 (160 TPD) will be bottled and supplied to Industries for various uses.

Details of Solid waste/ Hazardous waste generation and its management

- Concentrated spent wash is being/will be burnt in incineration boiler.
- Fly Ash (224.64 MT/M)and Bottom Ash (56.16 MT/M) will be mixed with press mud and sold as manure.
- CPU Sludge (300 MT/A) will be used as manure.
- Used Oil (Schedule :5.1) (100 Litres/ Annum) will be sold to authorized recycler.

During deliberations, EAC discussed following issues:

- PP committed that bio-composting will not be practised in existing as well as proposed capacity.
- PP committed that existing 32 KLPD distillery shall be dismantled before start of construction of expanded capacity.
- Employment shall be given as per State Government Policy.
- CER cost shall be increased to 1% i.e. Rs. 3.13 Crores.
- Committee suggested that PP shall ensure fresh water consumption shall not exceed 2.5 KL/KL of alcohol produced as industry shall explore possibility of reuse of sugar mill treated water.
- EAC noted that greenbelt is very less in the existing land as shown in kml. PP shall provide action plan for developing greenbelt for 1 year timeline. Landscape area shall not be considered under greenbelt. PP has submitted detailed action plan for 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 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). As committed, existing 32 KLPD distillery shall be dismantled before start of construction operations of expanded capacity.

(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 743 CMD which will be met from Irrigation Department (Pravara Canal). 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 incinerated in boiler.For spent wash disposal, bio-composting shall not be practised for existing as well as proposed unit. 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 from distillery shall be discharged outside the premises and Zero Liquid Discharge shall be maintained for both the units. STP shall be installed to treat sewage generated from factory premises.

(vi). Electro Static Precipitator(5 field & 99.9% efficiency) withastackofheightof85 m will be installed with 65 TPH slop/bagasse fired boilerfor controlling the particulate emissions within the statutory limit of 50 mg/Nm^3. 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). Fly Ash (224.64 MT/M)and Bottom Ash (56.16 MT/M) will be mixed with press mud and sold 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). CO2 (160 TPD) will be bottled and supplied to Industries for various uses.

(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 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.

(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 1.33 Hectares 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. Greenbelt development i.e. 33% out of total project area @ 2500 trees per hectares shall be completed within 1year.

(xvi). PP proposed to allocate Rs. 3.13 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, 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. 8

Greenfield Project of Grain Based Distillery Plant of 200 KLD (100 KLD in Phase-1 + 100 KLD in Phase-2) along with Co-generation power plant of 5 MW (2.5 MW in Phase-1 + 2.5 MW in Phase-2) at Plot no. 42-H, 43-H, 44-H at Industrial Area Sitapur Phase-2, District-Morena, Madhya Pradesh by M/s Zyex Chemicals LLP. – Consideration of Environmental Clearance

[IA/MP/IND2/401373/2022, IA-J-11011/407/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. GRC India Pvt Ltd (NABET certificate no. NABET/EIA/2124/RA0213 and validity 15.02.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 200 KLD (100 KLD in Phase-1 + 100 KLD in Phase-2) Grain based ethanol plant along with 5 MW (2.5 MW in Phase-1 + 2.5 MW in Phase-2) Co-generation power plant located at Plot no. 42-H, 43-H, 44-H, Industrial Area Sitapur Phase-2, Tehsil Morena Rural, District Morena, State Madhya Pradesh by M/s Zyex Chemicals LLP.

