

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

Dated: 18.11.2022

**Meeting ID: IA/IND2/13379/14/11/2022
MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE
(INDUSTRY-2 SECTOR PROJECTS)
HELD ON 14th -15th November, 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/IND2/13361/21/10/2022) held on 21stOctober, 2022 conducted through Video Conferencing (VC), confirmed the same. While confirming the last minutes of meeting, the Committee noted the following corrections in the minutes :

Agenda no. 11:

Onshore exploratory and Development drilling wells and production in Dibrugarh & Sibsagar districts under Dibrugarh, Dibrugarh Extn., Hugrijan, Naharkatiya, Sapkaint, Dumduma, Dholiya and Moran, Moran Extn., Borhat PMLs. Assam by M/s. Oil India Limited– Re-consideration of Environmental Clearance

[IA/AS/IND2/187643/2007, J-11011/1254/2007-IA II (I)]

The following text of Para 7, Page no. 88 of 119:

“Public Hearing for the proposed project had been conducted by the Pollution Control Board of Assam on 24th August, 2022 at Zilla Parishad Bhawan Rajgarh for Dibrugarh district, 08th December, 2020 in Sibsagar District at Jyoti Bishnu Cultural Centre, Demow, 7th November, 2020 at Sapekhati Tai Cultural Centre, Sapekhati, Charaideo District. The Public Hearing was chaired by Additional Deputy Commissioners in all the three districts.”

may be replaced as

“Public Hearing for the proposed project had been conducted by the Pollution Control Board of Assam on 24th August, 2022 at Zilla Parishad Bhawan Rajgarh for Dibrugarh district chaired by Additional Deputy Commissioner, Dibrugarh.”

(iii) After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

(iv) 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: -

14th November, 2022 (Monday)

Agenda No. 1

Expansion of Sugar Factory from 3,500 to 12,000 TCD, Co-generation Plant from 30 to 65 MW & 90 KLPD Molasses Distillery to 200 KLPD Molasses/Sugarcane Juice Distillery located at Village Bedkihal, Tehsil Chikodi, District Belgaum, State Karnataka by M/s. Venkateshwara Power Project Ltd. (VPPL)– Re-Consideration of Environmental Clearance

[IA/KA/IND2/66134/2016, J-11011/179/2016- IA II(I)]

This proposal was earlier considered by the EAC (Ind-2) in its Meeting ID: IA/IND2/13295/27/07/2022 held on 27th July, 2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again

considered in EAC meeting (Meeting ID: IA/IND2/13379/14/11/2022) held on 14th November, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

| No. | ADS by MoEFCC | Reply by PP |
|------------|---|---|
| 1. | During deliberations, EAC noted that dominant wind direction is NE whereas no station has been taken in SW direction. Correct siting of air quality monitoring stations has not been done. Hence, EAC directed the consultants to conduct air quality monitoring for additional two stations in downwind direction for one month and submit the data for further consideration. | In order to observe compliance w.r.t. the directions given during the EAC meeting of 27.07.2022; AAQ Monitoring has been carried out by Industry at two additional locations coming exactly in the downwind SW direction. |
| 2 | Certified compliance report and Greenbelt development was discussed. PP committed to develop greenbelt and complete before 31.12.2022. | Total land of VPPL is 16.94 Ha. Under existing unit 5.65 Ha is covered under green belt which is 33% of total land area. Thereunder, 12,400 different trees are planted. As directed by Hon. Committee members, Industry assured to provide Uniform Plantation under proposed Green Belt Densification. Thereunder, about 1725 no. of additional trees which comprise mostly of indigenous, evergreen, semi-evergreen & specific tree species for control of noise & certain pollutants will be planted. This plantation will be completed before 31.12.2022. |
| 3 | Commitment that Zero liquid discharge shall be maintained for sugar as well as distillery unit. | <ul style="list-style-type: none"> ▪ Industry assured that while operating the existing project as well as that after the expansion (Sugar Factory 12,000 TCD, Co-generation Plant 65 MW & 200 KLPD Molasses/cane Juice Distillery); total ZLD will be achieved. ▪ In no case, no any effluent will be discharged outside the Industry premises. The entire integrated project complex will achieve ZLD. |

| No. | ADS by MoEFCC | Reply by PP |
|-------|--|--|
| | | <p>Here, spentwash from molasses based distillery operations will be incinerated in existing 30 TPH Incineration Boiler & proposed 30 TPH Incineration Boiler.</p> <ul style="list-style-type: none"> ▪ Other effluents generated from the distillery plant comprising of lees, MEE condensate, Cooling & Boiler blowdowns will be treated in CPU and the treated effluent will be reused in Industrial complex completely. ▪ Effluent generated from sugar factory will be treated in ETP & used for green belt in own premises. |
| 4 | <p>Justification to be provided for high concentration of sulphur dioxide concentration in the background level of ambient air. Also an additional measures to be taken to control SO₂ emissions shall be submitted.</p> | <ul style="list-style-type: none"> ▪ The SO₂ concentration monitored at Industry Site location was 30.6 µg/m³ whereas at 7 other locations in study area the same was less than 20 µg/m³. ▪ It is informed by PP that the somewhat higher SO₂ concentrations at Industry site may be attributable mainly to high traffic on roads namely - (1) SH-97 (passing through the Industry plot), (2) SH-78 (3.5 Km; NE of Industry Plot), and (3) SH-98 (6.3; NW of Industry Plot). ▪ The traffic mainly comprises of trucks, tractors, buses and heavy vehicles running on Diesel as fuel. ▪ Industry has planning for control of SO₂ & other emissions towards observing compliance w.r.t. CPCB TPP 2015 Directives. |
| 5 & 6 | <p>Revised GLC shall be submitted as predicted concentration of the pollutants are high. Accordingly, pollution control measures such as APCD as well as increase in stack height shall be taken, and Commitment to be made that wet scrubbers with existing</p> | <ul style="list-style-type: none"> ▪ Revised GLC software output is presented in ADS submitted. Maximum Concentrations of Air Pollutants are - PM₁₀ @ 3.51 µg/m³ (earlier 4.02 µg/m³), PM_{2.5} @ 0.88 µg/m³ (earlier 1.0 µg/m³), SO₂ @ 6.52 µg/m³ (earlier 11.6 µg/m³) and NO_x @ 2.52 µg/m³ (earlier 5.34 µg/m³) which are found at about 9.7 Km on South East side of the Project |

| No. | ADS by MoEFCC | Reply by PP |
|-----|--|--|
| | boilers shall be replaced with ESP to achieve prescribed standards. | <p>Site.</p> <ul style="list-style-type: none"> ▪ The Industry has given commitment that under expansion project, the two wet scrubbers fitted as APC Equipment to existing sugar factory &cogen plant boilers (70 TPH & 90 TPH) will be replaced by ESPs. Further, OCMS will be installed to new boilers as in the case of existing ones. |
| 7 | Clarification for all exceeding limits including BOD levels in baseline results of surface water quality. | <ul style="list-style-type: none"> ▪ PP informed that the high readings for results w.r.t. certain parameters (including that for BOD) are observed at two surface water locations namely – Nalla (SW2) and River & Nalla Confluence (SW1). It can be seen from the Google Image of study area that the Nalla receives discharges from surface runoffs of nearby farm lands & habitations containing pollutants in domestic effluents and agricultural fertilizers and washouts. ▪ As a result, when the nalla meets river; at the point of confluence also the higher readings for pollutant parameters are noted. ▪ Thereafter due to dilution effect; the river water at downstream showed parameter values within limits or having low concentration except for coliforms. ▪ The upstream river water characteristics also were within the limits or showed lesser concentrations. |
| 8 | Qualitative analysis of ground water samples taken from piezometer wells installed in the plant premises shall be submitted. | Qualitative analysis of ground water samples taken from 3 nos. piezometer wells installed in the plant premises are submitted in ADS reply. |

| No. | ADS by MoEFCC | Reply by PP |
|-----|---|--|
| 9 | Details of ash management plan taking into account biomass ash, spent wash incineration and coal ash. | <ul style="list-style-type: none"> ▪ Bagasse, Coal & Spentwash Ash Management: Ash generated from existing bagasse based boiler as well as that from the Incineration Boiler is given to brick manufacturers. ▪ As informed during meeting, the Industry will have an ash brick making unit under expansion project. ▪ Further, as communicated during discussions, as per provisions in the OM (No. 23011/21/2021-P & K) dated 12.07.2022 issued by "Ministry of Chemicals & Fertilizers; Dept. of Fertilizers, GOI"; the Industry has a planning to supply the Incineration Boiler ash for a dedicated purpose of potash recovery by certain outside processors with whom an agreement will be made. ▪ This will provide value addition by consuming the solid waste for beneficial purpose in fertilizer industries. ▪ The bagasse ash from Cogeneration Boilers, on the other hand, shall be collected in separate silos and will be used in brick making unit. ▪ Also same will be supplied as manure (being biomass ash) to farmers on their demand. The Incineration Boiler ash, if not utilized in outside Potash Recovery Unit then same will be consumed in own brick making unit. |
| 10 | 10% of total power requirement shall be sourced from renewable energy. | As per commitment given during earlier meeting; the industry will now provide 1 MW Capacity Solar Photovoltaic Electricity generation Plant which works out to be around 10% of the total power use. |
| 11 | Undertaking for all new updations /modifications done in the proposal after document submission in | As per directions given during earlier EAC meeting, Industry committed that new updations /modifications done, if any, in the proposal after document |

| No. | ADS by MoEFCC | Reply by PP |
|-----|--|---|
| | PARIVESH portal. | submission in PARIVESH portal then the same will be duly informed / forwarded through emails to all Hon. Members before actual meeting in which the proposal is considered. |
| 12 | Commitment for uniform greenbelt development in plant premises. | <ul style="list-style-type: none"> ▪ Total land of VPPL is 16.94 Ha. Under existing unit 5.65 Ha is covered under green belt which is 33% of TPA. Thereunder, 12,400 different trees are planted. ▪ As directed by Hon. Committee members, Industry assured to provide Uniform Plantation under proposed Green Belt Densification plan. Thereunder, about 1725 no. of additional trees which comprise mostly of indigenous, evergreen, semi-evergreen & specific tree species for control of noise & certain pollutants will be planted. This plantation will be completed before 31.12.2022. |
| 13 | Undertaking to abide by the commitments given in public hearing. Time bound action plan to be submitted and cover all points in CER activities and budget. | The Environmental Public Hearing (PH) for expansion project was conducted on 01.09.2021. Industry has given undertaking that commitments given during PH w.r.t. employment to local people, replacement of existing wet scrubber by ESP, densification of green belt etc. will be fulfilled before commissioning of the expansion project. The CER items shall be implemented before commissioning of the expansion project. |

EAC was satisfied with the response & presentation made by PP on additional details sought.

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET certificate no. NABET/EIA/2124/SA 0177 and validity 10.10.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for Environmental Clearance to the expansion project of Sugar Factory from 3,500 to 12,000

TCD, Co-generation Plant from 30 to 65 MW & Molasses/ Sugarcane Juice based Distillery from 90 KLPD to 200 KLPD located at VillageBedkihal, TehsilChikodi, District Belgaum, State Karnataka by M/s. Venkateshwara Power Project Ltd. (VPPL).

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

The details of products and capacity as under:

| No. | Unit | Product/By Product | Existing Quantity | Proposed Quantity (MT/D) | Total Quantity (MT/D) |
|-----|---|--------------------|-------------------|--------------------------|-----------------------|
| 1 | Sugar Factory | Sugar (12%) | 420(MT/D) | 1020(MT/D) | 1440(MT/D) |
| | | Bagasse (30%) | 1050(MT/D) | 2550(MT/D) | 3600(MT/D) |
| | | Molasses (4%) | 140(MT/D) | 340(MT/D) | 480(MT/D) |
| | | Press Mud (4%) | 140(MT/D) | 340(MT/D) | 480(MT/D) |
| 2 | Co-gen Plant | Power | 30 MW | 35 MW | 65 MW |
| 3 | Distillery Unit (Molasses/ Sugarcane Juice based) | Ethanol/ENA/RS | 90 KLPD | 110 KLPD | 200 KLPD |
| | | Carbon Di-oxide | 68 TPD | 83 TPD | 151 TPD |

Ministry has issued Environmental Clearance to the existing capacity 30 MW Cogeneration Power Plant vide File No. J 13012/34/2009-IA-II(I) dated 09.09.2010 & 90 KLPD Molasses based Distillery vide File No. J-11011/179/2016-IA-II(I) dated 28.11.2017. Certified Compliance report along with Action Taken Report of existing EC has been obtained from Regional Office, MoEFCC, Bangalore vide File no. EP/12.1/22/2017-18/KAR&EP/12.1/12/KAR dated 23.06.2022. Existing 3500 TCD Sugar Factory is operational on the basis of Consent To Operate because Environmental Clearance is not applicable. Latest CTO (Air and Water) has been issued on 23.09.2021 and is valid till 30.06.2026. Certified CTO

compliance report has been issued dated 11.04.2022 from RO, KSPCB; Chikodi.

Standard Terms of Reference have been obtained vide F. No. J-11011/179/2016- IA II(I) dated 02.01.2021. It was informed that No litigation is pending against the project.

Public Hearing for the proposed project had been conducted by the Karnataka Pollution Control Board on 01.09.2021 at Project Site chaired by ADM; Belgaum. The main issues raised during the public hearing and their action plan:

Regarding employment, PP informed that about 550 workers are working under existing sugar factory, Cogen plant and distillery unit. Under expansion project, additional 50 workers will be employed.

Regarding fresh water requirement, PP informed that total fresh water requirement after expansion of sugar mill will be 233 CMD and 436 CMD for distillery which will be met from Dudhganga river. Maximum water will be recycled, reused within process to decrease fresh water requirement for both the units.

Regarding waste management, PP replied that in sugar mill, ETP sludge 1 T/D will be used as manure. Boiler ash will be used in brick making unit. In distillery, boiler ash 100 T/D will be used in brick making unit. Yeast sludge and CPU sludge 33 and 40 T/D will be used as manure. Under expansion unit Rs. 10 Lakh shall be spent on solid and hazardous waste management with O & M cost of Rs. 2 Lakh. Timeline- Year 2022-23; after grant of EC.

Regarding air and water pollution, ETP will be installed/upgraded, spent wash will be concentrated and incinerated, for controlling air pollution, ESP shall be installed with the proposed boiler. Under expansion unit - Air Pollution- 40 Cr, Water Pollution -15 Cr.

Total existing plant area is 16.94 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, 5.65 Hectares i.e. 33% has been developed under greenbelt/plantation. The estimated project cost is Rs. 280 Crores. Capital cost of EMP would be Rs. 56.40 Crores and recurring cost for EMP would be Rs. 2.27 Crores per annum. Industry proposes to allocate Rs. 2.4 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 600 persons as direct & indirect.

There is no presence of national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Reserve

forests/protected forests, etc. Water bodies: Vedganga River is at a distance of 4 Km in West direction & Dudhganga River is at a distance of 5 Km in North direction.

Ambient air quality monitoring was carried out at 8 locations during March 2019 to May 2019 and the baseline data indicates the ranges of concentrations as: PM₁₀ (50.2 – 69.8 µg/m³), PM_{2.5} (15.1– 27.4 µg/m³), SO₂ (13.4 – 30.9 µg/m³) and NO_x (19.4 – 34.8 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4.02 µg/m³, 1.0 µg/m³, 11.6 µg/m³ and 5.34 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 669 CMD which will be met from Dudhganga River. NOC has been obtained by Irrigation Dept., Karnataka vide letter no. C2/2017-18/1702 dated 26.04.2017. Effluent generated after expansion of sugar & co-generation unit will be 915 CMD treated in existing ETP to be upgraded under expansion & used for green belt development in own premises; ZLD will be achieved. Raw spentwash generated after expansion of distillery will be 1600 CMD will be concentrated in MEE. Concentrated spentwash @334 CMD will be incinerated in boiler. Other effluent generated after distillery expansion will be @ 1628 CMD in the form of lees, MEE condensate, cooling & boiler blowdown, lab & wash effluent which will be treated in CPU. Treated effluent will be fully recycled in process; ZLD will be achieved. Domestic effluent generated after sugar, co-generation & distillery expansion will be 82 CMD and will be treated in proposed STP of 85 CMD Capacity. The plant will be based on Zero Liquid discharge system and treated effluent/water will not be discharged outside the factory premises.

Total power requirement of sugar, cogeneration power plant & distillery after expansion will be 12.5 MW which will be sourced from existing 30 MW cogeneration power plant. Existing sugar mill has 70 TPH & 90 TPH bagasse fired boilers. Wet Scrubbers with stack height 65 m & 75 m are installed. Wet scrubbers will be replaced by Electrostatic Precipitator for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Existing distillery unit has 30 TPH coal fired boiler. Electrostatic Precipitator with stack height of 70 m is installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.

