

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

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**Dated: 15.09.2023**

**Meeting ID: IA/IND2/13551/04/09/2023  
MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE  
(INDUSTRY-2 SECTOR PROJECTS)  
HELD ON 04<sup>th</sup> September, 2023**

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

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

**(ii) Confirmation of minutes:** The EAC, having taken note that final minutes were issued after incorporating comments received from the EAC members on the minutes of its Meeting (ID: IA/IND2/13544/17/08/2023) held on 17<sup>th</sup> August, 2023 conducted through Video Conferencing (VC), confirmed the same. After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

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

**04<sup>th</sup> September, 2023 (Monday)**

**Agenda No. 01**

**Establishment of 200 KLPD distillery unit based on Sugarcane juice/syrup as raw material and 100 KLPD grain based distillery to produce ethanol, sugarcane crushing unit of 2500 TCD and Co-generation unit of 7.5 MW at sy no. 73/1 and 79/4, village Jalageri, Tal. Tikota, Dist. Vijayapura, Karnataka by M/s. Nadagouda Roadlines Pvt. Ltd. - Consideration of Environmental Clearance.**

**[IA/KA/IND2/437341/2023, IA-J-11011/104/2023-IA-II(I)]**

The proposal was earlier considered by the EAC (Ind-2) in its meeting ID IA/IND2/13544/17/08/2023 held during 17/08/2023, wherein EAC deferred the proposal and desired certain requisite information. Information desired by the EAC and responses submitted by the project proponent is as under:

<b>Sr. No.</b>	<b>ADS by MoEFCC</b>	<b>Reply by PP</b>	<b>Remarks by EAC</b>
i)	EAC noted that a nala is passing along the boundary of the project. In this regard, it was suggested that PP should obtain NOC from Irrigation department for the establishment of the proposed distillery. Accordingly, PP has submitted NOC letter No. SN&AAE/UV/VJAYAPURA/2023-24/231 dated 18.08.2023 which was issued by Assistant Executive Engineer, Minor Irrigation department stating that the water is available in the nala only during the rainy season i.e., June to October and they have constructed Bandar to the nala for the agricultural use only and survey No. 73/1 and 79/4 beneficiaries have not obtained permission to use water and they have issued no objection letter to them.	--	Committee noted that PP has submitted NOC.

ii)	PP shall submit revised list of activities proposed in CER along with timeline and budgetary allocation. Committee noted that Revise plan is not submitted.	Revised CER Cost with budgetary allocation is submitted on Parivesh Portal.	EAC suggested that PP shall complete CER before commissioning of the project.
iii)	PP informed that impact of traffic study is covered in the EIA report i.e. line source emission at section 3.5.7.1. Committee noted that Table 8 under the para provides the emission factors and the load in g/s. It does not provide any information with regard to impact of vehicular emissions on the ambient air quality.	Vehicular emissions are considered as line source and isopleths are <b>submitted on Parivesh Portal</b>	Satisfactory
iv)	PP shall not store raw Spent wash. PP shall give commitment that capacity storage of concentrated spent wash shall not exceed 5 days.	Undertaking for storage of concentration spentwash is submitted kept only for storage of 5. However, for emergency purpose additional 5 days on Parivesh Portal	The Committee suggested that capacity storage of concentrated spent wash shall not exceed 5 days
v)	PP shall replace sludge drying bed with filter press	We have already considered filter press and mentioned in flow sheet of sugar and distillery CPU. However we undertake that we shall be implementing filter press instead of sludge drying bed.	Satisfactory
vi)	EAC noted that village road of 10 m width is passing between the proposed project site. They will provide right of way i.e. adequate space on either side of the village road for future development along with storm water drainage system. Accordingly, PP has provided the undertaking.	--	Satisfactory

vii)	PP has submitted revised indigenous species for greenbelt development.	--	Satisfactory
viii)	PP was asked to switch over to Air cooled condensers , utilize the sugarcane ETP treated effluent make provision of RO in CPU so that the treated effluent can be reused and submit revise water balance which is not available in the reply	As the water requirement is zero for sugar unit except for boiler makeup and excess water from the sugar unit is already taken into consideration. It is requested to wave the condition of Air cooled condensers. RO shall be provided and effluent from sugar unit shall be recycled back to process. Therefore the water requirement of distillery unit shall be 215 KLD (1.075 KL/KL of Ethanol production) instead of 300 KLD. The revised water budget is submitted on Parivesh	As desired by EAC PP has submitted an undertaking that Industry shall install air cool condensers as the issue was raised in Public Hearing.
ix)	It was noted that the Environmental Policy at Para 6.1.1 page 152 of the EIA report is not as per the discussions, neither approved by the board.	Environmental Policy approved by the board is submitted on Parivesh Potal	Satisfactory
x)	No inference/ correlation can be drawn from the water quality data, for which no clarification was provided by PP	Inferencce: The Groundwater and surfcae water quality is found to be good, which can be directly used for irrigation	Satisfactory

		purpose. However, for drinking purpose, conventional treatment suggested. Details are submitted on parivesh Portal	
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The committee was satisfied with the response provided by PP on above information.

The Project Proponent and the accredited Consultant M/s Dr. Subbarao's Environment Center, Sangli (NABET certificate no. NABET/EIA/2023/SA/0174-and validity till 12<sup>th</sup> Dec 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project Environment Clearance for establishment of 200 KLPD distillery unit based on Sugarcane juice/syrup as raw material and 100 KLPD grain based distillery to produce ethanol, sugarcane crushing unit of 2500 TCD and Co-generation unit of 7.5 MW located at Village Jalageri, Tehsil Tikota, District Vijayapura, State Karnataka by M/s. Nadagouda Roadlines Pvt. Ltd.

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

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

Sr. No.	Unit	Product/ By-Product	Total quantity
1	TCD	Sugar Crushing Capacity	2500
2	MW	Bagasse based Co-generation unit	7.5
3	KLPD	Ethanol in KLPD based on juice/syrup	200
4	KLPD	Ethanol in KLPD based on grains	100
5	TPD	CO2	100-120

6	TPD	DDGS	65-70
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Note: Production capacity shall not exceed 300 KLPD at any point of time.

Standard Terms of Reference have been obtained vide F. No. IA-J-11011/104/2023-IA-II(I) dated 15<sup>th</sup> March 2023. It was informed that there is no litigation against the proposal.

Public Hearing for the proposed project had been conducted by the Karnataka State Pollution Control Board on 07/07/2023 at Factory site (A/p- Jalageri, Tal. Tikota, Dist. Vijayapura) chaired by Additional Deputy Commissioner, Vijayapura. The main issues raised during the public hearing and their action plan:

<b>Sr. No.</b>	<b>Name of the Participant and Address</b>	<b>Questions/Issue</b>	<b>Response from the project proponent</b>
1	Shri Ramanna Mendegar, Village-Kallakavatagi, Dist. Vijayapura	Supported the project. He mentioned that due to weather conditions in this region, grape cultivation get severely affected and sugarcane cultivation should be encouraged. Also feels that the establishment of sugar factory and ethanol production give them the sense of security that their yield will not go wasted. Also, requested all farmers and banking authorities to lend their support to the project	--
2	Shri Anand Maruthi Salunkhe, Village-Jalageri, Dist. Vijayapura	Supported the project. The Establishment of sugar factory in this region shall create huge employment opportunities for the nearby people and contributes a lot to the development of region. He concludes expressing his sigh of relief that no problem in coming times and happy for the establishment of sugar factory and ethanol plant.	--
3	Shri Ashol Survyanshi, Village-Arakeri, Dist. Vijayapura	Supported the project. Feels that establishment project shall create employment and transportation charges of the farmers	--

		will be saved.	
4	Shri Raju Jadhav , Village- Jalageri, Dist. Vijayapura	Address the water scarcity in the surrounding region as such sugarcane crops getting affected severely and requested to the district commissioner to address this issue to grant them some relief. Feels that nearby community members and farmers shall benefit immensely after establishment	The participant suggested to the government to improve the water availability in the surrounding area for agricultural purpose. In order to reduce the water consumption by the industry, it is proposed to use air cooled condoners instead of conventional cooling towers. In this regard, Industry undertaking that PP shall install air cooled condensers.
5	Shri B S Gasti, Village- Lohagaon, Dist. Vijayapura	Supported the project. Expressed his gratitude towards Hon'ble Shri M. B. Patil sir for taking development activities and especially for making sure that water from the stream has reached every household. Requested peoples to support the project so that the will be benefitted.	--
6	Shri Pirgound Gadyal, Village- Kallakavatagi, Dist. Vijayapura	Supported the project He mentioned that it was the persistent efforts of Shri Nadagouda that his region has water for irrigation and all of them owe to him.	--
7	Shri S M Shirati (Retired Teacher),	Supported the project. Expressed the thankfulness to Shri M.	--

	Village Itanhihal, Dist. Vijayapura	B. Patil sir for providing water for irrigation He extended his best wishes for the establishment of the factory	
8	Shri. Annaraya Patil, Village Hanchinal, Dist. Vijayapura	Supported the project. Says that due to establishment project brings lot of benefits to the region of this people	--
9	Shri N K Kumbhar (Retired Agricultural Officer), Village- Jalageri, Dst. Vijayaoura	Supported the project. He requested farmers to cultivate sugarcane as much as possible as it will be used for ethanol production. Also request factory authorities to take development activities in the nearby villages	--
10	Shri Pulshing Rathod- Village Jalageri, Dist. Vijayapura	Supported the project. He has been assuring to the people of his village that there shall be no hazard from this factory. He hopes that there will be employment opportunities created to the people in this region	--
11	Shri. Abhay Kumar Nandrekar, Village Sevalagi, Dist. Vijayapura	Supported the project. He says 2500 TCD production capacity has inculcated advanced technology, and a 55-meter stack height shall be provided which will not contribute any air pollution. Also mentioned that the some funds shall be reserved for development to nearby villages as it is mentioned in project report	--

Total land area required is 8.87 hectares. Greenbelt will be developed in total area of 2.92 hectares i.e., 33.03 % of total project area. The estimated project cost is Rs. 248 Crores. Capital cost of EMP would be Rs. 24.30 Crores and recurring cost for EMP would be Rs. 3.45 Crores per annum. Industry proposes to allocate Rs. 6.2 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 300 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forests: -Konbagi at a distance of 5.8 km in NNE direction, Boblad at a distance of 8.8 km in NE direction, Asangi Turk at a distance of 9 km in NE direction.