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 (100 KLD in Phase-1 + 100 KLD in Phase-2)
2	Co-generation power plant	Power	5 MW (2.5 MW in Phase-1 + 2.5 MW in Phase-2)
3	DWGS dryer	DDGS	92 TPD
4	Fermentation unit	Carbon di-oxide	149 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 7.794 hectares. Greenbelt will be developed in total area of 2.647 hectares i.e., 33.96 % of total project area. The estimated project cost is Rs. 250 Crores. Capital cost of EMP would be Rs. 39.75 Crores and recurring cost for EMP would be Rs. 8.8 Crores per annum. Industry proposes to allocate Rs. 2.50 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 247 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/Protected Forests: Bamur Reserve Forest is at a distance of 1.2 km in West direction, Kuailath Reserve Forest is at a distance of 2.4 km in SW direction, Nurabad Reserve Forest is at a distance of 6 km in North direction, Sanichara Reserve Forest is at a distance of 7 km in ENE direction, Susera Protected Forest is at a distance of 7.8 km in ESE direction, Nala is at a distance of 0.2 km in East direction, Sankh Nadi is at a distance of 2 km in East direction, Tighara Canal is at a distance of 4.3 km in ENE direction, Auruwa Nala is at a distance of 4.3 km in East direction, PatyarNadi is at a distance of 4.5 km in West direction, Khiraoli Reservoir is at a distance of 6 km in ENE direction, Pillowa Dam Reservoir is at a distance of 7.5 km in NE direction, Kotwal Dam Reservoir is at a distance of 9 km in NE direction, Asan Nadi is at a distance of 9.6 km in NW direction, Kural Nadi is at a distance of 9.7 km in West direction. NOC has been obtained from Executive Engineer, Water Resource Department, Morena, Gwalior, M.P., dated 23/09/2022 stating that there is no history of flood in the region for more than 30 years. Therefore, there will be no impact of river on project site and they have no objection in development of said project.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.07µg/m^3, 0.04 µg/m^3, 1.09 µg/m^3, 0.55 µg/m^3 and 0.22 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2, NO_X and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement including co-generation power plant will be 1128 m^3/day which will be met from surface water (Noorabad Dam on Sankh River) and assurance letter has been obtained from MP Industrial Development Corporation Ltd. vide letter no. S.N/MPIDC/RO-Gwl/IT/2022/3650, dated 19/09/2022.Effluent (Condensate/spent lees/blowdown etc.) of 864 m^3/day quantity from Phase-1 & Phase-2 will be

treated through two Condensate Polishing Unit/Effluent Treatment Plant of capacity 2x550 KLD. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 25 KLD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 5 MW for both phase and will be met from proposed 5 MW (2.5 MW in Phase-1 + 2.5 MW in Phase-2) co-generation power plant. 2 x 25 TPH Coal/Rice Husk fired boiler will be installed. ESP/bag filter& a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3 for the proposed boiler. 2*1000 kVA DG set will be used as standby during power failure and stack height will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- ESP/bag filter 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.
- CO_2 (149 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (92 TPD) will be sold as cattle feed/fish feed/ prawn feed.
- Boiler ash (48 TPD) will be utilized for brick making in proposed in-house brick manufacturing plant.
- Used oil (2 Kilolitres per annum) will be sold to authorized recyclers.
- ETP/CPU sludge (117.8 KG/day) and STP Sludge (2.12 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 KLD (100 KLD Phase-1+ 100 KLD Phase-2) will be used for manufacturing fuel ethanol only.

Total land of 7.794 Hectares has been allotted to M/s. Zyex Chemicals LLP by M.P. Industrial Development Corporation Limited vide Application no. 1030072108002 dated 03.10.2022. Project site falls within industrial area. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- PP shall increase the storage capacity of RWH tanks for rainwater storage capacity of 60 days. PP ha submitted revised storage tanks details.
- PP shall ensure that fresh water consumption shall not exceed 4 Kl/Kl for distillery.
- Revise CER activities w.r.t. funding of ITI to 50 persons. PP has submitted revised CER activities.
- 20 m wide greenbelt shall be developed towards the drain (Nalla) side.

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 MPIDC 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.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from MPIDC Water Supply. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). Spent wash 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. STP shall be installed to treat the sewage generated from factory premises.

(vii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 60 meters will be installed with 2 x 25 TPH Coal/Rice Husk fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3. SO_2 and NOx 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 (48 TPD) will be utilized for brick making in proposed in-house brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with

maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(ix). CO_2 (149 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

(x). PP shall allocate at least Rs. 75 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. 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 nearly 2.647 hectares i.e., 33.96 % 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 the plant. No trees shall be cut as part of construction. 20 m wide greenbelt shall be developed towards the drain (Nalla) side.