Under sugar mill expansion new 140 TPH bagasse fired boiler will be installed. Electrostatic Precipitator with a stack height of 90 m will be installed. Under distillery expansion new 30 TPH coal and spent wash fired boiler will be installed. Electrostatic Precipitator with a stack height of 80 m

will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. Industry has existing 4 nos. of DG sets with capacity 1x200 KVA, 2x250 KVA, 1x 500 KVA which are used as standby during power failure and stack height 6 M (ARL) is provided as per CPCB norms. No new DG set will be installed under expansion unit.

Details of process emissions generation and its management:

- ESP is being/will be installed with all the existing and proposed boilers for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (219 TPD) is being/will be bottled and supplied to manufacturers of beverages /secondary uses.

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

- ETP sludge (1 TPD) is being/will be used as manure.
- Boiler ash (61 TPD from sugar boiler and 100 TPD from distillery boiler) is being/will be used for brick manufacturing in brick manufacturing plant inside plant premises.
- Yeast sludge (33 TPD) & CPU sludge (40 TPD) is being/will be used as manure.
- Used Oil (3 MT/annum) is being/will be given to authorized vendors.

During deliberations, EAC discussed following issues:

- Clarification regarding concentration of SO₂ and NO_x pollutants on higher side and mitigation measures. PP has submitted that concentrations of SO₂ levels of 30.9 µg/m³ and NO_x levels of 34.8 µg/m³ are attributable mainly to high traffic on roads namely (1) SH-97 (passing through the industry plot) (2) SH -78 (3.5 km in NE direction) (3) SH-98 (6.3 km in NW). The road traffic comprises of trucks, tractors, buses & heavy vehicles running on diesel fuel.
- Photographs clearly showing greenbelt in plant premises and detailed break up of greenbelt development in plant premises including location, area to be covered etc. PP has submitted the photographs of new plantation under greenbelt during July to September, 2022. 2000 trees have been planted and industry has already achieved 33% greenbelt development which has also been certified by IRO, MOEFCC,

Bangalore.

- Water balance showing Zero Liquid Discharge from sugar and distillery premises shall be submitted and commitment that treated water of sugar mill shall be utilized in distillery. PP has submitted the same.
- Revised GLC as distance of incremental GLC is at approx. 10 km which is not practically possible. Also, cumulative GLC including traffic emissions shall be submitted. PP has submitted the details of the same.
- PP clarified that existing two wet scrubbers will be replaced by ESP.

Committee was satisfied with the response of project proponent. 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 directed that the project proponent will treat and use the treated water within the industry. 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. Public hearing issues shall be addressed as per the timeline and budget submitted.
- (ii). NOC from the Concerned Local authority for surface water 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.
- (iii). Total Fresh water requirement shall not exceed 669 CMD and will be met from Dudhganga 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.

- (iv). Concentrated spent wash shall 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 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 of sugar mill and distillery. Treated effluent of CPU from sugar unit shall be utilized in the distillery unit. STP shall be installed to treat the sewage generated from factory premises.
- (v). As committed, under expansion project, the two wet scrubbers fitted as APC Equipment to existing sugar factory & co-generation plant boilers (70 TPH & 90 TPH) shall be replaced by ESPs. OCMS is being/will be installed.
- (vi). Electrostatic Precipitator (5 field and 99.9 % efficiency) and a stack height of 90 m & 80 m will be installed with 140 TPH bagasse fired boiler and 30 TPH coal & spent wash fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for 140 TPH boiler and 30 mg/Nm³ for 30 TPH coal & spent wash fired boiler. SO₂ and NO_x emissions shall be less than 100 mg/Nm³ in 30 TPH coal & spent wash fired 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.
- (vii). Boiler ash (61 TPD from sugar boiler and 100 TPD from distillery boiler) is being/will be used for brick manufacturing in brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. 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.
- (viii). CO₂ (219 TPD) is being/will be bottled and supplied to manufacturers of beverages /secondary 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 after approval of CPCB/SPCB. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). Out of the total plant area, 5.65 Hectares i.e. 33% has been developed under greenbelt/plantation and 12,400 different trees are planted. Industry shall provide uniform plantation under proposed Green Belt Densification plan. Thereunder, about 1725 no. of additional trees which

comprise mostly of indigenous, evergreen, semi-evergreen & specific tree species for control of noise & certain pollutants shall be planted. This plantation shall be completed before 31.12.2022. The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area @ 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. Records of tree canopy shall be monitored through remote sensing map.

- (xvi). PP proposed to allocate Rs. 2.4 Crores towards extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like improvement in soil quality of the study area, skill training of ITI students, 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, skill development etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 20% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB

server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

Agenda No. 2

Grain Based Distillery Plant of 200 KLD along with Co-Generation Power Plant of 6 MW at Village - Neglur, Taluk & Dist- Haveri, State-Karnataka by M/s. Prabhriti Ethanol Private Limited - Consideration of Environmental Clearance

[IA/KA/IND2/401207/2022, IA-J-11011/478/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Ecomen Laboratories Pvt Ltd, Lucknow (NABET certificate no.: NABET/EIA/2023/RA0203 and validity 21/09/2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 200 KLPD Grain based Ethanol Plant & 6 MW Co-generation power plant (biomass/coal based) located at Village Neglur, Tehsil and District Haveri, State Karnataka by M/s. Prabhriti Ethanol Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries

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

The details of products and capacity as under:

| S no. | Name of unit | Name of the product/ by-products | Production capacity |
|--------------|---------------------------|---|----------------------------|
| 1 | Distillery (Grain based) | Ethanol | 200 KLPD |
| 2 | Co-generation power plant | Power | 6 MW |
| 3 | DWGS Dryer | DDGS | 93 TPD |
| 4 | Fermentation unit | Carbon dioxide | 189 TPD |

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

Total land area required is 6.17 hectares. Greenbelt will be developed in total area of 2.04 hectares i.e., 33% of total project area. The estimated project cost is Rs. 185 Crores. Capital cost of EMP would be Rs. 2.62 Crores and recurring cost for EMP would be Rs. 0.26 Crores per annum. Industry proposes to allocate Rs. 3.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 125 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Varada River is at a distance of 4.4 Km in North West direction, Tungabhadra River is at a distance of 5.4 km in East Direction

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.226 µg/m³, 0.151 µg/m³, 2.6 µg/m³ and 2.69 µg/m³ with respect to PM10, PM2.5, SO₂ and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1363 m³/day which will be met from Tungabhadra River. Application has been submitted to the Irrigation Dept, Govt of Karnataka dated: 26/07/2022. Effluent (Condensate/spent lees/blowdown etc.) of 1228 m³ /day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 1200 KLPD. Raw stillage (1170KLPD : quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 10 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 5.52 MW and will be met from proposed 6.0 MW co-generation power plant. 55 TPH biomass/coal fired boiler will be installed. ESP with a stack height of 56 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 1500 kVA DG set will be used as standby during power failure and stack height (30 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP will be installed & stack height of 56 meters with 55 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.
- CO₂ (189 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors.

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

- DDGS (Distilled Dried Grains Stillage) (93 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (55TPD) will be used for brick manufacturing supplied to brick manufacturers/ given to farmers to be used as manure.
- Used oil (0.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (55TPD) and STP Sludge (0.01TPD) 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 6.11 Hectares is under possession of the company and land use conversion has been completed vide letter no. 398962 dated.:08/09/2022.EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- As per the EMP report submitted, it is mentioned that water to be sourced from Malprabha River. However, during meeting, PP informed that application has been submitted for obtaining water withdrawal permission from Tungabhadra River. Committee suggested them to fill correct details in the EMP report while submitting the proposal.
- Revised total capital cost & recurring cost of EMP shall be submitted as EMP cost is on lower side.
- Clarify regarding area of greenbelt as it is different in presentation and documents submitted. PP shall submit final area of greenbelt as 5.05 acres i.e. 2.04 Ha. Also, revised plant layout clearly showing greenbelt in plant premises shall be submitted.
- Industry shall earmark 15% parking area out of total plant area.
- Revised fresh water consumption balance @ 4 KL/KL of ethanol production shall be submitted. Accordingly, water balance to be modified.
- Sewage to be treated in the STP instead of septic tank and soak pit. Proposal for the same shall be submitted.
- Re-verify the incremental concentrations of PM10, PM2.5, SO2 and NOx as values are different as submitted and presented.
- Detailed risk analysis shall be submitted and PP shall submit precautionary measures in order to ensure that threat zone of predicted danger shall be neutralized at the plant boundary.
- PP shall submit action plan for greenbelt development & commit that greenbelt shall be developed by December, 2023.

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

Agenda No. 3

Greenfield Project of 60 KLD Grain Based Ethanol Plant along with 1.8 MW Co-generation Power Plant located at Plot No. D-11, 12, 13, 14, 15, 16, 17, 18, 19, 20, Industrial Area, Lohat Phase-2, District- Madhubani, Bihar by M/s. Yash Biofuels Pvt. Ltd.- Consideration of Environmental Clearance.

[IA/BR/IND2/402095/2022, IA-J-11011/425/2022-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 60KLD Grain Based Ethanol Plant along with 1.8 MW Co-generation Power Plant located at Industrial Area, Lohat Phase-2, District Madhubani, State Bihar by M/s.Yash Biofuels 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 | Production capacity |
|---------------|---------------------------|--|----------------------------|
| 1 | Distillery | Ethanol | 60 KLPD |
| 2 | Co-generation power plant | Power | 1.8 MW |
| 3 | DWGS dryer | DDGS | 27 TPD |
| 4 | Fermentation unit | Carbon di-oxide | 45 TPD |

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

Total land area required is 4.07 hectares. Greenbelt will be developed in total area of 1.52 hectares i.e. 37.34% of total project area. The estimated project cost is Rs. 86.40 Crores. Capital cost of EMP would be Rs. 13 Crores and recurring cost for EMP would be Rs. 3.75 Crores per annum. Industry proposes to allocate Rs. 1.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 133 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. No RF/PF is present within the study area. Water bodies: Tributary of KamlaNadi is 0.25 km in East direction from the project site, pond is at a distance of 0.5 km in NNE direction. NOC vide letter no. 2965 dated 20th October, 2022 has been obtained by Chief Engineer, Samastipur stating that (i) project site is in flood safe area of Kamla Nadi; (ii) plinth shall be kept 0.50 m amsl ;(iii) No treated water/untreated water shall be discharged in river and (iv) no use of river water shall be done before obtaining permission for the same from concerned authority.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.232 $\mu\text{g}/\text{m}^3$, 0.108 $\mu\text{g}/\text{m}^3$, 0.81 $\mu\text{g}/\text{m}^3$, 0.603 $\mu\text{g}/\text{m}^3$ and 0.324 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO₂, NO₂ 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 240 m³/day which will be met from Ground water. Application for permission for NoC has been obtained vide letter No. 21-4/1250/BR/IND/2022 dated 14.10.2022. Effluent (Condensate/spent lees/blowdown etc.) of 259 m³/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 350 KLD. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 15 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 1.8 MW and will be met from proposed 1.8 MW

co-generation power plant. 16 TPH coal fired boiler will be installed. ESP/bag filter a stack height of 60m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 500 kVA DG sets 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 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.
- CO₂ (45 TPD) generated during the fermentation process will be collected by utilizing CO₂ 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) (27 TPD) will be sold as cattle feed/fish feed/ prawn feed.
- Boiler ash (26.21 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises of capacity approx. 1.30 Cr. bricks per annum.
- Used oil (1.0 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (35.35 kg/day) and STP Sludge (1.6 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 60 KLPD will be used for manufacturing fuel ethanol only.

Total land of 4.07 Hectares which falls under Industrial Area Lohat Phase-II. Land has been allotted by BIADA vide ref no. 4058/D dated 08.10.2022 and lease period is for 90 years. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Revise fresh water consumption to 4 KL/KL of ethanol production and submit. PP has submitted the revised water balance and reduced fresh water requirement to 240 m³/day from 344 m³/day.

- Ground water in the study area is not fit for drinking, hence, PP shall include supply of drinking water to villagers as one of the CER activities and submit. Clarification for ground water and surface water monitoring results have been submitted. There is a pond near to project site (0.5 km in NNE). Water quality of that pond is not fit for drinking so PP shall explore restoration of that pond so that pond water may be used for drinking/other purposes. PP has submitted revised CER cost as Rs. 1.0 Crores including all above activities.
- PP shall ensure that risk at boundary level is neutralized with proper mitigation measures.
- 20 m wide greenbelt shall be developed towards downwind direction. PP has committed 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 60 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). 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). NOC vide letter no. 2965 dated 20th October, 2022 has been obtained by Chief Engineer, Samastipur. PP shall ensure that all stipulated conditions is strictly followed i.e. (i) Plinth shall be kept 0.50 m amsl; (ii) No treated water/untreated water shall be discharged in river and (iii) no use of river water shall be done before obtaining permission for the same from concerned authority.
- (vi). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production i.e. 240 m³/day 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) with a stack height of 30 meters will be installed with 16 TPH coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

- (ix). Boiler ash (26.21 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises of capacity approx. 1.30 Cr. bricks per annum. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. 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). CO₂ (45 TPD) generated during the fermentation process will be collected by utilizing CO₂ 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 1.52 hectares i.e. 37.34% 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. 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 downwind direction.
- (xvii). PP proposed to allocate Rs. 1.0 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, pond restoration 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 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 4

Establishment of 400 KLD Multi Feed (Juice/Grains) based Distillery Unit within the existing premises of BSPL located at Sy. Nos. 56/2,59/1,5912,5913,5914,5915,59/6,6011,6012,6013,6014,6015,6511,6513,6516,6813,68/6+58,68/58,68/10,68/7,6814A,6814F,68/4C,5814D,691\,6912,6913,6914,6915,6917,6919, Hudali Village, Belagavi Taluk, Belagavi District, Karnataka by M/s. Belgaum Sugars Pvt. Ltd.-Distillery Division – Re-consideration of Environmental Clearance

[IA/KA/IND2/289824/2021, IA-J-11011/409/2021-IA-II (I)]

It has been informed to EAC by PP vide mail dated 11.11.2022 that due to unavoidable circumstances they will not be able to attend EAC meeting.

Accordingly, the proposal was deferred. Proposal will be considered as and when PP will submit request on PARIVESH portal.

Agenda No. 5

Establishment of 250 KLPD grain-based distillery to manufacture 125 KLPD Ethanol and 125 KLPD Extra Neutral Alcohol (ENA) located at Village Usroli, Tehsil Khalapur, District Raigad, State Maharashtra by M/s. Rocking Bombay Beverages Private Limited (RBBPL)– Consideration of Environmental Clearance

[IA/MH/IND2/260593/2022 , IA-J-11011/90/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Dr. Subbarao's Environment Center (NABET certificate no. NABET/EIA/2023/SA 0174 and validity Dec 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 250 KLPD grain based distillery to manufacture 125 KLPD Ethanol and 125 KLPD Extra Neutral Alcohol (ENA)& 6 MW co-generation power plant located at Village Usroli, Tehsil Khalapur, District Raigad State Maharashtra by M/s. Rocking Bombay Beverages Private Limited (RBBPL).

All (i) All molasses-based distilleries (ii) All Cane juice/ non-molasses-based distilleries (> 100 KLD) are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

| S.No. | Unit | Product / by-product | Total quantity |
|--------------|---------------------------|-----------------------------|-----------------------|
| 1. | Grain based distillery | Ethanol | 125 KLPD |
| | | ENA | 125 KLPD |
| 2. | Co-generation power plant | Power | 6 MW |
| 3. | Fermentation unit | Carbon di-oxide | 186 TPD |
| 4. | DWGS dryer | DDGS | 47916 MTPA |

Standard Terms of Reference have been obtained vide F. No. IA-J-11011/90/2022-IA-II(I) dated 23.03.2022. It was informed that no litigation is pending against the project.

Public Hearing for the proposed project had been conducted by the Maharashtra Pollution Control Board on 10/06/2022 at Harshali Hotel, Sangadewadi, Group Gram Panchayat Devnhave, Tal. Khalapur, Dist. Raigad chaired by Additional District Magistrate, Raigad. The main issues raised during the public hearing and their action plan:

Regarding benefits to local people, PP informed that Rs. 3.1491 crores has been earmarked as CER funds. The funds will be utilized within span of 05 years.

Regarding projects site and pollution, The project site is not declared as green belt rather; the project site has been converted to industrial zone by Planning Authority, Project site does not fall under any notified eco sensitive zone. Details of reserve forest patches, distance from notified sanctuaries and their respective eco sensitive zone and distance from villages mentioned in draft western ghat notification, Along with the coal the rice husk and biomass will be used as fuel for boiler. Electro-Static-Precipitator (ESP) having 99.9% efficiency along stack of 60 meters will be provided as pollution control system and the collected ash through ESP will be collected, packed and transported to selected cement companies. Further Project proponent will install online continuous emission monitoring system which will be connected to MPCB and CPCB servers.

