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

**Dated: 09.07.2022**

**Meeting ID: IA/IND2/13281/07/07/2022**

**MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE**

**(INDUSTRY-2 SECTOR PROJECTS)**

**HELD ON 07th - 08th July, 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/IND2/13271/27/06/2022) held during 27th - 28th June, 2022 conducted through Video Conferencing (VC), confirmed the same. After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

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

**07th July, 2022 (Thursday)**

**Agenda No. 1**

**Natural Gas Distribution pipeline Network with associated facilities from Ambadi Naka at Bhiwadi Taluka, Thane District to Village Virar, Taluka Vasai, District Palghar of Maharashtra State (i.e. called Virar Spur Line) including Spur lines at Nala Sopara, Vasai, Kharpada,**

**Sativali covering total length approx. 58.345 km with Diameters 6”/8”/12"- Re-Consideration of Environment Clearance**

**[IA/MH/IND2/90520/2019, IA-J-11011/46/2019-IA-II(I)]**

The proposal was earlier considered by the Expert Appraisal Committee (Industry-2) in its 05th meeting held on 10th May, 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/IND2/13281/07/07/2022) held on 07th -08th July, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

| S.No. | Information desired by the EAC | Responses submitted by the project proponent | Remarks by EAC |
|---|---|---|---|
| 1. | To recheck the existing monitoring data by conducting 15 days monitoring for Ambient Air quality in all 9 locations and results to be submitted with detailed ambient air quality monitoring table. | Ambient Air Quality Monitoring (AAQM) for 15 Days (during 19/05/2022 to 02/06/2022) in all 9 locations including 1 hour Ozone Monitoring has been carried out by QCI/NABET Approved EIA Consultant M/s. Green Circle, Inc. Vadodara. The results in Ambient Air Quality Monitoring Table with detailed AAQM report has been submitted.<br>Further, AAQM analysis data indicates the ranges of concentrations as: PM10 (70.7 to 74.2 µg/m3), PM2.5 (24.8 to 32.4 µg/m3), $SO_2$ (6.8 to 9.1 µg/m3) and $NO_2$ (12.3 to 14.3 µg/m3). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). | EAC found the information Satisfactory. |
| 2. | PP shall conduct 1 hour Ozone monitoring in ambient air and submit the results. | | |

The Project Proponent and the accredited Consultant M/s. Green Circle, Inc, Vadodara (NABET certificate no. NABET/EIA/2124/RA 0219 and validity 26th January, 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project Natural Gas Distribution pipeline network with associated facilities from Ambadi Naka at Bhiwadi Taluka, Thane District to Village Virar, Taluka Vasai, District Palghar of Maharashtra State (i.e. Called Virar Spur line) including Spur lines at Nala Sopara, Vasai, Kharpada, Sativali covering total length approx. 58.345km with Diameters 6”/8”/12" at Maharashtra, Palghar by M/s Gujarat Gas Limited.

All Oil & gas transportation pipeline (crude and refinery/petrochemical products), passing through national parks/sanctuaries/coral reefs/ecologically sensitive areas including LNG Terminal project are listed at S.N. 6(a) 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:**

This is Natural Gas Distribution pipeline network with associated facilities covering total length approx. 58.345 km with Diameters 6”/8”/12" & Capacity : 0.72 MMSCMD at Maharashtra, Palghar.

Standard Terms Of Reference has been obtained vide F. No. IA-J-11011/46/2019-IA-II(I) dated 23 Mar 2019. 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 27th January, 2022 at Aangan Marriage Hall, Satpadi Road, Tembhade, Palghar (E), District Palghar chaired by Additional District Collector, Palghar. The main issues raised during the public hearing and their action plan:

**Regarding attendance and public hearing to be conducted again,** pipeline laying area is limited as eco-sensitive zone area has been taken into account for public hearing issues, affected families are also limited, hence attendance is also low.

**Regarding compensation for affected families,** PP informed that pipeline is not at all going through private land instead gas pipeline will go parallel

through the ROU of the existing roads. Hence, compensation is not applicable.

**Regarding mangroves protection and villages are under PESA i.e. Panchayat [Extension of the Scheduled Areas] Act. 1996, PP informed that** mangroves is nowhere parallel to the Public Works Department (PWD) road. Therefore, there is no possibility of mangroves which will be affected. Also informed that PESA Road is connected to PWD roads and GGL pipeline is parallel to PWD roads. There will be crossings on the roads within the limits of the Gram Panchayat. The gas pipeline will be erected taking care that no damage will be done.

Proposed pipeline project will not have any land acquisition on permanent bases, but proposed pipeline route is along the existing road Right of Way (ROW) under PWD authority and land will be used temporarily limited up to laying of pipeline on the basis of Right of Use. After laying of pipeline the land will be reinstated to near its original condition and return to PWD authority. Proposed project will not have any storage terminal & Station. It will only have transportation of Natural gas through pipeline & establishment of City Gas Distribution network. Proposed pipeline route will not have any station facilities and permanent land acquisition. In addition, the proposed pipeline will be laid such that it will not lead to deforestation/cutting of trees. However, in unavoidable situation forest authority will be informed and necessary tree plantation /compensation to forest authority will be given. 10 trees will be planted on cutting of 1 tree as per the guideline of forest division. The estimated project cost is Rs. 64.76 Crores. Capital cost of EMP would be Rs. 0.6476 Crores and recurring cost for EMP would be Rs. 0.01 Crores per annum. Industry proposes to allocate Rs. 0.65 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 60 persons as direct & indirect.

PP reported that proposed pipeline route passes through Tungareshwar Wild life sanctuary as follow:

| S.N. | Particulars | ESZ Length & Area | WLS Length & Area | Remarks |
|---|---|---|---|---|
| 1 | Virar Spur line passes through Tungareshwar ESZ & WLS sanctuary of | Length:3/380km Area: 0.304ha | Length: 0.496km Area: 0.0446ha [Ch.26.18 to Ch.25.81=0.367Km Ch.22.60 to | Nala Sopara, Vasai, Kharpada & Sativali |

| | | | | |
|---|---|---|---|---|
| | | | Ch.22.47=0.129km Total=0.496km] | Spur line are out of ESZ & WLS sanctuary. |

PP has reported that earlier as per Draft Tungareshwar Wild Life Sanctuary(TWLS) notification, GGL has already obtained recommendation from the State Board of Wild life vide 05th December 2018 and permission granted by Standing committee of NBWL vide F. No. 6- 30/2019 WL dated 25.03.2019 for diversion of 0.0445 ha of forestland for underground laying of natural gas pipeline of 6", 8" and 12" diameter along the existing road in the Ambadi Naka area in Virar city, Nalasopara, Vasai, Kharpada and Sativali District Palghar falling in TWLS and its notional ESZ. GGL has also complied all necessary conditions directed by NBWL and NOC for laying proposed pipeline has been granted by additional Principal Chief Conservator of Forests (Wild Life) West, Mumbai vide F. No. Desk-3/Land/NBWL/CR No. 108/1261 of 2019-20 dated 13.08.2019. Now as per Finalized TWLS notification vide dated 11.09.2019, TWLS boundary has been finalized and final Eco Sensitive Zone (ESZ) boundary has been reduced from buffer 10 km to 100 m-4 km max. As per this latest finalized Notification only Virar Spur line slightly passes through finalized Eco Sensitive Zone of TWLS for length 3.380 km (For 0.304 ha ESZ area) out of total length approx. 58.345 km with Diameters 6"/8"/12" of Proposed Virar Spur line with its connectivity of Nala Sopara spur line , Vasai spur line, Kharpada spur line, Sativali spur line. In principle approval for diversion of 0.6818 ha forest land has been granted by Government of Maharashtra vide Order No.: FLD12A18/CR-302/F-10, Dated 02.01.2019.

As informed by PP, the everyday vehicle movement on existing road passing through WLS is currently present there. However, the proposed pipeline route will not have any permanent impact in this area because it is 1.2 meter underground buried pipeline along the existing road RoW under PWD department. The impact envisaged only during construction phase of the laying of pipeline in that area which will be limited to only few days and the soil will be reinstated near to its original condition after laying of pipeline. So, no impact on wild life sanctuary is expected in operation phase of pipeline. So, the project will have impact is very marginal, temporary in nature and reversible. Also, PP informed that during construction stage/laying activity of pipeline in the sanctuary area, no such level of noise will be generated that could disturb the wildlife sanctuary. Proper lubrication

and anti-vibration pads will be used for construction machines. Necessary precautions will be taken like prohibition of blowing horns within sanctuary area, equipment & machinery used at site shall be properly maintained & provided with silencers, DG set shall be provided with proper acoustic enclosures to mitigate noise level. All adequate pollution control measures shall be taken to meet the prescribed ambient noise standards for the project activity.

Ambient air quality monitoring was carried out at 9 locations during 01 Mar 2019 To 31 May 2019 and the baseline data indicates the ranges of concentrations as: PM10 (73.3 to 66.2µg/m3), PM2.5 (29.3 to 26.4µg/m3), SO2 (14.6 to 13.2µg/m3) and NO2 (18.3 to 17.1 µg/m3). As per EAC deliberations, Ambient Air Quality Monitoring (AAQM) was again conducted for 15 Days (during 19/05/2022 to 02/06/2022) in all 9 locations including 1 hour Ozone Monitoring. AAQM analysis data indicates the ranges of concentrations as: PM10 (70.7 to 74.2 µg/m3), PM2.5 (24.8 to 32.4 µg/m3), SO2 (6.8 to 9.1 µg/m3) and NO2 (12.3 to 14.3 µg/m3). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 10 m3/day only during construction phase of pipeline which will be met from Nearby Municipal Source whereas there will be no fresh water requirement during operation phase. Effluent of 0.5 m3/day quantity will be treated through proposed Mobile STP and will be disposed off appropriately to nearby Municipal Drain facilities.

No Stationery/permanent DG set required on pipeline during operation phase. Temporary 12KVA DG set will be required for welding during laying of Steel pipeline.

As reported by PP, no process emissions are envisaged during construction and operation phase.

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

- Solid wastes generated from the temporary campsites and other wastes like plastics, paper, cardboard, etc. will be properly collected, segregated and reused / disposed off appropriately (recycle, reuse, and composting / landfill)
- No hazardous wastes are envisaged from pipeline construction

activities.

- During operation phase of the pipeline, pigging operation may generate solid waste which will be safely collected, stored and disposed to approve TSDF vendor.

During deliberations, EAC discussed the following issues:

- Thickness of pipeline and measures for anti-corrosion shall be considered while implementing the project. PP informed that wall thickness of the steel pipeline to be laid at Wild Life Sanctuary section/area shall be increased compare to wall thickness of other pipeline section of 6.4 mm wall thickness as per design criteria of PNGRB T4S CGD regulation.
- Actual depth below the ground of pipeline. PP informed that it will be minimum 1.2 m. EAC suggested to increase the depth to 1.5 m. PP informed that depth of steel pipeline to be laid at Wild Life Sanctuary section/ area shall be increased to 1.5 meter depth against the requirement of 1 meter normal depth as per PNGRB T4S CGD regulation.
- Action plan/precautions in case of fire accident. PP has submitted that though probability of gas leakage incident is very low, additional isolation valves shall be provided on the both side of the steel pipeline section to be laid at Wild Life Sanctuary section/ area for significant reduction of gas release in the atmosphere from the small isolated pipeline section. Frequency of Periodic patrolling shall be increased for section of pipeline located at "Wild Life Sanctuary" to prevent pipeline damages by third party. Frequency of periodic leak detection survey shall be increased for the section of pipeline to be laid at Wild Life Sanctuary section/ area to identify gas leakage to any. Local emergency team shall be made available round the clock with emerged response vehicle for prompt response. Proposed steel pipeline shall be protected against corrosion with 3 layer polyethylene coating as first defense along with impressed current Cathodic protection system as second defense. Health of the pipeline and Cathodic protection will be monitored regularly and also periodic survey at regular intervals will be done to ensure the integrity of the steel pipeline. Regular pipeline inspection and maintenance shall be done in accordance with PNGRB T4S regulations.

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

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

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

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

time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). As proposed by PP, wall thickness of the steel pipeline to be laid at Wild Life Sanctuary section/area shall be increased compare to wall thickness of other pipeline section of 6.4 mm wall thickness ( corrosion allowance) as per design criteria of Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Natural Gas Pipelines) Regulations, 2009 (PNGRB T4S NGPL Regulations 2009) and in complete compliance of Petroleum and Natural Gas Regulatory Board (Codes of Practices for Emergency Response and Disaster Management Plan) Regulations 2010 (PNGRB T4S ERDMP Regulations 2010)and Petroleum and Natural Gas Regulatory Board (Integrity Management System for Natural Gas Pipelines) Regulations, 2012 (PNGRB T4S IMS Regulations 2012). Depth of steel pipeline to be laid at Wild Life Sanctuary section/ area shall be increased to 1.5-meter depth.