Ambient air quality monitoring was carried out at 8 locations during 1<sup>st</sup> Dec 2022 to 28<sup>th</sup> Feb 2023 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (44.0- 68.70µg/m<sup>3</sup>), PM<sub>2.5</sub> (21.20-36.10µg/m<sup>3</sup>), SO<sub>2</sub> (8.0-15.50µg/m<sup>3</sup>) and NO<sub>2</sub> (10.30-18.80µg/m<sup>3</sup>).AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.98 µg/m<sup>3</sup> , 0.65 µg/m<sup>3</sup> , 3.39 µg/m<sup>3</sup> and 3.02 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 340 CMD (105 KLD for sugar and co- gen unit, 20 KLD for domestic and 215 KLD for distillery unit) which will be met from Borewells in the project area. Application has been submitted to Karnataka Ground Water Authority, vide file no. KGWAN1072494586 dated 16/07/2023. Sugarcane crushing unit Effluent of 420 CMD quantity will be treated through Effluent Treatment Plant of capacity -450 KLPD. Distillery effluent i.e. conc. Spentwash of 130 KLD from sugarcane juice/syrup based distillery shall be treated based on MEE followed by drying and other diluted effluent of 1360 KLD shall be treated in proposed distillery CPU of 1500 KLD. Spent Wash/stillage from 100 KLPD grain based distillery will be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. STP of capacity -20 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 7 MW and will be met from proposed -7.5 MW co- generation power plant. 1x45 TPH bagasse fired boiler will be installed. APCE as Electrostatic Precipitator (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<sup>3</sup> for the proposed boiler. 1\*500 KVA DG set will be used as standby during power failure and stack height of 6m above roof level will be provided as per CPCB norms to the proposed DG sets.

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

Sr. No.	Stack attached to	Types of Fuel	Height in meter	APC System
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1	Sugar Boiler 1*45 TPH	Bagasse	55 m	ESP
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**Details of Solid waste/ Hazardous waste generation and its management:**

Sr. No.	Description of waste	Quantity	Mode of Collection and Disposal
1.	Total Boiler Ash (Bagasse as a fuel)	194.4 MT/M	All the boiler ash shall be used for brick manufacturing.
2.	ETP Sludge	100 MT/A	ETP Sludge shall be used as manure.
<b>Other Solid Wastes</b>			
1.	Paper waste	0.01 MT/M	Manually collected and stored in a designated area and sold to scrap vendors.
2.	Plastic waste	0.01 MT/M	
3.	Municipal Solid waste		
4	Non-Biodegradable	5 MT/M	Manually collected and sold to scrap vendors.
	Bio-degradable	7 MT/M	Used in Composting.

Total land of 8.87 Hectares is under possession of the company and land use conversion has been completed vide application no. 428535 dated 23/06/2023 land use conversion application has been submitted to –Govt. of Karnataka, Office of the Deputy Commissioner, Vijayapura dated 21/12/2022. EAC found the information satisfactory.

**Capital cost and recurring cost of EMP are given below:**

Sr. No.	Component	Particulars	Capital in Lakhs	Recurring in Lakhs
1	Air	Construction of new stack for boiler and ESP	200	20
2	Water	Sugar CPU, Distillery CPU. MEE and Drier for Distillery Spentwash treatment	2000	50
3	Noise	Acoustic enclosures, Silencer pads, ear plugs	20	5

		etc.			
4	Environment monitoring and Management	Monthly Environment Monitoring (Per Year)	--	25	
		Ambient air monitoring			PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub>
		Boiler & DG Set Monitoring			TPM, SO <sub>2</sub> , Nox
		Effluent (Treated & Untreated)			pH, COD, BOD, TSS, TDS, Oil & Grease
5	Occupational Health	Glares, Breathing Masks, Gloves, Boots, Helmets, Ear plug and ear mask etc. & annual health-medical checkup of workers, Occupational Health (training, OH center)	60	10	
6	Greenbelt	Green belt development activity	10	5	
7	Solid Waste Management	Solid Waste Management	50	20	
8	Rain water harvesting	Rain water harvesting	20	5	
9	Storm water drainage	Storm water drainage design and construction	20	5	
10	Carbon and Water Foot Print	Maintain the data of raw materials consumption, steam consumption, vehicle frequency for transport of raw materials, effluent generation, air emissions, hazardous waste generation, and raw material recovery	--	20	
11	Solar Power & Energy Conservation (0.5MW)	Street lights installation with Solar Systems	--	150	

12	Fire and Safety	Fire and Safety Management	--	20
13	Laboratory	Testing and Analysis	50	10
Total Cost (In Lakhs)			<b>2430</b>	<b>345</b>

**Details of CER with proposed activities and budgetary allocation:**

<b>Sr. No.</b>	<b>Activity</b>	<b>Cost in Lakhs</b>
1	Drinking water facility: Providing water pipelines to supply the water in the Dokalewadi, Indiranagar, Takkalki and Jalageri	50
2	Street light of LED bulbs in the Dokalewadi, Indiranagar, Takkalki and Jalageri	60
3	Solid waste & management: Collection of solid waste making of compost and supplying to the farmers in Dokalewadi, Indiranagar, Takkalki and Jalageri	40
4	Educational aids such as computers, E-learning materials etc., Primary schools High-schools & Agricultural engineering college and skill development at Dokalewadi, Indiranagar, Takkalki and Jalageri	220
5	Medical camps once in six months in Dokalewadi, Indiranagar, Takkalki and Jalageri	50
6	Solar Power to Dokalewadi, Indiranagar, Takkalki and Jalageri	200
<b>Total</b>		<b>620</b>

During deliberations, EAC discussed following issues:

- As desired by committee, PP submitted revised recurring expenditure monitoring recurring EMP amounting to Rs. 25 Lakhs.
- PP has submitted revised CER activities with budgetary allocation.
- PP shall install air cooled condensers. Accordingly, PP agreed and submitted an undertaking.

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

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

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

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

1.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.

2.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.

4.NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing water from Ground water. State Pollution Control Board shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission. No ground water shall be used for the plant operations.

4.Total Fresh water requirement for the integrated project after expansion shall not exceed 340 m<sup>3</sup>/day, which will be met from bore wells. During crushing season, treated effluent from sugar condensate shall be used for distillery manufacturing process in order to reduce the fresh water requirement. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

5.The spent wash from molasses-based distillery shall be concentrated in MEE followed by drying. Spent wash/stillage from grain based distillery shall be decanted followed by the multiple effect evaporator and dryer to form DDGS. Other lean effluents Spent lees, MEE Condensates and utility effluents shall be treated in the condensate polishing unit (CPU) comprising of three stage RO. STP shall be installed to treat sewage generated from factory premises. PP shall install air cooled condenser in sugar unit to reduce fresh water requirement.

Sludge drying beds shall be replaced by Filter press. Capacity storage of concentrated spent wash shall not exceed 5 days.

6. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be conducted on monthly basis and report submitted to SPCB and RO, MOEFCC. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and Total Dissolve Solids shall be monitored and report submitted to the Ministry's Regional Office. No wastewater or treated water from integrated unit of sugar mill and distillery shall be discharged outside the premises and Zero Liquid Discharge shall be maintained for all the units namely sugar, Distillery and Cogen Power Plant.

7. APCE ESP (5 fields) with 55 meters high stack shall be installed with the proposed bagasse fired 45 TPH boiler for controlling the particulate matter emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

8. Boiler ash generation will be about (194.4 MT/M) will be sent to brick manufacturers. PP shall use Bagasse as fuel for the proposed boiler. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

9. CO<sub>2</sub> (100-120 MT/Day) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

10. PP shall allocate at least Rs. 0.60 Crore 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.

11. 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.

12. The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained. Location of ethanol storage tanks shall be placed in such a way that in the event of any fire, accident, explosion or any unforeseen conditions the impact of such event should not go beyond the boundary of the plant i.e. the risk should be tolerable (acceptable) at the boundary.

13. 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.

14. 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.

15. The green belt of at least 5-10 m width shall be developed in nearly 2.92 ha i.e. 33.03% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant.



16. PP proposed to allocate Rs. 6.2 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

17. 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.

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

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

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

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

## **Agenda No. 02**

**Expansion of Molasses or Sugarcane syrup based distillery from 150 KLPD to 550 KLPD located at Rajarnanagar, Village: Sakharale, Tal. Walwa, Dist. Sangli. State Maharashtra by M/s. Rajarnanbapu Patil Sahakari Sakhar Karkhana Limited (RBPSSKL) - Consideration of Environmental Clearance.**

**[IA/MH/IND2/426585/2023, IA-J-11011/50/96-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Vasantdada Sugar Institute, Pune (NABET certificate no. NABET/EIA/2023/RA 0208 and validity 19 Dec 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of existing distillery unit from 150 KLPD to 550 KLPD, located at Rajarnanagar, village: Sakharale, Tal. Walwa, Dist. Sangli. State Maharashtra by M/s. Rajarnanbapu Patil Sahakari Sakhar Karkhana Limited (RBPSSKL). Dr. Sanjay Patil recused himself from the meeting before the deliberation of the proposal.

As per the MoEF&CC, Notification number S.O. 345(E), dated 17th January, 2019, notification number S.O. 750(E), dated 17th February, 2020, S.O. 980 (E) dated 02nd March, 2021 & S.O. 2339(E), dated 16th June, 2021 a special provision in the EIA Notification, 2006 (Schedule 5 (g)), a special provision in the EIA Notification, 2006-(Schedule 5(g)) "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:**

<b>S. No.</b>	<b>Name of unit</b>	<b>Name of the product/by-product</b>	<b>Existing Production capacity</b>	<b>Additional production capacity</b>	<b>Total production capacity</b>
1.	Distillery (B heavy Molasses or Sugar syrup)	Ethanol	150 KLPD	400 KLPD	550 KLPD (only during crushing season)
	Or Bio-Syrup		150 KLPD	-	150 KLPD
2	Fermentation unit	Carbon di-oxide	111 TPD	314 TPD	425 TPD
3	Incineration boiler	Conc. Spentwash burned in boiler	32 TPH boiler	Existing will be used	32 TPH
	Fusel Oil		0.72	1.0	1.72

Note: Production capacity of distillery shall not exceed 550 KLD at any point of time.

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 150 KLPD vide File No. J- 1101/50/96-IA-II (I) and EC Identification No. EC22A022MH153726 dated 24.03.2022 [PARIVESH portal application No.: IA/MH/IND2/252285/1996. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Nagpur vide File no- EC-77/RON/2016-NGP/11943 dated 25.07.2023. Action Taken Report has been submitted to IRO, MOEFCC, Nagpur dated 04.08.2023 for partial compliances and non- compliances. EAC deliberated on the partial/non compliances and it was noted that CTO was has been expired on 31<sup>st</sup> August, 2023. Regarding development of remaining 4.93 ha of greenbelt the committee suggested to submit action plan.