(xvi). PP proposed to allocate Rs. 2.5 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, potable 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, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Approach road to project site shall be maintained.

(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 12thAugust, 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

Proposed Drilling of wells and Testing of Hydrocarbons, Setting of EPS/QPS in AA/ONDSF/LAXMIJAN/2016 Block located in Nazira Taluka, Sibsagar district, Assam by M/s. Megha Engineering & Infrastructure Ltd. (MEIL)- Consideration of Environmental Clearance

[IA/AS/IND2/188998/2020, IA-J-11011/327/2020-IA-II(I)]

The Project Proponent and the accredited Consultant ABC Technolabs India Pvt. Ltd, (NABET Certificate No. NABET/EIA/1922/RA0155 and validity 7th 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 wells and Testing of Hydrocarbons, Setting of EPS/QPS in AA/ONDSF/LAXMIJAN/2016 Block located at Village Adpuria Tehsil Nazira, District Sibsagar, State Assam by M/s. Megha Engineering & Infrastructure Ltd. (MEIL).

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	2 Nos.
2	Quick Production Facility (QPF) of 2773 BBL	1 No.

Co-ordinates of proposed wells for 1(b) projects

Block	Well	Lat	Long	Village Name
AA/ONDSF/ LAXMIJAN/2016 Block	LJ-A	26° 47' 57.408'' N	94° 46' 50.448'' E	Adpuria
	LJ-B	26° 48' 9.36'' N	94° 47' 5.568'' E	Adpuria

Block AA/ONDSF/LAXMIJAN/2016 ("Laxmijan") is located in Nazira Taluka, Sibsagar district, Assam State. The Revenue Sharing Contract (RSC) for the Block Laxmijan was signed on 27th March 2017 and Petroleum Mining Lease (PML) was granted by the state Government of Assam on 21st April 2018. Area of block is 8.9 sq km and average elevation is 350 ft.

The project proposal was considered by the Expert Appraisal Committee (EAC)-Industry 2 and recommended Standard Terms of References (ToRs) have been obtained vide F No. IA-J-11011/327/2020-IA-II(I) Dated 30th December 2020. 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 6th April 2022 at Phuloni Bari Krishipam, Forest Gate Chari-Ali Rongomoncho, Near Forest Beat Office, Lakhimijan, Nazira, SivasagarDist, Assam chaired by Additional Deputy Commissioner, Nazira,

Assam. The main issues raised during the public hearing and their action plan:

Regarding Local recruitment opportunity by PP, PP informed that Local people will be given preference.

Regarding Improvement of road conditions and social responsibilities, MEIL will earmark funds for Corporate Environmental Responsibility (CER) i.e. 1.28 Crore INR (3 years).
Regarding Noise level pollution and water pollution, MEIL official described about the waste pit to control the water pollution after treatment in mobile ETP and will recycle and reuse water for mud preparation. To control noise from DG acoustic enclosures/barricade will be used. MEIL also earmarked funds Environmental management plan and safety. 0.56 Crore INR (capital) and 0.18 Crore INR (Recurring).

Total land area required is 4 hectares. Greenbelt will be developed in total area of 1.32 hectares i.e., 33% of total project area in permanent land owned by company(Total for 2 nos. of well locations). The estimated project cost is Rs. 63.8 Crores. Capital cost of EMP would be Rs. 0.56 Crores and recurring cost for EMP would be Rs. 0.18 Crores per annum. Industry proposes to allocate Rs. 1.28 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 30 persons as direct & indirect.

There are nonational parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Dikhow River is at a distance of 0.6 Km in East direction(nearest well LJ-B).

Ambient air quality monitoring was carried out at 8 (eight) locations during 12th October 2020 to 3rd January 2021 and the baseline data indicates the ranges of concentrations as:PM10 (52-82 µg/m3), PM2.5 (20-58 µg/m3), SO2 (5.1-12.3 µg/m3) and NO2 (10.1-24.9 µg/m3). AAQ modeling study for point source emissions indicates that themaximum incremental GLCs after the proposed project would be 0.04 µg/m3,0.6 µg/m3 and 0.08 µg/m3 with respect to PM10, SO2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement is 20 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. Produced water will be treated in 250 KLPD ETP located in QPF/EPF. Treated water will be re-injected in the injection well. The drilling site will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside.