Regarding WTP mechanism & effluent disposal, ETP will be installed and total Capital cost of EMP would be Rs. 30 Crores and recurring cost for EMP would be Rs.3.5 Crores per annum which will include all water pollution control measures.

Regarding source of water & its permission, ill effects of air pollution, PP informed that they will not draw water from Magava / Usroli lake. PP is in the process of obtaining water lifting permission from Water Resources Department (Irrigation Department), Government of Maharashtra and effective steps towards implementation of project will not be taken without obtaining water lifting permission from Water Resources Department, Government of Maharashtra. Coal will be stored in the closed coal shed and transferred through closed conveyor system to avoid its dispersion in open atmosphere. CO2 bottling unit will be installed on site. The CO2 generated from the process will be scrubbed and bottled and provided to beverage manufacturers and industrial activities. CO2 will not be vented out to open atmosphere. The cost of coal shed and conveyor is

considered in project cost. The cost of CO2 bottling unit is also considered in project cost.

Regarding issue of lack of experience, factory management will not give employment opportunities to the local people in the project, Project Proponent confirmed that they will establish a training camp at least 6 to 7 months prior to initiating production activities to train local villagers for skill upliftment and generating employment capabilities as per the need of industry. Care should be taken to include local young boys and girls graduates in the project.

Regarding spillage and leakage in the company, Project Proponent informed that the plant will be PLC based having sensors of temperature, ozone, oxygen analyzer, pH analyzer etc. Also, as per PESO (Petroleum Explosive Safety Organization) directives, the storage area is provided with foaming system. Automated Fire Exhaustive System is given. Additionally, 2500 cubic meter rainwater harvesting tank and basins of cooling towers will be connected to the fire prevention system and the entire system will be automated.

Total land area required is 5.42278761 hectares. Greenbelt will be developed in total area of 1.802654 hectares i.e., 33.24 % of total project area. The estimated project cost is Rs. 209.94 Crores. Capital cost of EMP would be Rs. 30 Crores and recurring cost for EMP would be Rs.3.5 Crores per annum. Industry proposes to allocate Rs. 3.1491 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 249 persons as direct & 150 to 200 persons indirect.

There are no parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. During presentation, PP informed that 4 Reserved Forests are located within 10 km. Villages mentioned in the Draft ESZ Notification dated 27th February 2017 are located within 10 Km radius around project site. Water bodies : Magva Pazar Talav is at a distance of ~0.3 km in SW direction. NOC has been obtained from Executive Engineer, Rural water supply department, Raigad Zila Parishad Alibaug stating that they have no objection for the proposed project.

Ambient air quality monitoring was carried out at 8 locations during October 2021 to December 2021 and the baseline data indicates the ranges of concentrations as: PM10 (44 to 68.7 µg/m³), PM2.5 (17.1 to 35.8 µg/m³),

SO₂ (9 to 33.41 µg/m³) and NO₂ (17.3 to 37.6 µg/m³).AAQ modelling study for point and line source emissions indicates that the maximum incremental GLCs after the proposed project would be 11.28 µg/m³, 7.52 µg/m³, 2.62 µg/m³ and 4.32 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1819.85 CMD which will be met from irrigation department/ CGWA. Effluent (1577.17 m³/day) shall be treated in CPU of capacity STP of capacity 2500 m³/day. Raw stillage shall be concentrated in MEE and dried to form DDGS. 40 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 4.8 MW and will be met from proposed 6 MW co-generation power plant. 50 TPH biomass/coal fired boiler will be installed. ESP with a stack of height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 2*750 KVA DG set will be used as standby during power failure and stack height (6.5 m above roof level) 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 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 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 (186 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors.

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

- DDGS (Distilled Dried Grains Stillage) (47916 MTPA) will be sold as cattle feed/fish feed/ prawn feed.
- Boiler ash (coal ash- 24 TPD and biomass ash- 64 TPD) will be supplied

to brick manufacturers.

- Used oil will be sold to authorized recyclers.
- CPU sludge (164 TPD) will be disposed in bio-composting.

Total land of 5.42278761 Hectares is under possession of the company and land use conversion has been completed vide letter no. of Mutation certificate having Digital No. 272400040286900000120223120 dated 17/01/2022 & land use conversion application has been submitted to Talathi, UsrolisazaKhanaav, Taluka, Khalapur, District Raigad. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- The Committee sought reasoning for SO₂ levels of 33.41 µg/m³ and NO₂ levels of 37.6 µg/m³ in the ambient air quality data.
- Recheck incremental GLC and recalculate the same as values are on higher side. Proper control measures for reducing SO₂ and NO_x emissions shall be submitted.
- Committee noted that air quality monitoring stations are not as per CPCB norms and direction in which monitoring stations has been selected is also incorrect as per details submitted. Committee suggested that fresh baseline data for 15 days shall be collected in proper direction taking into account upwind and downwind of dominant wind direction.
- NOC from Gram Panchayat Department shall be submitted.
- Revised water balance shall be submitted @ 4 KL/KL of ethanol production.
- Detailed and specific action plan for public hearing issues raised during Public hearing along with timeline and budgetary allocation shall be submitted.
- PH proceedings mention that some objections were received in writings also. Copy of objections/suggestions received in writing from public along with public hearing action plan including budgetary allocation and timeline for the issues raised in writing shall be prepared and submitted.
- Valid NOC/application for fresh water withdrawal shall be submitted.

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

Agenda No. 6

Proposed 300 KLPD Molasses/ Cane Juice/Sugar Syrup/ Grain Based Distillery along with 6.0 MW Co-Generation Power Plant located at Village Shamli-Shamla &Gagore, Tehsil Unn, District Shamli, Uttar Pradesh by M/s. Superior Biofuels Private Limited – Consideration of Amendment in Terms of Reference

[IA/UP/IND2/292687/2022, IA-J-11011/3/2020-IA-II(I)]

The proposal is for amendment in the ToR letter granted by the Ministry vide letter no. IA-J-11011/3/2020-IA-II(I) dated 23rd February, 2022 for the project Proposed 300 KLPD Molasses/ Cane Juice/Sugar Syrup/ Grain Based Distillery along with 6.0 MW Co-Generation Power Plant located at Village Shamli-Shamla & Gagore, Tehsil Unn, District Shamli, Uttar Pradesh by M/s. Superior Biofuels Private Limited.

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

| S. No. | Particulars of ToR issued by MoEF&CC | Details as per the ToR | To be revised/read as | Justification/ reasons |
|---------------|---|---|--|---|
| 1. | Raw Material | Molasses/ Cane Juice/Sugar Syrup/ Grain Based Distillery | Cane Juice/Sugar Syrup/ Grain Based Distillery | Molasses being removed as a raw material because of less availability of molasses in the area. Cane juice from the adjacent sugar mill will be used for the production of Ethanol / Rectified Spirit/Extra Neutral Alcohol/ |

| | | | | |
|----|------------------|---|--|---|
| | | | | Denatured Spirit. |
| 2. | Land Requirement | 7.2462 ha | 6.10 ha | Plant boundary has been re-worked to maintain safe distance from Nala i.e. more than 200 m and also the Khasra numbers have changed. The company will maintain 33% as greenbelt and plantation. |
| 3. | Khasra Numbers | 1126, 1128, 1129, 1130, 1131, 1127, 1116 (Village Shamli-Shamla) and 13, 14, 15, 39 [k.eh., 42, 43, 1, 2 d, & 12 (Village Gagore) | 1KH, 2K (Village Gagore) and 1116, 1126, 1128, 1129, 1130, 1131, 1115 Mi, 1103 A, 1103 B, 1004 K, 1004 KH & 1127 (Village Shamli-Shamla) | |

During deliberations, EAC noted that Public Hearing has already been conducted for the land proposed earlier and now PP has approached for ToR amendment as land is being added adjacent to existing proposed land (some part of existing land has been dropped). Committee noted that an OM dated 22nd January, 2010 is available regarding consideration of proposals relating to change in location after public hearing has been held. From the presentation, it was noted that PP has done some modification in the existing proposed land by deducting part land and adding some more land adjacent to the existing land.

After detailed deliberations, EAC desired the following additional details to take necessary decision on the proposal:

- Plant layout of new plant area shall be submitted and position of boiler & other equipment shall be provided to understand that no major modifications have been proposed.
- Undertaking shall be submitted that there will be no impact on baseline monitoring results and incremental studies conducted as per earlier land details.
- PP shall obtain NOC from Gram Panchayat regarding addition of separate patch of land and the NOC shall be endorsed by District

Magistrate.

Accordingly, information mentioned above shall be provided on PARIVESH portal for further consideration.

Agenda No. 7

Expansion of existing distillery unit from 90 KLPD to 150 KLPD, sugar mill from 5000 TCD to 6000 TCD located at village Sundernagar Post Talegaon, Tehsil Dharur, District Beed, State Maharashtra by M/s. Loknete Sunderraoji Solanke Sahakari Sakhar Karkhana Limited–Re-consideration of Environmental Clearance

[IA/MH/IND2/401020/2022, IA-J-11011/439/2022-II(I)]

The proposal was earlier considered by the EAC (Ind-2) in its meeting (ID:IA/IND2/13361/21/10/2022) held on 21.10.2022 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/IND2/13379/14/11/2022) held on 14th November, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

| Sr. No. | ADS by MOEFCC | Reply of PP |
|----------------|---|---|
| 1. | Affidavit stating that the integrated unit of distillery and sugar mill will be complete based on ZLD. | Industry has submitted the undertaking stating that the integrated unit of distillery and sugar mill will be completely based on Zero liquid discharge (ZLD). |
| 2. | No information has been provided regarding three layer greenbelt around the boundary in the submitted action plan. Even Layout map is showing one layer of greenbelt. | Industry has submitted the Layout map showing three tier greenbelt for the proposed expansion. |

EAC was satisfied with the response of PP as presented on additional details sought.

The Project Proponent and the accredited Consultant M/s. MITCON Consultancy and Engineering Services Ltd. (NABET certificate no. NABET/EIA/2124/RA 0229_Rev 02 and validity 05.02.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of existing distillery unit from 90 KLPD to 150 KLPD, sugar mill from 5000 TCD to 6000 TCD located at village Sundernagar Post Talegaon, Tehsil Dharur, District Beed, State Maharashtra by M/s. Loknete Sunderraoji Solanke Sahakari Sakhar Karkhana Limited.

As per EIA Notification 2006 (Schedule 5 (g) Category A); however, as per in the MoEFCC Notification S.O. 345(E), dated the 17th January, 2019, notification number S.O. 750(E), dated the 17th February, 2020, S.O. 980 (E) dated 02nd March, 2021 & S. No. 2339(E) 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 the product and by-product | Existing production capacity | Additional Production capacity | Total Production capacity |
|---------------|--|---|-------------------------------------|---------------------------------------|----------------------------------|
| 1 | Distillery (B-Molasses, Sugar syrup, etc.) | Ethanol | 90 KLPD | 60 KLPD | 150 KLPD |
| 2 | Sugar Mill (Sulphur, caustic soda, etc.) | Sugar | 5000 TCD | 1000 TCD | 6000 TCD |
| 3 | Fermentation unit | Carbon di-oxide | 66.6 TPD | 44.4 TPD | 111 TPD |

SEIAA has issued Environmental Clearance to the existing Industry for a capacity of 45KLPD to 90KLPD vide File No. SIA/MH/IND2/61556/2018 dated 21.12.2021. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Nagpur vide File no- EC-1710/RON/2022-NGP/10307 dated 15th September 2022. Action Taken Report has been submitted to IRO, MOEFCC, Nagpur dated 10.10.2022 for 2 partial compliances. Ministry has issued Environmental Clearance to the existing sugar mill for a capacity of 3500 to 5000TCD vide File No.J-

11011/204/2011-IA dated 19.12.2013. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Nagpur vide File no- EC-1719/RON/2022-NGP/10306 dated 15th September 2022. Action Taken Report has been submitted to IRO, MOEFCC, Nagpur dated 10.10.2022 for 2 partial compliances.

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

Total plant area after expansion will be 48.37 Ha which is under possession of the company and 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 17.27 Hectares (existing 8.0ha and proposed 9.27ha.) i.e. 35% of the total plant area has already been developed as greenbelt & plantation and the same will be maintained. The estimated project cost is Rs. 47.96 Crores. Capital cost of EMP would be Rs. 9.17 Crores and recurring cost for EMP would be Rs.1.14 Crores per annum. Industry proposes to allocate Rs. 1.44 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 25 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: Surnarwadi, Kasari and Bodka at a distance of 5.33 km in SE direction. Water bodies: Kundalika river is at a distance of 3.58 Km in W direction. River Kundalika is at a distance of 3.58 km.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.15 $\mu\text{g}/\text{m}^3$, 0.027 $\mu\text{g}/\text{m}^3$, with respect to SO_2 , SPM. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 881 CMD (sugar mill 347 CMD and distillery 534 CMD) which will be met from Kundalika river. NOC has been obtained from Irrigation Department vide letter no. TK 729712 dated 20.08.2018. Total effluent generation from distillery is 1131 CMD which is treated through Condensate Polishing Unit of 1200 CMD and ETP of 1200 CMD. Total effluent generation from sugar is 1141 CMD which is treated through Condensate Polishing Unit of 1200 CMD. In molasses based operation, spent wash generated from the analyser column during distillation will be concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt in incineration boiler. The plant is being/will be based on Zero

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

Total power requirement of distillery after expansion will be 2.7 MW which will be sourced from proposed 2.7MWco-generation power plant of distillery. Total power requirement of sugar mill after expansion will be 8.5 MW which will be sourced from existing 22MW co-generation power plant. Existing sugar mill has 120TPH bagasse fired boiler. No additional boiler will be installed for proposed sugar expansion. Existing distillery has 25TPH biomass/spent wash/coal fired boiler which will be upgraded to 30TPH. ESP with a common stack height of 76 m is installed with both the boilers for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. Industry has 500 KVA DG set which will be used as standby during power failure and stack height (12m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- Electro Static Precipitator with a stack height of 76 m is already installed with the existing boiler (25TPH boiler will be upgraded to 30TPH& 120 TPH) for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (111 TPD) generated during the fermentation process is being/will be collected by utilizing CO₂ scrubbers and will be collected in proposed bottling.

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

- Boiler ash (Bagasse and Spent wash (56.6 TPD)/coal ash (4.8 TPD) is being/will be supplied to brick manufacturers/ used as manure.
- Used oil (2TPA) will be sold to authorized recyclers.
- CPU sludge (2.5TPD) and STP Sludge (0.4 TPD) will be used as manure.
- Yeast sludge (20TPD) will be used in as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion of sugar crushing capacity1000 TCD and distillery capacity 60 KLPD will be used for manufacturing fuel ethanol only.

During deliberations, EAC discussed following issues:

- PP shall submit the width of 3 tier greenbelt development to be developed in plant premises. PP has submitted the revised plant layout showing 3 tier greenbelt with 10 m width.

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 of sugar crushing capacity 1000 TCD and distillery capacity 60 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). NOC from the Concerned Local authority for surface water 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.
- (iv). Total Fresh water requirement shall not exceed 881 m³/day which will be met from Kundalika 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.

- (v). Concentrated spent wash shall be incinerated. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises of sugar and distillery units. STP shall be installed to treat the sewage generated from factory premises.
- (vi). Electro Static Precipitator with a stack height of 76 m is already installed with the existing boiler (25 TPH boiler will be upgraded to 30 TPH coal/spent wash/biomass fired boiler & 120 TPH bagasse fired boiler) for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ if biomass is used as fuel and 30 mg/Nm³ if coal is used as fuel. SO₂ and NO_x emissions shall be less than 100 mg/Nm³ if coal is 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.
- (vii). Boiler ash (Bagasse and Spent wash (56.6 TPD)/coal ash (4.8 TPD) is being/will be supplied to brick manufacturers/ used as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. 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.
- (viii). CO₂ (111 TPD) generated during the fermentation process is being/will be collected by utilizing CO₂ scrubbers and will be collected in proposed bottling.
- (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. 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 17.27 hectares i.e., 35 %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.