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

Total plant area after expansion will be 79.43 Ha (existing built-up area 7.69 Hectares and additional land required 2.46 Hectares for proposed capacity) which is under possession of the company and converted to industrial use/ No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area 20.05

Hectares, i.e. 25% of the total plant area has already been developed as greenbelt & plantation and the same will be maintained and additional 6.17 Hectares will be developed under greenbelt & plantation in and around plant premises to meet the requirement of 33% greenbelt development. The estimated project cost is Rs. 240.82 Crores (including CER cost). Capital cost of EMP would be Rs. 49.35 Crores and recurring cost for EMP would be Rs. 1.35 Crores per annum. Industry proposes to allocate Rs. 1.80 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 20 persons as direct & indirect.

There are no any national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forests/protected forests: Near village Shivpuri at a distance of 6.0 km in South-West direction. Waterbodies: Nearest water body is River Krishna is at a distance of 3.5 Km towards North-east.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be  $1.29 \mu\text{g}/\text{m}^3$  and  $5.02 \mu\text{g}/\text{m}^3$  with respect to PM and  $\text{SO}_2$ . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Maximum total fresh water requirement after expansion will be 1939 m<sup>3</sup>/day which will be met from River Krishna. NOC has been obtained by irrigation department vide letter no. Branch/E/E26475/2022 dated 23/12/2022 and letter no. 16095/2014 dated 28/04/2014. Existing effluent generation is 1200 m<sup>3</sup>/day from distillery which is treated through Condensate Polishing Unit (capacity in 1200 m<sup>3</sup>/day). Proposed effluent generation will be 2257 m<sup>3</sup>/day from distillery which will be treated through new Condensate Polishing Unit (capacity in 2500 m<sup>3</sup>/day). In molasses-based operation, spent wash generated from the analyzer column during distillation will be treated in Multi Effect Evaporator and concentrated spent wash will be burnt in incineration boiler. Domestic wastewater is being disposed through STP of capacity 20 m<sup>3</sup>. The plant will be based on Zero Liquid discharge system and treated effluent will not be discharged outside the factory premises.

Total power requirement will be 7.45 MW out of which 2.75 MW will be generated from existing captive power generation unit and remaining 4.70 MW power will be taken from the TG set of sugar unit. Existing distillery has

32 TPH bagasse-based incineration boiler, which will be used as it is after expansion. APCE Electrostatic precipitator with a stack of height of 62 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup> same will be used after expansion. Industry has 1010 KVA two DG set installed in unit which will be used as standby during power failure and stack height (3.5m) will be provided as per CPCB norms to the proposed DG sets same will be used for distillery unit.

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

- APCE Electrostatic precipitator with a stack of height of 62 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup> same will be continued after expansion.
- Online Continuous Emission Monitoring System is installed with the stack and data is transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> (425 TPD) generated during the fermentation process is will be collected by utilizing CO<sub>2</sub> scrubbers and sold to authorized vendors/collected in installed bottling plant.

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

- Concentrated spent wash (124.4 m<sup>3</sup>/day) will be burnt in incineration boiler to be used as manure.
- Boiler ash (14535 TPA) is being given to farmers to be used as manure.
- CPU and fermenter sludge (80 TPA) is being used as manure.
- Used oil (5.0 Kiloliters per annum) is being/will be sold to authorized recyclers.

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

**Capital cost and recurring cost of EMP are given below:**

#	Particulars	Capital cost (Rs. in Lakh)	Recurring cost	
			Maintenance	Monitoring
1	Standalone Multi Effect Evaporator (MEE) plant expansion/ modification as per proposed expansion (TS 5-10% to 52%)	3750.00	20.00	-
2	Spent-wash storage lagoon	200.00	4.00	-
3	Condensate polishing unit (Additional for proposed expansion)	850.00	10.00	-
4	Environmental monitoring and management for distillery unit (Including existing and proposed unit)	45.00	-	15.00
5	Greenbelt development for distillery unit (Including existing and proposed unit)	60.00	3.00	-
6	Rainwater harvesting for distillery unit (Including existing and proposed unit)	30.00	3.00	-
7	Salaries and wages for EMP (Additional in proposed expansion)	-	80.00	-
<b>Total</b>		<b>4935.00</b>	<b>120.00</b>	<b>15.00</b>

**Details of CER with proposed activities and budgetary allocation:**

CSR activity head	Year			TOTAL
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	
<b>Improvement in social infrastructure</b>	<b>Budgetary provision (Rs. in lakhs)</b>			
Provision of rooftop solar system in local schools	25	25	25	<b>75</b>
Provision of sanitation facilities in local schools	15	15	15	<b>45</b>
Provision of clean drinking water facility in local schools	10	12	15	<b>37</b>
Skill development and employment related training to local youths	5	8	10	<b>23</b>
<b>TOTAL BUDGETARY ALLOCATION FOR NEXT THREE YEARS</b> (0.75% of the capital budget Rs. 239.03 Cr = Rs <b>1.793 Cr. = Rs. 179.3 lakhs</b> )				<b>180.00</b>

During deliberations, EAC discussed following issues:

- PP informed that molasses / Syrup will be transported by pipeline or through tankers from nearby unit.
- PP has informed that existing 32 TPH incineration boiler shall be adequate for proposed expansion. PP shall only use bagasse for the proposed boiler.
- PP shall submit revised integrated water balance. Treated water and condensate generated from sugar unit shall be used in distillery unit.
- PP shall submit revised model for point source emissions indicates that the maximum incremental GLCs after the proposed project would be  $5.02 \mu\text{g}/\text{m}^3$  with respect  $\text{SO}_2$  which were found to be bit on higher side. PP shall propose pollution control measure and re-submit the revised GLCs.
- PP has not submitted species list. CER submitted is does not possess monitorable target. PP shall increase CER to Rs. 3.00 Crore
- PP shall submit wind rose, no. of storage tanks,
- PP shall resubmit the proposal with cumulative impact.
- The committee noted that CTO was expired on 31<sup>st</sup> August, 2023. The committee suggested that PP shall submit copy of valid CTO renewal for 150 KLPD Distillery unit.
- The IRO reported that the industry only out of total land, greenbelt occupies 20.05 ha of land 9330 number of trees exist. Remaining 4.93 ha greenbelt will be planted before commissioning of the plant. In this regard, EAC suggested that PP should submit detailed month wise action plan along with budget to achieve the remaining greenbelt target i.e 4.93 ha by December.
- PP has observed that one of condition of the previous EC to stop bio-composting. However, PP has not submitted compliance report the same condition.
- PP should also clarify the existing plot area and additional plot area acquired for expansion project alongwith status of land acquisition.

**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. 03**

**Proposed expansion of existing Molasses based distillery unit from 90 KLPD to 180 KLPD (Additional 90 KLPD) capacity, Under Ethanol Blending Programme (EBP) at Gat No. 976, 977, 986, 987, 988, 989, 991, 993, 998 & 990 Village Sonawade, Taluka- Shahuwadi, District- Kolhapur Maharashtra by M/s. Athani Sugar Ltd., (ASL) - Consideration of Environmental Clearance.**

**[IA/MH/IND2/425783/2023, IA- J-11011/372/2014-IA II (I)]**

The Project Proponent and the accredited Consultant M/s. Mantras Green Resources Ltd. (NABET certificate No. NABET/EIA/2326/RA0286 and validity 6<sup>th</sup> January 2026) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of existing distillery unit from 90 KLPD to 180 KLPD, located at 976, 977, 986, 987, 988, 989, 991, 993, 998 & 990 Village Sonawade, Taluka- Shahuwadi, District- Kolhapur 416213 Maharashtra by M/s. Athani Sugars Ltd.

As per EIA Notification 2006 (Schedule 5 (g) Category A); however, as per in the MoEFCC Notification S.O. 345(E), dated the 17<sup>th</sup> January, 2019, notification number S.O. 750(E), dated the 17<sup>th</sup> February, 2020, S.O. 980 (E) dated 02<sup>nd</sup> March, 2021 & S. No. 2339(E) 16<sup>th</sup> 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:**

<b>S.N O.</b>	<b>Name of Unit</b>	<b>Name of The Product/By-Product</b>	<b>Existing Production Capacity</b>	<b>Addition al Producti on Capacity</b>	<b>Total Producti on Capacity</b>
1.	Distillery (Molasses)	Ethanol	90 KLPD	90 KLPD	180 KLPD



2.	Fermentation Unit	Carbon Di-oxide	70 TPD	70 TPD	140 TPD
3	Power		4.4 MW		4.4 MW
4	Fusel Oil		0.135	0.135	0.27 KLD

Ministry has issued Environmental Clearance to the existing industry for a capacity of 90 KLPD vide file No. F. No. J-11011/372/2016-IA-II (I) dated 29<sup>th</sup> November 2017, Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Nagpur vide file No. EC 683/RON/2017-NGP/11869 dated 12.07.2023. PP has submitted the copy of CCR of sugar unit from SPCB. CTO renewal issued on 4.10.2022 by MPCB.

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

Total plant area after expansion will be 7.66 Ha (existing plant area 7.66 Ha) which is under possession of the company and converted to industrial use for 976, 977, 986, 987, 988, 989, 991, 993, 998 & 990. PP informed during the meeting, 1.4 ha land has added for expansion of project. Out of the total plant area 3.54 Hectares i.e. 46.21 % of the total plant area will be developed under greenbelt & plantation and same will be maintained in and around plant premises. The estimated project cost is Rs. 154 Crores. Capital cost of EMP would be Rs. 8.6 Crores and recurring cost for EMP would be Rs. 0.43 Cr per annum. Industry proposes to allocate Rs. 1.155 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 100 persons as direct & indirect.

There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors and Protected Forest etc. within 10 km distance. Reserve Forest:

- i. Reserved Forest Ambarde is @ 6.20 km towards West Direction from Project Site.
- ii. Reserved Forest Shirale is @ 8.42km km towards West Direction from Project Site
- iii. Reserved Forest Parali is @ 8 km towards South West D i r e c t i o n from Project Site.
- iv. Reserved Forest Kolgaon is @ 8.82 km towards W e s t D i r e c t i o n from Project Site.

- v. Reserved Forest Shirgaon is @ 7.59 km towards North West Direction from Project Site.
- vi. Reserved Forest Salshi is @ 2.11 km towards South East Direction from Project Site.
- vii. Reserved Forest Parkhandle is @ 3.13 km towards West Direction from Project Site.
- viii. Protected Forest Kaneri is @ 7.45 towards South Direction km from Project Site.
- ix. Reserved Forest Ghungur is @ 6.32 km towards South West Direction from Project Site.
- x. Protected Forest Thergaon is @ 8.11km towards North East Direction from Project Site.
- xi. Protected Forest Injole is @ 7.11km towards South East Direction from Project Site.
- xii. Protected Forest Kotoli is @ 9.51 km towards South East Direction from Project Site.
- xiii. Protected Forest Kaneri is @ 7.45 km towards South Direction from Project Site.
- xiv. Protected Forest Badewadi is @ 6.63 km towards South East Direction from Project Site.
- xv. Protected Forest Bandivade is @ 6.23 km towards South East Direction from Project Site.