(ii). All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of the project or activity.

(iii). Prior Forest clearance under the Forest (Conservation) Act, 1980 for diversion of the forest land shall be obtained before execution of the project.

(iv). The pipeline will be laid exclusively through Horizontal Direction Drilling (HDD) method at crossing of water body / river / creek, mangrove and CRZ area.

(v). The project authority shall ensure restoration of the Right of Way to preconstruction level as soon as construction activity completed. To ensure prevention of soil erosion, backfilled areas should be properly compacted.

(vi). Total fresh water requirement shall not exceed 10 KLD during construction phase to be met from tanker supply. Mobile STP shall be installed for treatment of domestic waste water.

(vii). Proposed pipeline shall be laid & inspected regularly in compliance of PNGRB-T4S (Technical Standards Specifications including safety standard) regulations for CGD and Periodic survey shall be carried out at regular intervals for leak detection and to ensure the adequacy of Cathodic Protection System for corrosion prevention.

(viii). Company shall prepare Emergency Response & Disaster Management Plan (ER-DMP) complying with the requirement of Petroleum & Natural Gas Regulatory Board Notification G.S.R.39 ( E )- Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP).

(ix). SCADA system shall be installed with dedicated optical fiber based telecommunication link for safe operation of pipeline and leak detection system.

(x). Intelligent pigging facilities shall be provided for the entire pipeline system for internal corrosion monitoring. Coating and impressed current cathodic protection system shall be provided to prevent external corrosion.

(xi). All the recommendations mentioned in the risk assessment report shall be implemented and Emergency response plan shall be based on guideline prepared by OISD.

(xii). Requisite Onsite and Offsite Disaster Management Plans will be prepared and implemented.

(xiii). The company shall obtain all requisite clearances for fire safety and shall comply with the stipulation made by the respective authorities.

(xiv). The construction of pipelines through the water bodies shall be avoided during the rainy season/ breading seasons of aquatic animals.

(xv). The riverbed, embankments and dykes shall be restored adequately after installation of crossings.

(xvi). For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.

(xvii). Annual safety audit shall be carried out for the initial three years by an independent agency (OISD/PNGRB/DGMS etc.) and report submitted to this Ministry for ensuring the strict compliance of safety regulations on operation and maintenance.

(xviii). The construction of pipeline particularly at the river and stream crossing shall be done during dry seasons to avoid disturbance of breeding seasons and soil erosion. The riverbed, embankments and / dykes shall be restored adequately after installation of crossings.

(xix). Pipeline wall thickness and minimum depth of burial at river crossings and casings at rails, major road crossings shall be in conformity with ANSI/ASME requirements.

(xx). The PP shall follow horizontal drilling technique for laying of pipeline while passing through major rivers.

(xxi). The project authorities shall install SCADA/GPS system with dedicated optical fiber based telecommunication link for safe operation of pipeline and Leak Detection System. Additional sectionalizing valves in the residential areas and sensitive location shall be provided to prevent the leaking of gas going to the atmosphere in the event of pipeline failure.

(xxii). The project authorities shall patrol and inspect the pipeline regularly for detection of faults as per OISD/ PNGRB guidelines and continuous monitoring of pipeline operation by adopting non-destructive method(s) of testing as envisaged in the EMP. Pearson survey and continuous potential survey shall be carried out at regular intervals to ensure the adequacy of cathodic protection system.

(xxiii). Necessary approvals from Chief Controller of Explosives must be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and

implemented. It is necessary that integrated DMP should be in place as the pipeline is passing through four Districts.

(xxiv). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018, PP has proposed Rs. 65 Lakhs regarding the Corporate Environmental Responsibility to address the socio-economic and environmental issues in the study area, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. CER plan shall be followed as submitted.

(xxv). The acoustic chambers/barriers should be provided for individual units wherever feasible in the compressor stations.

(xxvi). The workers camp should have arrangement for safe drinking water, hygienic kitchen and sanitation facilities. The wastewater should be properly treated before disposal.

(xxvii). Additional isolation valves shall be provided on both side of the steel pipeline section to be laid within Wild Life Sanctuary section/ area for significant reduction of gas release in the atmosphere from the small isolated pipeline section. Frequency of Periodic patrolling by third party shall be increased to prevent pipeline damages. Frequency of periodic leak detection survey shall be increased to identify gas leakage if any. Local emergency team shall be made available round the clock with emerged response vehicle for prompt response.

(xxviii). Proposed steel pipeline shall be protected against corrosion with 3-layerpolyethylene / poly propylene coating as first defense along with impressed current Cathodic protection system as second defense. Health of the pipeline and Cathodic protection shall be monitored regularly and also periodic survey at regular intervals shall be done to ensure the integrity of the steel pipeline. Regular pipeline inspection and maintenance shall be done in accordance with PNGRB T4S NGPL, IMS and ERDMP regulations.

**Agenda No. 2**

**Proposed Coal to Poly-Vinyl Chloride (PVC) Project located in Industrial area of Adani Ports & Special Economic Zone Limited, Taluka Mundra, District Kachchh, Gujarat- Consideration of Environment Clearance**

**[IA/GJ/IND2/230862/2021, IA-J-11011/149/2021-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Kadam Environmental Consultants (NABET certificate no. NABET/EIA/2023/SA 0164 and validity 19th March 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project of VCM, PVC, Ethylene Glycol and other petrochemical based processing (other than cracking and reformation) activities located at industrial area of APSEZ, Tehsil- Mundra, District-Kutch, State Gujarat by Adani Enterprises Ltd. (as a part of Coal to Poly-Vinyl Chloride (PVC) Project comprising of Industry-I projects i.e. Semi Coke – 2030 KTPA, Calcium Carbide–2900 KTPA (Not Specified in Any Industrial Committee), Cement–6 MTPA; Clinker–4 MTPA, Industry-II projects i.e. VCM–2002 KTPA, PVC–2000 KTPA, Ethylene Glycol– 400 KTPA and Industry-III projects i.e. Acetylene–860 KTPA and Caustic Soda–1310 KTPA).(Where, KTPA: Kilo Tonne Per Annum; MTPA: Million Tonne Per Annum).

VCM, PVC and Ethylene Glycol and other petrochemical based processing (other than cracking and reformation) activities are listed at S.N. 5(e) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC). This project is interlinked and integrated as this consist of 3 activities as listed below:

1) Industry-I activity i.e. Semi Coke – 2030 KTPA (S.No.4-b), Calcium Carbide–2900 KTPA (Not Specified in Any Industrial Committee), Cement–6 MTPA (S.No.3-b); Clinker–4 MTPA (S.No.3-b),
2) Industry-II activity i.e. VCM–2002 KTPA (S.No.5-e), PVC–2000 KTPA (S.No.5-e), Ethylene Glycol– 400 KTPA (S.No.5-e) and
3) Industry-III activity i.e. Acetylene–860 KTPA (S.No.5-f) and Caustic Soda–1310 KTPA (S.No.4-d)"

**The details of products and capacity w.r.t. industry –II sector are as under:**

| S. No. | Unit | Product/by-product | Proposed Capacity |
|---|---|---|---|
| 1 | PVC process | Polyvinyl Chloride (PVC Grades: Suspension, Mass Emulsions, Chlorinated PVC etc.) | 2000 KTPA |
| 2 | VCM process | Vinyl Chloride Monomer | 2002 KTPA |
| 3 | Ethylene Glycol process | Ethylene Glycol (EG) (Superior Grade EG, Qualified Grade EG, MEG, DEG, TEG) | 400 KTPA |
| 4 | | Dimethyl Carbonate | 13 KTPA |
| 5 | | Crude Ethanol | 10 KTPA |
| 6 | | Alkanol | 7 KTPA |

Standard Terms of Reference (ToR) have been obtained vide letter no. IA-J-11011/149/2021-IA-II(I) dated 29/09/2021 for the activities as above falling in the scope of EAC Industry - 2. Further, as this project is integrated and interlinked project, TOR for the activities falling under EAC Industry– 1 and EAC Industry – 3 have been obtained vide letter no. IA-J-11011/423/2021-IA-II (IND – I) dated 03/12/2021 and vide letter no. IA-J-11011/149/2021-IA-II(I) dated 10/12/2021, respectively.

PP informed that litigation is pending against the proposal. One PIL has been filed by Kheti Vikas Seva Trust. PIL is registered as No. 36 of 2022. Respondents are (1). Union of India, (2). State of Gujarat, (3). Central Pollution Control Board-New Delhi, (4). Gujarat Pollution Control Board-Gandhinagar, (5). District Collector-Kutch, (6). Regional Officer, IRO MOEF&CC- Gandhinagar, (7). Adani Enterprises Ltd.-Ahmedabad. Kheti Vikas has raised objections on conducting one Public Hearing for various projects. Kheti Vikas has prayer to the court for stay on Public Hearing. Matter was posted in Gujarat High court on dated 18.04.2022. Matter was heard by court and next date posted on 20$^{th}$ June and as per the court order which reads that *"Issue notice through RPAD returnable by 20.6.2022. Learned counsel appearing for the petitioner is permitted to serve notice on Mr. Devang Vyas, learned Additional Solicitor General of India for respondent No.1. Mr. K.M. Antani, learned AGP accepts and waives notice for respondent Nos.2 and 5 and Mr. Sandeep Singhvi, learned counsel who is present in Court accepts and waives notice for respondent No.7. Any decision taken by the respondents would be subject to result of this petition".* Matter could not

come for hearing on 20th June, 2022 and it is further posted on 05th July, 2022.

Public Hearing for the proposed project had been conducted by the Gujarat Pollution Control Board on 30th April 2022 at Community premises, (Samajvadi) Centre, Opp. Tunda Primary School, Village Tunda, Tehsil Mundra, District Kachchh chaired by Resident Additional Collector & Additional District Magistrate, Bhuj- Kachchh.

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

**Regarding employment**, Total Employment will be ~12000 numbers during construction phase (i.e. ~5000 direct and ~7000 indirect) and ~11,600 numbers during operation phase (i.e. ~3600 on direct and ~8000 indirect) and local people will be given preference based on skills. Also, in nearby villages a group of women can be formed so that they can work in Gruhudhyogs (Home-based business). M/s. AEL shall provide employment to women as per their skills and qualification.

**Regarding Corporate Environmental Responsibility (CER) / Solar panels**, company will provide facilities for drip irrigation, in consultation with farmers AEL will help farmers through its different schemes like ground water recharge, water harvesting, zero chemical farming, drip irrigation etc., Rs. 123 Cr. CESR fund are committed during project stage to focus on Education , Community Health Initiatives, Sustainable Livelihood, Women Empowerment and Community Plantation, Community Rural Infrastructure Development, village development committee etc.

**Regarding Air Pollution,** requisite height of the stacks will be provided and Modern technology equipment's like Cyclone Electrostatic Precipitator, Scrubber will be installed, greenbelt development will be undertaken.

**Regarding land (This land was first mangrove area, and then this land was passed for APSEZ, AEL will establish a project on the land which is muddy, The land of Pocket 3 is outside APSEZ and the same shall be noted),** Permission has been granted to APSEZ to create a special economic zone. Land belongs to APSEZ. This land will be given to Adani Enterprise Limited by APSEZ. The 182 acres land of Pocket 3 falls in un-surveyed land of Tunda village which is part of reserve forest. This land falls under SEZ, for which necessary clearances has been granted by Ministry of Environment and Forest, Government of India. So, in the proposed project there is no land which is outside APSEZ.

**Regarding Cumulative impact of industries in Study area as sulphur emissions have been exhausted and FGD needs to be installed,** company will take all appropriate measures to reduce sulphur emissions.
**Regarding source of water**, Groundwater will not be used for proposed project. The required water (160 MLD) for the proposed project will be sourced through de-salination plant and no Groundwater will be used.
**Regarding safety related issue/accident**, AEL will setup primary sub centre for health check-up at a common place around villages and if there is a major accident, ambulance will be arranged to take them to Adani hospital where all specialist doctors are available and medical facilities will be upgraded. (Rs. 75 Crores under CER)
**Regarding health related problems**, AEL will ensure that there will be no leakage and therefore, there will not be occupational health issues for workers or villagers working in the plant. Moreover, AEL will also provide PPE kits to workers for their safety. OHS budget- Rs. 6 Crores estimated for medical check-up cost of all employees.
**Regarding Wastewater treatment and disposal**, the plant will be based on Zero liquid discharge.
**Regarding TSDF membership/ disposal of waste**, hazardous as well as non-hazardous waste will be disposed as per the statutory norms.