- (xvi). PP proposed to allocate Rs. 1.44 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, 20% 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 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 8

Proposed grain based distillery of capacity 60 KLD Ethanol along with 2.0 MW Co-generation plant at Plot 52/2, 53/2, 54/3, 54/4, 760/2, 760/3, 760/4 at Village Salaiya, Tehsil Katni, District Katni, Madhya Pradesh by M/s. Venus Agro Fuels Private Limited– Re-consideration of Environmental Clearance

[IA/MP/IND2/401721/2022; IA-J-11011/422/2022-IA-II(I)]

This proposal was earlier considered by the EAC (Ind-2) in its Meeting ID: IA/IND2/13361/21/10/2022 held on 21st October, 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/IND2/13379/14/11/2022) held on 14th November, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

| No. | ADS by MoEFCC | Reply by PP |
|------------|----------------------|--------------------|
|------------|----------------------|--------------------|

| | | |
|----|--|---|
| 1. | EAC noted that dominant wind direction is NW to SE whereas maximum concentration is in NW as per isopleths submitted. PP shall submit revised isopleths. As per submitted information, PP has submitted only wind rose. However PP has not elaborated Wind Rose diagram as well as and not submitted revised isopleths for air quality prediction as desired by the committee. | Revised isopleths and elaborated wind rose diagram has been submitted with ADS reply and same was presented to EAC members. |
| 2. | Fresh water consumption shall not exceed 4 KL/KL of ethanol production including co-generation power plant. PP shall submit revised water balance for the same. PP submitted that revised fresh water requirement is 240 m ³ /day. | Revised water balance is submitted with ADS reply and same was presented to EAC members. |
| 3. | Revise list of native species shall be submitted. | PP submitted the revised list of greenbelt species. |
| 4. | CER action plan including villages name shall be submitted. | PP has submitted the same. |

EAC was satisfied with the response of PP on additional details sought and presented in EAC.

The Project Proponent and the accredited Consultant M/s. Ecomen Laboratories Pvt. Ltd., Lucknow (NABET Certificate No.: NABET/EIA/2023/RA 0203 Valid till September 21, 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 60 KLPD grain based ethanol plant along with 2.0 MW co-generation power plant (biomass/coal based) located at Village Salaiya, Tehsil & District Katni, State Madhya Pradesh by M/s. Venus Agro Fuels 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 | Production capacity |
|---------------|---|---------------------------------------|----------------------------|
| 1. | Distillery (Grain-broken rice, maize, bajra, sorghum) | Ethanol | 60 KLPD |
| 2. | Co-generation power plant | Power | 2.0 MW |
| 3. | DWGS dryer | DDGS | 30 TPD |
| 4. | Fermentation unit | Carbon di-oxide | 30 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 4.26 hectares. Greenbelt will be developed in total area of 1.41 hectares i.e., 33.22% of total project area. The estimated project cost is Rs. 84.69 Crores. Capital cost of EMP would be Rs.15.00 Crores and recurring cost for EMP would be Rs. 1.20 Crores per annum. Industry proposes to allocate Rs. 1.5 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 80 persons as direct & indirect.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Eco-sensitive Zone etc. within 10 km distance from the Project Site. Reserve Forests/ Protected Forests: Midra PF is at a distance of approx. 12.94 km in NE direction, Gopalpur RF is at a distance of approx. 10.85 km in NE direction, Manpur PF is at a distance of approx. 8.97 km in NE direction, Ponri PF is at a distance of approx. 8.05 km in NE direction, Bijauri RF is at a distance of approx. 9.03 km in NNE direction, Majhgawan RF is at a distance of approx. 9.68 km in NNE direction, PF is at a distance of approx. 12.80 km in NNE direction, Bandora PF is at a distance of approx. 13.63 km in NNE direction, PF is at a distance of approx. 8.01 km in NE direction, PF is at a distance of approx. 6.29 km in NE direction, Jorapahar RF is at a distance of approx. 8.81 km in SE direction, Bijhota RF is at a distance of approx. 7.09 km in SSW direction and Lakhapateri RF is at a distance of approx. 12.15 km in W direction. Water Bodies: Jaranagar Nala is at a distance of approx. 3.21 km in NE direction, Datla Reservoir is at a distance of approx. 9.82 km in ESE direction, NiwarNadi is at a distance of approx. 10.87 km in SSW direction, Ametha Tank is at a distance of approx. 9.79 km in SW direction, Niwar Nala is at a distance of approx. 11.11 km in SW direction, Bijauri Nala is at a distance of approx. 11.10 km in WSW direction, Canal is at a distance of

approx. 8.08 km in SW direction, Sumrar Tank is at a distance of approx. 2.37 km in W direction and Sumrar Nala is at a distance of approx. 5.22 in NW direction. There is no river/ river flood plain near the site and the proposed plant and machinery area is located outside the river flood plain.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.085 to 0.26 $\mu\text{g}/\text{m}^3$, 0.14 to 0.42 $\mu\text{g}/\text{m}^3$ with respect to PM and SO_2 . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 266 m^3/day (240 m^3/day Ethanol plant & 26 m^3/day Domestic use) which will be met from ground water. Ground water permission has been obtained vide letter no. CGWA/NOC/IND/ORIG/2022/16920 dated 21.10.2022. Effluent (Condensate/spent lees) of 336 m^3/day quantities will be treated through Condensate Polishing Unit of capacity 500 m^3/day . Raw stillage (spent wash from distillation) will be sent to the decanter followed by MEE and dryer to produce DDGS. ETP of 500 m^3/day & STP of capacity 15 m^3/day will be installed to treat boiler blowdown cooling tower blow down, RO water reject, lab reject, soft water reject and domestic sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 1.8 MW and will be met from proposed 2.0 MW co-generation power plant. 18 TPH biomass/coal fired boiler will be installed. Electrostatic Precipitator and 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. 500 KVA DG set will be used as standby during power failure and stack height (14 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 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/ MPPCB servers.
- CO_2 (30 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) (30 TPD) will be used as cattle feed.
- Boiler ash (25 TPD) will be supplied to block manufacturing unit.
- Used oil (0.40 Kiloliters per annum) will be sold to authorized recyclers.
- Sludge generated from CPU/ETP and 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 60 KLPD will be used for manufacturing fuel ethanol only.

Total land of 4.26 Hectares land is under possession of the company and the land to be used for Industry/mining purpose as per land record on Khasra. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Increase cost of CER activities to Rs. 1.5 Crores. PP has submitted increased cost of CER as above.
- PP shall ensure that greenbelt development shall include native species.

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

- (iii). 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). 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 18 TPH biomass/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

- (viii). Boiler ash (25 TPD) will be supplied to block manufacturing unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. 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 (30 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors.
- (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 1.41 hectares i.e., 33.22% 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. 1.5 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 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 9

Establishment of 105 KLPD Molasses/ Cane Juice based Distillery unit with 2 MW CPP located at Tembhu & Babarmachi, Tal.: Karad, Dist.: Satara, Maharashtra State by M/s. APRO Biofuels Pvt. Ltd. (ABPL) – Consideration of amendment of Environmental Clearance

[IA/MH/IND2/288513/2022, IA-J-11011/191/2021-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide EC identification no. EC22A022MH148946 and file no. IA-J-11011/191/2021-IA-II(I) dated 31st March, 2022 for the project Establishment of 105 KLPD Molasses/ Cane Juice based Distillery unit with 2 MW CPP located at Tembhu & Babarmachi, Tal.: Karad, Dist.: Satara, Maharashtra State by M/s. APRO Biofuels Pvt. Ltd. (ABPL).

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

| N o. | Para of EC | Details as per the EC To be revised | Details as per the EC To be | Justification/ Reasons |
|-------------|-------------------|--|------------------------------------|-------------------------------|
|-------------|-------------------|--|------------------------------------|-------------------------------|

| | issued by MoEF& CC | | revised | |
|----|---|---|---|--|
| 1. | Para 2 | The Ministry of Environment, Forest and Climate Change has examined the proposal to project proposed establishment of 105 KLPD Molasses (B & C heavy) /Cane juice based Distillery unit with 2 MW CPP by M/s. APRO Biofuels Pvt. Ltd located at Gat No. 40/3 & 315, Babarmachi, Karad taluka, Satara District, Maharashtra. | The Ministry of Environment, Forest and Climate Change has examined the proposal to project proposed establishment of 105 KLPD Molasses (B & C heavy) /Cane juice/grain based Distillery unit with 2 MW CPP by M/s. APRO Biofuels Pvt. Ltd located at Gat No. 40/3 & 315, Babarmachi, Karad taluka, Satara District, Maharashtra. | ABPL is a stand-alone distillery. Availability of Molasses has now become a big issue as most of the sugar factories have expanded their distilleries for captive ethanol production. Looking at the availability of grains in command area, Management decided to use Grains as raw material for Ethanol Production in manufacturing setup of proposed 105 KLPD Molasses/ Cane Juice distillery (as per EC dated 31.03.2022). |
| 2. | Para 7 | The estimated proposed project cost is Rs. 108 Crores. | The estimated proposed project cost is Rs. 119 | For Grain operations in 105 KLPD, |

| | | | | | | | | | |
|----|--------|--------------------------------|---------------------------------------|-----------------|--------------------------------|---|-----------------|---|--|
| | | | | | Crores. | additional investment will be required for installation of Milling Equipment, Grain Silos & DDGS Dryer. | | | |
| 3. | Para 5 | Industrial Unit | Description | Quantity | Industrial Unit | Description | Quantity | Management decided to use Grains as additional raw material for proposed 105 KLPD Molasses/ Cane Juice distillery (as per EC dated 31.03.2022). | |
| | | Distillery (Proposed 105 KLPD) | Product | | Distillery (Proposed 105 KLPD) | Product | | | |
| | | | Rectified Spirit/ Ethanol/ ENA | 3,150 KL/M | | Rectified Spirit / Ethanol/ ENA | 3,150 KL/M | | |
| | | | By-product | | | By-product | | | |
| | | | Carbon Dioxide (CO ₂) Gas | 2,610 MT/M | | Carbon Dioxide (CO ₂) Gas | 2,610 MT/M | | |
| | | | Fusel Oil (0.2%) | 6 KL/M | | Fusel Oil (0.2%) | 6 KL/M | | |
| | | | Spent wash Dry Powder | 1,950 MT/M | | Spent wash Dry Powder | 1,950 MT/M | | |
| | | | | | | | | | |

| | | | | | | |
|----|---------|---|---|--|------------|--|
| | | | | Powder | | |
| | | | | DDGS | 2,700 MT/M | |
| 4. | Para 10 | Here, raw spent wash shall be concentration in Multiple (Five) Effect Evaporator (MEE). Concentrated spent wash to the tune of 183 M ³ /Day (1.7 KL/KL of alcohol against norm of 8 KL/KL of alcohol) shall be dried in ATFD to form powder. | In molasses/cane juice-based operations, raw Spentwash shall be concentration in Multiple (Five) Effect Evaporator (MEE). Concentrated spentwash to the tune of 183 M ³ / (1.7 KL/KL of alcohol against norm of 8 KL/KL of alcohol) shall be dried in ATFD to form powder. In grain-based operations, raw stillage will be concentrated in MEE and dried in DWGS dryer to form DDGS to be used as cattle feed. Lees, Condensate & Other effluents from grain distillery will be recycled in process. | Treated effluent will be fully recycled in process to achieve ZLD. | | |

| | | | | |
|----|------------------------------------|---|--|--|
| 5. | Specific Condition, Point No. (iv) | Raw spentwash shall be concentration in MEE followed by drying in ATFD to form powder. Ash generated after bagasse combustion will be stored in silos & shall be sold as manure. Spentwash powder generated after concentration shall be sold in palletized form. | In molasses/cane juice-based operations, raw spentwash shall be concentration in MEE followed by drying in ATFD to form powder. Ash generated after bagasse combustion will be stored in silos & shall be sold as manure. Spentwash powder generated after concentration shall be sold in palletized form. In grain-based operations, DDGS shall be used as cattle feed. | For Grain operation also ZLD will be achieved. |
|----|------------------------------------|---|--|--|

During deliberations, EAC discussed following issues:

- Details of no increase in pollution load due to grain based operations and comparative table for all the raw materials proposed shall be submitted.

PP has submitted the comparative table as given below:

Comparison of Environmental Aspects & Pollution Potentials for Grain & Molasses/ Cane Juice based Distillery Operations

| No. | Aspects | 105 KLPD Molasses Distillery | 105 KLPD Grain Distillery | Remarks |
|-----|---------------|------------------------------|-------------------------------|---|
| 1 | Raw Materials | Molasses – 420 T/Day (105 | Grains – 268 T/Day (105 KLPD) | • ABPL is a stand-alone distillery. Availability of Molasses has now become a |

| | | | | |
|---|-------------------------|---|--|---|
| | (Major) | KLPD) | | <p>big issue as most of the sugar factories have expanded their distilleries for captive ethanol production.</p> <ul style="list-style-type: none"> Looking at the availability of grains in command area, Management decided to addition of Grains as a raw material in 105 KLPD plant capacity (as per EC dated 31.03.2022) for Molasses/ Cane Juice distillery. |
| 2 | Product (KLPD) | RS/ENA/Ethanol -105 | RS/ENA/Ethanol -105 | No increase in production due to grain operations. |
| 3 | By products (T/D) | Spentwash Powder: 65 | DDGS: 90 | DDGS will formed in process which will be given as cattle feed |
| 4 | Operational Days | 330 Days | 330 Days | Days Remain the same under both cases. |
| 5 | Steam Requirement | 660 TPD (6.2 MT/KL) | 700 TPD (6.6 MT/KL) | -- |
| 6 | Total Water Consumption | Total use-1223 CMD Fresh : 136 CMD Recycle : 1087 CMD | Total use-850 CMD Fresh : 123 CMD Recycle : 727 CMD | <ul style="list-style-type: none"> Total Water Requirement for Grain based operations is Lesser than that in Molasses distillery. Fresh Water Requirement in grain operations is Lesser than that in Molasses distillery. |
| 7 | Effluent Treatment | | | |
| | Spentwash | While Operating on Molasses/ Syrup - Spent wash shall be | While Operating on Grains - Slop will be decanted & centrifuged followed by Evaporation in | For Grain operation also ZLD will be achieved. Hence, no deviation from EC condition for effluent treatment system. |

| | | | | |
|---|---------------------------|---|---|---|
| | | evaporated & concentrated in MEE. Further, conc. spentwash shall be dried for powder formation. | MEE & Dried in Rotary Dryer. Solids dried to form DDGS which will be sold as cattle feed. | |
| | Other Effluents, Spentles | Treated in CPU & recycled in process | Treated in CPU & recycled in process | Other effluents from Grain operation will also be treated in CPU and recycled. Hence, no deviation from EC condition. |
| 8 | Air Emissions | 30 TPH Boiler | -- | During grain operations, the same 30 TPH boiler will be operated for steam & will be sufficient. No new boiler will be installed on site. ESP followed by stack of 75 M will be provided for achieving outlet norm for TPM as 50 mg/Nm ³ . |
| 9 | Solid Waste | Boiler Ash- 8 T/D | -- | During grain operations, the same 30 TPH boiler will be operated therefore, no additional ash will be generated which will lead to less pollution due to solid waste generation. |

Further, PP has submitted that due to the above change in raw material; there will not be any change in pollution load specified in earlier EC of 105 KLPD. In fact, there will be less pollution while using grains as raw material when compared with that of the molasses. Moreover, the 105 KLPD capacity distillery will be operated only on a single raw material at a time (i.e. 105 KLPD fully on grains or 105 KLPD fully on Molasses/Sugarcane Juice for single continuous operation). Further, the plant will be entirely ZLD as per EC and total production capacity of 105 KLPD will remain the same.

PP has undertaken that "While operating 105 KLPD distillery on Grains there will be No Increase in Pollution Load as against approved in EC dated 31.03.2022."

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

- At any time, capacity of distillery shall not exceed 105 KLPD.
- Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 75 meters will be installed with 30 TPH biomass/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- 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.
- Total fresh water requirement shall not exceed 4 KL/KL for grain based mode. Prior permission shall be obtained for fresh water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- 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.
- CO₂ generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized

vendors/collected in bottling plant.

- 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.
- 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.
- 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.
- 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.

However, all other terms and conditions mentioned in EC vide EC identification no. EC22A022MH148946 and file no. IA-J-11011/191/2021-IA-II(I) dated 31st March, 2022 shall remain unchanged.

Agenda No. 10

Establishment of 120 KLPD distillery unit to produce 120 KLPD rectified spirit/extra neutral alcohol/fuel ethanol plant based on sugarcane syrup/ "C" molasses/ "B" heavy molasses as raw material located at Village Warphal, Tehsil Partur, District Jalna, State Maharashtra by M/s. Shraddha Energy & Infra-projects Private Limited –Consideration of Environmental Clearance

[IA/MH/IND2/290840/2022, J-11011/198/2016-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 12th August 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for proposed 120 KLPD sugarcane syrup/"C" molasses/"B" heavy molasses based distillery & 12 MW co-generation power plant located at Village Warphal, Tehsil Partur, District Jalna, State Maharashtra by M/s. Shraddha Energy & Infra-projects Private Limited.