**Water bodies:**

- I. Talab is present at a distance of 1.32 km in NE direction from project site.
- II. Adjacent Nalla is passing from outside of the plot boundary in East direction, for which, PP informed that EE, Kolhapur Irrigation Department issued NOC vide its letter No KION/DB/302/2023 dtd. 19.07.2023 stating that no objection for expansion of project.
- III. Kadavi River is present at a distance of 3.85 km in NE direction from Project site.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.44 µg/m<sup>3</sup>, 1.85 µg/m<sup>3</sup>, and 1.43 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS)

Total fresh water requirement after expansion will be for distillery 619.88 CMD, which will met from Kadavi River. NOC has been obtained by Irrigation

Department, Kolhapur Dated 14.07.2021. Existing effluent generation is 829.725 CMD from distillery which is treated through Condensate Polishing Unit (capacity in 1200 CMD). Proposed effluent generation will be 829.725 CMD from Distillery unit will be treated through existing Condensate Polishing Unit (1200 CMD capacity). In molasses-based distillation, spent wash generated from analyzer Column during distillation will be concentrated in integrated evaporation system followed by Multi Effect Evaporator and concentrated spent wash will be burnt in incineration boiler. The plant is being based on Zero liquid Discharge System and treated effluent is not being discharged outside the factory premises and same will followed for expansion activity.

Total power requirement of distillery after expansion will be 4.4 MW which will be sourced from existing TG Installed. Existing Distillery has 35TPH Bagasse / Conc. Spent Wash fired boiler APCE 99.99% ESP followed by FGD with stack height of 80m for controlling the particulate matter within the statutory limit of 50 mg/Nm<sup>3</sup> and Industry has 750 KVA DG sets which will be used as standby during power failure and stack height has provided as per CPCB norms to the existing DG sets. During EAC meeting, PP clarified that they will install dry FGD.

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

- APCE 99.99% ESP followed by FGD with stack height of 80 m is installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>.
- Online Continuous Emission Monitoring System is installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> (140 TPD) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

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

Concentrated spent wash (237.4 m<sup>3</sup>/day) is being/will be burnt in incineration boiler.

- Boiler ash (44 TPD) will be used in-house brick manufacturing.

- CPU sludge (4 TPD) from distillery unit will be used as manure.
- Molasses (27000 TPD) will be stored and used in distillery as raw material (during off-season).

As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of 90 KLPD for manufacturing fuel ethanol only.

**Capital cost and recurring cost of EMP are given below:**

<b>SN</b>	<b>Component</b>	<b>Particulars</b>	<b>Proposed Capital Investment (In Crores)</b>	<b>Recurring Investment (In Crores /Annum)</b>
1.	Air	<ul style="list-style-type: none"> <li>➤ ESP</li> <li>➤ FGD &amp; CO2 Bottling Plant</li> </ul>	- 2.20	0.25
2.	Water	➤ CPU & MEE	3.0	0.10
3.	Noise	Acoustic enclosures, Silencer pads, ear plugs etc.	0.10	0.0005
4.	Environment monitoring and Management	Quarterly Environment Monitoring (Per Year)	1.10	0.002
Ambient air monitoring		PM10, PM 2.5, SO2, NOx		
Boiler & DG Set Monitoring		TPM, SO2, NOx		
Effluent (Treated & Untreated)		pH, COD, BOD, TSS, TDS, Oil & Grease		
5.	Occupational Health	Gloves, Breathing Masks, Gloves, Boots, Helmets, Ear Plugs etc. & annual health-medical check-up of workers, Occupational Health (training, OH canter).	0.10	0.01

<b>SN</b>	<b>Component</b>	<b>Particulars</b>	<b>Proposed Capital Investment (In Crores)</b>	<b>Recurring Investment (In Crores /Annum)</b>
6.	Greenbelt	Green belt development activity	1.0	0.02
		Maintenance of green belt		
7.	Solid Waste Management	Solid Waste Management-Brick Manufacturing unit etc.	0.30	0.004
8.	Rain Water & Storm water management	Provision of rain water harvesting tank with 60 days storage capacity	0.80	0.05
		<b>TOTAL COST</b>		

**Details of CER with proposed activities and budgetary allocation:**

<b>Year of Implementation</b>	<b>Activity</b>	<b>Cost Estimate in Cr.</b>	
		<b>Particulars</b>	<b>Amount (Approx.)</b>
CER Activities will be completed after commissioning of the project	Providing basic amenities to ZP Primary School, Sonawade, and ZP Primary School Bambavade, Sarud	Potable Water Treatment facility	0.006
		Storage Tank	0.0025
		Fitting charges	0.001
		Projector (2 Nos)	0.005
		Computers (10 Nos)	0.05
		Development of Greenbelt Near School	0.15
		Up-gradation of School Building	0.20
		Provision of Library	0.031
		Provision of Solar Lights to Khutalwadi, Supatre & Bajgewadi, village	Solar Street Lights
		<b>Total (Cr.)</b>	<b>1.155</b>

During deliberations, EAC discussed following issues:

- EIA coordinator of M/s. Mantras Green Resources Ltd has informed that EMP has been prepared without the site visit of EIA coordinator. However, M/s. AmplEnviron Pvt. Ltd, Hyderabad informed that they have reviewed the EMP prepared by M/s. Mantras Green Resources Ltd and they shall own the data. The Committee suggested that M/s. AmplEnviron Pvt. Ltd shall submit in writing that they have reviewed the EMP report prepared by M/s. AmplEnviron Pvt. Ltd and revalidated the data. EIA Coordinator shall also give undertaking that they had visited the project site.
- It was informed that Industry shall source raw material from sister company sugar unit which is around 1.5 km from project site.
- The Committee noted that the existing EC possess only 6.2 ha of land and 1.4 ha additional land has been added for proposed expansion. Accordingly, PP shall revise/modify the EMP report with the same information about the additional land.
- PP shall submit land documents for the proposed additional land of 1.46 ha & NOC from the revenue Department/authority regarding a road is passing through new acquired land.
- IRO reported that plantation was developed only in 0.3 ha. land against the required green belt area of 2.07 ha. PP submitted green belt development plan. According to the plan, 13616 number of tree sapling will be planted in 2.71ha by 2024-25. In this regard, IRO remarked that the EC was granted in 2017 and by this time PP should have developed at least 50% of earlier proposed green belt. In this regard, EAC suggested that PP should submit detailed month wise action plan along with budget to achieve the remaining earlier greenbelt target i.e., 2.71 ha by December, 2023.
- IRO reported that PP has not constructed internal road. Accordingly, EAC suggested that PP should submit action plan alongwith budget for construction of pucca internal road by December 2023.
- In risk assessment PP to submit cumulative risk, domino effect study (damage assessment), societal risk by FN curves and frequency of hazardous events (fault tree analysis) especially from the storage facilities.

**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. 04**

**Proposed drilling of TIDD development well and installation of Tichna EPS, falling in Sepahijala district, Tripura by M/s. ONGC – Consideration of Environmental Clearance**

**[IA/TR/IND/3403/2008, IA-J-11011/64/2017-IA-II(I)]**

The proposal was considered by the EAC (Ind-II) meeting held on 27<sup>th</sup> - 28<sup>th</sup> July, 2022, wherein the project proponent and their consultant M/s. Vimta Labs Limited presented the salient features of the project. The committee noted that that earlier proposal includes development drilling of 9 wells in Tichna gas field, construction of Tichna well manifold & conversion of 9 exploration wells in to development wells & laying of associated flow line at South Tripura district, Tripura. However, conversion of these 9 exploration wells has been kept in abeyance for 3-4 years for operational constraints. Out of 9 development drilling wells 3 wells namely TIAC, TIAG belongs to Category B2 and TIAF well has been rejected by ONGC. Earlier, PP informed that current proposal stands for 6 development drilling wells and Tichna well manifold/EPS.

The committee has also noted that all the proposed 6 development drilling wells are falling within Trishna Wild Life Sanctuary and Tichna manifold/EPS is located outside Trishna ESZ boundary. Trishna ESZ is notified vide Notification No. S.O 4077 (E) dated 8<sup>th</sup> November 2019. The Eco-sensitive Zone is spread over an area of 194.708 square kilometres with an extent varying from 0 kilometres to 0.5 kilometres around the boundary of Trishna Wild Life Sanctuary. The Tichna EPS site is located 1.0 Km away from notified ESZ boundary.

During processing, it was noted as per OM dated 14.08.2022 latest CCR was not submitted. Further, PP clarified that conversion of 9 exploratory wells has been kept in abeyance for 3-4 years due to operational constraint so that proposal for the same has been dropped. Therefore, the requirement of

CCR at this stage may not be required for consideration of EC for the remaining scope of the project which does not include any expansion.

Now, PP vide ADS reply dated 17.08.2023 has submitted that Forest Clearance for 5 development wells namely (TIDA, T1DC, TIDE, TIDF and T1DG) is pending with State/central govt. authorities for further consideration. Forest Clearance and NBWL clearance for the development well TIDD were submitted.

Further, PP has also informed that FC and NBWL clearance is not applicable to Tichna EPS as it is located outside Trishna Wild Life Sanctuary and does not fall in any forest area. It was informed that early monetization of Tichna field, establishment of Tichna EPS and commencement of drilling of TIDD would be required on priority. Therefore, it was informed that the remaining five development wells (TIDA, T1DC, TIDE, TIDF and TIDG) are to be dropped from the original proposal and it was requested that it is requested to consider EC for development well TIDD and Tichna EPS. PP informed that NBWL clearance has been obtained for TIDD drilling site vide Minutes of 52<sup>nd</sup> & 65<sup>th</sup> meeting of SCNBWL dated 22.01.2019 and 08.10.2021 respectively.

Based on the information submitted above, instant proposal is placed in EAC (Ind-II) for appraisal of the following:

- (i) Appraisal of revised proposal for only drilling TIDD development well and installation of Tichna EPS dropping the remaining five development wells (TIDA, T1DC, TIDE, TIDF and TIDG).
- (ii) To deliberate and clarify the aspect of validity of data and PH in case PP comes back after sometime with the proposal for expansion for left out wells.