Total land area required for Coal to PVC project is 323.69 hectares. Greenbelt will be developed in total area of 107.04 - hectares i.e., 33.07% of total project area. The estimated project cost is Rs.34,900 Crores which includes Rs.13,000 crores for the proposed activities within the domain of EAC Industry – 2. For the Coal to PVC project, capital cost of EMP would be Rs.2874.59 Crores and recurring cost for EMP would be Rs. 1494.55 Crores per annum. Industry proposes to allocate Rs. 123 Crores towards Extended EMP (Corporate Environment and Social Responsibility). Total Employment will be ~12000 numbers during construction phase (i.e. ~5000 direct and ~7000 indirect) and ~11,600 numbers during operation phase (i.e. ~3600 on direct and ~8000 indirect).

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Reserve forests/protected forests: Mundra Mangrove Forest at a distance of 0.01 km in SE direction. Conservation plan for schedule I species in study area i.e. *Gazella Bennettii, Varanus bengalensis, Lissemus punctatea, Pavo cristatus, Acipiter Badius, Circus aeruginosus and Platalea leucordia* has been approved by The Chief Wildlife Warden, Gandhinagar vide

letter no. WLP/32/C/297-298/2022-2023 dated 18/06/2022 and a budget of Rs.24,50,000 has been earmarked for the same. Water bodies: Kotadi Creek is flowing at a distance of 2.48 km in East direction from Pocket 1 & 2.

Ambient Air Quality monitoring was carried out at 12 Locations during 22nd March, 2021 to 22nd June, 2021 and base line data indicates the ranges of average concentrations as: $PM_{10}$ (63-81µg/$m^3$), $PM_{2.5}$ (17-40 µg/$m^3$), $SO_2$ (6.5 – 11.4 µg/$m^3$) and $NO_2$ (12.1-19.1 µg/$m^3$). AAQ modelling study for point source emissions indicates that maximum incremental GLCs after the proposed project would be 8.8 µg/$m^3$, 6.2µg/$m^3$, 5.8µg/$m^3$, 11.7 µg/$m^3$ with respect to $PM_{10}$, $PM_{2.5}$, $SO_x$ and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

There will be no groundwater extraction for this project. The total water requirement for PVC, VCM, Ethylene Glycol process will be 29040 m3/day and other common utilities will be 65948 m3/day, as part of Coal to PVC project total water requirement 2,22,875 m3/day including 1,60,053 m3/day of continuous make-up water will be met from APSEZL Seawater Desalination plant and rest will be met from internal recycling of water. Willingness letter from APSEZ for supply of water is received for 15 MLD fresh water requirement during construction phase and 220 MLD fresh water requirement during operations phase. Proposed effluent generation will be 54254 m3/day which will be treated through Effluent Treatment Plant of capacity 56250 KLD. Domestic waste water will be treated in STP of capacity 1225 KLD. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

During the construction phase, the power requirement of 30 MW will be provided by DISCOM within APSEZL. During operation phase, the power requirement of 2000 MW will be provided by DISCOM within APSEZL. To meet the steam requirement of Coal to PVC project, common utilities includes 3 Coal fired boilers of 240 TPH each (2 working + 1 standby) and 1 natural gas fired boiler of 240 TPH. Adequate APCE ESP/Bag Filters, Limestone (CaCO3) and hydrated lime (CaO) as desulphurizing agent @ 12 TPH with a stack of height of 50 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boilers. DG sets of 20,000 KVA total capacity (1250 KVA – 10 Units and 750 KVA – 10 units) are being proposed for the Proposed Project in case of emergency/power failure. Stack (height – 30 mtr of each) will be provided as per CPCB norms to the proposed DG Sets.

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

| Name of Plant | Vent Attached to | Nos. of vent per unit | Vent height (m) | Emission | Pollutants Emitted | Air Pollution Control Measures Attached |
|---|---|---|---|---|---|---|
| PVC Plant | Unit - I - Vent gas of dryer Unit | 2 | 50 | Continuous | Particulate Matters | Wet Scrubber |
| | Unit - I - Vent gas of PVC Bagging System | 6 | 50 | Continuous | Particulate Matters | Bag Filters |
| | Unit - II - Dryer Unit | 2 | 50 | Continuous | Particulate Matters | Wet Scrubber |
| | Unit - II - Bagging System | 6 | 50 | Continuous | Particulate Matters | Bag Filters |
| | Unit - III - Dryer Unit | 2 | 50 | Continuous | Particulate Matters | Wet Scrubber |
| | Unit - III - Bagging System | 6 | 50 | Continuous | Particulate Matters | Bag Filters |
| | Unit - IV - Dryer Unit | 2 | 50 | Continuous | Particulate Matters | Wet Scrubber |
| | Unit - IV - Bagging System | 6 | 50 | Continuous | Particulate Matters | Bag Filters |
| VCM Plant | Unit 1 &2 - VCM condenser | 2 | 50 | Continuous | Particulate Matters, VCM | Caustic Scrubber followed by Incinerator |
| | Unit 3 & 4 - VCM condenser | 2 | 50 | Continuous | Particulate Matters, VCM | Caustic Scrubber followed by Incinerator |

| | | | | | | |
|---|---|---|---|---|---|---|
| Ethylene Glycol Unit | Tail Gas Absorption | 3 | 50 | Intermittent | HC | Dilution with steam |
| | Hydrogenation system | 3 | 50 | Intermittent | HC | Hydrogen Recovery through PSA |

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

| S. No. | Plant / Unit | Waste Description | Qty. in (TPA) | Category as per Hazardous waste management rule 2016 | Collection Method | Mode of Transport | Distance from site (km) | Treatment / Disposal Mode |
|---|---|---|---|---|---|---|---|---|
| 1 | Handling of hazardous chemicals and waste | Empty barrels, containers, liners contaminated with hazardous chemicals Empty | 6000 Nos (20 MT) | 33.1 | Drums / Containers / Bags | By Road | 70 | Disposed to authorized TSDF / recycler / co-processing |
| 2 | VCM plant | Spent catalyst and molecular sieves | 900 | 1.6 | Barrel / Drums | By Road | 70 | To be sent to an approved / authorized vendor for recovery / |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Disposal to authorized TSDF / recycler / co-processing |
| 3 | MEE Area | MEE Salt | 99681 | 35.3 | Bags | By Road | 70 | Disposal to authorized TSDF / recycler / co-processing |
| 4 | ETP Area | Chemical Sludge | 5840 | 35.3 | Bags | By Road | 70 | Disposal to authorized TSDF / recycler / co-processing |
| 5 | Industrial Operation using mineral or Synthetic Oil as lubricant in hydraulic system or other applicati | Used Oil / Spent Oil | 200 | 5.1 | Barrels / Drums | By Road | 60 | Sent to registered oil re - processor |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | ons, e.g. worksho p / Heavy m/c | | | | | | | |
| 6 | DM plant | Ionic Membra nes / Resin | 17 | 35.2 | Barrels / Drums / Bags | By Road | 70 | Disposal to authorize d TSDF / recycler / co-processin g |
| 7 | Ethylen e Glycol Plant | Spent catalyst and molecula r sieves | 665 | 1.6 | Drums / Tank / IBC | By Road | 70 | Send to approved vendor for recovery / Disposal to authorize d TSDF / recycler / co-processin g |

As informed by PP, proposed project boundary is outside CRZ. Project boundary has been superimposed on approved CZMP map by National Centre for Sustainable Coastal Management (NCSCM), Chennai. There is no new forest clearance required for the land for this proposed project. Forest clearance is already obtained by M/s APSEZ Ltd and entire land is already notified as industrial area. Proposed Project land is already notified industrial land of M/s APSEZ Ltd. M/s APSEZ Ltd has provided willingness letter to allocate the land to M/s AEL after Environmental Clearances for the proposed project is obtained by M/s AEL.

During deliberations, EAC discussed the following issues:

- PP informed that activities related to industry II project will be implemented in Pocket 1 area of the layout map of the project site.
- Type of coal being used. PP informed that it will be imported coal and 6% ash content will be there.
- Total land is in notified industrial estate as informed by PP.
- Source of water. PP informed that it will be sourced from approved desalination plant in APSEZ.
- Usage of treated effluent as quantity is high.
- Undertaking that whole land is situated in APSEZ and gazette notification of APSEZ.
- Commitment for Greenbelt development of 33% in Pocket 1.
- As per PH proceedings, right wind direction has not be taken into account. Effect of coastal region on air emissions due to temperature difference of day and night.
- Cement plant and copper plant which will be releasing high sulphur emissions and PP clarified regarding cumulative impact taken while conducting air quality modelling. Details regarding mitigation measures to be undertaken to avoid increase in ambient air quality emissions to be provided by PP.
- PM value approx. 91 $\mu g/m^3$ and PM incremental value comes out to be approx. 22 $\mu g/m^3$. Additional measures to be taken for worst case scenario. PP informed that greenbelt will be strategically developed. Detailed action plan to be submitted to take precautionary measures as distance of impact in air quality modelling will be 2.5 km and it will be bypassing greenbelt.
- Dominant wind direction on the basis of yearly data shall be taken. EAC suggested to take historical data of complete one year and then take dominant wind direction. PP shall submit wind rose of complete one year.
- Minimum velocity is 3.3.m/s and maximum velocity is 3.9 m/s which is contradictory and variation is very less during summer season. PP to explain the same.
- Total sulphur emissions from Pocket 1,2,3 and mitigation measures. PP informed that 149 gram/seconds will be the total sulphur emissions from all pocket. Additional measures shall be undertaken.
- Company has to install FGD for all boilers. Emission level designed for FGD. PP informed that prescribed standards for SO2, NOx will be less that 100 $mg/Nm^3$ and for Particulate Matter will be less than 30 $mg/m^3$.

- Undertaking stating that VCM incinerators shall be as per CPCB guidelines.
- Details regarding pollutants from VCO plant and mitigation measures.
- In ground water, very high fluoride content is found. In social funding i.e. CER, include ground water supply to villages and de-fluoridation plant also. Depth shall be mentioned from where ground water samples have been collected in order to clarify ground water results.
- Nagamati river TDS is very high. Clarify and include photographs also in order to confirm location from where sample has been taken i.e. check dam.
- CER budget will be spend before commissioning of the project. CER budget to be increased to Rs. 123 Crores from Rs. 75 Crores. Include establishment/adoption of hospital in CER as carcinogenic/toxic/harmful products are being handled. Include skill development also in CER plan. Also, plan for restoration of ponds in nearby areas.
- 3D modelling study related to risk assessment shall be conducted within 3 months and submit to MOEFCC.
- Flow diagram/mass balance of waste water treatment. PP showed the slides and explained.
- EAC suggested to recycle water in respective units instead of collecting it in one ETP pocket wise as it will be voluminous in quantity. Propose plan for water conservation. Details of waste water treatment shall be submitted along with commitment to achieve ZLD.
- MEE concentrate treatment. PP informed that MEE concentrate will be treated through ATFD and ash will be send to TSDF. PP explained separate treatment of cyanide.
- Details of total waste water generation and recycle/reuse quantity as it is contradictory as discussed.
- Safety measures for transfer of anhydrous hydro chloride through pipelines. SCADA system shall be installed with the pipeline. Monitoring mechanism shall be detailed. Interlocking system shall be installed and all process units shall be connected. PP informed that there will be SCADA system, frequent monitoring regularly, leak detection measures will be undertaken. Action plan for the same shall be submitted. Interval of HCL gas detectors shall be given. 3D modelling study shall be done for HCL leakage.
- Court case and status/direction of the court. Court has invited affidavit from GPCB. Latest direction of court case shall be submitted. EAC suggested to include court case condition and EC shall be subject to it.

- Occupational health & safety budget shall be given.
- Post monitoring VCM station shall be established and action plan for the same. Also, plan for 4-5 Continuous online monitoring stations establishment for post EC ambient air quality monitoring.
- Additional greenbelt towards mangrove forests. Mangrove plantation shall be done under community activities. Buffer zone required between mangrove plantation and greenbelt. PP informed that it is 100 m buffer and plant is proposed at a distance of more than 100 m.
- Submit Forest Clearance letter already obtained.
- CRZ maps were discussed and tree plantation shall be more towards mangrove. Greenbelt species to be grown as area is saline. PP informed the same. Greenbelt species for habitat conservation shall be submitted. Additional greenbelt shall be developed outside premises also.
- 10% power generation (industry 2 requirement) shall be from renewable energy within or outside premises. Submit action plan for the same. PP informed that commitment is difficult. PP informed that carbon footprint details shall be submitted.
- Commitment that all public hearing issues shall be addressed.
- Ammonia stripping is allowed or not as company will be adding ammonia also to air.
- Revised EMC shall be submitted as Env. Head shall report to head of organization.
- Land preparation/land filling/levelling details shall be given.
- Install Rain water harvesting system in premises from roof top and details shall be given regarding storage of rain water and reuse it.
- Controlling of NOx and methyl nitrite mitigation. Long length of material transfer through pipeline and mentioning of sensors, SCADA etc. shall be detailed.
- Chapter 5 alternative technology shall be modified as discussed.
- Mud flats are present in project site and turtle species are also present. Details shall be given for conservation of the same.
- Details regarding conservation plan.
- Desalination plant capacity in APSEZ and fresh water requirement will be sourced from there only, so is it adequate or not. PP informed that it will be adequate.
- RO rejects disposal shall be to TSDF facilities. PP agreed for the same.