All molasses-based distilleries and cane juice/non molasses-based distillery (>100 KLD) are listed at S.N. 5(g) respectively 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 | Total Quantity |
|---------------|--------------------------|---------------------------|-----------------------|
| 1. | Distillery | RS/ENA/Fuel Ethanol | 120 KLPD |
| 2. | Cogeneration Power Plant | Power | 3.0 MW |
| 3. | Fermentation unit | Carbon di-oxide | 91.83 TPD |
| 4. | Spray dryer | Powder | 49 TPD |

Distillery is being established in existing premises of 2500 TCD sugar mill and Environmental Clearance to the existing capacity of sugar mill is not applicable as existing sugar unit is of 2500 TCD & 12 MW Cogeneration

which does not come under the purview of EIA notification 2006. Latest CTO (air and water) has been issued on 19.06.2022 and is valid till 31.07.2022. Certified compliance report for existing CTO is obtained by SRO, Jalna, vide File No. MPCB/SROJ/614/2022 issued date: 15.09.2022.

Standard Terms of Reference have been obtained vide F. No. J-11011/198/2016-IA-II(I) dated 19.02.2022. It was informed that no litigation is pending against the proposal.

Public Hearing for the proposed project had been conducted by Maharashtra Pollution Control Board on 14.07.2022 at Village Warphal (factory site), Tehsil Partur, District Jalna chaired by Additional District Magistrate . The main issues raised during the public hearing and their action plan:

Regarding noise pollution due to machinery and construction, Project Proponent has earmarked Rs. 25 lakhs as capital cost and 5 lakhs as recurring cost for noise pollution control measures.

Regarding spent wash/waste water disposal and their ill effects, PP informed that the cost of water pollution control measure/ZLD system in which distillery CPU, Anaerobic Digester, MEE, & Dryer etc. for distillery wastewater treatment is Rs. 24 Crores as capital cost and Rs. 1 Crores as recurring cost.

Regarding ash disposal, PP informed that the cost of air pollution control measure and solid waste management system is Rs. 5.20 Crores as capital cost and Rs. 0.24 Crores as recurring cost.

Regarding benefits to local people & odour nuisance, PP informed that Rs. 1.050 crores as CER funds has been earmarked for benefits of local people which will be utilized in 5 years. Odour control measures will be implemented like greenbelt development, no longer storage of spent wash etc.

Total land area of existing sugar mill premises is 61.64 hectares. Greenbelt will be developed in total area of 20.4127 hectares i.e., 33.11 % of total project area. The estimated project cost is Rs. 140 Crores. Capital cost of EMP would be Rs. 31.20 Crores and recurring cost for EMP would be Rs. 1.70 Crores per annum. Industry proposes to allocate Rs. 2.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 290 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. No major water bodies are present in the study area.

Ambient air quality monitoring was carried out at 08 locations during 1st October 2021 to 31st December 2021 and the baseline data indicates the ranges of concentrations as: PM10 (47.9 to 77.2 $\mu\text{g}/\text{m}^3$), PM2.5 (24.5 to 43.6 $\mu\text{g}/\text{m}^3$), SO2 (14.8 to 30.5 $\mu\text{g}/\text{m}^3$) and NO2 (23.1 to 38 $\mu\text{g}/\text{m}^3$). AAQ modelling study for point and line source emissions indicates that the maximum incremental GLCs after the proposed project would be 9.47 $\mu\text{g}/\text{m}^3$, 6.31 $\mu\text{g}/\text{m}^3$, 0.23 $\mu\text{g}/\text{m}^3$ and 8.73 $\mu\text{g}/\text{m}^3$ with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 459 CMD which will be met from Lower Dudhana Dam. NOC has been obtained by Godavari Marathwada Irrigation Development Corporation, Aurangabad vide letter no. Sankrin - 2013/415/2013/ Sin.Vya. (Dhoran) dated 10.10.2018. Effluent generation will be 1181 CMD which will be treated through proposed Condensate Polishing Unit of capacity 1200 CMD. Spent wash (960 m^3/day) will be treated through anaerobic digester followed by MEE and dryer technology to make potash rich dry powder (49 TPD). Domestic waste water will be treated in STP of capacity 50 m^3/day . The plant will be based on Zero Liquid discharge system and treated effluent/water will not be discharged outside the factory premises.

Total power requirement of distillery will be 2.5 MW which will be sourced from proposed 3.0 MW co-generation power plant. 30 TPH biomass/coal fired boiler will be installed. ESP with a stack of height of 62 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3 for the proposed boiler. Industry has 1x1000 KVA DG set which will be used as standby during power failure and stack height (6.0 meter above roof level) 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 62 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3 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 (91.83 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors.

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

- Spent wash powder (49 TPD) will be used as manure.
- Boiler ash (11.80 TPD) will be utilized for brick manufacturing within premises in proposed brick manufacturing plant.
- CPU sludge (150 TPA) will be mixed with boiler ash along with press mud and sold as manure.
- Used oil (400 Litres per annum) will be sold to authorized vendors.

During deliberations, EAC discussed following issues:

- CER cost shall be increased from Rs. 1.05 Crores to 2.1 Crores. Specific activities including villages shall be submitted and CER activities shall be completed before commissioning of the plant. PP has submitted the same.
- PP shall submit measures to control SO₂ & NO_x concentration in emissions as they are on higher side. PP has submitted that boilers with Fuel gas Recirculation (FGR)/selective catalytic reduction (SCR) process shall be used to reduce SO₂ & NO_x emissions.

Committee was satisfied with the response of project proponent. 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 directed that the project proponent will treat and use the treated water within the industry. 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). NOC from the Concerned Local authority for surface water 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.
- (iii). Total Fresh water requirement shall not exceed 459 CMD and will be met from Lower Dudhana Dam. 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.
- (iv). Concentrated spent wash shall 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.
- (v). Electrostatic Precipitator and a stack height of 62 m will be installed with 30 TPH biomass/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (vi). Boiler ash (11.80 TPD) will be utilized for brick manufacturing within premises in proposed brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. 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.

- (vii). CO₂ (91.83 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors.
- (viii). Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be conducted on monthly basis and report submitted to SPCB and RO, MOEFCC. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and Total Dissolve Solids shall be monitored and report submitted to the Ministry's Regional Office.
- (ix). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (x). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xi). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations after approval of CPCB/SPCB. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv). The green belt of at least 5-10 m width shall be developed in nearly 20.4127 hectares i.e., 33.11 % 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.

- (xv). PP proposed to allocate Rs. 2.0 Crores towards extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like improvement in soil quality of the study area, skill training of ITI students, 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, skill development of nearby villages etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 20% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xvii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xviii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

Agenda No. 11

Greenfield 1 x 200 KLPD Grain based Ethanol Plant with 1 x 5 MW Captive power plant located at: Khasra No: 172, 199/KH, 204, 206, 208, Samariha Village, Lalganj Tehsil, Mirzapur District, Uttar Pradesh by M/s. Brajdev Ethanol Private Limited – Consideration of Environmental Clearance

[IA/UP/IND2/291235/2022, IA-J-11011/358/2022-IA-II(I)]

It has been informed to EAC by PP vide mail dated 11.11.2022 that due to unavoidable circumstances they will not be able to attend EAC meeting.

Accordingly, the proposal was deferred. Proposal will be considered as and when PP will submit request on PARIVESH portal.

15th November, 2022 (Tuesday)

Agenda No. 1

Expansion of 90 KLPD Molasses based Distillery up to 340 KLPD by using C / B Heavy Molasses / Cane Syrup for Ethanol Production along with enhancement in Cane crushing (10,000 to 12,000 TCD)

and Cogeneration Plant capacity (38 MW to 44.5 MW) located At.: Kagal, Tal.: Kagal, Dist.: Kolhapur, Maharashtra State by M/s. Shree Chhatrapati Shahu Sahakari Sakhar Karkhana Ltd. (SCSSSKL) - Consideration of Environmental Clearance

[IA/MH/IND2/400531/2022, IA-J-11011/225/2015- IA II (I)]

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET Certificate no. : NABET/EIA/2124/SA 0177and validity 10.10.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for Expansion of 90 KLPD Molasses based Distillery up to 340 KLPD by using C / B Heavy Molasses / Cane Syrup for Ethanol Production along with enhancement in Cane crushing (10,000 to 12,000 TCD) and Cogeneration Plant capacity (38 MW to 44.5 MW) located at Village Kagal, Tehsil Kagal, District Kolhapur, State Maharashtra by M/s. Shree Chhatrapati Shahu Sahakari Sakhar Karkhana Ltd. (SCSSSKL).

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

The details of products and capacity as under:

| No . | Name of unit | Name of the product/by product | Existing Production capacity | Additional production capacity | Total production capacity |
|-------------|---------------------|---|-------------------------------------|---------------------------------------|----------------------------------|
| 1 | Distillery | Molasses based: RS / ENA OR | 90 KLPD | - | 90 KLPD |
| | | C & B Molasses / Sugarcane Syrup based: | 90 KLPD | 250 KLPD | 340 KLPD |

| | | | | | |
|---|---------------------------|-------------------------|-----------|----------|-----------|
| | | Ethanol | | | |
| 2 | Co-generation power plant | Power | 38 MW | 6.5 MW | 44.5 MW |
| 3 | Sugar mill | Sugarcane juice / syrup | 10000 TCD | 2000 TCD | 12000 TCD |
| 4 | Fermentation unit | Carbon dioxide | 67 TPD | 188 TPD | 255TPD |

Note: Total capacity shall not increase 340 KLPD at any time.

Ministry has issued Environmental Clearance to the existing Industry for Expansion of sugar factory from (7000 to 10000 TCD), Distillery Plant (60-90 KLPD), Power Plant (28-38 MW) vide File No. J-11011/225/2015-IA-II (I) dated 18.12.2019. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Nagpur vide File No-EC-334/RON/2017-NGP/10116 dated 05.08.2022. EAC was satisfied with the response of PP.

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 litigation is pending against the project as follows:

The court case was filed by MPCB on 30.12.2016 against 45 KLPD Molasses based Distillery. The case was filed for operating the distillery more than 200 days as stipulated in EC dated 11.12.2001. The present stage of case is Evidence before Charge.

Prior to grant of EC to Distillery expansion from 45-60 KLPD; a inspection visit was conducted by RO; MoEFCC, Nagpur; followed by his Report dated 22.07.2016. In the said report, the RO has written about increased number of working days during operation of 45 KLPD Distillery. A description in the Report says – EC granted by Ministry of Environment & Forests; New Delhi vide its letter No. J-11011/39/2001-IA II (I) dated 11.12.2001. It is observed that following conditions were not complied. Specific Condition No. IV As per the last five years production figures, distillery operated for a period of 240 days in a year. PA submitted that MPCB issued Consent to Operate for the operation of Distillery for a period of 270 days in a year.

2. A Court Case was filed by MPCB on 30.12.2016 against the 45 KLPD Molasses based distillery unit. The case was filed for operations of distillery conducted for more number of days and for increased daily production than that mentioned in the EC order bearing No. J-11011/39/2001-IA II (I) dated 11.12.2001.

Total plant area after expansion will be 140 Ha which is under possession of the company and converted to industrial use. Out of the total plant area, 46.20 Ha. i.e. 33% of total plant area has already been developed as green belt. The estimated project cost is Rs.275 Crores. Capital cost of EMP would be Rs. 80.25 Crores and recurring cost for EMP would be Rs. 6.56 Crores per annum. Industry proposes to allocate Rs. 4.15 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 695 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Maharashtra – Karnataka interstate boundary is at 3.54 Km from project site. Water bodies: Dudhganga River is flowing at a distance of 2 Km from West to East direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.284 \mu\text{g}/\text{m}^3$, $0.072 \mu\text{g}/\text{m}^3$, $1.77 \mu\text{g}/\text{m}^3$ and $0.074 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be $1122 \text{ m}^3/\text{day}$ (sugar mill $73 \text{ m}^3/\text{day}$ and distillery $1049 \text{ m}^3/\text{day}$) which will be met from Dudhganga River. NOC has been obtained from Irrigation Dept.; Maharashtra vide letter no. AV585725 dated 01.07.2022. Existing effluent generation is $590 \text{ m}^3/\text{day}$ from sugar mill which is being/will be treated in full-fledged ETP and $409 \text{ m}^3/\text{day}$ from distillery which is treated in existing Condensate Polishing Unit (CPU). Proposed total effluent generation from sugar factory after expansion will be $693 \text{ m}^3/\text{day}$ which will be treated in existing ETP of capacity $1000 \text{ m}^3/\text{day}$ and that from the distillery will be $3092 \text{ m}^3/\text{day}$ which will be treated through existing CPU of capacity $500 \text{ m}^3/\text{day}$ & proposed CPU of capacity $3000 \text{ m}^3/\text{day}$. In molasses based & Sugarcane Syrup operation, spent wash generated from the analyser column during distillation will be bio-methanated & concentrated in Multi Effect Evaporator and concentrated spent wash will be dried in ATFD to form powder. Domestic waste water will be treated in STP of capacity 90KLPD. The plant is being based on Zero Liquid discharge system and treated effluent/water is not to be discharged outside the factory premises.

Total power requirement of distillery & sugar mill after expansion will be 14.5 MW which will be sourced from 44.5 MW co-generation power plant. Existing sugar mill has 70 TPH, 60 TPH bagasse fired boilers & 20 TPH bagasse / biogas fired boiler. 50 TPH bagasse fired boiler will be installed in distillery. APCE as 2 separate ESPs with a common stack of height 70.5 m is already installed with 70 & 60 TPH boilers & APCE as wet scrubber with a stack of height of 40 m is installed with the 20 TPH boilers for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. APCE as ESP with a stack height of 70 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. Industry has existing 500 KVA (2 nos.) & 300 KVA (2 nos.) DG sets which will be used as standby during power failure and stack height (5 M & 4 M) are provided as per CPCB norms to the DG sets.

Details of Process emissions generation and its management:

- APCE as two ESPs with a common stack of 70.5 m height is installed for the existing 70 TPH & 60 TPH boilers & Wet Scrubber with a stack of 40 M height is installed for the existing 20 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. APCE as ESPs with a stack of height of 70 M will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boilers.
- Online Continuous Emission Monitoring System is installed with the stack and data transmitted to CPCB/SPCB servers.
- CO₂ (255 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and /collected in installed bottling plant.

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

- Concentrated spent wash (544M³/day) will be converted to powder by ATFD.
- Boiler ash (distillery bagasse ash -450 TPM and sugar mill bagasse ash - 1500 TPM) will be used as manure /supplied to brick manufacturers.
- Used oil (0.6 MT/M) will be sold to authorized recycler.
- CPU sludge (90MT/M) and STP Sludge (1 MT/M) will be used as manure

- Press mud (14,400MT/M) will be used as manure in sugar mill.
- Bagasse (1,08,000 MT/M) will be used as fuel in sugar mill.
- Molasses (12,000 MT/M) will be used as raw material in distillery.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of 250 KLPD & 2000 TCD will be used for manufacturing fuel ethanol only.

During deliberations, EAC discussed following issues:

- PP shall commit that bio-composting will be stopped in existing unit within 1 year. PP has committed the same.
- PP shall submit clarification of existing and proposed capacity. PP shall submit commitment that total capacity of production shall not exceed 340 KLPD at any circumstance/time. PP has submitted that 340 KLPD is the final capacity and production shall not exceed beyond that.
- Details of reason of court case and details thereof. Present status of court case in form of undertaking shall be submitted. PP has submitted the details.
- Wet scrubber shall be replaced by ESP in 20 TPH bagasse/biogas fired boilers with the commissioning of expanded capacity. PP has committed the same.
- PP shall commit that existing EC of 60 to 90 KLPD which mentions 40 TPH boiler shall not be installed instead 50 TPH bagasse fired boiler shall be installed as per current proposal. PP has committed the same.
- PP shall commit that no coal shall be used as fuel at any given circumstances. PP has committed the same.
- EAC noted that greenbelt is not uniform and not covered 33% as per Google Earth image shown by PP. PP shall submit time bound action plan (monthly) for greenbelt development with tree density 2500 trees per hectares and also submit compliance of greenbelt development regularly (3 months) to MOEFCC. 20 m width of greenbelt shall be maintained towards village. PP has committed that 51,100 trees will be planted in next 10 months for achieving 2500 trees per hectares density and Rs. 2.0 Crores will be spend for the same. A brief report has been submitted for the same.
- Increase CER budget to Rs. 4.15 Crores. Submit revised CER plan. PP

has submitted the same.

- EMP cost is on lower side. Submit revised capital cost and recurring cost of EMP. Capital cost of EMP has been revised from Rs. 61.5 Crores to Rs. 80.25 Crores and recurring cost for EMP has been revised from Rs. 6.16 Crores per annum to Rs. 6.56 Crores per annum.
- PP shall ensure that native trees species shall be planted as part of greenbelt.
- NH is 1 km from plant site. Approach road towards NH shall be strengthened.
- Impact of pollution on lake near to plant site shall be submitted. PP has committed that 20m wide greenbelt will be developed towards NE of project site i.e. towards Jaysingrao lake.
- Quantification of air pollutants due to traffic attributable to sugar factory of capacity 12000 TCD 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 expansion capacity of 250 KLPD & 2000 TCD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). NOC from the Concerned Local authority for surface water 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.