During deliberations EAC discussed the following issues:

- (i) PP clarified that EPS is falling outside forest and NBWL clearance.
- (ii) PP shall submit revised details of the form I for development well TIDD and Tichna EPS. Accordingly, PP has submitted the revised form-1.
- (iii) During deliberations, Member secretary clarified that OM dated 8<sup>th</sup> June, 2022 prescribes at the time of application for EC, in case baseline data is older than three years, but less than 5 years old in



case of River Valley and HEP projects or less than four years old in the case of other projects, the same shall be considered, subject to the condition that it is revalidated with one season fresh non-monsoon data collected after three years of the initial baseline data. It may also be noted that Public Hearing shall not be more than three years old at the time of submission of application for consideration of EC. Accordingly, the Committee suggested in future if PP wants to take up the proposal for expansion for left out wells then they have to comply with the provisions of OM dated 8<sup>th</sup> June, 2022.

(iv) PP has submitted revised EMP cost, which as under:

### **REVISED ENVIRONMENT MANAGEMENT PLAN**

<b>S.No.</b>	<b>Pollution Control Measures</b>	<b>Capital cost</b>	<b>Recurring cost</b>
1.	STP	50000	20000
2.	Use of Mobile ETP	--	300000
3.	Noise and Vibration Mitigation	--	10000
4.	Noise Monitoring Maintenance & Cost of Equipment	--	500000
5.	Solid Waste Management HDPE Lined waste Pit	450000	--
6.	Approach Road construction	5000000	450000
7.	Air Monitoring		50000
8.	Other civil constructions like Cutting Pit / waste pit / Garland Drain	500000	--
9.	Water Spray to prevent Dusting	--	10000
10.	Training to staff	--	120000
11.	General Awareness in local public	--	40000
12.	Site restoration in case of abandoned well	1200000	--
	<b>Total</b>	<b>7200000</b>	<b>1500000</b>

The Project Proponent and the accredited Consultant M/s. Vimta Labs Limited (NABET certificate no. NABET/EIA/RA/ 0226 and validity 27<sup>th</sup> may, 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 development drilling of 6 Wells in Tichna Gas Field and Tichna Manifold/EPs, laying of Associated Flow lines in Tripura at South Tripura District, Tripura by M/s Oil and Natural Gas Corporation Limited (ONGC). The

initial scope of TOR included conversion of 9 exploration wells into development wells. However, conversion of these 9 exploration wells has been kept in abeyance for 3-4 years for operational constraints. Out of 9 development drilling wells 3 wells namely TIAC, TIAG belongs to Category B2 and TIAF well has been rejected by ONGC. The current proposal stands for 6 development drilling wells and Tichna well manifold/EPS.

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

The Proposed Well Co-Ordinates are mentioned below:

Sr.No	Well Code	Well Coordinates (WGS-84)	
		Latitude	Latitude
1	TIDD	23 <sup>0</sup> 23' 12.57" N	91 <sup>0</sup> 22' 07.26" E
2	Tichna Manifold/EPS	23 <sup>0</sup> 23' 20.62" N	91 <sup>0</sup> 18' 23.04" E

The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 21<sup>st</sup> meeting held during 27<sup>th</sup> to 29<sup>th</sup> March 2017 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide F. no: J-11011/64/2017-IA.II (I) dated 31<sup>st</sup> May 2017. It was informed that no litigation is pending against the project.

Public Hearing for the proposed project had been conducted by the Tripura State Pollution Control Board on 08-06-2023 at 11.30 am at Rangapania H.S.School, Bishalgarh, Sepahijala Tripura chaired by Shri Jayanta Dey, Additional District Magistrate & Collector, Sepahijala District. The main issues raised during the public hearing and their action plan:

S.No	Issue Raised by	Issue	Reply by ONGC	Commitment on fund allocation	Timeline
1.	Shri Subodh Debbarm	He highlighted various environmental	Noted and will be implemented	A budget of 2lakhs will be	It will be implemented within period

S.No	Issue Raised by	Issue	Reply by ONGC	Commitment on fund allocation	Timeline
	a, Hon'ble MLA, Charilam Assembly Constituency	issues related to drilling activities and requested ONGC to take necessary actions in the public interest. He has requested ONGC Ltd. to incur CSR fund for overall development of Bongshibari Village Council. At the same time, he has also requested local people to extend necessary cooperation to the ONGC Limited to meet the objectives of the project. He has given importance to maintain ecological balance of the surrounding area of drilling well at any	ted.	allocated under CER for overall development of Bongshibari Village Council	of within period of two years from date of commissioning of the project.

<b>S.No</b>	<b>Issue Raised by</b>	<b>Issue</b>	<b>Reply by ONGC</b>	<b>Commitment on fund allocation</b>	<b>Timeline</b>
		cost.			
2	Shri Bijoy Debbarma, Panchayat Secretary	On behalf of villagers of Bongshibari Village Council expressed his concern about various kind of environmental pollution mainly noise pollution, soil pollution, air pollution and releases of toxic gases if any, during drilling activity which may leads to environmental degradation of the surrounding area. In this regard, he has requested ONGC Ltd. to take necessary measures to combat environmental pollution.	Noted and will be implemented.	EMP for environmental pollution Management is being carried out at each wells site	Will be implemented during commissioning stage.
3	Sri Pandab Debbarma and	Have submitted a written demand through ADM,	Noted and will be implemented.	A budget of 2lakhs will be allocated	It will be implemented within period of within period

S.No	Issue Raised by	Issue	Reply by ONGC	Commitment on fund allocation	Timeline
	others of Bongshibari ADC Village	<p>Sepahijala District to execute the followings works under the CSR fund for the benefits of local people</p> <p>(i) Construction of boundary wall of Rangapania English Medium High School.</p> <p>(ii) Construction of Children Park of Rangapania English Medium High School</p> <p>(iii) Construction of Sports Gallery of Rangapania English Medium High</p>		<p>under CER for construction of boundary wall. A budget of 2lakhs will be allocated under CER for construction of Children Park. A budget of 3lakhs will be allocated under CER for construction of sports gallery. A budget of 2lakhs will be allocated under CER to install Solar Street Lights. A budget</p>	<p>of two years from date of commissioning of the project.</p>

S.No	Issue Raised by	Issue	Reply by ONGC	Commitment on fund allocation	Timeline
		School (iv) Providing & installation of 100 Nos. of Solar Street Light. (v) Providing compensation to the land owner. (vi) Construction of Road with black top carpeting from Bahuchandra Para to 83 Rubber Garden under Bongshibari Village Council.		of 7lakhs will be allocated under CER for construction of road from Bahuchandra Para to 83 Rubber Garden under Bongshibari Village Council.	

Total land area required for drilling at TIDD 1.1 Ha for which stage-I forest clearance has already been obtained and land required for Tichna manifold/EPSS is 7.276 Ha. The estimated project cost is Rs. 60 Crores.

Capital cost of EMP would be Rs. 7.20 Crores and recurring cost for EMP would be Rs. 1.50 Crores per annum. Total Employment will be about 35 persons/well as direct & indirect.

PP has submitted stage-I 6-181/2018 dated 22.01.2019 FC & stage-II FC for the proposed well vide letter TRB070/2018-SHI/1426-27 dated 04<sup>th</sup> October, 2021 for proposed diversion 1.11 ha of forest land.

Ambient air quality monitoring was carried out at 15 locations during 1st March 2018 to 31st May 2018 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (30.1-56.3 µg/m<sup>3</sup>), PM<sub>2.5</sub> (15.2-26.6 µg/m<sup>3</sup>), SO<sub>2</sub> (10.1- 19.2 µg/m<sup>3</sup>) and NO<sub>2</sub> (10.1-25.9 µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.22 µg/m<sup>3</sup>, 14.37 µg/m<sup>3</sup> and 27.1 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> occurring within 120 m from the proposed drilling sites. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). EAC found baseline data satisfactory.

Further, latest baseline data has been generated for 15 days (i.e. from 25<sup>th</sup> May 2022 to 8<sup>th</sup> June 2022). Ambient air quality monitoring was carried out at 15 locations and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (30.1-43.5 µg/m<sup>3</sup>), PM<sub>2.5</sub> (15.9-27.1 µg/m<sup>3</sup>), SO<sub>2</sub> (10.3- 16.5 µg/m<sup>3</sup>) and NO<sub>2</sub> (13.5-20.7 µg/m<sup>3</sup>).

During deliberations, the Committee noted that OM dated 8<sup>th</sup> June, 2022 prescribes at the time of application for EC, in case baseline data is older than three years, but less than 5 years old in case of River Valley and HEP projects or less than four years old in the case of other projects, the same shall be considered, subject to the condition that it is revalidated with one season fresh non-monsoon data collected after three years of the initial baseline data. In this regard, EAC noted that application for EC has been received before the issuance of Notification dated 8<sup>th</sup> June, 2022 and fresh baseline data has been carried out for 15 days after recommendation of the Ministry before accepting the proposal. So EAC was opined that there is no need to revalidate with one season monitoring data again.

For each drilling site, the total fresh water requirement is about 25 m<sup>3</sup>/day and will be met through Tankers Supply. PP informed that No drilling activities shall be carried out within 500 m from the water bodies.

The power requirement at each well site is expected to be 4325 KVA and will be met from DG sets. For each drilling site 3x1400 KVA capacity DG sets will be installed and 1 no. DG set will be stand by. For Tichna manifold/EPS facility, 25 KW power will be sourced from Tripura Electricity Board and 1 no. of DG set of 125 KVA capacity will be installed at processing plant.

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

Appropriate management measures will be undertaken to minimize the emissions from the DG sets to achieve fuel efficiency and therefore reduce emissions;

- Use of low sulphur diesel oil (<0.05% sulphur content) if available;
- Environmental monitoring during drilling and well testing to ensure compliance to the standards;
- Flaring towards any standing vegetation will be avoided. In case if it is inevitable, a suitable barrier will be erected to prevent any vegetation scorching due to direct heat radiation; and
- Prior to flaring, the critical equipment such as burners, anti-glare accessories will be thoroughly tested.

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

**Hazardous waste details:** Any wastes, which cannot be dealt with on site, will be removed to a suitable location for further handling and/or disposal. All off-site transportation and disposal of hazardous waste (as per the Hazardous Waste Rules, 2016) shall be done after obtaining necessary authorization from TSPCB. Wastes will be clearly labelled according to Non-hazardous wastes mentioning type of waste and Hazardous wastes as per Hazardous Waste Management & Handling Rules.

### **Solid Waste details and disposal methods:**

- Drill cuttings and sludge from drilling mud to be buried within the impervious lined pit and covered with soil as part of the site restoration plan.



- Small amounts of solid wastes will be generated during normal operation at the drilling rig. The wastes will be disposed on compliance with local and national legislations.
- Spent waste oil to be stored in a secure paved area and disposed to MoEF&CC/ TSPCB approved waste oil recyclers.
- Biodegradable waste arising from kitchen and canteen activities to be scientifically composted and the bio-manure so generated to be used for green belt development.