Further, the Committee desired the following additional information:

(i). Submit the documentary evidence that the total land is in notified industrial estate.

(ii). As per PH proceedings, right wind direction has not be taken into account. Effect of coastal region on air emissions due to temperature difference of day and night.

(iii). Cement plant and copper plant which will be releasing high sulphur emissions. Details of mitigation measures to be undertaken to avoid increase in ambient air cumulatively and reduce impact towards villages to be submitted.

(iv). Detailed action plan to be submitted to take precautionary measures as distance of impact in air quality modelling will be 2.5 km and it will be bypassing greenbelt.

(v). Dominant wind direction on the basis of yearly data shall be taken. EAC suggested to take historical data of complete one year and then take dominant wind direction. PP shall submit wind rose of complete one year.

(vi). As per wind rose diagram details, minimum velocity is 3.3.m/s and maximum velocity is 3.9 m/s which is contradictory and variation is very less during summer season. PP to explain the same.

(vii). Total sulphur emissions from the project indicating each stack shall be provided and details of measures to be taken to control sulphur emissions.

(viii). Undertaking stating that VCM incinerators shall be as per CPCB guidelines.

(ix). Post project monitoring plan for VCM in ambient air to be submitted.

(x). Details regarding pollutants from VCO plant and mitigation measures.

(xi). Nagamati river TDS is very high. Clarify and include photographs also in order to confirm location from where sample has been taken i.e. check dam.

(xii). Details of total waste water generation and recycle/reuse quantity as it is contradictory as discussed. Please clarify.

(xiii). EAC suggested to recycle water in respective units instead of collecting it in one ETP as it will be voluminous in quantity. Submit action plan for water conservation. Details of waste water treatment shall be submitted along with commitment to achieve ZLD.

(xiv). Submit the copy of HTL/LTL CRZ demarcation map superimposing of the project site prepared by authorized institute.

(xv). 10% power generation (industry 2 requirement) shall be from renewable energy within or outside premises. Submit action plan for the same.

(xvi). Commitment that all public hearing issues shall be addressed.

(xvii). Ammonia stripping is allowed or not as company will be adding ammonia also to air.

(xviii). Revised EMC shall be submitted as Env. Head shall report to Plant CEO and CEO reporting to Board.

(xix). Land preparation/land filling/levelling details of the project site shall be given.

(xx). Controlling of NOx and methyl nitrite mitigation. Long length of material transfer through pipeline and mentioning of sensors, SCADA etc. shall be detailed.

(xxi). Mud flats are present in project site and turtle species are also present. Detailed Conservation plan shall be submitted for the same.

(xxii). Conservation plan for schedule –I species shall include escape plan for species from the project site. Details of the same to be submitted.

(xxiii). Desalination plant capacity in APSEZ and fresh water requirement will be sourced from there only, so is it adequate or not. PP informed that it will be adequate.

(xxiv). Ash management plan to be submitted.

(xxv). Chapter 5 alternative technology shall be modified as discussed. Submit the revised information.

(xxvi). Safety measures for transfer of anhydrous hydro chloride through pipelines. SCADA system shall be installed with the pipeline. Monitoring mechanism shall be detailed. Interlocking system shall be installed and all process units shall be connected. PP informed that there will be SCADA system, frequent monitoring regularly, leak detection measures will be undertaken. Interval of HCL gas detectors shall be given. 3D modelling study shall be done for HCL leakage. Action plan for the same shall be submitted.

PP vide letter no. AEL/MPL/ENV/MoEF&CC/2022-July/02 dated 08.07.2022 has submitted partial information desired by the Committee. However, PP has not submitted the information desired above at S.N. **(ii), (iii), (iv), (vi), (x), (xii), (xii partly), (xiv),(xvi), (xix),(xxi),(xxii) and (xxiii).**

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

**Agenda No. 3**

**Expansion of Molasses/Grain Based Distillery capacity from 220 KLPD to 400 KLPD (manufacturing of Ethanol) located at Village- Alhaipur , Tehsil- Dhampur , District- Bijnor, Uttar Pradesh by M/s. Dhampur Sugar Mills Ltd. - Consideration of Environment Clearance**

**[IA/UP/IND2/278832/2017, J-11011/586/2017-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Enviro Infra Solutions Pvt. Ltd. (NABET certificate no. NABET/EIA/1922/RA0157 and validity 13 Nov 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of existing molasses/grain based distillery unit from 220 KLPD to 400 KLPD along with co-generation power plant from 7.5 MW to 13 MW at Village Alhaipur , Tehsil Dhampur , District Bijnor, State Uttar Pradesh by M/s. Dhampur Sugar Mills 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/by-product | Existing Production capacity | Additional production capacity | Total production capacity |
|---|---|---|---|---|---|
| 1 | Distillery (Molasses/grain) | Ethanol | 220 KLPD | 180 KLPD | 400 KLPD |
| 2 | Co-generation power plant | Power | 7.5 MW | 5.5 MW | 13 MW |
| 3 | DWGS dryer | DDGS | 0 | 20 TPD | 20 TPD |

| | | | | | |
|---|---|---|---|---|---|
| 4 | Fermentation unit | Carbon dioxide | 30 | 50 TPD | 80 TPD |
| 5 | ATFD | Conc. spent wash powder | 462 | 378 TPD | 841 TPD |

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 350 KLPD vide File No. J-11011/586/2017-IA-II(I) dated 20.03.2019. Industry is operational at capacity 220 KLPD currently. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Lucknow vide File no- IV/ENV/UP/IND-34/106/97/56 dated 25.05.2022. Action Taken Report has been submitted to IRO, MOEFCC, Lucknow dated 26.05.2022 for 5 non-compliances related to development of greenbelt, uses of PPE, uploading of Compliance report on company website, civil work (foundation work) has already been completed, submission of Environmental Statement Report. EAC was satisfied by the above information provided by PP.

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

**Details of litigation are as under:**

An application was filed being OA No. 539 of 2019 In Re: Adil Ansari Vs. Dhampur Sugar Mills Ltd., and Others. In the said application Hon'ble NGT vide its order dated 1st September 2021 imposed an Environmental Compensation of Rs. 20 Crores including Rs. 5 Crores on Dhampur Distillery. Hon'ble NGT then constituted a Committee to assess the damage caused, if any to the Environment, which includes contamination of the soil, underground water, loss to the agricultural crops etc. However, while imposing the Environmental Compensation there was no evidence on record before Hon'ble NGT about the damage caused to the Environment.

The said order of Hon'ble NGT was challenged by the Company before Hon'ble Supreme Court vide Civil Appeal No. 5975 of 2021 wherein the Hon'ble Supreme Court granted stay of the order of imposition of Environmental Compensation vide order dated 08.10.2021. Hon'ble Supreme Court at the same time stated "A committee may be constituted to make detailed study. However, no further steps shall be taken by the Committee

for a period of six weeks". The study by the said Committee is under process but the report is yet to be submitted before Hon'ble Supreme Court. Presently no action is to be taken by us.

Total existing plant area is 16 Hectares. 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 5.44 Hectares i.e. 34% of the total plant area is being/will be developed as greenbelt & plantation as reported in CCR. The estimated project cost is Rs. 160.27 Crores. Capital cost of EMP would be Rs. 66.312 Crores and recurring cost for EMP would be Rs. 2.62 Crores per annum. Industry proposes to allocate Rs. 2.0 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 200 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Khoh River is at a distance of 3.2 Km in East direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 3.9 µg/m3, 14.7 µg/m3 with respect to PM10 and SO2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 3000 m3/day which is being / will be met from ground water. CGWA NOC for 2400 m3/day has been obtained vide NOC no. CGWA/NOC/IND/REN/2/2020/5654 and valid from 08.04.2019 to 06.04.2024. Existing effluent generation is 1600 m3/day which is treated through Condensate Polishing Unit of capacity 4500 m3/day. Proposed effluent generation will be 1164 m3/day from distillery which will be treated through existing 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 burnt in incineration boiler (The Company also proposes to keep option for adopting any new Technology for achieving ZLD including Spent Wash dryer. In case of Dryer the residual mass to be disposed of as Manure). In grain based operation, raw stillage (222 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. Domestic waste water is being/will be treated in STP of capacity 220 KLPD (common for both distillery and sugar unit). The plant will be based on Zero

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

Total power requirement after expansion will be 13 MW which will be sourced from existing 7.5 MW & proposed 5.5 MW co-generation power plant. Existing unit has 75 TPH bagasse/conc. spent wash fired boiler and 55 TPH bagasse/conc. spent wash fired boiler is proposed after expansion. Bag filter with a stack of height of 84 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$. ESP with a stack of height of 82 m will be installed with the proposed boiler for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$. No DG sets are proposed as part of expansion.

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

- ESP with a stack of height of 82 m will be installed with the proposed 55 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- Carbon di-oxide generated during the fermentation process is being/will be collected by utilizing CO2 scrubbers and sold to authorized vendors.

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

- Concentrated spent wash (1164 TPD) is being/will be burnt in incineration boiler.
- DDGS (Distilled Dried Grains Stillage) (20 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Ash (350 TPD) generated from the boiler is being/will be supplied to brick/cement manufacturers.
- Used oil (0.5 kilolitres per annum) is being/will be sold to authorized recyclers.
- CPU Sludge (30 TPD) and STP sludge (0.077 TPD) is being/will be reused 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 180 KLPD will be used for manufacturing fuel ethanol only.

During deliberations, the Committee was informed about the NGT case against the project which is pending. As per court case orders, *"A committee may be constituted to make detailed study. However, no further steps shall be taken by the Committee for a period of six weeks*". EAC was of the view to understand the associated environmental issues w.r.t court case before considering the project proposal. It was desired that PP should submit the committee's report for further consideration.

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

**Agenda No. 4**

**Expansion of exploration and production of Coal Bed Methane Gas in Raniganj (South) CBM Block, West Bengal by M/s Great Eastern Energy Corporation Ltd. – Amendment (Extension) in Environment Clearance**

**[IA/WB/IND2/276338/2022, J-11011/352/2010-IA II(I)]**

The proposal is for extension of validity of Environmental Clearance granted by the Ministry vide letter No. J-11011/352/2010- IA.II(I) dated 24th November, 2011 and EC extension granted up to 24th November 2021 for the Project "Expansion of exploration and production of Coal Bed Methane Gas in Raniganj (South) CBM Block, West Bengal in favour of M/s Great Eastern Energy Corporation Ltd.

The project proponent has requested for extension of validity of EC with details are as under:

| S. No. | EC issued by MoEF&CC | Period of Extension | Justification/ reasons |
|---|---|---|---|
| 1. | F. No. J-11011/352/2010- | 1 year | EC validity extension has already been granted by MoEFCC dated 1st May, |

| | | | |
|---|---|---|---|
| | IA.II(I) dated 24th November, 2011 | | 2019 till 24th November, 2021. Latest Notification dated 12th April, 2022 also states EC is valid till 10 years and as per MoEF&CC notification dated 18th January, 2021, a 1-year extension in the validity of EC was granted due to reasons of Covid Pandemic. Thus, the Current EC is having validity till 24th November 2022.<br>In the last seven years, GEECL has drilled 56 wells. Before drilling additional wells, GEECL has prioritized getting drilled wells pumped off and producing gas. As per our CBM Consultants it is not recommended to start a new drilling program until the current inventory of wells is producing to their full potential and the production behaviour of the targeted coal reservoirs is fully understood. Furthermore, the outbreak of Covid-19 in 2020, followed by subsequent lockdowns, has delayed the planned field development activities.<br><br>The Project Proponent has requested for the EC extension for period of 1 year to complete the remaining work (144 wells (124 CBM production wells and 20 Shale Exploratory wells) with reference to MoEF&CC notification dated 12th April, 2022.<br><br>GEECL is currently planning to start drilling activities which are approved as part of 200 wells drilling programme starting from current fiscal year. GEECL will also commence drilling of Shale gas exploratory core wells starting from current fiscal year to |

| | | | |
|---|---|---|---|
| | | | understand the commercial viability of the Shale beds present within the Raniganj formation. |

As per extant rules, the maximum EC validity for oil and gas sector projects shall be 10 years. The Expert Appraisal Committee, after detailed deliberations **recommended** for extension of validity for 1 year as per OM dated 12th April, 2022 in the EC vide letter No. J-11011/352/2010- IA.II(I) dated 24th November, 2011 till 24th November, 2023, with all other terms and conditions remain unchanged.