Power requirement will be 1050 KVA and will be met from proposed Diesel Generator sets. 3 x 350 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
There will be no Process emissions generation.

Details of Solid waste/ Hazardous waste generation and its management

Solid waste generated from Drilling operations are as follows:

- 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 - Proper segregation and storage of recyclable waste in designated bins onsite. Recyclables will be periodically sold to local waste recyclers.

Hazardous waste from Drilling operations are as follows:

- 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 following issues:

- PP informed that no forest land is present within the block. Geleky RF is located at a distance of 6 km from block boundary.
- PP informed that greenbelt development of 33% will be carried out in EPF/QPF facility which will be permanently allocated to industry. Size of permanent facility will be approx. 1 hectare. PP shall ensure the 33% greenbelt to be developed as per total permanent facility in 1 ha.
- Produced water will be treated in 250 KLPD ETP located in QPF/EPF. Treated water will be re-injected in the injection well.
- Total fresh water requirement shall not exceed 20 m3/day for the drilling. 12 KLD fresh water requirement for EPF/QPF.
- Latitude and longitude of injection well shall be submitted.
- Details of flare to be submitted. PP informed that flare will be elevated at 30 m. Also, PP informed that while predicting GLC, flare system has been included.
- CER activities shall be spent within 2 years.
- Acoustic enclosures for compressors shall be provided.
- As per PH issues raised, greenbelt development shall be done around the villages near to block site & maintain roads surrounding the block area.

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

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

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

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

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

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

(i) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of

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

(ii) No drilling activities shall be carried out within 500 m from the waterbodies.

(iii) No pipelines or its part shall be laid in the Forest land/Protected Area without prior permission/approval from the Competent Authority.

(iv) Total fresh water requirement shall not exceed 20 m3/day and will be met through Tankers Supply. Prior permission shall be obtained from the concerned regulatory authority.

(v) The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. Mobile ETP coupled with RO shall be installed to reuse the treated water in drilling system. Mobile STP of 5 KLPD shall be installed. Size of the waste shall be equal to the hole volume+ volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.

(vi) Produced water will be treated in 250 KLPD ETP located in QPF/EPF. Treated water will be re-injected in the injection well. Treated effluent shall meet the water quality standards for re-injection well as per the CPCB/SPCB guidelines. PP shall monitor water quality of treated effluent regularly and maintain records.

(vii) During production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.

(viii) The project proponent also to ensure trapping/storing of the CO2 generated, if any, during the process and handling.

(ix) Approach road shall be made pucca to minimize generation of

suspended dust.

(x) The project proponent shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines. Acoustic enclosures for compressors shall be provided.

(xi) The company shall construct the garland drain to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated.

(xii) Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.

(xiii) Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.

(xiv) The project proponent shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At fixed installations or plants use of ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.

(xv) The project proponent shall develop a contingency plan for H2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H2S detectors in locations of high risk of exposure along with self-containing breathing apparatus.

(xvi) Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.

(xvii) On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable DGH / Indian Petroleum Regulations. After completion of drilling of any well, the owner or operator shall restore the well site, remove or fill all pits used to contain produced fluids or industrial waste and remove all drilling supplies and equipment not needed for production.

(xviii) As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility (Rs. 1.28 Crores), and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, maintenance of roads, greenbelt/plantation in nearby villages, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within 2 years.

(xix) No lead acid batteries shall be utilized in the project/site.

(xx) Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xxi) Oil content in the drill cuttings shall be monitored and report & shall sent to the Ministry's Regional Office.

(xxii) The project proponent shall prepare operating manual in respect of all

activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.