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

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

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

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

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

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

- (i) Environmental Clearance is granted only for development drilling of well at TIDD and Tichna well manifold/EPS. In case, M/s ONGC intends to take up the proposal for EC expansion for left out wells then they have to comply with the provisions of baseline data collection and public hearing as stipulated in OM dated 8th June, 2022.
- (ii) PP shall comply with the conditions stipulated in the stage-I 6-181/2018 dated 22.01.2019 FC & stage-II FC for the proposed well vide letter TRB070/2018-SHI/1426-27 dated 04<sup>th</sup> October, 2021 for proposed diversion 1.11 ha of forest land.
- (iii) The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife and Stage II Forest Clearance, as per the Ministry's OM dated 8<sup>th</sup> August, 2019 and 16<sup>th</sup> July, 2020. PP shall also strictly follow the conditions mentioned in existing NBWL clearance obtained for TIDD drilling site vide Minutes of 52<sup>nd</sup> meeting of SCNBWL dated 22.01.2019.
- (iv) The project proponent shall prepare a site specific conservation plan and wildlife management plan in case of the presence of Schedule-1 species in the study area, as applicable to the project, and submit to Chief Wildlife Warden for approval. The recommendations shall be

implemented in consultation with the State Forest/Wildlife Department in a time bound manner.

- (v) No drilling activities shall be carried out within 500 m from the water bodies.
- (vi) 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.
- (vii) No pipelines or its part shall be laid in the Forest land/Protected Area without prior permission/approval from the Competent Authority.
- (viii) Total fresh water requirement shall not exceed 25 m<sup>3</sup>/day and will be met through Tankers Supply. Prior permission shall be obtained from the concerned regulatory authority.
- (ix) The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. Mobile ETP coupled with RO shall be installed to reuse the treated water in drilling system. Size of the waste shall be equal to the hole volume+ volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.
- (x) During production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.
- (xi) The project proponent also to ensure trapping/storing of the CO<sub>2</sub> generated, if any, during the process and handling.
- (xii) Approach road shall be made pucca to minimize generation of suspended dust.
- (xiii) The project proponent shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.
- (xiv) The company shall construct the garland drain to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage

system shall be created for oil contaminated and non-oil contaminated.

- (xv) Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.
- (xvi) Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.
- (xvii) The project proponent shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At fixed installations or plants use of ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.
- (xviii) The project proponent shall develop a contingency plan for H2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H2S detectors in locations of high risk of exposure along with self-containing breathing apparatus.
- (xix) Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.
- (xx) On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable DGH / Indian Petroleum Regulations.
- (xxi) As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility (Rs. 74 Lakhs), and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in

the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.

- (xxii) No lead acid batteries shall be utilized in the project/site.
- (xxiii) Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xxiv) Oil content in the drill cuttings shall be monitored and report & shall sent to the Ministry's Regional Office.
- (xxv) The project proponent shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.
- (xxvi) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

## **Agenda No. 05**

**Onshore Oil and Gas Development & Production in AA/ONDSF/HAZARIGAO N/2018 Hydrocarbon Block (30.74 Sq.Km), located at Village Naharbari, Sarupovajn, Goragaon, Tengajan, Tehsil- Sarupathar, District-Golaghat, State- Assam by M/s. Vedanta Limited (Div.: Cairn Oil & Gas)- Consideration of Environmental Clearance**

**[IA/AS/IND2/414841/2023, IA-J11011/280/2021-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. SV Enviro Labs & Consultants (NABET Certificate No. NABET/EIA/2124/RA 0240 and Validity October 24,2024), made a detailed presentation on the salient features of the project and informed that the proposal is for Environmental Clearance to the project for Onshore Oil and Gas Development & Production in AA/ONDSF/HAZARIGAON/2018 Hydrocarbon Block located at Village Naharbari, Sarupovajn, Goragaon,Tengajan, Tehsil- Sarupathar, District- Golaghat, State- Assam by M/s. Vedanta Limited (Div.: Cairn Oil & Gas).

The proposal is for Environmental Clearance (EC) Onshore Oil and Gas Development & Production in AA/ONDSF/HAZARIGAON/2018 Hydrocarbon Block, Golaghat District, Assam by M/s. Vedanta Limited (Division: Cairn Oil & Gas) are listed at S.N. 1(b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

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

<b>S. No</b>	<b>Product /by Product</b>	<b>Proposed Quantity</b>	<b>Unit</b>
1.	Drilling of Development & Production wells	5	Nos.
2.	Crude Oil (condensate)	3600	BOPD
3.	Natural Gas	24	MMSCFD

Note: BOPD = Barrels of Oil Per Day; MMSCFD = Million Standard Cubic Feet of Gas Per Day

SEIAA has issued Environmental Clearance to the existing capacity for 3 nos. of Exploration, Appraisal (E&A) wells and Early Production up to 12 MMSCFD Natural Gas and 1800 BOPD Condensate Crude Oil, vide file no. SEIAA 1901/2021/EC/37/1650-A (EC Identification No.EC22B002AS187659), dated 02/02/2022. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Guwahati, vide File No. IRO/GHY/SEIAA/AS/10/2022/3828-30, dated 06.04.2023. Action Taken Report has been submitted to IRO, MOEFCC Guwahati, vide letter No. AA/ONDSF/HAZA/2018/EC/CCR/02, dated 31.05.2023 for closure report on non/partial compliances. Certified Action Taken Report has been obtained by IRO, MOEFCC, Guwahati and issued Certified compliance report vide letter

no. IRO/GHY/SEIAA/AS/10/2022/4104-4106, dated 07.07.2023. EAC was satisfied with response of PP.

Standard Terms of Reference have been obtained vide letter No F. No. IA-J-11011/280/2021-IA-II(I) dated 17<sup>th</sup> July 2021. It was informed that there is no litigation pending against the project.

Public Hearing for the proposed project had been conducted by the Assam, Pollution Control Board on 24.08.2022, 11:00 am at Community Hall, Gelabil Gaon Panchayat Office, Vill. Naharbari, P.O- Upper Langtha, PS Barpathar, Tehsil Sarupathar, Dist. Golaghat, Assam chaired by Additional Deputy Collector (ADM). All the issues raised in the public hearing were addressed and submitted to the Additional Deputy Collector, Golaghat District and the same is mentioned in the EIA report. The main issues raised during the public hearing and their action plan:

<b>S. No</b>	<b>Issues in brief</b>	<b>Action plan in brief</b>	<b>Budget allocated and timeline</b>
1	Drinking water supply	Installation of RO plant 10 Nos. (Capacity 1000 Liters/day)	INR. 80 lakhs. To be implemented in 5 Years
2	Sanitation facilities	Community Toilet complex with four seats with Septic Tank and Soak pit (05 Nos.)	INR. 60 Lakh. To be implemented in 5 Years.
3	Road development	Strengthening and widening of village road (2.5 Km)	INR. 37.5 Lakh. To be implemented in 5 Years.
4	Skill development of local people for enhancing their livelihood opportunities	Training e.g., fitter, welders, tailers, electronics item repairing, electrical, masonry work, etc. of unskilled villagers (05 Nos.)	INR. 2.5 Lakh. To be implemented in 5 Years.
5	Support to student of nearby village	Support to students (1000 Nos.)	INR. 2.5 Lakh. To be implemented in 5 Years.

*Note: The Budget will be assessed & allocated as actual capital expenditure of that particular financial year.*

Total land area required is 200mX200m for construction of each well pad (drill site). Greenbelt will be developed in a total area of 1.2 hectares i.e., 33% of total project area. The estimated project cost is Rs. 120.40 Crores.

Capital cost of EMP would be Rs. 33.5 Lakhs and the recurring cost for EMP would be Rs. 24.5 lakhs per year of each Production location and Recurring Cost 20.0 lakhs per well during drilling. Industry proposes to allocate Rs. 1.8 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment will be 80-100 Nos. of persons as direct & indirect during drilling & 40-50 nos. of persons during production.

There is 01 Wildlife Sanctuaries (Nambor Wildlife Sanctuary) within 10 km distance from the WP# HZRG-1 (~7.46 Km) & WP# HZRG-1D (~8.49 Km). Application for Wildlife Clearance for 2 Wellpads (WP# HZRG-1 & WP# HZRG-1D) has been submitted to NBWL on dtd. 29.08.2023 (Proposal No. WL/AS/Others/442265/2023 for WP# HZRG-1 & Proposal No. WL/AS/Others/442273/2023 for WP# HZRG-1D).

Reserve forests/protected forests: Dayang RF at a distance of 3.76 km in East direction & Nambor RF at a distance of 5.09 km in West direction from WP# HZRG-1, Dayang RF at a distance of 4.04 km in East direction & Nambor RF at a distance of 7.87 km in West direction from WP# HZRG-1D, Dayang RF at a distance of 4.0 km in North East direction & Nambor RF at a distance of 10.10 km in West direction from WP# JP-EXT-2 (Rengma1), Dayang RF at a distance of 6.5 km in North East direction & Nambor RF at a distance of 8.76 km in West direction from WP# JP-EXT-2D (Rengma3). The Nambor WLS is at distance of 7.46 Km in NW direction from the WP# HZRG-1 & 8.49 Km in WNW direction from WP# HZRG-1D location. ESZ has not been notified yet.

Conservation Plan for schedule-I species has been submitted to –PCCF-WL Vide letter No. AA/ONDSF/HAZARIGAON/2018/WLC/1 dtd. 27/12/2021 and a budget of 0.2 Crores has been earmarked for the same.

Water Bodies: Dayang River is at a distance of 3.06 Km in East direction & Dhanshiri River is at a distance of 5.73 Km in West direction from WP# HZRG-1, Dayang river is at a distance of 3.80 Km in East distance & Dhanshiri River is at a distance of 5.89 Km in West direction from WP# HZRG-1D, Dayang river is at a distance of 2.5 Km in East direction & Dhanshiri river is at a distance of 8.41 Km in West direction from WP# JP-EXT-2 (Rengma1), Dayang river is at a distance of 4.0 Km in East direction & Dhanshiri river is at a distance of 6.41 Km in West direction from WP# JP-EXT-2D (Rengma 3).