**Agenda No. 5**

**Proposed establishment of grain based ethanol distillery of capacity 300 KLPD along with co gen power plant – 7.5 MW located at plot no. B-2, sector – 26, GIDA industrial area, Village: Bheeti Rawat, Tehsil.- Sahjanwah, District Gorakhpur, State Uttar Pradesh by M/s. Keyaan Distilleries Pvt. Ltd. – Consideration of Environment Clearance**

**[IA/UP/IND2/278888/2022, IA-J-11011/213/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Environmental and Technical Research Centre (NABET certificate no. NABET/EIA/1922/IA0050 and validity 18 August, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 300 KLPD Grain based Ethanol Plant & 7.5 MW Co-generation power plant (biomass) at plot no. B-2, sector – 26, GIDA industrial area, Village: Bheeti Rawat, Tehsil.- Sahjanwah, District Gorakhpur, State Uttar Pradesh by M/s. Keyaan Distilleries 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 plant | Ethanol | 300 KLPD |
| 2 | Co-generation power plant | Power | 7.5 MW |
| 3 | DWGS dryer | DDGS | 177 TPD |
| 4 | Fermentation unit | Carbon di-oxide | 250 TPD |

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

Total land area required is 7.944 hectares. Greenbelt will be developed in total area of 2.63 hectares i.e., 33.11% of total project area. The estimated project cost is Rs. 440 Crores. Capital cost of EMP would be Rs. 42.50 Crores and recurring cost for EMP would be Rs. 3.42 Crores per annum. Industry proposes to allocate Rs. 8.80 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 160 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Ami Nadi is at a distance of 1.89 km in South-West direction, Rapti River is at a distance of 8.03 km in North-East direction, Churma Nala is at a distance of 10.38 km in North-East direction, Sarda Tal is at a distance of 2.50 km in North-East direction, Chaniya Tal is at a distance of 12.09 km in SWS direction, Puraina Tal is at a distance of 12.79 km in SWS direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.241 µg/$m^3$, 0.160 µg/$m^3$, 0.18 µg/$m^3$ and 0.28 µg/$m^3$ with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1608 $m^3$/day which will be met from ground water. PP informed that application has been submitted to Uttar Pradesh Ground Water Department vide application no. GRKP0622NIN0028

dated 20th June, 2022. Effluent of 1569 $m^3$/day quantity will be treated through Condensate Polishing Unit of capacity 1800 m3/day. Raw stillage (1540 m3/day) will be sent to decanter followed by MEE and dryer to produce DDGS. STP will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 6.8 MW and will be met from proposed 7.5 MW co-generation power plant. 60 TPH biomass fired boiler will be installed. ESP with a stack of height of 72 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$ for the proposed boiler. 1x1500 KVA DG set will be used as standby during power failure and stack height (6.3 m ARL) 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 72 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 generated during the fermentation process will be collected by utilizing CO2 scrubbers and sold to authorized vendors.

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

- DDGS (Distilled Dried Grains Stillage) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (9.4 TPD) will be utilized in proposed in-house brick manufacturing unit.
- Used oil (1.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU and 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 capacity of 300 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that the land has been allotted by GIDA Industrial area vide letter dated 29th April, 2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Project cost, EMP cost are all given wrong in Form-2 (in lakhs instead of crores). PP informed that it was typographical error.
- Undertaking that NOC for ground water withdrawal shall be obtained before start of construction activities.
- Rain water harvesting details, parking area percentage shall be 15% instead of 12%.
- Regarding depth of proposed water reservoir, PP informed that it will be 4.5 m deep.
- Prescribed standards for Particulate Matter emission from the boiler stack will be 50 mg/Nm3.
- Greenbelt shall be developed within 2 years i.e. before upcoming monsoon in next year. PP informed that 9080 no. of trees will be developed.
- Budget of OHS. PP informed it is 50 Lakhs/annum.
- CER activities shall include villages name.
- Ash management. PP informed that in-house brick manufacturing unit will be installed.

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

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

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

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

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

(i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 300 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

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

(iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(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). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water. Prior permission shall be obtained for ground 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.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$. Boiler ash will be utilized in proposed in-house brick manufacturing unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas. Coal shall not be used as permitted fuel.

(vii). $CO_2$ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

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

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

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

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

(xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

(xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.

(xiv). PP proposed to allocate Rs. 8.8 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15%

shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained and proper safety shall be ensured by installation of proper road safety measures.

(xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

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

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

**Agenda No. 6**

**Grain Based Distillery Plant (Fuel Ethanol 150 KLPD) along with Power Generation of 5.0 MW located at Khasra no. 628, Village Mahuda, Teshil –Patan, District Durg, Chhattisgarh by M/s. Jyotsna Green Products Pvt. Ltd. – Consideration of Environment Clearance**

**[IA/CG/IND2/279206/2022, IA-J-11011/387/2021-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Ampl Environ Pvt. Ltd. (NABET certificate no. NABET/EIA/2023/IA0061 and validity 22 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 150 KLPD Grain based Ethanol Plant & 5.0 MW Co-generation power plant (biomass/coal) at Khasra no. 628, Village Mahuda, Teshil Patan, District Durg, State Chhattisgarh by M/s. Jyotsna Green Products 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 plant | Ethanol | 150 KLPD |
| 2 | Co-generation power plant | Power | 5.0 MW |
| 3 | DWGS dryer | DDGS | 75 TPD |
| 4 | Fermentation unit | Carbon di-oxide | 65 TPD |

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

Total land area required is 7.53 hectares. Greenbelt will be developed in total area of 2.51 hectares i.e., 33.33% of total project area. The estimated project cost is Rs. 186.06 Crores. Capital cost of EMP would be Rs. 19.0 Crores and recurring cost for EMP would be Rs. 0.88 Crores per annum. Industry proposes to allocate Rs. 2.5 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 130 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Water Pond is at a distance of 20.0 m, Kharun River

is at a distance of 2.5 Km in South East direction, Korakappa Halla is at a distance of 1.70 Km in ESE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.9 µg/$m^3$, 0.7 µg/$m^3$, 2.3 µg/$m^3$ with respect to PM10, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 913 $m^3$/day which will be met from Kharun River. PP informed that application has been submitted to Secretary, Government of Chhattisgarh, Department of Water Resources dated 06$^{th}$ October, 2021. Effluent of 850 $m^3$/day quantity will be treated through Condensate Polishing Unit of capacity 1000 m3/day. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 12 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 4.5 MW and will be met from proposed 5.0 MW co-generation power plant. 40 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 50 mg/$Nm^3$ for the proposed boiler. 1x1200 KVA DG set will be used as standby during power failure and stack height (30 m) will be provided as per CPCB norms to the proposed DG sets.

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

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

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

- DDGS (Distilled Dried Grains Stillage) will be sold as cattle feed / fish feed / prawn feed.

- Boiler ash (13860 TPA) will be utilized for brick making in own brick manufacturing unit.
- Used oil (2.0 Kilolitres per annum) will be sold to authorized recyclers.
- CPU and 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 capacity of 150 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that the land has been allotted by Chhattisgarh State Industrial Development Corporation Limited vide letter dated 22nd April, 2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Surface water permission has been obtained or not. Provision of pipeline for surface water withdrawal. PP informed that application has been submitted to Secretary, Government of Chhattisgarh, Department of Water Resources dated 06th October, 2021.
- Rain water storage pond of 60 days storage capacity shall be provided.
- PP informed that biomass/coal will be used as fuel in boiler. Particulate emission level from the boiler shall maintain 30 mg/$Nm^3$.
- PP should include cost for installation of CEMS and its recurring cost in the cost of EMP. Accordingly, PP agreed for the same.
- Village is located at a distance of 20 m, hence additional greenbelt of width 20 m towards village side to be provided and no impact of stack towards village shall be ensured. Stack shall be installed taking into account no impact is envisaged on village.
- PP informed that National Highway is at a distance of 8.5 km from project site. Provision for connecting road to national highway shall be detailed before construction of the project.
- C&D waste shall be disposed off as per rules.
- Environmental Head will report head of organisation.
- Technology of CPU shall include biological treatment i.e. anaerobic or aerobic treatment to reduce organic load.

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

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

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

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

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

(i). As per the Notification S.O. 2339(E), dated 16$^{th}$ June, 2021, project falls in category B2 and the proposed capacity of 150 KLPD shall only be used

for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

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

(iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(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). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Kharun River. Prior permission shall be obtained for surface 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.

(vi). No ground water abstraction.

(vii). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP/Bag filter shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 30 mg/$Nm^3$. PP shall ensure compliance of the notification no S.O.3305 (E) dated 7th December, for emission norms for boilers of coal based power plants. Boiler ash will be utilized for brick making in own brick

manufacturing unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(viii). $CO_2$ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(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. 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 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 and native species shall be developed. Records of tree canopy shall be monitored

through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Greenbelt of width 20 m shall be developed towards Mahuda village at 20 m distance.

(xv). 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, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

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

(xvii). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. 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.

**08th July, 2022 (Friday)**

**Agenda No. 1**

**Proposed 180 KLPD Grain Based Distillery (for fuel ethanol) located at Sattigeri Village, Soundatti Taluka, District Belgaum, Karnataka by M/s. Jayashree Ethanol Distillation Pvt. Ltd. – Consideration of Environment Clearance**

**[IA/KA/IND2/278467/2022, IA-J-11011/206/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. MITCON Consultancy and Engineering Services Ltd. (NABET certificate no. NABET/EIA/2124/RA 0229 and validity 05th February, 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 180 KLPD Grain based Ethanol Plant & 6.0 MW Co-generation power plant (biomass/coal) at Village Sattigeri, Tehsil Soundatti, District Belgaum, State Karnataka by M/s. Jayashree Ethanol Distillation 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 plant | Ethanol | 180 KLPD |
| 2 | Co-generation power plant | Power | 6.0 MW |

| | | | |
|---|---|---|---|
| 3 | DWGS dryer | DDGS | 115 TPD |
| 4 | Fermentation unit | Carbon di-oxide | 130 TPD |

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

Total land area required is 10.10 hectares. Greenbelt will be developed in total area of 3.34 hectares i.e., 33.07% of total project area. The estimated project cost is Rs. 200.0 Crores. Capital cost of EMP would be Rs. 20.91 Crores and recurring cost for EMP would be Rs. 1.17 Crores per annum. Industry proposes to allocate Rs. 3.3 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 216 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Malaprabha river is at a distance of 17.68 km in South direction, Korakappa Halla is at a distance of 1.70 Km in ESE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.176 µg/$m^3$, 15.25 µg/$m^3$, 3.94 µg/$m^3$ with respect to PM10, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 733.5 $m^3$/day which will be met from Malaprabha River. PP informed that application has been submitted to Secretary, Government of Karnataka, Department of Water Resources dated 21st June, 2022. Effluent of 1077.8 $m^3$/day quantity will be treated through Condensate Polishing Unit of capacity 1200 m3/day. Raw stillage (1099 m3/day) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 5 m3/day will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 6.0 MW and will be met from proposed 6.0 MW co-generation power plant. 50 TPH biomass/coal fired boiler will be installed. ESP with a stack of height of 55 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$ for the proposed boiler. 1x1000 KVA DG set will be used as standby during power failure and stack height (12 m) will be provided as per CPCB norms to the proposed DG sets.

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

- ESP with a stack height of 55 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 bottling plant will be installed.

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

- DDGS (Distilled Dried Grains Stillage) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (19120.2 TPA) will be utilized for brick manufacturing in proposed in-house/outside brick manufacturing unit/ given to farmers to be used as manure.
- Used oil (7.2 Kilolitres per annum) will be sold to authorized recyclers.
- CPU (488.4 TPA) and 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 capacity of 180 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that the land is under possession of the company and land use conversion to industrial use has been applied to Government of Karnataka, Revenue department vide letter dated 18th May, 2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- NOC for surface water permission shall be obtained before start of construction activities. Undertaking that no ground water shall be extracted.
- Rain water storage for 60 days shall be provided.
- Village road (Bagalkote Belgaum Road) is adjacent to the plant. Industry vehicles will pass through this village road (approx. 3.2 km stretch) for connecting to nearest State Highway. Maintain the village road connecting State Highway and develop greenbelt along the road. Also, develop 20 m width greenbelt towards village road and village.
- Emission norms taken for pollutants as values are very high of GLC. Revise GLC of sulphur and nitrogen emissions. Clarify fuel taken and recheck according to fuel.
- EMP budget is very low. Revise EMP budget @ 10% of project cost and include CEMS also. PP has revised the Capital cost of EMP to Rs. 20.91 Crores and recurring cost for EMP to Rs. 1.17 Crores per annum.
- Occupational health and safety budget shall be increased to Rs. 50 Lakhs.
- Quantity of rain water harvesting capacity, 20% evaporation loss shall be included. Revise calculation of storage tank considering 20% evaporation loss. Rain water storage dimensions shall be revised as quantity shown will only be for 20-25 days storage. EAC suggested to construct two tanks for storage of rain water. Pp has submitted the rain water storage tank calculations.
- Area on kml file looks dry, greenbelts species which will survive in this area shall be grown.
- Biomass storage area shall be covered and ash shall be stored in silos.
- CO2 bottling plant will be installed as committed by PP.
- Prescribed norms for coal as fuel shall be maintained.
- Revised EMC as environmental head shall report to head of the organization.