(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

Greenfield Grain Based Ethanol Plant of 100 KLD along with 2.8 MW Co-generation Power Plant located atVillage-Ruam, Tehsil & Block - Musabini, District- East Singhbhum, Jharkhand by M/s Kijalk Starch Agro Pvt. Ltd. -Consideration of Environmental Clearance

[IA/JH/IND2/283136/2022, IA-J-11011/258/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. GRC India Pvt Ltd (NABET certificate no. NABET/EIA/2124/RA0213 and valid till 15.02.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 100 KLPD Grain Based Ethanol Plant along with 2.8 MW Co-generation Power Plant located at Village Ruam, Tehsil & Block Musabini, District East Singhbhum, State Jharkhand by M/s Kijalk Starch AgroPvt. Ltd.

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

Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S.No	Name of Unit	Name of the product/by-product	Production capacity
1	Distillery	Ethanol	100 KLD
2	Co-generation power plant	Power	2.8 MW
3	DWGS dryer	DDGS	43 TPD
4	Fermentation unit	Carbon di-oxide	50 TPD

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

Total land area required is 10.12 hectares. Greenbelt will be developed in total area of 3.33 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 150.38 Crores. Capital cost of EMP would be Rs. 23.80 Crores and recurring cost for EMP would be Rs. 7.2 Crores per annum. Industry proposes to allocate Rs. 1.50 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 105 persons including 69 persons as permanent and 36 persons as temporary.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve Forest/Protected Forest: Forest Block Jadugoda-Mosabani Range is at a distance of 0.8 km towards West direction, Trailtribe Hill is at a distance of 5.3 km towards West direction, Rohor Buru Hill is at a distance of 9 km towards East direction and Basadera RF is at a distance of 13 km towards East direction. Water bodies: Swarnrekha River is at a distance of 0.8 km, Hill River (Garra Nalla) is at a distance of 0.03 km towards North direction for which NOC has been obtained from State Irrigation Department stating that they have made local enquiry and survey and found that Garra Nala is at a distance of 21.33 meters from the project site towards N direction and

there is no history of flood in the region for more than 30 years. Therefore, they have no objection in development of the project if concern agency construct plant 100 meters away from the bank of Garra Nala and then there will be no impact on Garra Nala.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.91µg/m^3, 0.37µg/m^3, 3.17µg/m^3, 2.03µg/m^3 and 1.64 with respect to PM_{10}, $PM_{2.5}$, SO_2, NO_X and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement including co-generation power plant will be 555 m^3/day which will be met from Subarnrekha river. Application for permission of withdrawal of water vide no. 241 dated 05.08.2022 has been submitted. Effluent (Condensate/spent lees/blow-down etc.) of 439 m^3/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 525 KLPD each. Raw stillage 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 2.8 MW will be met from 2.8 MW co- generation power plant. 25 TPH Coal/Rice Husk fired boiler will be installed. ESP & a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3 for the proposed boiler. 2x 500 kVA DG set will be used as standby during power failure and stack height will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- ESP & a stack height of 60 meters will be installed with the boiler for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2 (50 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (43 TPD) will be sold as cattle feed/fish feed/ prawn feed.
- Boiler ash (58 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (2.0 Kilolitres per annum) will be sold to authorized recyclers.
- ETP/CPU sludge (49.72 KG/day) and STP Sludge (52.24 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 100 KLPD will be used for manufacturing fuel ethanol only.

Total land of 10.12 Hectares has been allotted to M/s. Kijalk Starch Agro Private Limited by Jharkhand Industrial Area Development Authority vide application no. 2000000478, dated 23.10.2018.

During deliberations, EAC discussed following issues:

- PP shall commit that at 100 m, industry shall construct strong RCC retaining wall against the Garra Nala and 20 m wide greenbelt shall be developed towards the drain i.e. North side. PP shall submit copy of clarification letter and NOC obtained from State Irrigation Department for Garra Nala/Hill River. PP has submitted NOC and committed as above in writing.
- Reverify the PHAST deductions for risk assessment as distance of threat zone is large i.e. 120 m due to less quantity of alcohol storage considered. Revised Risk assessment has been submitted.
- Revised CER activities shall be submitted including solar lightings, hospital and school upgradation and drinking water facility. Revised CER activities have been submitted.
- Revised water balance by utilizing rainwater as fresh water shall be submitted. PP has submitted 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 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). As per NOC issued by State Irrigation Department, PP shall construct plant 100 meters away from the bank of Garra Nala and PP shall ensure that there shall be no impact on Garra Nala. At 100 m, industry shall construct strong RCC retaining wall against the Garra Nala and ensure that no treated water/waste water is 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). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(v). NOC from the Concerned Local authority 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.