Ambient air quality monitoring was carried out at 08 locations during October 2021 to December 2021(Post Monsoon) and the baseline data indicates the ranges of concentrations as: Buffer Zone: PM<sub>10</sub> (20.40-69.50µg/m<sup>3</sup>),PM<sub>2.5</sub> (8.3-44.5 µg/m<sup>3</sup>), SO<sub>2</sub> (6-16.2 µg /m<sup>3</sup>) & NO<sub>2</sub> (7.7-17.8µg/m<sup>3</sup>),For Core Zone: PM<sub>10</sub> (25.3-60.80µg/m<sup>3</sup>), PM<sub>2.5</sub> (5.4-26.90µg/m<sup>3</sup>), SO<sub>2</sub> (9.10-15.20µg/m<sup>3</sup>) & NO<sub>2</sub> (10.3-16.6µg/m<sup>3</sup>).AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4.63 µg/m<sup>3</sup>,3.72 µg/m<sup>3</sup> & 21.8 µg/m<sup>3</sup> during Drilling , 0.29µg/m<sup>3</sup>, 0.40 µg/m<sup>3</sup> & 3.94 µg/m<sup>3</sup> during Testing & 0.29 µg/m<sup>3</sup>, 15.16 µg/m<sup>3</sup> and 2.50 µg/m<sup>3</sup> during Production with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentration are within the National Ambient Air Quality Standards (NAAQS).

Total freshwater requirement will be 87 KLD per well during Drilling, 5 KLD per well during Construction & surface facilities & 10 KLD per each Production location, which will be met from Water Tankers from locally approved/ authorized sources.

**Drilling:** Effluent of 40 KLD from Drilling of each well will be treated through ETP (consisting of physicochemical treatment, Ultra filtration (UF) & RO (if needed) capacity of 50 KLD. Domestic wastewater 12 KLD/well will be treated in Mobile STP/ Septic tank or Soak Pit.

**Production:** Produced water from each production location (233 KLD (225KLD Produced Water+8KLD Washing) will be generated during well workover/ production activities, which will be sent to nearby existing facility of ONGC Khoraghat/Urimghat through water tankers for treatment and disposal. As an alternative option, effluent will be disposed in the deep dump well > 1000 m depth as per the EP Rules. Domestic wastewater 2 KLD from each Production location will be treated in Mobile STP.

Power requirement will be 3650 KVA during drilling of each well and will be made available from D.G. Sets & 2250 KVA will be required during each Production location and will be met from

ASEB or made available from D.G. sets and GEG and stack height 6-10 m will be provided as per CBCP norms to the proposed DG sets.

**Drilling: 1)** Drilling Rig-3x1250 KVA (2W+1S) or 2x1850 KVA (1W+1S)\*(\* Depending on the rig capacity and rig availability) 2)Camp Site-2x350 KVA (1W+1S) 3)Liquid Mud Pump (LMP)-3x500 KVA (2W+1S) 4)Radio Room-2x100 KVA (1W+1S) 5) Diesel fired Heater-Treater or IWBH (Induced Water Bath Heater) with Well Testing / Extended Well Testing Set up-1x350 KVA.

**Production:1)** GEG-1MW 2) D.G.Set(Emergency backup)-1x500 KVA 3) Dual fuel (Diesel/Gas) fired Heater-Treater or IWBH (Induced Water Bath Heater)-1x800 KVA 4) Natural Gas fired Heater (for TEG regeneration attached with dehydration unit)-1x250 KVA 5) Compressor (Gas Engine Driven)- 2x800 KVA (1W+1S) will be provided as per CPCB norms to the proposed DG sets.

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

**Input Parameters Considered for Dispersion Modelling**

Emission sources	Height of stack (m)	Dia. of stack (m)	Temperature (°C)	Stack gas velocity (m/s)	Emission rate (g/s)				
					PM10 (g/s)	SO <sub>2</sub> (g/s)	NO <sub>x</sub> (g/s)	HC (g/s)	CO (g/s)
<b>Scenario 1 – Operation of 1850 KVA+ 350 KVA + 250 KVA + 100 KVA</b>									
DG set 1850 KVA	10	0.21	573	20	0.599	0.0759	1.839	0.259	0.702
DG set 350 KVA	6	0.21	310	14	0.0136	0.0272	0.311	0.101	0.272
DG set 500 KVA	6	0.21	290	14	0.008	0.027	0.079	0.072	0.044
DG set 100 KVA	6	0.30	244	14	0.029	0.040	0.122	0.030	0.036

Emission sources	Height of stack (m)	Dia. of stack (m)	Temperature (°C)	Stack gas velocity (m/s)	Emission rate (g/s)				
					PM10 (g/s)	SO <sub>2</sub> (g/s)	NO <sub>x</sub> (g/s)	HC (g/s)	CO (g/s)
<b>Scenario 2 – Operation of Flare stack+ Heater-Treater or IWBH 350kVA+DG set 500kVA</b>									
Flare stack	30	0.4	880	20	0.0893	0.002	0.1985	0.3872	1.042
Heater-Treater or IWBH (Induced Water)	6	0.15	800	16	0.0136	0.0272	0.311	0.101	0.272

Bath Heater) 350 KVA									
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Emission sources	Height of stack (m)	Dia. of stack (m)	Temperature (0C)	Stack gas velocity (m/s)	Emission rate (g/s)				
					PM10 (g/s)	SO <sub>2</sub> (g/s)	NO <sub>x</sub> (g/s)	HC (g/s)	CO (g/s)
<b>Scenario 3 – Operation of GEG+ Flare stack+ Dual fuel fired Heater-Treater or IWBH (Induced Water Bath Heater) 800 kVA+ Natural gas fired heater 250 KVA+ Compressor 800 KVA</b>									
GEG (1 M.W)	10	0.30	573	14	0.0008	0.0008	0.051	0.0085	0.0085
Flare Stack	30	0.40	1273	20	0.0893	0	0.1935	0.3872	1.042
Dual fuel (Diesel/Gas) fired Heater-Treater or IWBH (Induced Water Bath Heater) (800 KVA)	6	0.15	360	16	0.004	1.25	0.15	0.144	0.39
Natural Gas fired Heater (for TEG regeneration attached with dehydration unit) (250 KVA)	6	0.45	225	2.7	0.0012	0.0012	0.0773	0.3089	0.0129
Compressor (Gas Engine Driven) (800 KVA)	6	0.20	528	16	0.0008	0.0008	0.051	0.0085	0.0085
Emergency DG set (500 KVA)	6	0.21	528	14	0.013	0.06	0.03	0.145	0.390

**The proposed mitigation measures are as follows:**

**To minimize emission of fugitive dusts the following measures would be adopted:**

- Carry out regular water sprinkling at the site during dry season especially during the construction and decommissioning activities.
- Efforts would be made to maintain the stockpile against the wall or obstruction so that it works as a windbreak and the fugitive emissions by strong winds can be avoided.
- The trucks used for transport of fill material during the site preparation and debris transport during the decommissioning shall be provided with impervious sheeting.
- During construction, the approach road will be kept clean, free from mud and slurry to prevent any entrainment of dust.
- Waste from construction site will not be burned.
- The location of construction materials will be away from nearby worker's camps.
- Proper handling of materials to ensure minimal emission of dust.

**To minimize emission from the vehicles, equipment, and machinery the following measures would be adopted:**

- Movement of construction vehicles will be minimized and a speed of 20 km/hr will be enforced along the access and approach roads.
- All diesel-powered equipment will be regularly maintained, and idling time reduced to minimize emissions.
- Low sulphur diesel (S<0.5%) will be used in diesel powered equipment and best management practices would be adhered to.
- Vehicle / equipment air emissions will be controlled by good practice procedures (such as turning off equipment when not in use).
- Vehicle / equipment exhausts observed emitting significant black smoke in their exhausts would be serviced/replaced.

**To minimize the adverse impacts of flaring the following measures should be adopted:**

- Proper engineering controls to ensure complete combustion of gas.
- No cold venting will be resorted instead flaring will be done with combustion efficient elevated flare tip; and
- Location of flare stacks to be chosen considering the sensitive receptors adjoining the site.

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

**Drilling**

S. no.	Type/Name of Hazardous Waste & Category and Schedule as per HW Rules	Source of generation	Quantity (MT/well)	Management of Hazardous waste
<b>Hazardous Waste</b>				
1.	Drilling Mud Containing Oil HW Sc-I, cat. 2.3	Drilling	500 tons/well	Collection in HDPE lined pit and disposal as per Hazardous waste Rules, 2016 (Co processing in cement kiln as fuel substitute, common Hazardous waste TSDF, HW processing facility).
2.	Used Oil/ Spent Oil HW Sc-I, cat. 5.1	Others	2 tons/well	Disposal through registered recycler.
3.	Sludge Containing Oil and Other Drilling Waste HW Sc-I, cat.2.2	Others	500 tons/well	Disposal as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
4.	Spent Chemical	Drilling	0.6	Collection in HDPE lined pit and

	HW Sc-I, cat. 32.1		tons/well	disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
5.	Wastes Or Residues Containing Oil HW Sc-I, cat. 5.2	Drilling	0.5 tons/well	Disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
6.	Empty Barrels/Containers/Liners Contaminated with Hazardous Chemicals /Wastes HW Sc-I, cat. 33.1	Drilling	50 nos. /well	Will be sent to recyclers.
7.	Chemical Sludge from Wastewater Treatment HW Sc-I, cat. 35.3	Drilling	120 tons/well	Collection in HDPE lined pit and disposal in Co processing in cement kiln/ common Hazardous waste TSDF/ HW processing facility.
<b>S. no.</b>	<b>Type/Name of Non-Hazardous Waste</b>	<b>Quantity (MT/well)</b>	<b>Management of HW</b>	
<b>Non-Hazardous waste</b>				
1.	Drill Cuttings associated with WBM	750 tons/well	Collection in HDPE lined pit. Drill cuttings will be used for filling of low-lying areas/ as sub-grade construction material/ co-processing in cement kiln as per feasibility	
2.	Spent WBM	500 tons/well	Collection in HDPE lined pit. Use for subgrade construction materials, disposal into low lying areas; Co-processing in cement kiln/brick manufacturing.	
3.	Non-combustible waste containing metallic residues	1200 Kg/well	Disposal through recyclers	
4.	Packaging wastes including drums, wooden pallets, plastic containers, plastic foils.	1000 kg/well	Disposal through recyclers	
5.	Left over chemicals and materials, scrap metal, sludges, scales, filters etc.	300 kg/well	Disposal through vendors	
6.	Cement, grit etc	500 kg/well	Disposal through vendors	
7.	Domestic Waste	30 kg/day/well	Compost Pit	