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

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

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

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

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

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

(i). As per the Notification S.O. 2339(E), dated 16$^{th}$ June, 2021, project falls in category B2 and the proposed capacity of 180 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). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(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). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Malaprabha River. No ground water shall be extracted. Prior permission shall be obtained for surface water withdrawal before start of construction activities. No ground water recharge shall be permitted within the premises. 02 rainwater storage tanks each of 15000 KL capacity for 60 days rain water storage and the accumulated water shall be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$ for biomass as fuel and 30 mg/Nm3 for coal as fuel. PP shall ensure compliance of the notification no S.O.3305 (E) dated 7th December, for emission norms for boilers of coal based power plants. Boiler ash utilized for brick manufacturing in proposed in-house/outside brick manufacturing unit/ given to farmers to be used as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement

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

(vii). $CO_2$ bottling plant shall be installed.

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

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

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

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

(xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

(xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant. Maintain the village road connecting State Highway and develop greenbelt along the road. Also, develop 20 m width greenbelt towards village road and village. Project site as shown is dry,

hence species viable according to the soil characteristics shall be developed.

(xiv). PP proposed to allocate Rs. 3.3 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

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

(xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

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

(xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

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

**Agenda No. 2**

**Establishment of 105 KLPD Grain based Distillery along with 3 MW Electricity Generation located at Navage Village, Tal.: Belagavi, Dist.: Belagavi, Karnataka State by M/s. Sanjay Patil Sugars Ltd. – Consideration of Environment Clearance**

**[IA/KA/IND2/266863/2022, IA-J-11011/233/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Equinox Environments (India) Pvt. Ltd. (NABET certificate no. NABET/EIA/1821/RA 0135 and validity 08th July, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 105 KLPD Grain based Ethanol Plant & 3.0 MW Co-generation power plant (biomass) at Village Navage, Tehsil Belagavi, District Belagavi, State Karnataka by M/s. Sanjay Patil Sugars 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 plant | Ethanol | 105 KLPD |
| 2 | Co-generation power plant | Power | 3.0 MW |

| | | | |
|---|---|---|---|
| 3 | DWGS dryer | DDGS | 90 TPD |
| 4 | Fermentation unit | Carbon di-oxide | 46 TPD |

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

Total land area required is 8.56 hectares. Greenbelt will be developed in total area of 2.83 hectares i.e., 33.06% of total project area. The estimated project cost is Rs. 126.0 Crores. Capital cost of EMP would be Rs. 18.20 Crores and recurring cost for EMP would be Rs. 0.76 Crores per annum. Industry proposes to allocate Rs. 2.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 80 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forest is at a distance of 1.7 km in North-West direction. PP informed that Attiveri Bird Sanctuary is at a distance of 9.2 Km which is a tourist place. Water bodies: Markandey River is at a distance of 6.6 Km in West direction, River Pool Saroli is at a distance of 8.9 Km in, Rakaskop Dam is at a distance of 6.7 Km.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.05 µg/$m^3$, 0.006 µg/$m^3$, 0.10 µg/$m^3$ & 0.006 µg/$m^3$ with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 353 $m^3$/day which will be met from ground water. PP informed that application has been submitted to Karnataka Ground Water Authority vide application no. KGWAN1430717637 dated 26th May, 2022. Effluent of 637 $m^3$/day quantity will be treated through Condensate Polishing Unit of capacity 850 m3/day. Raw stillage (528 m3/day) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 5 m3/day 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 3.0 MW and will be met from proposed 3.0 MW co-generation power plant. 25 TPH biomass fired boiler will be installed. ESP with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$ for the proposed boiler. 1x500 KVA DG set will be used as standby during power failure and stack height (5 m ARL) 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 bottling plant shall be installed.

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

- DDGS (Distilled Dried Grains Stillage) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (9 TPD) will be utilized for brick manufacturing in proposed in-house brick manufacturing unit.
- Used oil (0.8 TPA) will be sold to authorized recyclers.
- CPU (0.6 TPD) and 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 capacity of 105 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that the land is under possession of the company and land use conversion to industrial use has been obtained by Govt. of Karnataka, Revenue Department vide letter dated 10th January, 2019. EAC found the information satisfactory.

During deliberations, PP informed that brick manufacturing unit will be installed within plant premises whereas EMP shows that ash will be supplied to brick manufacturers. Two different information were presented before

EAC. Subsequently, after discussion, EAC directed environmental consultant to apologise in writing and clarify the same.

Further, EAC discussed the following issues:

- Attiveri bird sanctuary is located at a distance of 9.2 km from the project site. PP informed that it is a tourist place. EAC directed to submit NOC from Chief Wildlife Warden stating that bird sanctuary is not notified. The Committee also directed the Consultant to mention WLS in the Form –II also. Since bird sanctuary is located at a distance of 9.2 km, the Committee suggested them to submit conservation plan.
- Road is passing through project site which is a village road. PP informed that it is a Kuccha trail and gram panchayat NOC has been obtained. EAC suggested to submit the same document.
- In kml, elevation is 100 m between North and South. Land pitching shall be done. Clarification regarding plant layout shown and details regarding cutting of trees. Consultant informed that no trees will be cut and shrubs are visible in KML. EAC directed to submit the same in undertaking. PP shall submit the appropriate document stating that no trees will be cut and inventory of trees, diameter, height, species and photographs shall also be included. The consultant shall give in writing that flattening of land at lower altitude will not affect the existing trees on slope on higher altitude. The pitching shall protect the trees of slope.
- Carbon di-oxide recovery is only 46 TPD which is very low. Clarification and mass balance regarding carbon di-oxide generation.
- Navage village is the sink of maximum incremental concentration of pollutants. Hence, PP informed that 2000 trees will be developed.
- If coal will be used, dry desulphurization will be done by using lime.
- Clarification regarding relation of stack height and distance of GLC. Revise stack height as per discussions.
- OHS budget will be Rs. 1 Crores.
- 20% power generation of total power requirement shall be done from renewable source as committed by PP.

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

**Agenda No. 3**

**Establishment of Integrated project for Sugar Cane Crushing Capacity - 10000 TCD, Co -generation Power – 12 MW, Molasses based Distillery capacity of 150 KLD along with Cogeneration power plant – 3.5 MW located at village Changipur, Tehsil Chandpur, District- Bijnor, State Uttar Pradesh by M/s. Bindals Papers Mills Limited. -Consideration of Environment Clearance**

**[IA/UP/IND2/253992/2022, IA-J-11011/34/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Environmental and Technical Research Centre (NABET certificate no. NABET/EIA/1922/IA0050 and validity 18 August 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for Establishment of Integrated project for Sugar Cane Crushing Capacity - 10000 TCD, Co-generation Power plant – 12 MW (Bagasse), Molasses based Distillery of 150 KLD capacity along with Cogeneration power plant – 3.5 MW (Concentrated spent wash/biomass) located at Village - Changipur, Tehsil - Chandpur, District- Bijnor, Uttar Pradesh by M/s. Bindals Papers Mills Limited.

All distillery projects 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). All sugar projects are listed at S.N. 5(j) of Schedule of Environment Impact Assessment (EIA) Notification under category 'B' and are appraised at State Level by Expert Appraisal Committee (EAC). Being an integrated project, it will be appraised by EAC at Central Level.

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

| S. No. | Name of unit | Name of the product/by-product | Proposed |
|---|---|---|---|
| 1 | Sugar mill | Sugar | 10000 TCD |
| 2 | Co-generation power plant for sugar mill | Power | 12 MW |
| 3 | Molasses based distillery | Rectified Spirit/Extra Neutral Alcohol/Absolute Alcohol | 150 KLPD |

| | | | |
|---|---|---|---|
| 4 | Co-generation power plant for distillery | Power | 3.5 MW |
| 5 | Sugar mill | Molasses | 400 TPD |
| 6 | Sugar mill | Press mud | 400 TPD |
| 7 | Sugar mill | Bagasse | 2800 TPD |
| 8 | Fermentation unit in distillery | Carbon di-oxide | 108 TPD |

Standard Terms of Reference have been obtained vide F. No. IA-J-11011/34/2022-IA-II(I) dated 01st Feb 2022. It was informed that two cases are pending related to project. Case related to Ground water abstraction is pending within NGT, New Delhi and Case related to Cane Availability is pending with High Court Allahabad.

Public Hearing for the proposed project had been conducted by the Uttar Pradesh Pollution Control Board on 05th May, 2022 at project site chaired by Additional District Magistrate, Moradabad.

The main issues raised during the public hearing and their action plan as reported by PP is as under:

**Regarding land possession,** about the said land dispute, industry has informed the office on 05.05.2022 that, 7.994 Hectare land has been purchased by the industry from M/s Dhanshri Agro products Pvt Ltd (Formerly Known As M/s Lakshi Sugar Mills Company Ltd.)

**Regarding employment**, PP informed that total employment will be 460 persons as direct and indirect and local people will be given preference. Skill training will be conducted. For training, industry allocated fund of Rs 15 Lakhs.

**Regarding spent wash disposal,** Spent wash generated will be concentrated in MEE then concentrate will be used as fuel in Slop fired incineration boiler (35 TPH). Industry allocated fund of Rs. 36 Crores for spent wash treatment.

**Regarding Block Noorpur is Over Exploited area, installation of unit is illegal,** it was informed that currently as per Ground water Assessment – 2020 by CGWA, Noorpur block is in Semi Critical Category, where

establishment of new unit is allowed and abstraction permission will be granted on applying. Rain water harvesting will be carried out and Rs 30 Lakhs will be earmarked for the same.

**Regarding availability of Sugar cane to the nearby existing Sugar units**, PP informed that they have already obtained necessary license for establishing the Sugar unit in the area from Directorate of Sugar and vegetable oils, Krishi Bhawan Delhi dated 25.10.2021. Nearby area is sugar cane growing area and there is surplus sugar cane already available for Sugar units; proposed industry will not affect the viability of other sugar units.

Total land area required is 12.937 hectares. Greenbelt will be developed in total area of 4.27 hectares i.e., 33 % of total project area. The estimated project cost is Rs 569.50 Crores. Capital cost of EMP would be Rs.113.90 Crores and recurring cost for EMP would be Rs. 10.39 Crores per annum. Industry proposes to allocate Rs. 14.25 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 460 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Gagan Nadi is at a distance of 3.3 in km in North direction, Ram Ganga Feeder Canal is at a distance of 6.4 km in the East direction.

Ambient air quality monitoring was carried out at 08 locations during winter season 01$^{st}$ December 2021 to 28$^{th}$ February 2022 and the baseline data indicates the ranges of concentrations as: PM10 (67.9 to 91.1 µg/m3), PM2.5 (33.69 to 50.98 µg/m3), SO2 (9.40 to 13.53 µg/m3) and NO2 (11.31 to 15.66 µg/m3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.53 µg/m3, 0.32 µg/m3, 1.31 µg/m3 and 0.95 µg/m3 with respect to PM10, PM2.5, SO2 and NO2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1752 m3/day which will be met from Ground Water. Application has been submitted to Ground Water Department of Uttar Pradesh dated 21.04.2022 and a letter has been obtained from Ground water department that block falls in semi-critical category and NOC

will be granted. In distillery, effluent of 1586 m3 /day quantity will be treated through Condensate Polishing Unit of capacity 2000 m3/day. In Sugar Unit, effluent of 1800 m3/day quantity will be treated through Effluent Treatment Plant of Capacity 2100 KLD. Spent wash will be concentrated in MEE and concentrated spent wash will be incinerated in proposed incineration boiler. STP of capacity 30 KLPD will be installed to treat sewage generated from factory premises. The Distillery Unit will be based on Zero Liquid discharge system and in sugar unit treated water will be partially (50%) utilised in Distillery and rest surplus treated water (50%) will be utilised for irrigation/horticulture/greenbelt development purposes.