(vi). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from Subarnrekha 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). 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. STP shall be installed to treat the sewage generated from factory premises.

(viii). Electrostatic precipitator (5 field & 99.9% efficiency)and stack height of 60 meters will be installed with 25 TPH Coal/Rice Husk fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3. SO_2 and NOx 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.

(ix). Boiler ash (58 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(x). CO_2 (50 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

(xi). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(xiii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. 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 3.33 hectares 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. Greenbelt development shall be completed before commissioning of the plant. 20 m wide greenbelt shall be developed towards drain i.e. North side.

(xvii). 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, potable 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.

(xviii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Approach road to project site 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/ 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 12thAugust, 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. 11

Proposed Establishment of 100 KLPD Grain Based Ethanol Plant with Captive power Plant 3 MW located at survey Nos. 6//12, 6//13, 6//16, 6//17, 6//18, 6//19, 6//23, 6//24, 6//25, 19//3, 19//4, 19//15, 18//1 Gobindgarh Village, Sultanpur Lodhi Tehsil, Kapurthala District, Punjab state by M/s. Lahaul Grains and Spirits Private Limited- Consideration of Environmental Clearance

[IA/PB/IND2/286850/2022, IA-J11011/303/2022-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 20.10.2022) 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 MW Co-generation power plant (rice husk based) located at survey Nos. 6//12, 6//13, 6//16, 6//17, 6//18, 6//19, 6//23, 6//24, 6//25, 19//3, 19//4, 19//15, 18//1 Village Gobindgarh, Tehsil Sultanpur Lodhi, District Kapurthala, State Punjab by M/s. Lahaul Grains and Spirits Private Limited.

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

Sl. No.	Name of Unit	Name of the	Production capacity

		Product /by-product	
1	Distillery (grain)	Ethanol	100 KLPD
2	Co-generation power plant	Power	3 MW
3	DWGS dryer	DDGS	56 TPD
4	Fermentation unit	Carbon di-oxide	76 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 5.14 hectares. Greenbelt will be developed in total area of 1.78 hectares i.e., 34.63 % of total project area. The estimated project cost is Rs. 142.58 Crores. Capital cost of EMP would be Rs. 16.295 Crores and recurring cost for EMP would be Rs. 2.19 Crores per annum. Industry proposes to allocate Rs. 1.5 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 70 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km distance. There is no Reserve Forest/ protected forests within 10 km. Water bodies: Western Black Bein river a tributary of river Bias is flowing at a distance of 5.2 km in the North Western direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.31 µg/m^3, 1.75 µg/m^3 and 1.29 µg/m^3 with respect to PM, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total freshwater requirement will be 432 m^3/day which will be met from ground water. Application has been submitted to Secretary, Punjab Water Regulation and Development Authority; Chandigarh dated 30.06.2022. Effluent (MEE Condensate/Cooling tower bleed/ boiler blowdown/ DM plant rejects/ lab washings etc.) of 821 m^3/day quantity will be treated through Condensate Polishing Unit of capacity 1000 KLPD. Raw stillage/spent wash

(608 KLPD) will be sent to decanter followed by MEE and DWGS dryer to produce DDGS. Modular 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 2.840 and will be met from proposed 3 MW cogeneration power plant. 25 TPH biomass/coal fired boiler will be installed. Electrostatic precipitator with a stack height of 38 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3 for the proposed boiler. 750 kVA DG sets will be used as standby during power failure and stack height (8 m ARL) will be provided as per CPCB norms to the proposed DG set.