- (iv). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production which will be met from Dudhganga 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.
- (v). As committed, bio-composting shall be completely discontinued within 1 year.
- (vi). In molasses based & sugarcane syrup operation, spent wash generated from the analyser column during distillation will be bio-methanated & concentrated in Multi Effect Evaporator and concentrated spent wash will be dried in ATFD to form powder. The condensate, spent lees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (vii). APCE as two ESPs with a common stack of 70.5 m height is installed for the existing 70 TPH & 60 TPH boilers & Wet Scrubber with a stack of 40 m height is installed for the existing 20 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. APCE as ESPs with a stack of height of 70 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boilers. Wet scrubber shall be replaced by ESP in 20 TPH bagasse/biogas fired boilers with the commissioning of expanded capacity. 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 (distillery bagasse ash -450 TPM and sugar mill bagasse ash – 1500 TPM) will be used as manure /supplied to brick manufacturers. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Coal shall not be used as fuel at any time as committed by PP. 20% biomass pellets shall be used as fuel. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ (255 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and /collected in installed bottling plant.
- (x). 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.
- (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 46.20 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. PP has committed that 20 m wide greenbelt will be developed towards NE of project site i.e. towards Jaysingrao lake.
- (xvii). As committed, PP shall develop greenbelt with tree density 2500 trees per hectares and also submit compliance of greenbelt development regularly (3 months) to MOEFCC. 20 m width of greenbelt shall be maintained towards village.
- (xviii). PP proposed to allocate Rs. 4.15 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.
- (xix). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 20% shall be allotted solely for parking purposes with facilities like rest rooms etc. Approach road to project site shall be maintained.

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

Agenda No. 2

Proposed project for 100 KLPD Grain Based Ethanol Plant & 3.2 MW Captive/Cogeneration power plant (Rice Husk fuel to be used) located at Gut No. 663, 666, 667 Village Tirawade, Taluka

Bhudargad, District Kolhapur, Maharashtra by M/s. Dinkarrao Jadhav Industries LLP - Consideration of Environmental Clearance

[IA/MH/IND2/402167/2022, IA-J-11011/435/2022-IA-II(I)]

The Project Proponent Dinkarrao Jadhav Industries LLP and the accredited Consultant M/s. MITCON Consultancy and Engineering Services Ltd. (NABET certificate no. NABET/EIA/2124/RA 0229_Rev 02 and validity 5.02.2024) 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 & 3.2 MW co-generation power plant (biomass based) located at Gut No. 663, 666, 667 Village Tirawade, Tehsil Bhudargad, District Kolhapur, State Maharashtra by M/s. Dinkarrao Jadhav Industries 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 | 100 KLPD |
| 2 | Captive/Cogeneration power plant | Power | 3.2 MW |
| 3 | DWGS dryer | DDGS | 75 TPD |
| 4 | Fermentation unit | Carbon di-oxide | 51 TPD |

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

Total land area required is 5.07 hectares. Greenbelt will be developed in total area of 1.7 hectares i.e., 33% of total project area. The estimated project cost is Rs. 104.8 Crores. Capital cost of EMP would be Rs. 10 Crores and recurring cost for EMP would be Rs. 0.875 Crores per annum. Industry proposes to allocate Rs. 2.10 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment will be 177 persons as direct & indirect.

There are is one wildlife sanctuary (Radhanagari wildlife sanctuary ESZ at 2.24 km) within 10 km distance. Reserve forests are at a distance of 1 km in South direction. The wildlife sanctuary is at a distance of 2.24 Km in North West direction from project site. ESZ for same is finalized vide Notification No. SO 3630 (E) dated 15th Oct. 2020. The Eco-sensitive Zone is spread over an area of 250.66 square kilometres with an extent varying from 200 m to 6 km kilometres around the boundary of Radhanagari wildlife sanctuary. The project site is located 2.24 Km from notified ESZ, Hence NBWL clearance is not applicable. Conservation plan for schedule I species has been submitted to Divisional Forest office (Kolhapur) dated 17.10.2022 and a budget of 0.30 Crores has been earmarked for the same. Water bodies: Kondashi Dam Res. is at a distance of 6.24 Km in WSW direction, River Veda Ganga River is at a distance of 1.50 km in ENE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.036 $\mu\text{g}/\text{m}^3$, 0.014 $\mu\text{g}/\text{m}^3$, 0.49 $\mu\text{g}/\text{m}^3$, 2.51 $\mu\text{g}/\text{m}^3$ and with respect to PM10, PM2.5, SO₂ and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 401 m³/day which will be sourced from water resources department, Pune. Industry has obtained permission for water withdrawal vide letter no. MKKVM-56/(366/2022/UA-3/6783/2022) dated 10.10.2022. Effluent (Total Condensate/spent lees/blowdowns/CO₂ scrubber/ Misc. etc.) of 809m³/day quantity will be treated through Condensate Polishing Unit of capacity 850 CMD. Raw stillage (729 CMD: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 5 CMD 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 3.16 MW and will be met from proposed 3.2 MW co-generation power plant. 32 TPH biomass fired boiler will be installed. Electro Static Precipitator (ESP) with a stack height of 45 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 1000 kVA DG set will be used as standby during power failure and stack height (11 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- Electro Static Precipitator (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 (51TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be collected in CO₂ bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (75TPD) will be sold as cattle feed / poultry feed.
- Boiler ash (Biomass/Rice Husk ash: 37.08 TPD) will be used as Manure.
- Used oil (0.0024 TPD) will be sold to authorized recyclers.
- CPU sludge (1.01 TPD) will be used as Manure and STP Sludge (0.025TPD) will be used as manure.

As per Notification S.0 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 5.07 Hectares is under possession of the company Directors and its own land of the company owner. Land use conversion is under process. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- PP shall commit that minimum trees will be cut during construction of plant. EAC suggested that PP shall realign the plant layout to avoid tree cutting. PP has assured that the above suggestions will be followed.
- PP shall ensure that 20 m wide greenbelt is developed towards village side on East.
- Capital cost of EMP is on lower side. Submit revised EMP. PP has revised the capital cost of EMP to Rs. 10 Crores from Rs. 8.51 Crores.
- CER cost shall be invested before commissioning of operations and CER activities shall be revised. PP has submitted the revised activities and committed that cost will be invested before commissioning of the plant.

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). PP shall obtain prior permission for cutting trees on project site from the Competent Authority.
- (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 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 water resources department, Pune.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) with a stack height of 45 meters will be installed with 32 TPH biomass fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. No coal shall be used as fuel at any time. 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 (Biomass/Rice Husk ash: 37.08 TPD) will be used as Manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed

boiler. 20% biomass pellets shall be used as fuel. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

- (x). CO₂ (51TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be collected in CO₂ 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 1.7 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 towards village side on East shall be developed.

- (xvii). PP proposed to allocate Rs. 2.10 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.
- (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 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 3

Expansion of Distillery Capacity from 100 to 250 KLPD based on Sugar cane Syrup/C/B Heavy Molasses as Raw Material and 120 KLPD Grain based Distillery to Produce Ethanol located at Village: - Bellad - Bagewadi, Tehsil: - Hukeri, District: - Belgavi, State : - Karnataka by M/s. Vishwaraj Sugar Industries - Consideration of Environmental Clearance

[IA/KA/IND2/404187/2022, IA-J-11011/465/2022/IA-II (I)]

The Project Proponent and the accredited Consultant M/s. Dr. Subbarao's Environment Center, Sangli (NABET Certificate no: NABET/EIA/2023/SA0174 and validity 12th December, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of existing distillery unit from 100 KLPD to 250 KLPD distillery located at Village Bellad-Bagewadi, Tehsil Hukeri, District Belgavi, State Karnataka by M/s. Vishwaraj Sugar Industries.

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."

and

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

The details of products and capacity as under:

| Sr. No. | Name of Unit | Name of the product/ by product | Existing production capacity | Additional production capacity | Total production capacity |
|----------------|---|--|-------------------------------------|---------------------------------------|----------------------------------|
| 1 | Molasses/syrup based Distillery OR Ethanol from grains during non-availability of molasses/syrup in KLPD | Ethanol | 100 KLPD | 150 KLPD | 250 KLPD |
| | | Power | 1 MW | 2 MW | 3 MW |
| 2 | DWGS dryer | DDGS | - | 80 - 85 TPD | 80 - 85 TPD |
| 3 | Fermentation unit | Carbon dioxide | 30 - 40 TPD | 70 - 80 TPD | 100 - 120 TPD |
| 4 | ATFD | Conc. | - | 80 - 100 | 80 - 100 |

| | | Spent wash powder | | TPD | TPD |
|---|---------------------|-------------------|--------|-----|--------|
| 5 | Bio-composting unit | Bio-compost | 80 TPD | - | 80 TPD |

Note: Capacity shall not exceed 250 KLPD at any time.

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 100 KLPD vide File No. J-11011/453/2009-IA11 (1) dated 24th January, 2011 which was extended on 11th January 2019. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Bengaluru vide File no- EP/12.1/2011-12/16/KAR/424 dated 17th February 2022. EAC found the information satisfactory.

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

Total existing plant area is 58.82Ha. 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 58.82 Hectares, 19.4 ha has been earmarked for greenbelt. The estimated project cost is Rs. 150 Crores. Capital cost of EMP would be Rs. 30.45 Crores and recurring cost for EMP would be Rs. 2.74 Crores per annum. Industry proposes to allocate Rs. 1.125 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 40 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Ghatprabha River is at a distance of 3 Km in SE Direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.88 $\mu\text{g}/\text{m}^3$, 1.26 $\mu\text{g}/\text{m}^3$, 3.03 $\mu\text{g}/\text{m}^3$ and 3.24 $\mu\text{g}/\text{m}^3$ with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 424 m³/day which will be met from Ghatprabha River. NOC has been obtained vide letter no. WRD/77/NIN/2022-WRD-TECH4-Water Resource SEC dated 12th September 2022 and validity 21st July 2025. Existing effluent generation is 1437m³/day from distillery which is treated through Condensate Polishing Unit. Proposed effluent generation will be 2390CMD from distillery which will be treated through proposed/upgraded Condensate Polishing Unit. 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 bio-methanated and converted into powder form by spray dryer (ATFD) technology. In grain based operation, raw stillage(1070 KLPD: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE followed by dryer to produce DDGS. Domestic waste water is being/will be treated in STP of capacity 6.4 KLPD. The plant is being/will be based on Zero Liquid discharge system and treated effluent/water is being/will not be discharged outside the factory premises.

Total power requirement of distillery after expansion will be 3 MW which will be sourced from existing 39 MW co-generation power plant in distillery. Existing distillery has 22 TPH Biogas fired boiler. 50 TPH Bagasse Briquette fired boiler will be installed in distillery. APCE Bag Filter with a stack height of 43 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50mg/Nm³. APCE Bag Filter with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30mg/Nm³ for the proposed boiler. Industry has 500 KVA DG set which will be used as stand by during power failure and stack height (6m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- APCE Bag Filter with a stack of height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂(120 TPD) generated during the fermentation process is

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

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

- Concentrated spent wash (400 m³/day) for "C" Molasses is will be converted to powder by ATFD/spray dryer.
- DDGS (Distilled Dried Grains Stillage) (180 TPD) for 100 KLPD and 450 TPD for 250 KLPD for "C" Molasses is being/will be sold as cattle feed/fish feed/ prawn feed.
- Boiler ash (240 TPD) is being/will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises/supplied to brick manufacturers/ given to farmers to be used as manure.

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

During deliberations, EAC discussed following issues:

- Affidavit that PP shall not produce any RS or ENA as part of expansion and no liquor bottling plant shall be installed. PP has submitted the undertaking stating that at any time capacity shall not exceed 250 KLPD and no RS/ENA will be produced as well as no bottling plant will be installed. Also, informed that there is an IML bottling unit within the premises , the same has been leased out to another company and there shall not be any supply of spirit to IML unit from distillery.
- PP shall commit that bio-composting will be stopped for existing as well as proposed capacity within 2 year.
- PP has submitted that after commissioning of the 250 KLPD plant, bio-composting will be stopped and both the existing as well as proposed units will have spray dryer treatment instead of bio-composting for spent wash.
- Greenbelt shall be uniformly distributed around the premises. PP has committed that remaining greenbelt will be developed within 3 years.
- PP shall commit that no coal shall be used as fuel.

- Committee noted that incremental concentration as well as baseline concentrations are on higher side. PP shall ensure that vehicle that meet the norms shall only be permitted in the project area. Also, PP shall submit additional measures to control SO₂ and NO_x emissions.
- Revised EMP budget shall be submitted after increasing cost of environmental monitoring.
- Clarification regarding quantity of carbon di-oxide capture shall be submitted. PP has submitted that entire CO₂ will be captured and bottled.
- PP shall commit that Ghataprabha Bird Sanctuary is more than 10 km away from project site and does not lie in 10 km radius study area. PP has submitted that Ghataprabha Bird Sanctuary is more than 8 km away (aerial distance) from project site.

The Committee noted that PP has mentioned in the Pre-feasibility report (at page 11 and 41) that there is no wildlife sanctuary within 10 Km distance. It was also noted that nowhere in the Parivesh portal or EMP, PP mentioned that Ghataprabha Bird Sanctuary is located within 10 km distance. PP also did not mention the details of ESZ notification as well as distance of from the project site vis-a vis ESZ. The Committee directed the Consultant to explain why they have not mentioned the important details in the documents as well as misguided in the pre-feasibility report. Further, EAC asked them to provide the following details for further consideration:

- (i) Details of ESZ Notification of Ghataprabha Bird Sanctuary.
- (ii) Distance of project site w.r.t. ESZ and Ghataprabha Bird Sanctuary in the map, which should be authenticated by Chief Wildlife Warden.
- (iii) Copy of Wildlife Conservation plan for schedule -1 species authenticated by Chief Wildlife Warden to be submitted.

Accordingly proposal was deferred for want of additional information. PP shall submit additional information on the Parivesh Portal for further consideration.

Agenda No. 4

Proposed establishment of Grain-based distillery unit of 300 KLPD capacity to produce Ethanol and installation of captive power plant

of capacity 15 MW in Sugar and Cogen complex located at Village Desanur, Tehsil Siruguppa, District Bellary, State Karnataka by M/s. NSL Sugars Tungabhadra Unit – Consideration of Environmental Clearance

[IA/KA/IND2/400621/2022, IA-J-11011/263/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Samrakshan (NABET certificate no. NABET/EIA/1992/SA 0138 (Rev. 01) and validity up to 17th January 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 300 KLPD Grain based Ethanol Plant & 15 MW captive power plant (Bagasse/rice husk based) located at Village Desanur, Tehsil Siruguppa, District Bellary, State Karnataka by M/s. NSL Sugars Tungabhadra Unit. The grain-based distillery is proposed in the existing sugar plant of 3500 TCD and 28 MW Cogeneration complex.

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 based) | Ethanol | 300 KLPD |
| 2 | Co-generation power plant of distillery | Power | 15 MW |
| 3 | DWGS | DDGS | 219 TPD |

| | | | |
|---|-------------------|-----------------|---------|
| 4 | Fermentation unit | Carbon di-oxide | 150 TPD |
|---|-------------------|-----------------|---------|

SEIAA has issued Environmental Clearance to the existing Industry for a capacity of 3500 TCD Sugar plant and 28 MW Cogeneration unit vide File No. SEIAA: 56 IND: 2008 dated 14.08.2009. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Bangalore vide File no- EP/12.1/SEIAA/221/KAR/1560 dated 7.03.2022. The IRO has reported the status of compliance of the project is rated as satisfactory. EAC was satisfied with the response of PP.

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

Total land area of the existing plant is 57.45 Hectares; within this existing plant area 8.5 hectare is proposed for distillery. No additional land will be acquired for the distillery as the same will be done in the existing plant premises. Out of the total area of 18.95 Ha i.e. 33.3 % of the total area has already been developed as greenbelt & plantation and the same will be maintained and further will be developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 307.04 Crores. Capital cost of EMP would be Rs. 26.85 Crores and recurring cost for EMP would be Rs. 3.11 Crores per annum. Industry proposes to allocate Rs. 3.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 190 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forest/Protected Forests: No reserved or protected forest is found. Water bodies: River Tungabhadra is adjacent to west of the project premises. River Tungabhadra is at a distance of 541.6m for which NOC has been obtained from State Irrigation Department vide letter no. AA: Tuyovru: K.N.N.N. Tasha-1:2022-23/1239 dated 06.08.2022 stating that the proposed construction factory site is 541.6m from Tungabhadra River Bank and to follow the regulatory requirement of Environment, HFL at T. Ramapuram near NSL Sugars Ltd, Desanur so far recorded 356.478 m and the average MSL of proposed ethanol plant site is 360.922 m to 362.626 m.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $3.30 \mu\text{g}/\text{m}^3$, $1.27 \mu\text{g}/\text{m}^3$ and $1.27 \mu\text{g}/\text{m}^3$ with respect to PM, SO₂ and NO₂ respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 1200m³/day for distillery which will be met from River Tungabhadra. Effluent quantity (Condensate/spent lees/blowdowns/lab washings etc.) of 1860 m³/day will be treated through Condensate Polishing Unit of 2000 KLD capacity. Raw stillage (1170 KLPD: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS (150 TPD). Modular STP 10 KLD capacity will be installed to treat 8 KLD of sewage generated from factory premises. The plant will be based on Zero Liquid Discharge (ZLD) system and no effluent/treated water will be discharged outside factory premises.