Power requirement will be 11.5 MW and will be met from proposed 12 MW & 3.5 MW cogeneration power plant in sugar mill & distillery respectively. 35 TPH concentrated spent wash/biomass fired boiler and 100 TPH bagasse fired boiler will be installed. ESP with a stack of height of 72 m will be installed with each boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm3. 1000 KVA DG set will be used as standby during power failure and stack height (6.0 m ARL) 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 72 m will be installed with each boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm3.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- Carbon di-oxide generated during the fermentation process will be collected by utilizing CO2 scrubbers and sold to authorized vendors/bottling plant will be installed.

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

- Concentrated spent wash (345 TPD) will be burnt in incineration boiler.
- Ash (20 TPD from sugar unit and 66 TPD from distillery unit) generated from the boiler will be supplied to brick manufacturers/given to farmers to be used as manure.
- CPU/ETP Sludge (6.0 TPD) will be reused as manure.

- Press mud (400 TPD) will be utilized as manure.
- Used oil (25 kg /day) will be sold to authorized recyclers.

PP reported that total land of 12.937 Ha is under possession of the company and land use conversion has been completed. EAC was satisfied with the information provided by PP.

During deliberations EAC discussed following issues:

- Grievances were discussed as received by Ministry. One issue is related to block which is in semi-critical category and other is related to land conversion for industrial purpose. PP explained the both issues. PP also informed the Committee that land use conversion for industrial purpose has been done and committee was satisfied with the information provided.
- Court case is pending against the company. EAC deliberated the same.
- Undertaking that no stay/closure order is issued till date against the company. PP has submitted the same.
- 50% treated water from sugar mill shall be reutilized within premises instead of discharging out. Reduce fresh water requirement as quantity is too high. Revise water balance and proposal for 50 % recycle of treated water and remaining to be used for irrigation. PP has reduced fresh water requirement to 1752 m3/day which will be met from Ground Water.
- Plant layout was discussed regarding patch of land shown and drain towards West. Revised plant layout has to be submitted. Undertaking that patches of land shown in plant layout are not part of 12.937 Ha of land.
- The Committee discussed the AAQ moinitoring data, in which existing SO2 levels in ambient air are high. PP informed that outside brick kilns, sugarcane transport is the cause of such high concentrations in ambient air.
- Prescribed norms of 50 mg/Nm3 shall be committed for particulate matter emissions from boiler. PP informed that ESP will be installed.
- NOC for ground water withdrawal shall be obtained before start of construction activities. Coal shall not be used as fuel.
- Include soil nutrient improvement as soil is deficient in nutrients as seen in soil monitoring results. Hence, include soil fertility improvement in CER activities. Villages name to be included in CER activities. 2.5% of total project cost shall be taken. Also, include skill

development program for ITI students so that they can get job in industry only. CER budget has been increased to Rs. 14.25 Crores.

- 15% power generation of total power requirement shall be from renewable sources.
- Regarding employment issue in public hearing, state government policy shall be followed for providing employment to local people.
- Land documents and land use conversion documents of total land of 12.937 Ha shall be submitted.
- Revise cost of EMP including CEMS. Location of online monitoring system and web camera to be included.
- Revise EMC hierarchy where Env. Head will directly report to head of organization.
- No parking on road and no lateral entry in industry shall be provided.
- Undertaking that no trees will be cut on proposed project site.
- Increase parking area to 20% as sugar mill raw material transportation will increase traffic of the road. Also, axial weight of road to be calculated.

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 project proponent shall abide by all orders and judicial pronouncements made from time to time in the case related to Ground water abstraction which is pending within NGT, New Delhi and Case related to Cane Availability which is pending with High Court Allahabad.

(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). The project proponent will treat and reuse the treated water within the factory and no wastewater or treated water shall be discharged outside the premises of distillery unit. 50% treated water from sugar mill shall be

recycled in distillery/process and remaining 50% treated water shall be reused in irrigation/horticulture/greenbelt development purposes as per CPCB norms of effluent discharge. STP shall be installed to treat sewage generated from factory premises.

(iv). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water. Prior permission shall be obtained for ground 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.

(v). Concentrated spent wash shall be burnt in incineration boiler. ESP shall be installed with each boiler for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$. Coal shall not be used as fuel. Ash will be supplied to brick manufacturers/given to farmers to be used as manure. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(vi). $CO_2$ bottling plant shall be installed for maximum recovery of CO2 or collected and sold to authorized vendors.

(vii). 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.

(viii). 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.

(ix). 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.

(x). 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.

(xi). 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.

(xii). 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. Greenbelt shall be developed before commissioning of the plant. No trees shall be cut while foundation works are carried out.

(xiii). PP proposed to allocate Rs. 11.39 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 for 20 persons each year 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.

(xiv). 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.

(xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. 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.

(xvi). 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.

(xvii). 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.

**Agenda No. 4**

**Establishment of 240 KLD (120 KLD in Phase-I + 120 KLD in Phase-II) Grain Based Ethanol Plant along with 5 MW Co-generation Power Plant (2.5 MW in Phase-I + 2.5 MW in Phase-II) located at Village Baghera & Nawagaon, Tehsil & District Rajnandgaon, Chhattisgarh by M/s. Indoves Bio Fuel Private Limited – Consideration of Environment Clearance**

**[IA/CG/IND2/279183/2022, IA-J-11011/218/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Grass Roots Research & Creation India (P) Ltd. (NABET certificate no. NABET/EIA/2124/RA0213 and validity 15th February, 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 240 KLPD Grain based Ethanol Plant (120 KLD in Phase-I + 120 KLD in Phase-II) & 5 MW Co-generation Power Plant (2.5 MW in Phase-I + 2.5 MW in Phase-II)

(biomass/coal) located at Village Baghera & Nawagaon, Tehsil & District Rajnandgaon, Chhattisgarh by M/s. Indoves Bio Fuel 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 plant | Ethanol | 240 KLPD (120 KLD in Phase-I + 120 KLD in Phase-II) |
| 2 | Co-generation power plant | Power | 5.0 MW (2.5 MW in Phase-I + 2.5 MW in Phase-II) |
| 3 | DWGS dryer | DDGS | 101 TPD |
| 4 | Fermentation unit | Carbon di-oxide | 95 TPD |

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

Total land area required is 13.76 hectares. Greenbelt will be developed in total area of 4.91 hectares i.e., 35.6% of total project area. The estimated project cost is Rs. 214.5 Crores. Capital cost of EMP would be Rs. 21.745 Crores and recurring cost for EMP would be Rs. 7.03 Crores per annum. Industry proposes to allocate Rs. 2.145 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 250 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Shivnath River is at a distance of 8.5 km in SSE Direction and Parri Nadi is at a distance of 9.1 km in SW Direction from the project site

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.01 µg/$m^3$, 0.01 µg/$m^3$, 0.08 µg/$m^3$ & 0.26 µg/$m^3$ with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1500 $m^3$/day which will be met from ground water. PP informed that application for permission of withdrawal of ground water has been submitted to CGWA vide application no. 21-4/6526/CT/IND/2022 dated 24$^{th}$ June, 2022. Effluent of 532 $m^3$/day quantity will be treated through Condensate Polishing Unit of capacity 650 m3/day. Raw stillage (929 m3/day) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 15 m3/day 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 5.0 MW and will be met from proposed 5.0 MW co-generation power plant. 42 TPH biomass/coal fired boiler will be installed. ESP/bag filter with a stack of height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$ for the proposed boiler. 2x1000 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/bag filter with a stack height of 60 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 generated during the fermentation process will be collected by bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (34650 TPA) will be utilized in proposed in-house brick manufacturing plant.
- Used oil (2.0 kilolitres per annum) will be sold to authorized recyclers.
- CPU (46.62 TPA) and STP Sludge will be used as manure.

As per Notification S.O 2339(E), dated 16$^{th}$ June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 240 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that the land is under possession of the company and land use conversion to industrial use has been obtained by Sub Divisional Officer (Revenue), Rajnandgaon. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Develop village road and also include safety measures, greenbelt development along the road. Width of road is 5 m.
- PP informed that railway line is at a distance of 130 m from project site.
- Lined tanks with 60 days rain water storage capacity shall be constructed.
- Revise GLC values based on emission rate in gram/seconds.
- Vulnerable areas are all in downwind direction. PP shall implement additional measures for the mitigation of same.
- Greenbelt development shall be completed in 1 year.
- Include 2 more villages in CER activities.
- 15% power generation of total power requirement shall be from renewable sources.
- $CO_2$ bottling plant shall be installed.
- Ash shall be stored in silos and fuel/raw material shall be stored in covered sheds.
- OHS budget to be increased to 50 lakhs/annum.
- EHS head shall report to managing director directly not to plant head. Revise EMC hierarchy shall be submitted.

- No. of working days to be clarified. PP informed that it will be 330 days. PP has submitted that working day of distillery will be 333 days/annum.
- 4.91 hectares shall be maintained as greenbelt instead of 4.54 as informed in Form-2.

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

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

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

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

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

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

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

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

(iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(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). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water. Prior permission shall be obtained for ground 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.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$ $Nm^3$ for Biomass/bagasse fired boiler and 30mg/$Nm^3$ for coal fired boilers. PP shall ensure compliance of the notification no S.O.3305 (E) dated 7th December, for emission norms for boilers of coal based power plants. Boiler ash will be utilised in proposed in-house brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(vii). $CO_2$ bottling plant shall be installed.

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

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

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

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

(xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling

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

(xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area i.e. 4.91 Ha @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant/within 1 year. Greenbelt development along the village road shall be done including all safety measures.

(xiv). PP proposed to allocate Rs. 2.145 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

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

(xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants

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

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

**Agenda No. 5**

**Proposed 200 KLD Grain Based Ethanol plant along with 5.0 MW Cogeneration Power Plant at village - Bankbija & Saradhapali , Tehsil Sonepur, Dist: Sonepur, Odisha by M/s. Bio Agro Energy Private Limited – Consideration of Environment Clearance**

**[IA/OR/IND2/277141/2022, IA-J-11011/196/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Paramarsh Servicing Environment and Development (NABET certificate no. NABET/EIA/2124/RA 0224 and validity 01st May, 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 200 KLPD Grain based Ethanol Plant & 5 MW Co-generation Power Plant (biomass) located at Village Bankbija & Saradhapali , Tehsil Sonepur, District Sonepur, State Odisha by M/s. Bio Agro Energy 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 plant | Ethanol | 200 |
| 2 | Co-generation power plant | Power | 5.0 MW |
| 3 | DWGS dryer | DDGS | 102 TPD |
| 4 | Fermentation unit | Carbon di-oxide | 144 TPD |

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

Total land area required is 10.43 hectares. Greenbelt will be developed in total area of 3.44 hectares i.e., 32.98% of total project area. The estimated project cost is Rs. 228.55 Crores. Capital cost of EMP would be Rs. 34.28 Crores and recurring cost for EMP would be Rs. 3.5 Crores per annum. Industry proposes to allocate Rs. 2.5 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 177 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Mahanadi River is at a distance of 2.37 Km in North West direction, Pond in Village Saradhapali is at a distance of 0.43 Km in East direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.513 µg/$m^3$, 0.44 µg/$m^3$, 0.58 µg/$m^3$ & 0.49 µg/$m^3$ with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1016 $m^3$/day which will be met from Mahanadi River. PP informed that The application for permission of Supply water has been submitted to Department of water resource Odisha on 28/12/2021. Effluent of 934 $m^3$/day quantity will be treated through Condensate Polishing Unit of capacity 1000 m3/day. Raw stillage (658

m3/day) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 20 m3/day 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 3.625 MW and will be met from proposed 5.0 MW co-generation power plant. 40 TPH biomass fired boiler will be installed. ESP with a stack of height of 72 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$ for the proposed boiler. 1x1000 KVA DG set will be used as standby during power failure and stack height (6.5 m ARL) 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 72 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 generated during the fermentation process will be collected by utilizing CO2 scrubbers and sold to authorized vendors.

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

- DDGS (Distilled Dried Grains Stillage) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (6.33 TPD) will be utilized in proposed in-house brick manufacturing unit.
- Used oil (0.5 kilolitres per annum) will be sold to authorized recyclers.
- CPU(1.0 TPD) and STP Sludge will be used as manure.

As per Notification S.O 2339(E), dated 16$^{th}$ 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.