Details of Process emissions generation and its management

- Electrostatic precipitator with a stack height of 38 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 (76 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) (56 TPD) will be sold as cattle feed.
- Boiler ash (2 TPD) will be supplied to brick manufacturers/supplied to farmers as manure.
- Used oil (0.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (0.5 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 100 KLPD will be used for manufacturing fuel ethanol only.

Total land of 5.14 Hectares is under possession of the company directors and regarding land use conversion, Department of Town and Rural Planning, in its letter no. dated 25.02.2022 informed that there is no need to change the land use as per the Department of Housing and Urban Development Notification no. PS/PSHUD206 dated 12.11.2021 and it is also informed that the Department has no object for setting up of the said industry. Sale deed is executed between Directors of the company and M/s. Lahaul Grains and Spirits Private Limited on 21.09.2022. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- CER budget shall be increased to Rs. 1.5 Crores from Rs. 1.0 Crore. PP has submitted the revised CER activities.
- Road is passing within the site. PP shall obtain NOC from Revenue Department /Gram Panchayat as road is passing through the site. PP noted the same.
- Commitment that ground water withdrawal permission shall be obtained before start of construction activities. PP has submitted the same.
- Revised EMP budget shall be submitted as it is on lower side. Revised EMP capital cost is submitted as Rs. 16.295 Crores and 2.19 Crores as recurring cost per annum.
- Revised rainwater storage tank capacity shall be submitted. PP has submitted the same.
- PP shall ensure that MOU with brick manufacturers including financial commitment is obtained for fly ash supply 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 capacity of 100 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per

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

(ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(iii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

(iv). PP shall obtain NOC from Revenue Department /Gram Panchayat as road is passing through the site.

(v). 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.

(vi). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from ground water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vii). Spent wash 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. STP shall be installed to treat the sewage generated from factory premises.

(viii). Electrostatic precipitator (5 field & 99.9% efficiency) & stack height of 38 meters will be installed with 25 TPH biomass/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3. SO2 and NOX emissions shall be below 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.

(ix). Boiler ash (2 TPD) will be supplied to brick manufacturers/supplied to farmers as manure. PP shall ensure that MOU with brick manufacturers including financial commitment is obtained for fly ash supply before start of construction activities. 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. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(x). CO_2 (76 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be collected in proposed bottling plant.

(xi). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(xiii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. 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 1.78 hectares i.e., 34.63 % 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 the plant. No trees shall be cut as part of construction.

(xvii). 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, potable 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.

(xviii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no

parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Approach road to project site 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/ 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 12thAugust, 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. 12

Proposed 160 KLPD Grain Based Distillery Unit along with 4.6 MW Co-gen Power Plant and Zero Liquid Discharge at SIPCOT Industrial Park, Gangaikondan Village, Tirunelveli Taluk, Tirunelveli District, Tamil Nadu by M/s. Nanda Devi Bio Energy LLP- Consideration of Environmental Clearance

[IA/TN/IND2/402103/2022 , IA-J-11011/416/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Enviro Care India Private Limited (NABET certificate no. NABET/EIA/2124/RA0249 and validity 14th December 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 160 KLPD Grain Based ethanol plant along with 4.6 MW Co-generation Power Plant (biomass/imported coal based) located at SIPCOT Industrial Park, Village Gangaikondan, Tehsil Tirunelveli, District Tirunelveli, State Tamil Nadu by M/s. Nanda Devi Bio Energy LLP.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5g(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	Distillery Raw Materials - Grains (Broken & Full rice, Maize)	Ethanol	160 KLPD