Total power requirement of distillery plant will be 11.76 MW which will be sourced from proposed 15 MW co-generation power plant in distillery. 100 TPH bagasse/ rice husk/Bio mass/coal fired boiler will be installed for proposed distillery. ESP with stack height of 55 m will be installed for controlling the particulate emissions within the statutory limit of 30mg/Nm³ for the proposed boiler of the distillery. 1010 kVA DG set is proposed for distillery as standby during power failure and stack height (30 m) will be provided as per CPCB norms.

Details of Process emissions generation and its management:

- ESP with a stack height of 55 m will be installed for controlling the particulate emissions within the statutory limit of 30mg/Nm³ for the proposed boiler.
- Online Continuous Emission Monitoring System will be installed and online data will be transmitted to CPCB/SPCB servers.
- CO₂ (150 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be collected in installed liquid CO₂ bottling plant for commercial purpose.

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

- DDGS (Distilled Dried Grains Stillage) 150 TPD will be sold as cattle feed.
- Boiler ash (11.4 TPD) from the proposed 100 TPH boiler will be supplied to brick manufacturers.
- Yeast sludge (40 TPD) will be given to farmers and CPU sludge (0.5 TPD) will be converted and used as manure within the project premises.
- Used oil (0.2 Kilo liters 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 300 KLPD will be used for manufacturing fuel ethanol only.

During deliberations EAC discussed following issues:

- PP shall ensure that existing non -compliance in Certified Compliance Report of sugar mill related to CER budget shall be spent within 6 months.
- PP shall commit that distillery project site is located more than 500 m away from River Tungabhadra. Further, 100 m buffer shall be maintained between Tungabhadra River and boundary of project site. PP shall develop dense tree plantation in that buffer area and maintain the same. Garland drain shall be provided along the river side which shall be properly aligned followed by sedimentation tank. PP has committed that distillery plant site is located at a distance of 541.6 meters from the HFL of Tungabhadra River.
- Committee suggested that depth of rain water harvesting tank shall be 2-2.5 m instead of 1-1.5 m as depth is on lower side. PP has committed that rain water management will be done by providing the garland canal (impervious) on the periphery of the plant boundary towards the river, to provide the rainwater harvesting pond at the lowest place of the plant before the storm water enters the river, to make the rainwater harvesting tank impervious by RCC. The existing garland canal capacity will be increased in consultation with civil engineer. A rain water harvesting tank will be provided at the lowest point to a capacity of 3750 cum. of Size 50m x 15m x 2.5 m of two numbers and another pond of size 2000 cum of size 40m x 20m x 2.5m. The rainwater harvesting pond will be made impervious using HDPE lining and stones lab pitching/RCC. Before the rain water enters

in to the harvesting pond it will be given primary treatment by grit chamber and bar screen to arrest the solids entering to the tank. The rain water stored will be used for industrial use after treatment.

- PP shall reduce fresh water consumption to 4 KL/KL of ethanol production and submit revised water balance. PP has reduced the fresh water consumption to 4 KL/KL of ethanol production i.e. 1200 KLPD.
- Green belt towards south west of the plant to be increased as the predicted incremental increase in AAQ is in this direction. PP shall abide by the directions to increase the greenbelt in south west direction of the distillery plant.
- CER activities to be increased from Rs. 2.3 Crores to Rs. 3.0 Crores. PP has submitted the same.

Committee was satisfied with the response of project proponent. 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 directed that the project proponent will treat and use the treated water

within the industry. 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). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 300 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

- (iii). 100 m buffer shall be maintained between Tungabhadra River and boundary of project site. PP shall develop dense tree plantation in that buffer area and maintain the same. Garland drain followed by sedimentation tank shall be provided along the river side which shall be properly aligned.
- (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 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 River Tungabhadra. 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) with a stack height of 55 meters will be installed with 100 TPH bagasse/ rice husk/Bio mass/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than

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

- (ix). Boiler ash (11.4 TPD) from the proposed 100 TPH boiler will be supplied to brick manufacturers. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. 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). CO₂ (150 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be collected in installed liquid CO₂ bottling plant for commercial purpose.
- (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 18.95 Ha i.e. 33.3 %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. Green belt towards south west of the plant to be increased as the predicted incremental increase in AAQ is in this direction.
- (xvii). PP proposed to allocate Rs. 3.0 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.
- (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 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 5

Proposed project for 100 KLPD Grain based Ethanol Plant & 3.0 MW Co-generation power plant located at Survey No. 189, 191, 192, 193, 193/1153, 194, 195, 198, 201, 202 & 205, Village Kotari, Tehsil Indergarh, District Bundi, Rajasthan by M/s. Shree Shyam Balaji Agrovet Pvt. Ltd.- Consideration of Environmental Clearance

[IA/RJ/IND2/405196/2022, IA-J-11011/111/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. AmplEnviron Pvt. Ltd. (NABET certificate No. NABET/EIA/2023/IA0061 and validity 22nd October, 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 100 KLPD Grain based Ethanol Plant & 3.0 MW Co-generation power plant located at Survey No. 189, 191, 192, 193, 193/1153, 194, 195, 198, 201, 202 & 205, Village Kotari, Tehsil Indergarh, District Bundi, State Rajasthan by M/s. Shree Shyam Balaji Agrovet 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 | Production capacity |
|---------------|---------------------------|---------------------------------------|----------------------------|
| 1 | Distillery (Grain based) | Ethanol | 100 KLPD |
| 2 | Co-generation power plant | Power | 3.0 MW |
| 3 | DDGS dryer | DDGS | 51 TPD |
| 4 | Fermentation unit | Carbon di-oxide | 78.9 TPD |

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

Total land area required is 5.91 hectares. Greenbelt will be developed in total area of 2.0685 hectares i.e., 35% of total project area. The estimated project cost is Rs.155.26 Crores. Capital cost of EMP would be Rs.18.82 Crores and recurring cost for EMP would be Rs.2.12 Crores per annum. Industry proposes to allocate Rs.2.3289 Crores toward Extended EMP (Corporate Environment

Responsibility). Total Employment will be 100 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, protected forest etc. within 10 km distance. Nearest Reserve forest patch (Open Scrub) is at distance of 0.60 km in NE direction, Palda Reserve forest is at distance of 7.97 km in South direction, Mandhwara Reserve Forest is at distance of 9.51 km in South direction. Water bodies: Chambal Canal is at distance of 0.75 km in NW direction, Chambal River is at distance of 1.98 km in East direction for which NOC has been obtained from Irrigation Department vide letter No. SE/RPS/2022/1991 dated 30.09.2022 stating that there is no flood history in that project location and they have no objection for the proposed project at that location.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.12 $\mu\text{g}/\text{m}^3$, 0.06 $\mu\text{g}/\text{m}^3$, 0.88 $\mu\text{g}/\text{m}^3$ and 1.01 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 367.9 m³/day which will be met from Ground water. CGWA NOC has been obtained vide NOC No: CGWA/NOC/IND/ORIG/2022/16692 dated 29/09/2022. Effluent (Condensate/spent lees/dryer process condensate, Blowdowns, sealing water etc.) of 908.4 m³/day quantity will be treated through Condensate Polishing Unit of capacity 930 m³/day. Raw stillage (561 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. CPU of capacity 930 KLPD will be installed to treat Condensate, Spent Lees, Dryer process condensate, Blowdowns, Domestic, DM reject and CIP water & sealing water. 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 and will be met from proposed 3.0 MW co-generation power plant. 30 TPH Rice Husk/Coal fired boiler will be installed. ESP (5 field) with 99.9% efficiency with a stack height of 50m & will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 900 kVA DG set will be used as standby during power failure and stack height(6.0m) will be provided as per

CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP (5 field) with 99.9% efficiency 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.
- CO₂ (78.9TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubber sand 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) (51 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (coal ash- 7.826 TPD, biomass ash – 18.75 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (0.25 Kilolitres per annum) will be sold to authorized recyclers.
- CPU Sludge (0.18 TPD) will be used as manure.

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

Total land of 5.91 Hectares is under possession of company and land use conversion application has been submitted to Revenue Department, Govt. of Rajasthan. Vide application No: LC/2022-23/124541 dated 19/05/2022. EAC found the information satisfactory.

During deliberations EAC discussed following issues:

- CLU certificate shall be obtained before start of construction activities.
- Additional measures for SO₂ emissions shall be submitted and stack height shall be recalculated. PP has submitted that dry flue gas desulphurization technique will be installed instead of wet scrubbing.

- PP shall submit layout wherein ethanol storage tanks shall be relocated as threat zone is exceeding outside the boundary of project site. PP has submitted the revised layout.
- PP informed that out of 182 trees, 42 trees will be relocated. Further, the Committee suggested that PP shall ensure to realign the layout and units in order to avoid cutting of trees on proposed project site.
- Revised EMP budget shall be submitted omitting FGD provision as wet scrubber is being used in water scarce area. Capital cost of EMP would be Rs. 18.82 Crores instead of 20.92 Crores and recurring cost for EMP would be Rs. 2.12 Crores instead of 2.7022 Crores per annum.

Committee was satisfied with the response of project proponent. 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 directed that the project proponent will treat and use the treated water within the industry. 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). 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). PP shall obtain prior permission for cutting the existing trees from the concerned Authority.
- (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 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) with a stack height of 50 meters will be installed with 30TPH Rice Husk/Coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

- (ix). Boilerash(coal ash- 7.826TPD, biomass ash – 18.75 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. 20% biomass pellets shall be used as fuel. 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). CO₂ (78.9TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubber sand 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 2.0685 hectares i.e., 35 % 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. 2.3289 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 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 project 120 KLPD Grain Based Ethanol Plant and 3.0 MW Cogeneration Power Plant located at Vill. Gahanpalli, Block- Buguda, Dist- Ganjam of Odisha State by M/s. Tarangini Distilleries Private Limited (TDPL) - Consideration of Environmental Clearance

[IA/OR/IND2/403070/2022, IA-J-11011/454/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s Enviro Infra Solutions Pvt. Ltd., Ghaziabad (NABET Certificate No. NABET/EIA/1922/RA 0157 and validity 13th 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 120 KLPD Grain Based Ethanol Plant and 3.0 MW Cogeneration Power Plant (Rice Husk / Biomass Briquette based) located at Village Gahanpalli, Block Buguda, District Ganjam, State Odisha by M/s. Tarangini Distilleries Private Limited (TDPL).

The Committee noted that EIA Coordinator was not present in the meeting, for presenting the EIA-EMP report as per QCI NABET accreditation process. It was suggested to defer the project for the next meeting. PP and Consultant shall submit the request on the Parivesh portal for consideration of project.

Agenda No. 7

Expansion of Molasses Based Distillery from 30 to 300 KLPD by Using C / B Heavy Molasses / Cane Syrup for Ethanol Production along with 3 MW Electricity Generation located at Post.: Nanadi&Kerur, Tal.- Chikodi, Dist.- Belagavi, Karnataka State by M/s. Chidanand Basaprabhu Kore Sahakari Sakkare Karkhane Niyamit- Consideration of Environmental Clearance

[IA/KA/IND2/404180/2022, IA-J-11011/8/2000-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd. (NABET Certificate no. : NABET/EIA/2124/SA0177 and validity 10.10.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of Molasses Based Distillery from 30 to 300 KLPD by Using C / B Heavy Molasses / Cane Syrup for Ethanol Production along with 3 MW co-generation power plant located at Post Nanadi & Kerur, Tehsil Chikodi, District Belagavi, State Karnataka by M/s. Chidanand Basaprabhu Kore Sahakari Sakkare Karkhane Niyamit.

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

The details of products and capacity as under:

| No. | Name of unit | Name of the product/by product | Existing Production capacity | Additional production capacity | Total production capacity |
|-----|---------------------------|----------------------------------|------------------------------|--------------------------------|---------------------------|
| 1 | Distillery | Molasses Based (RS/ENA/Ethanol) | 30 KLPD | 0 | 30 KLPD |
| | | C/B-Heavy Molasses Based Ethanol | 0 | 270 KLPD | 300 KLPD |
| | | OR | | | |
| | | i. Sugar Syrup based Ethanol | 0 | 300 KLPD | 300 KLPD |
| 2 | Co-generation power plant | Power | 0 | 3 MW | 3 MW |
| 3 | Fermentation unit | Carbon dioxide | 23 TPD | 202 TPD | 225 TPD |

Note: Total capacity shall not increase 300 KLPD at any time

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 30 KLPD Distillery vide File No. F. No. J-11011/8/2000-IA-II(I) dated 11.12.2001. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEF&CC, Bangalore vide File No-EP/12.1/160/KAR337 dated 14.06.2022. EAC was satisfied with the response of PP.

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

Total plant area after expansion will be 70.56 Ha which is under possession of the company and converted to industrial use. Out of the total plant area, 23.29 Ha. i.e. 33% of total plant area is to be under green belt. 18.35 Ha. i.e. 26% of the total plant area has already been developed as green belt and 4.94 Ha. i.e.7% of total plant area will be developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 270 Crores. Capital cost of EMP would be Rs. 57.75 Crores and recurring cost for EMP would be Rs. 4.05 Crores per annum. Industry proposes to allocate Rs. 2.02 Crores towards extended EMP (Corporate Environment

Responsibility). Total Employment after expansion will be 869 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Dudhaganga River is at a distance of 6.5 km in NW direction, Krishna River is at a distance of 8 Km in NE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.57 $\mu\text{g}/\text{m}^3$, 0.89 $\mu\text{g}/\text{m}^3$, 6.26 $\mu\text{g}/\text{m}^3$ and 3.39 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 1048 m³ /day (sugar mill 66 m³/day and distillery 982 m³/day) which will be met from Krishna River. NOC has been obtained from Irrigation Division, Govt. of Karnataka vide letter no. 2074/20-21 dated 16.07.2021. Existing effluent generation is 666 m³/day from sugar mill treated in full-fledged ETP and 59 m³/day from distillery which is treated through existing ETP of capacity 1000 m³/day. Proposed total effluent generation from the distillery will be 2549 m³/day which will be treated through proposed Condensate Polishing Unit of capacity 3000 m³/day. In molasses based operation, spent wash generated from the analyser column during distillation will be concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt in incineration boiler. Domestic waste water will be treated in STP of capacity 85KLD. The plant is being based on Zero Liquid discharge system and treated effluent/water is not to be discharged outside the factory premises.

Total power requirement of distillery & sugar mill after expansion will be 26 MW which will be sourced from 50 MW co-generation power plant in sugar mill & proposed 3 MW co-generation power plant in Distillery. Under expansion new 60 TPH Spentwash+ Coal/Bagasse fired boiler will be installed in distillery. Existing sugar mill has 125 TPH, 40 TPH, 15 TPH Bagasse fired boilers. APCE as ESP with a stack of height of 70 M is installed for existing bagasse boiler (125 TPH) & APCE as wet scrubbers with 52 M common stack is installed for 15 TPH and 40 TPH. For proposed incineration boiler (60 TPH); APCE as ESP with a stack of height of 100 m will be installed for controlling the particulate emissions within the statutory limit of

30 mg/Nm³. Industry has existing 320KVA DG sets which will be used as standby during power failure and stack height (6M) is provided as per CPCB norms to the DG sets. Under expansion 500 KVA DG set will be provided.

Details of Process emissions generation and its management:

- APCE as ESP with a stack of height of 100 M will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler.
- Online Continuous Emission Monitoring System is installed with the stack and data transmitted to CPCB/SPCB servers.
- CO₂ (225 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors & collected in installed bottling plant.

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

- Concentrated spent wash (480 m³/day) will be burnt in incineration boiler.
- Boiler ash from incineration boiler (137 TPD) under expansion will be supplied to brick manufacturer/ Potash recovery.
- Used oil (0.22 MT/M) will be sold to authorized recyclers.
- CPU sludge (75 MT/M) and STP Sludge (0.5 MT/M) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of 270 KLPD will be used for manufacturing fuel ethanol only.