## Production

S. no.	Type/Name of Hazardous Waste & Category and Schedule as per	Specific Source of generation (Name of the Activity, Product)	Quantity (MT/Annum)	Management of HW
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	<b>HW Rules.</b>	<b>etc.)</b>		
1.	Oily Sludge/ Residues HW Sc-I, cat. 2.2	Well work over, crude storage tank bottom cleaning	20 Ton/Year	Oily sludge will be disposed as per Hazardous Waste Rules, 2016
2.	Waste Oil (Slop Oil) HW Sc-I, cat. 4.3	Well work over, crude storage tank bottom cleaning	2 Ton/Year	Waste oil will be disposed as per Hazardous Waste Rules, 2016
3.	ETP Sludge HW Sc-I, cat. 34.2	ETP operation	120 Ton/Year	ETP sludge will be disposed as per Hazardous Waste Rules, 2016
4.	Used Oil/Spent Oil HW Sc-I, cat 5.1	DG sets maintenance and other misc.	1 KL/Year	Used oil will be sent CPCB authorized recyclers.
5.	Oil Contaminated Filters, Cottons, Rags, Gloves etc. HW Sc-I, cat 5.1	Misc. maintenance	0.3 ton/ Year	Will disposed as per Hazardous Waste Rules, 2016
6.	Waste/Residues Containing Oil HW Sc-I, cat. 5.2	Well work over/ Production	0.5 KL/ Year	Waste/ residues containing oil will be disposed as per Hazardous Waste Rules, 2016
7.	Spent Chemicals HW Sc-I, cat. 32.1	Well work over/ Production	0.6 tons/ Year	Spent Chemicals will be disposed as per Hazardous Waste Rules, 2016
8.	Spent Carbon HW Sc-I, cat. 36.2	ETP	3 tons/ Year	Spent carbon will be disposed as per Hazardous Waste Rules, 2016
9.	Discarded Containers/ Barrels/ Liners Contaminated with Hazardous Waste HW Sc-I, cat. 33.1	Well work over/ Production	50 Nos./ Year	Discarded containers will be disposed as per Hazardous Waste Rules, 2016
<b>Non-Hazardous Waste</b>				
1.	Domestic Waste		5 kg/day	Compost Pit

**Co-ordinates of proposed wells for 1(b) projects, in which 5 wells will be drilled at the following proposed 4 wells:**

<b>S.No.</b>	<b>Well Pad</b>	<b>Longitude</b>	<b>Latitude</b>	<b>Village</b>	<b>Taluka</b>	<b>District</b>
1.	HZRG-1*	93°56'25.80"E	26°16'13.30"N	Naharbari	Sarupathar	Golaghat
2.	HZRG-1D	93°56'4.65"E	26°15'16.72"N	Sarupovajan	Sarupathar	Golaghat
3.	JP-EXT-2 (Rengma 1) **	93°56'59.10"E	26°14'0.84"N	Goragaon	Sarupathar	Golaghat

4.	JP-EXT-2D (Rengma 3) **	93°55'44.97"E	26°13'19.82"N	Tengajan	Sarupathar	Golaghat
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\* Already existing well pad HZRG-1 (drilled earlier by M/s ONGC in 2007)

\*\* Vedanta Ltd. (Div. Cairn Oil & Gas) has obtained EC (Environmental Clearance) from SEIAA, Govt. of Assam for Exploration, Appraisal and Early Production for three wells.

**Note:** Actual geographical surface coordinates of well locations will be within the 2000 m radius of the proposed coordinates.

**Capital cost and recurring cost of EMP are given below:**

**Drilling:** The tentative budget for implementation of the EMP including environmental monitoring & Greenbelt/ Plantation would be Rs. 20 lakhs for each well site during activity.

S.No.	Particulars	Approx. budget (INR, Lakhs) each well drilling	
		Capital cost (INR) in Lakh	Recurring cost (INR) in Lakh
1.	Air Quality Monitoring	-	3.5
2.	Noise Monitoring	-	0.75
3.	Surface and Ground Water Quality Monitoring	-	2.0
4.	Soil Quality Monitoring	-	0.75
5.	Waste Management	-	2.5
6.	Greenbelt/ Plantation	-	0.5
7.	Wastewater Treatment		
	A. Installation of Mobile ETP	-	5.0 Lakhs
	B. Installation of Mobile STP/Septic Tan or Soak pits system	-	5.0 Lakhs
<b>Total</b>			<b>20.0 Lakhs</b>

**Production:** Tentative budget for implementation of the EMP including Environmental monitoring and green belt/Plantation for each production location per year.

S.No.	Particulars	Approx. budget (INR Lakhs) for each production unit	
		Capital cost (INR) in Lakh	Recurring cost (INR) in Lakh
1.	Air Quality Monitoring	-	3
2.	Noise Monitoring	-	2
3.	Surface and Ground Water Quality Monitoring	-	3

4.	Soil Quality Monitoring	-	2
5.	Waste Management	5	0.5
6.	Greenbelt/ Plantation	10	0.5
7.	Occupational Health & Safety	6	2.5
8.	<b>Wastewater Treatment</b>		
	A. Installation of ETP	7.5	6
	B. Installation of STP or septic tank & soak pit	5	5
<b>Total</b>		<b>33.5 Lakhs</b>	<b>24.5 Lakhs</b>

**Details of CER with proposed activities and budgetary allocation:**

S. No	Activities	Unit (No. / Km)	Unit Cost (In Lacs INR)	Cost Allocation (INR Lacs)	CER Budget (In Lacs INR) & Timeline				
					Year-1	Year-2	Year-3	Year-4	Year-5
1.	Safe drinking water supply through installation of RO plant (Capacity 1000 Liter/day)	10	8	80	16	16	16	16	16
2.	Sanitation facility (Community Toilet complex with four seats with Septic Tank and Soak pit)	5	12	60	12	12	12	12	12
3.	Roads Development (Strengthening and widening of villages road)	2.5	15	37.5	7.5	7.5	7.5	7.5	7.5
4.	Skill development of local people for enhancing their livelihood opportunities, etc. (Training	5	0.5	2.5	0.5	0.5	0.5	0.5	0.5



	e.g., Fitter, welders, Tailoring, electronics item repairing, electrical, masonry work, etc.) of unskilled villagers								
<b>5.</b>	Support to Students of nearby villages	<b>1000</b>	<b>0.0025</b>	<b>2.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>
				<b>Total</b>	<b>36.50</b>	<b>36.50</b>	<b>36.50</b>	<b>36.50</b>	<b>36.50</b>
				<b>Grand Total</b>	<b>182.5</b>				

During deliberations, EAC discussed following issues:

- PP informed that the produced water separation from subsurface (well) fluid and other effluent will be treated at on-site ETP (Through Physico-chemical treatment system). And after treatment of produced water & other treated effluents will be disposed off in abandoned well/deep dump well as per the GSR 546 (E). No discharge shall be done to the surface.
- 5 wells will be drilled at four nos. of well pad location.
- PP given justification for high value of BOD found in baseline for both buffer & Core Zones is due to discharge of domestic effluent into surface water from the nearby residential area/village.
- PP has submitted revised air modelling for reduced NOx level, GLC level with isopleth and mitigation measures. Predicted Max. GLC for NOx has been estimated to be 5.4 µg/m<sup>3</sup>. PP will take various measures to control NOx level such as provision of low NOx burner; provision of adequate stack height of 30 m for DG, GEG & Flare; Development of greenbelt; periodic environmental compliance monitoring.
- PP has submitted revised air modelling for Sox level during the production phase with isopleth.
- Land requirement for WP# HRG-1 is 1.69ha; WP#JP-EXT-2 (Rengma-1) is 2.2 ha, WP# JP-EXT-2 (Rengma 3) is 2.25 ha & WP# JP-EXT-@D

(Regma 1) is 2.25 ha.

- Oil spill contingency plan has been prepared.

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

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

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

project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

1.The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, as applicable, as per the Ministry's OM dated 8<sup>th</sup> August, 2019. Grant of environmental clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposal for Wildlife Clearance will be considered by the respective authorities on its merit and decision taken. PP shall also strictly follow the conditions mentioned in existing NBWL clearance.

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

3.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.

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

5.Total fresh water requirement shall not exceed 25 m<sup>3</sup>/day per well from groundwater. Prior permission shall be obtained from the concerned regulatory authority.

6.PP shall conduct third party audit of compliance of EC condition at an interval one year and its report shall be submitted to IRO, MoEF&CC.

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

8.Produced water separation from subsurface (well) fluid and other effluent shall be treated at on-site ETP (Through Physico-chemical treatment system). And after treatment of produced water & other treated effluents will be disposed off in abandoned well/deep dump well as per the GSR 546 (E). No discharge shall be done to the surface.

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

10.Approach road shall be made pucca to minimize generation of suspended dust.

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

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

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

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

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

16.The project proponent shall develop a contingency plan for H<sub>2</sub>S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H<sub>2</sub>S detectors in locations of high risk of exposure along with self-containing breathing apparatus.

17.Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.

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

19. PP proposed to allocate Rs. 1.8 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

20.No lead acid batteries shall be utilized in the project/site.

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

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

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

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

### **Agenda No. 06**

**Greenfield Project of 120 KLPD Ethanol Production with 2.5 MW Power Plant by Grain Based Distillery with Zero Liquid Discharge, to be used for Ethanol Blended Petrol Programme of the Government located at located at Village: Kukudapali, Tehsil: Jujomura, District: Sambalpur, State: Odisha by M/s. Sambalpur Bio-fuels Pvt. Ltd.– Consideration of Environmental Clearance**

**[IA/OR/IND2/422422/2023, IA-J-11011/118/2023-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Global Tech Enviro Expert Pvt. Ltd. (NABET certificate no. NABET/EIA/2023/IA0066 and validity 06.11.2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 120 KLPD Grain based Ethanol 2.5 MW Co-generation power plant (fuel to be used) located at Village: Kukudapali, Tehsil: Jujomura, District: Sambalpur, State: Odisha by M/s. Sambalpur Bio-fuels Pvt. Ltd.

During deliberation PP has informed that the nearest river Maltijore is at distance of 0.71 km and HFL of the river has been authenticated by the superintendent Engineer, Sambalpur Irrigation Division, Sambalpur and indicated that MSL of right bank of Maltijore Nallah (tributaries of river) is 174.70 m, the observed HFL as per local inquiry is 176.17 m and RL of the land at 200 m of right side of Maltijore Nallah is 175.75 m. EAC found that as per Ministry's DSS portal, the certain part of the proposed site is falling on the tributaries of river, which is not suitable for installation of Grain Based Distillery.

**Accordingly, the proposal was returned in present form.**

## **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<sup>st</sup> 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**

<b>S. No.</b>	<b>Name and Address</b>	<b>Position</b>
1.	Shri S. C. Mann	Chairman
2.	Dr. J. S. Sharma	Member
3.	Prof. Y. V. Rami Reddy	Member
4.	Dr. Onkar Nath Tiwari	Member
5.	Shri. J.S. Kamyotra	Member
6.	Dr. Rahul Ramesh Rao Mungikar	Member
7.	Dr. Sanjay V. Patil	Member
8.	Dr. Seshagiri Rao Ambati (only one day 04.09.2023)	Member
9.	Shri A. N. Singh, Scientist 'E'	Member Secretary
<b>MoEFCC</b>		
10.	Dr. Mahendra Phulwaria	Scientist 'C'
11.	Mr. Kanaka Teja	Research Assistant

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