PP has reported that the land is under possession of the company and land use conversion to industrial use has been obtained by Tehsildar, Sonepur. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Land use conversions status. PP informed that landuse conversion of project site has been completed.
- Coal will not be used as fuel.
- Stack height shall be confirmed as it is given different in Form-2 and in presentation. PP informed that 72 m stack height will be provided. Standard for PM emissions from boiler shall be below 50 mg/Nm3.
- Budget of OHS shall be 50 lakhs instead of 28 Lakhs.
- Include potable water facilities instead of RO and also give villages name. CER cost to be invested before commissioning of plant. CER cost has been increased to Rs. 2.5 Crores.
- 15% of power requirement shall be sourced from renewable energy.
- Cost of installation of CEMS and recurring cost to be included in fund earmarked for EMP. Install filter press instead of sludge drying beds.
- Revised rainwater storage capacity and dimensions of storage tanks.
- Environment Head shall report to head of the organisation.
- Brick manufacturing plant shall be installed.
- 10% parking area shall be increased to 15% of total plant area.

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

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

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

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

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

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

(i). As per the Notification S.O. 2339(E), dated 16$^{th}$ June, 2021, project falls in category B2 and the proposed capacity of 200 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

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

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

(iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(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). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from Mahanadi River. Prior permission shall be obtained for surface 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.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$. Boiler ash will be utilized in proposed in-house brick manufacturing unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Coal shall not 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.

(vii). $CO_2$ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

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

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

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

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

(xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

(xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.

(xiv). PP proposed to allocate Rs. 2.28 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

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

to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. Village road shall be maintained and proper safety shall be ensured by installation of proper road safety measures.

(xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

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

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

**Agenda No. 6**

**Proposed 200 KLPD Grain Based Distillery Plant (Ethanol) along with 4.5 MW Power Generation located at Plot: E-7 Indapur Industrial Area, Village: Loni Deokar, Taluka Indapur, Dist : Pune by M/s. Shree Balaji Biofuels Pvt. Ltd. – Consideration of Environment Clearance**

**[IA/MH/IND2/ 268291/2022, IA-J11011/134/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Techno Green Solution (NABET certificate no. NABET/EIA/2124/IA0081 and validity 05th

July, 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 200 KLPD Grain based Ethanol Plant & 4.5 MW Co-generation Power Plant (biomass/coal) located at Plot E-7 Indapur Industrial Area, Village Loni Deokar, Tehsil Indapur, District Pune, State Maharashtra by M/s Shree Balaji 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 plant | Ethanol | 200 KLPD |
| 2 | Co-generation power plant | Power | 4.5 MW |
| 3 | DWGS dryer | DDGS | 140 TPD |
| 4 | Fermentation unit | Carbon di-oxide | 150 TPD |

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

Total land area required is 8.62 hectares. Greenbelt will be developed in total area of 2.90 hectares i.e., 33.64% of total project area. The estimated project cost is Rs. 155 Crores. Capital cost of EMP would be Rs. 23.05 Crores and recurring cost for EMP would be Rs. 0.535 Crores per annum. Industry proposes to allocate Rs. 2.325 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 240 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Water bodies: Ujani Dam is at a distance of 5.2 Km in North direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.7 µg/$m^3$, 0.65 µg/$m^3$, 0.053 µg/$m^3$ with respect to PM10, PM2.5, SO2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1131 $m^3$/day which will be met from MIDC. PP informed that NOC has been obtained by MIDC Indapur vide letter no/DE/Kur/2022/B-20651 dated 12.04.2022. Effluent of 899 $m^3$/day quantity will be treated through Condensate Polishing Unit of capacity 900 m3/day. Raw stillage (1338 m3/day) will be sent to decanter followed by MEE and dryer to produce DDGS. STP will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3.8 MW and will be met from proposed 4.5 MW co-generation power plant. 45 TPH biomass/coal fired boiler will be installed. ESP/Bag filter with a stack of height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$ for the proposed boiler. 1x1000 KVA DG set will be used as standby during power failure and stack height (6 m ARL) will be provided as per CPCB norms to the proposed DG sets.

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

- ESP/Bag filter with a stack height of 60 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 generated during the fermentation process will be collected by proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (84.6 TPD) will be utilized in proposed in-house brick manufacturing plant.
- Used oil (2.0 kilolitres per annum) will be sold to authorized recyclers.
- CPU (495 TPA) and 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 capacity of 200 KLPD will be used for manufacturing fuel ethanol only.

PP has reported that total land of 8.62 Hectares is under possession of the company and land allocated from MIDC vide letter No.: MIDC/RO(ITPUNE)/Indapur/LMS-463/1078 dated 22nd June, 2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Fresh water consumption shall only be 4 KL/KL of ethanol production. PP agreed the same.
- Rain water storage shall be for 60 days. PP agreed for the same.
- Approx. 80-100 TPD bottling plant will be installed.
- PP informed that ash shall be utilized in proposed in-house brick manufacturing unit.
- 15% of power requirement shall be generated from renewable power.
- Emission standard from boiler shall be 50 mg/Nm3 for biomass based fuel and 30 mg/Nm3 for coal based fuel. EAC suggested that EMP cost shall be revised and include bag filter instead of ESP as emission norms of 30 mg/Nm3 shall be achieved by bag filter only. Recurring cost per annum is very less if bag filter will be used.
- Greenbelt development shall be @2500 trees per hectares and native species shall be developed in consultation with State Forest Department.
- Ujani dam is famous for flamingos and migratory bird and MIDC area is in migratory pathway. PP shall ensure special safety measures for migratory birds as reported.
- Recharge pit shall not be used for rain water harvesting. PP shall create pucca rain water storage tank within the plant premises.

- Include name of villages in CER activities while implementation.
- STP or septic tank shall be clarified. PP informed that STP will be installed.
- Env. Head shall be directly report to head of organisation.

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

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

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

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

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

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

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

(iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(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). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from MIDC. Prior permission shall be obtained for ground 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. PP shall construct lined storage tank within the plant

premisesfor storing rain water equivalent to 60 days of water requirement.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Bag filter shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$ for biomass as fuel and 30 mg/Nm3 for coal as fuel. PP shall ensure compliance of the notification no S.O.3305 (E) dated 7th December, for emission norms for boilers of coal based power plants. Boiler ash will be utilised in proposed in-house brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(vii). $CO_2$ generated from the process shall be collected by proposed bottling plant.

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

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

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

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

(xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as

raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

(xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before commissioning of the plant.

(xiv). PP proposed to allocate Rs. 2.325 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

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

(xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants

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

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

**Agenda No. 7**

**Greenfield 1 x 200 KLPD Grain based Ethanol Plant with 6.05 MW Captive power plant) located at Sy. No.s 2418(p), 2419(p) & 2420(p), Sarvepalli Village, Venkatachalam mandal, SPSR Nellore District, Andhra Pradesh by M/s. Vishwa Samudra Bio Energy Private Limited – Consideration of Environment Clearance**

**[IA/AP/IND2/278528/2022, IA-J-11011/210/2022-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Pioneer Enviro Laboratories and Consultants Private Limited (NABET certificate no. NABET/EIA/1922/SA 0148 and validity 21st September, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 200 KLPD Grain based Ethanol Plant & 6.05 MW Co-generation Power Plant (biomass/coal (Indian/imported)) located at Village Sarvepalli, Tehsil Venkatachalam mandal, District SPSR Nellore, State Andhra Pradesh by M/s. Vishwa Samudra Bio Energy 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 plant | Ethanol | 200 KLPD |
| 2 | Co-generation power plant | Power | 6.05 MW |
| 3 | DWGS dryer | DDGS | 162 TPD |
| 4 | Fermentation unit | Carbon di-oxide | 134 TPD |

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

Total land area required is 9.65 hectares. Greenbelt will be developed in total area of 3.24 hectares i.e., 33.58% of total project area. The estimated project cost is Rs. 280 Crores. Capital cost of EMP would be Rs. 27.50 Crores and recurring cost for EMP would be Rs. 2.485 Crores per annum. Industry proposes to allocate Rs. 2.8 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 100 persons as direct & indirect.

PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Kotta kaluva is at a distance of 1 Km, Sarvepalli reservoir & Idimepalli cheruvu is at a distance of 4.0 km.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.13 µg/$m^3$, 0.8 µg/$m^3$, 0.6 µg/$m^3$ with respect to PM10, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 800 $m^3$/day which will be met from ground water & Kotta kaluva. PP informed that application for permission of withdrawal of ground water has been submitted to Ground water and water audit department, Andhra Pradesh dated 21st June, 2022 and application for

permission of withdrawal of surface water has been submitted to the Principal Secretary, Secretariat dated 06th June, 2022. Effluent of 1204 $m^3$/day quantity will be treated through Condensate Polishing Unit. Raw stillage (1200 m3/day) will be sent to decanter followed by MEE and dryer to produce DDGS. STP will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 6.05 MW and will be met from proposed 6.05 MW co-generation power plant. 50 TPH biomass/coal fired boiler will be installed. ESP with a stack of height of 55 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/$Nm^3$ for the proposed boiler. 2x1000 KVA DG set will be used as standby during power failure and stack height (3 m ARL) will be provided as per CPCB norms to the proposed DG sets.

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

- ESP with a stack height of 55 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 generated during the fermentation process will be collected by utilizing CO2 scrubbers and sold to authorized vendors.

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

- DDGS (Distilled Dried Grains Stillage) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (92 TPD) will be utilized in proposed in-house brick manufacturing plant.
- Used oil will be sold to authorized recyclers.
- CPU and 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 capacity of 200 KLPD will be used for manufacturing fuel ethanol only.

PP informed that 30 trees will be translocated and will be made a part of greenbelt.

PP has reported that the total land has been taken on lease from group company M/s. Vishwa Samudra Holdings Pvt. Ltd. and land use conversion application has been submitted to Revenue Department, SPSR Nellore District dated 27th May, 2022. EAC found the information satisfactory.

During deliberations, EAC discussed the following issues:

- Maintain the approach road connected to Krishnapatnam road and develop avenue plantation.
- Villages to be included in CER activities, while implementation. Extended EMP (CER) cost will be revised to Rs. 2.8 Crores as committed by PP.
- 15% of power requirement shall be sourced from solar power.
- OHS budget shall be Rs. 50 Lakhs/annum as informed by PP.
- 15% parking area shall be earmarked in total plant area.
- Revise cost towards EMP as it is very low. PP has submitted revised cost of EMP as Rs. 27.50 Crores.
- Recheck GLC values as they are very low as coal is used as fuel. Revise stack height and 0.5% sulphur content coal shall be used. Recalculate stack height and submit. Revised incremental concentration has been submitted as PM10 -0.13 µg/$m^3$, SO2-0.8 µg/$m^3$ and NOx-0.6 µg/$m^3$.
- As per State Government Policy, employment shall be given to local people.
- The total project cost estimated by PP was Rs. 338.63 Cr. The committee members were of the opinion that this cost The total project cost estimated by PP was Rs. 338.63 Cr. The committee members were of the opinion that this cost is on very high side. PP agreed to revise it to Rs. 280.00 Cr is on very high side. PP agreed to revise it to Rs. 280.00 Cr.

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

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

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

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

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

(i). As per the Notification S.O. 2339(E), dated 16$^{th}$ June, 2021, project falls in category B2 and the proposed capacity of 200 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a

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

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

(iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat sewage generated from factory premises.

(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). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production and will be met from ground water & Kotta kaluva. Prior permission shall be obtained for ground/surface 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.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. ESP shall be installed with the boiler for controlling the particulate emissions within the statutory limit of 30 mg/$Nm^3$. PP shall ensure compliance of the notification no S.O.3305 (E) dated 7th December, for emission norms for boilers of coal based power plants. Boiler ash will be utilised in proposed in-house brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only

be used only in case of biomass unavailability. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(vii). $CO_2$ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

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

(ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees. As per State Government Policy, employment shall be given to local people.

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

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

(xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

(xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt shall be developed before

commissioning of the plant. Maintain the approach road to Krishnapatnam road and develop avenue plantation

(xiv). PP proposed to allocate Rs. 2.8 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light/solar power support for uninterrupted power supply etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

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

(xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

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

(xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

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

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**ANNEXURE**

## GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

(i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

(ii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

(iii) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

(iv) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

(v) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.

(vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local

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

(vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

(viii) The environmental statement for each financial year ending 31$^{st}$ 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 (07.07.2022; one day) | Member |
| 3. | Prof. Y. V. Rami Reddy | Member |
| 4. | Dr. Sanjeev Chaudhari | Member |
| 5. | Dr. Onkar Nath Tiwari | Member |
| 6. | Shri J. S. Kamyotra | Member |
| 7. | Dr. Rahul Rameshrao Mungikar | Member |
| 8. | Dr. Seshagiri Rao Ambati (IIPE) | Member |
| 9. | Dr. Sanjay V. Patil (VSI) | Member |
| 10. | Shri A.N. Singh, Scientist 'E' | Member Secretary |
| **MoEFCC** | | |
| 11. | Dr. Mahendra Phulwaria | Scientist 'C' |
| 12. | Kanaka Teja | Research Assistant |
| 13. | Ms. Meetika Gupta | Research Associate |

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