During deliberations, EAC noted that PP has obtained capacity expansion from 30 KLPD to 110 KLPD dated 8th February, 2021. PP informed that mail vide dated 04.11.2022 has been sent to concerned authority for withdrawing of EC. EAC discussed following issues:

- PP shall commit that practice of bio-composting shall be discontinued in 30 KLPD distillery and spent wash shall be concentrated and burnt in incineration boiler. PP has committed the same.

- PP shall commit that existing APCE wet scrubber shall be replaced by ESP in existing 40 TPH and 15 TPH boilers as part of expansion.
- Revised EMP cost shall be submitted as there is discrepancy in data submitted and presented. PP has revised the EMP cost to Rs. 57.75 Crores and recurring cost per annum to Rs. 4.05 Crores for proposed expansion.
- Greenbelt shall be 33% developed of total plant area. PP has committed that 49000 trees will be planted in 18 months to achieve tree density of 2500 trees per hectares and Rs. 2.0 Crores shall be spend for the same.
- Fresh water requirement shall be further reduced in distillery to minimise fresh water withdrawal. PP has submitted that fresh water requirement will be reduced from 1166 m³/day to 982 m³/day for distillery operations.

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

(Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

- (iv). Total Fresh water requirement shall not exceed 1048 m³/day for sugar and distillery unit 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.
- (v). As committed, practice of bio-composting shall be discontinued in 30 KLPD distillery and spent wash shall be concentrated and burnt in incineration boiler for existing as well as proposed expansion.
- (vi). Concentrated spent wash shall be burnt in incineration boiler. The condensate, spent lees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.
- (vii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 100 meters will be installed with 60 TPH Spent wash+ Coal/Bagasse fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (viii). As committed, existing APCE wet scrubber shall be replaced by ESP in existing 40 TPH and 15 TPH boilers as part of expansion.
- (ix). Boiler ash from incineration boiler (137 TPD) under expansion will be supplied to brick manufacturer/ Potash recovery. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass

pellets shall be used as fuel. 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). CO₂ (225 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors & collected in installed bottling plant.
- (xi). 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.
- (xii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xiii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xiv). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xv). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. Filter press shall be installed for drying of sludge.
- (xvi). The company shall undertake waste minimization measures as below
 - (a) Metering and control of quantities of active ingredients to minimize waste;
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated

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

- (xvii). The green belt of at least 5-10 m width shall be developed in nearly 23.29 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. No trees shall be cut as part of construction. As committed, 49000 trees shall be planted within 18 months to achieve tree density of 2500 trees per hectares and Rs. 2.0 Crores shall be spend for the same.
- (xviii). PP proposed to allocate Rs. 2.02 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.
- (xix). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Approach road to project site shall be maintained.
- (xx). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall

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

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

Agenda No. 8

Proposed project for 220 KLD Grain based Ethanol Plant with ZLD along with 8.5 MW Captive Power Plant [Biomass (rice husk etc.)/Coal], supplemented with Green Activities [a. Ethanol transportation through EV tankers] under EBP Programme of GoI, located at Village Devda, Tehsil- Ghatol, District-Banswara, Rajasthan by M/s. Blue Nature Bio Private Limited - Consideration of Environmental Clearance

[IA/RJ/IND2/401967/2022, IA-J-11011/424/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Gaurang Environmental Solutions Pvt. Ltd. (NABET certificate no NABET/ EIA/ 2023/ RA0192 and validity till 19.01.2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 220 KLD Grain based Ethanol Plant and 8.5 MW co-generation power plant (Biomass /Coal based) located at Village Devda, Tehsil Ghatol, District Banswara, State Rajasthan by M/s. Blue Nature Bio Private Limited.

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

The details of products and capacity as under:

| S. No. | Name of unit | Name of the product/by-product | Production capacity |
|---------------|--------------------------|---------------------------------------|----------------------------|
| 1. | Distillery (Grain based) | Ethanol | 220 KLD |
| 2. | Captive power plant | Power | 8.5 MW |
| 3. | DWGS dryer | DDGS (by-product) | 156 TPD |
| 4. | Fermentation unit | Carbon di-oxide (by-product) | 110 TPD |

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

Total land area required is 5.665 hectares. Greenbelt will be developed in total area of 1.87 hectares i.e., 33% of total project area. The estimated project cost is Rs. 327.4 Crore. Capital cost of EMP would be Rs. 33 Crores and recurring cost for EMP would be Rs. 5.5 Crores per annum. Industry proposes to allocate Rs. 5.9 Crores towards Extended EMP (Corporate

Environment Responsibility. Total Employment will be 200 persons as direct during operation phase.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve Forest: Chhatri Para Reserve forest is at a distance of 2.5 km in NE direction. Water bodies: Shakliya Nadi is at a distance of 1.5 Km in West direction. Irrigation canal is located at 0.01 km distance. NOC for site suitability w.r.t flood zone from WRD, Ghatol block has been received vide letter no. Mahi/2022/988 dated 10.11.2022.

AAQ modelling study for point source emissions indicates that the total maximum incremental GLCs after the proposed project would be 54.29362 $\mu\text{g}/\text{m}^3$, 32.714 $\mu\text{g}/\text{m}^3$, 25.2 $\mu\text{g}/\text{m}^3$ and 20.0598 $\mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 880 m^3/day which will be met from Surface water/ground water. Application has been submitted to WRD, Banswara dated 29.08.2022 for withdrawal of surface water & has been forwarded to Add. Chief Engineer, WRD Udaipur from WRD, H.Q., Jaipur for withdrawal of surface water from River Shakliya. Application for obtaining NOC from CGWA for ground water use for domestic purpose is under process. Effluent (Condensate/spent lees/blowdown etc.) of 1418 m^3/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 1800 KLPD. Raw stillage (approx. 1498 KLPD : quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 30 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 8.5 MW and will be met from proposed 8.5 MW co-generation power plant. 56 TPH (2 x 28 TPH) biomass/coal fired boiler will be installed. ESP (Electro-Static Precipitator) with a stack height (common) of 53 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3 for the proposed boiler(s). 750 KVA X 2 Nos. 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 (Electro-Static Precipitator) with a stack height of 53 m will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (110 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage (156 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (46 TPD) will be supplied to brick manufacturers / given to farmers to use as manure.
- CPU sludge (cake) ~0.2 TPD &STP sludge (cake) ~ 2 kg/day will be used as manure.
- Used/Spent oil: ~ 0.4 KL/Annum will be handed over to CPCB 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 expansion capacity of 220 KLPD will be used for manufacturing fuel ethanol only.

Total land of 5.665 Hectares is under possession of the company and land use conversion application is under process with state government. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Undertaking that carbon di-oxide to nano urea plant is not a part of present proposal and separate EC will be obtained for the same under fertilizer category. PP has submitted that Nano Urea is not being proposed by PP under the present proposal and it stands withdrawn by PP.
- Fresh water consumption shall not exceed 4 KL/KL. Revise the water

requirement and submit water balance. PP has submitted the revised water balance and water requirement has been reduced to 880 m³/day.

- Revised cost of EMP shall be submitted excluding nano urea plant. Capital cost of EMP would be Rs. 33 Crores instead of Rs. 61.67 Crores and recurring cost for EMP would be Rs.5.5 Crores instead of Rs. 9.3 Crores per annum
- Revised CER activities shall be submitted including villages and time bound action plan. PP has submitted revised 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 220 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 informed by PP, Carbon Sequestration (Pilot Plant for 10 t-CO₂/d to nano-Urea) shall not be implemented under this EC granted.
- (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 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 i.e. 880 m³/day which will be met from Surface water/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) with a stack height of 53 meters will be installed with 56 TPH (2 x 28 TPH) biomass/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (ix). Boiler ash (46 TPD) will be supplied to brick manufacturers / given to farmers to use as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. 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). CO₂ (110 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant. 10 TPD of this collected CO₂ will be converted to nano-urea in a pilot plant for carbon sequestration demonstration.
- (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 1.87 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. No trees shall be cut as part of construction.

- (xvii). PP proposed to allocate Rs. 5.9 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 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 9

Proposed project for 150 KLPD Grain Based Distillery Plant (Ethanol) along with 3.2 MW Cogeneration Power Plant at S.NO. 128 ,130 & 132, Ravipahad Village, Mothey Mandal, Suryapeth, Telangana by M/s. NMK Biofuels Pvt. Ltd. - Consideration of Environmental Clearance

[IA/TG/IND2/403695/2022, IA-J-11011/467/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Ultratech Environmental Consultancy & Laboratory (NABET certificate No. NABET/EIA/2023/RA0194 and validity 09th March 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for Environmental Clearance for Proposed 150 KLPD Grain Based ethanol plant and 3.2 MW Cogeneration Power Plant located at S. NO. 128 ,130 & 132, Village Ravipahad, Tehsil Mothey Mandal, District Suryapeth, State Telangana by M/s. NMK Biofuels 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:

| Sr. No. | Name of Unit | Name of the products /by products | Production capacity |
|----------------|--------------------------|--|----------------------------|
| 1 | Distillery (Grain based) | Ethanol | 150 KLPD |
| 2 | Power Plant | Power | 3.2 MW |
| 3 | DWGS Dryer | DDGS | 75 TPD |
| 4 | Fermentation | Carbon Dioxide | 120 TPD |

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

Total land area required is 6.36 hectares. Greenbelt will be developed in total area of 2.10 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 170 Crores. Capital cost of EMP would be Rs. 16.95 Crores and recurring cost for EMP would be Rs. 1.10 Crores per annum. Industry proposes to allocate Rs. 3.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 104 persons as direct & 300 Persons indirect.

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Water bodies: Ravipahad Cheruvu Lake is at a distance of 2.95 Km in South direction from project site & Palleru River is at 4.0 km in East direction from project site.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.12 µg/m³, 0.54 µg/m³, 2.64 µg/m³ and 1.15 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂&Nox. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement of 596 m³/day will be met from Paler reservoir. Application submitted to Engineer-Chief (General), dated 08th September 2022. Effluent (Condensate/ Spent lees /blowdown) of 713 m³/day quantity will be treated through Condensate polishing unit of capacity 400 m³/day. Raw Stillage (1003 KLPD: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises. STP will be installed to treat sewage generated.

Power requirement will be 3.0 MW and will be met from proposed 3.2 MW cogeneration power plant. 35 TPH biomass/coal fired boiler will be installed. ESP with a stack height of 65m 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 65 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 (120 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) (75 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (Rice Husk 31.50 TPD or Coal 64.90 TPD) will be used for brick manufacturing in proposed own brick manufacturing unit.
- Used oil (0.3 Kl/annum) will be sold to authorized recyclers.
- CPU & STP sludge will be used as manure.

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

Total 6.36 ha land is in possession of M/s. NMK Biofuels Pvt. Ltd. & land use conversion completed on dated 10th August 2022. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- PP shall ensure that fresh water consumption shall not exceed 4 KL/KL including co-generation power plant.
- Revise recurring cost per annum as it is on lower side and submit the breakup. Recurring cost of EMP has been increased from Rs. 0.77 Crores to Rs. 1.10 Crores.
- PP shall ensure that used oil shall not be burnt in boiler and sold to authorized recyclers.
- Cost of CER shall be increased from Rs. 2.18 Cr. To Rs. 3.0 Crores. 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). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

- (iii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (iv). NOC from the Concerned Local authority for surface water 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 Paler reservoir. 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 65 meters will be installed with 35 TPH Rice husk and Coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

- (viii). Boiler ash (Rice Husk 31.50 TPD or Coal 64.90 TPD) will be used for brick manufacturing in proposed own brick manufacturing unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. 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 (120 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 2.10 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. No trees shall be cut as part of construction.
- (xvi). PP proposed to allocate Rs. 3.0 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 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 10

Proposed project for 100 KLPD Grain Based Distillery along with 2.5 MW Co-generation Power Plant under Ethanol Blended Petrol Programme (EBP) located at Survey No. 148 and 149, Village Malkhed (bk), Taluka Ner, District Yavatmal, Maharashtra by M/s. Chintamani Agrotech (I) Ltd.- Consideration of Environmental Clearance

[IA/MH/IND2/404823/2022, IA-J-11011/357/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Technogreen Environmental Solutions (NABET certificate No. NABET/EIA/2124/IA/0081 (Rev.01) 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 100 KLPD Grain based Ethanol Plant & 2.5 MW Co-generation power plant located at Survey No. 148 and

149, Village-Malkhed (bk), Taluka Ner, District Yavatmal, Maharashtra, India by M/s. Chintamani Agrotech (I) 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 (Grain based) | Ethanol | 100 KLPD |
| 2 | Co-generation power plant | Power | 2.5 MW |
| 3 | DDGS dryer | DDGS | 51 TPD |
| 4 | Fermentation unit | Carbon di-oxide | 78 TPD |

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

Total land area required is 8.7789 hectares. Greenbelt will be developed in total area of 3.0727 hectares i.e., 35% of total project area. The estimated project cost is Rs.148.38 Crores. Capital cost of EMP would be Rs.29.406 Crores and recurring cost for EMP would be Rs.2.464 Crores per annum. Industry proposes to allocate Rs.2.5 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 100 persons as direct & indirect.

There are no national parks, wild life sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, protected forest etc. within 10 km distance. Reserve forest patch near Indrathana is at distance of 3.3 km in

West direction, Reserve forest near Pachwad is at distance of 3.35 km in South direction, Lonadi Reserve Forest is at distance of 4.02 km in NNE direction. Water bodies: Ner Reservoir is at distance of 4.55 km in NNW direction and Milmili Nala is at distance of 5.67 km in NNW direction and Kapsi Talav is at distance of 5.80 km in SE direction. Goki river is present at 8.71 km in SSE direction and Aran river is present at 9.82 Km in SSW direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.06 \mu\text{g}/\text{m}^3$, $0.03 \mu\text{g}/\text{m}^3$, $0.44 \mu\text{g}/\text{m}^3$ and $0.51 \mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO₂ and NOX. The resultant concentrations are within the National Ambient Air Quality Standards(NAAQS).

Total fresh water requirement will be 471 CMD which will be met from Ground water. Application has been submitted to CGWA Vide application number: 21-4/8882/MH/IND/2022 dated 30.08.2022. Effluent (Condensate/spent lees/dryer process condensate, sealing water etc.) of 515 m³/day quantity will be treated through Condensate Polishing Unit of capacity 600 CMD. Effluent (Boiler & Cooling tower blowdown/Domestic sewage/DM reject/CIP water/CPU RO Reject) of 221.6 m³/day quantity will be treated through Effluent Treatment Plant of capacity 250 CMD. Raw stillage (561 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. CPU of capacity 600 KLPD will be installed to treat Condensate, Spent Lees, Dryer process condensate & sealing water and ETP of capacity of 250 CMD will be installed to treat sewage, blowdowns, DM reject and CIP water. 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 2.195 MW and will be met from proposed 2.5 MW Co- generation power plant. 22TPH Rice Husk/Coal fired boiler will be installed. ESP (5 field with 99.9% efficiency) with a stack height of 50m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. 500kVA DG set will be used as stand by during power failure and stack height (4.5m above roof) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP (5 field) with 99.9% efficiency 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.
- CO₂(78TPD) generated during the fermentation process will be collected by utilizing CO₂ 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) (51 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (coal ash- 8.36 TPD & biomass ash -20 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (0.1 Kilolitres per annum) will be sold to authorized recyclers.
- Sludge from Waste water treatment (0.05 TPD) will be used as manure.

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

Total land of 8.7789 Hectares is under possession of company (on a 25 years registered lease basis) and land use conversion application has been submitted to Revenue Department, Govt. of Maharashtra. Vide application No: CAIL/NGP-YTM/NA-001 dated 25.08.2022. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- CLU certificate shall be obtained before start of construction activities. PP has committed the same.
- Fresh water withdrawal permission shall be obtained before start of construction activities. PP has committed the same.
- CER cost to be increased from Rs. 2.2 Crores to Rs. 2.5 Crores and fund shall be invested before commissioning of the project.

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). 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). 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 50 meters will be installed with 22TPH Rice Husk/Coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (viii). Boiler ash (coal ash- 8.36 TPD & biomass ash -20 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. 20% biomass pellets shall be used as fuel. 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 (78TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be 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 3.0727 hectares i.e., 35 % 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. 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 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.

GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

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

Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal.

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

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

| S. No. | Name and Address | Position |
|---------------|--|---------------------|
| 1. | Shri S. C. Mann | Chairman |
| 2. | Dr. J.S. Sharma | Member |
| 3. | Prof. Y. V. Rami Reddy | Member |
| 4. | Dr. Sanjeev Chaudhari (14.11.2022 - only 1 day) | Member |
| 5. | Dr. Onkar Nath Tiwari | Member |
| 6. | Shri. J.S. Kamyotra | Member |
| 7. | Dr. Rahul Ramesh Rao Mungikar | 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 |