2	Co-generation Power Plant	Power	4.6MW
3	DWGS Dryer	DDGS	35640 TPA
4	Fermentation Unit	Carbondi-oxide	26400 TPA

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 8.81 hectares. Greenbelt will be developed in total area of 2.58 hectares i.e., 34.8% of total project area. The estimated project cost is Rs. 219.20 Crores. Capital cost of EMP would be Rs. 70.5 Crores and recurring cost for EMP would be Rs. 6.01 Crores per annum. Industry proposes to allocate Rs. 7 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. PP reported that Gangaikondan Reserve Forest (fairly dense mixed jungle) is at a distance of 1.35 km and project site is 1.8 km from away Gangaikondan Spotted Deer Sanctuary (Fairly dense mixed jungle) located 2.7 km from the project site. Water bodies: River Thamirabharani is at a distance of 7.81 km.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.45 µg/m3, 1.87 µg/m3, 0.67 µg/m3 and 0.94 µg/m3 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 730 m3/day which will be met from SIPCOT Water Supply. Effluent (Condensate/spent lees/blow down etc.) of 600 m3/day will be treated through Condensate Polishing Unit / Effluent Treatment Plant of capacity 1200 KLPD. Raw Stillage (1250 KLD) will be treated through MEE followed by 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 3.55 MW for maize operation and 3.38 MW for broken rice operation which will be met from proposed 4.6 MW Co-generation Power Plant. 40 TPH biomass/imported coal fired boiler will be installed. Electrostatic Precipitator with a stack height of 50 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 (20 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 50 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.
- One separate CO2 recovery plant will be installed and CO2 (26400 TPA) 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) (35640 TPA) will be sold as cattle feed.
- Boiler ash [Rice Husk (927.3 TPA) & Imported Coal (115.5 TPA)] will be supplied to brick manufacturers.
- Used oil (1000 litres 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 160 KLPD will be used for manufacturing fuel ethanol only.

Total land of 8.81 Hectares is under possession of the company and land allotment Order has been obtained from SIPCOT Industrial Park, Gangaikondan, Tirunelveli, Tamilnadu (Ref: P-III/SIP-Gkn/Nanda Devi/2021 dated 20/12/2021).EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- The committee noted that PP has not mentioned Wildlife Sanctuary within 10 km distance in the Form (Part A and B). Committee suggested that PP shall submit the details of the Wildlife sanctuary and ESZ notification. PP shall submit certificate from Chief wildlife Warden indicating the distance of project site vis a vis wildlife sanctuary and ESZ boundary. The committee also suggested to seek explanation from consultant regarding non-disclosure of such information in Form (Part A and B).
- Trees are present in proposed project site. PP shall ensure that all the trees shall be retained and no trees shall be cut.
- PP shall ensure that native tree species are developed which are indigenous to the project area.
- Fresh water consumption shall not exceed 4 KL/KL of ethanol production.
- Revised CER activities including name of villages and quantitative description. Revised CER activities have been submitted.
- MOU with brick manufacturers shall be obtained with financial commitment before start of construction activities.
- Reverify GLC values as PM2.5 value is more than PM10. PP informed that value of PM 10 is 2.45 µg/m3 and PM 2.5 is 1.87 µg/m3.

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 160 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 SIPCOT industrial area 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.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from SIPCOT Water Supply. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). Spent wash 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. STP shall be installed to treat the sewage generated from factory premises.

(vii). Electrostatic precipitator with a stack height of 50 meters will be installed with 40 TPH biomass/imported coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3. SO_2 and NOx 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 [Rice Husk (927.3 TPA) & Imported Coal (115.5 TPA)] will be supplied to brick manufacturers. MOU with brick manufacturers shall be obtained with financial commitment before start of construction activities. 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. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(ix). One separate CO2 recovery plant will be installed and CO2 (26400 TPA) 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. 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. 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 nearly 2.58 hectares i.e., 34.8% 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 the plant. No trees shall be cut as part of construction and all trees present in project site shall be retained.

(xvi). PP proposed to allocate Rs. 7.0 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, potable 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, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Approach road to project site shall be maintained.

(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 12thAugust, 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.

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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. Onkar Nath Tiwari	Member
5.	Dr. Rahul Rameshrao Mungikar	Member
6.	Dr.Seshagiri Rao Ambati	Member
7.	Dr. Sanjay V Patil	Member
8.	Shri A.N. Singh, Scientist 'E'	Member Secretary
MoEFCC		
9.	Dr.Mahendra Phulwaria	Scientist 'C'
10.	Mr. Kanaka Teja	Research Assistant
11.	Ms. Meetika Gupta	Research Associate

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