GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-2 SECTOR)
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Dated: 25.10.2022

Meeting ID: IA/IND2/13360/20/10/2022

MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE

(INDUSTRY-2 SECTOR PROJECTS)

HELD ON 20th October, 2022

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

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

(ii) Confirmation of minutes: The EAC, having taken note that final minutes were issued after incorporating comments received from the EAC members on the minutes of its Meeting (ID: IA/IND2/13352/13/10/2022) held on 13th October, 2022 conducted through Video Conferencing (VC), confirmed the same. After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

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

20th October, 2022 (Thursday)

Agenda No. 1

Onshore Oil & Gas development drilling and production in Onshore Oil & Gas development drilling and production (16 exploratory and 73 developmental drilling wells) in Dibrugarh, Sibsagar and Charaideo Districts under Moran, Moran Extension, Dholiya and some portion of Dumduma (Block A) PMLs(Moran Block)- Re-consideration of Environmental Clearance- reg.

[IA/AS/IND2/226998/2017; J-11011/156/2017-IA II (I)]

The proposal was earlier considered by the EAC (Ind-2) in its 49th meeting/meeting (Agenda 49.9) held during 27.01.2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13360/20/10/2022) held on 20th October, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

S No.	ADS by MoEF&CC	Reply by PP
1	A fresh base line data for a period of 15 days shall be submitted. Justification from SPCB shall be furnished for conducting PH with presiding officer below the rank of ADM.	Two weeks additional baseline monitoring conducted at the Block during February-March 2022. Public Hearing freshly conducted for Dibrugarh district during 24.08.2022
2	Public Hearing was conducted by an officer below ADM rank. In this regard, it may be informed that PH presided by Circle Officer shall not be considered for appraisal of	Public Hearing for the Dibrugarh district freshly conducted on 24.08.2022. The PH meeting chaired by ADC, Dibrugarh district.

	the project as per the provisions of EIA Notification 2006 and its amendments. Therefore, It is requested to kindly conduct Public Hearing again as per provisions of EIA Notification, 2006 and subsequent amendments. 3. Also, PP shall submit updated Draft EIA/EMP Report to SPCB for conducting Public Hearing followed by submission of final EIA/EMP report along with time-bound action plan for further consideration by the Ministry.4. This issues with the approval of the competent authority.	Proceedings of fresh public hearing along with list of participants and covering letter issued by SPCB to MoEF&CC submitted.
3	Please comply with the direction issued vide EDS dated 20.05.2022.	
4	Proceedings of fresh public hearing have not been uploaded. Please submit proceedings of fresh public hearing alongwith list of participants and covering letter issued by SPCB to MoEF&CC.	

The committee was satisfied with the response of the PP.

The Project Proponent and the accredited Consultant M/s. ERM India Pvt. Ltd. (NABET certificate no. NABET/EIA/1922/RA 0177 and validity 30.10.2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project Onshore Oil & Gas development drilling and production in Onshore Oil & Gas development drilling and production (16 exploratory and 73 developmental drilling wells) in Dibrugarh, Sibsagar and Charaideo Districts under Moran, Moran Extension, Dholiya and some portion of Dumduma (Block A) PMLs located at Villages Bezapather No.2,

Rangrangia Gaon, Pukhuri No.2, Naharani, DemowkBongali, BaghtoliSonowal, Ophulia, Dighalia No.2, Demow Grant, DehajanHabi, Laok, Teok Gaon, Naphuk Gaon, KhomonPathar, Kakati Bari Pathar, KGaon, Garkush, No.3 SingarijanKhumtai Gaon, Khelmati etc. Tehsil Moran, Tinkhong (Dibrugarh district), Dimow (Sibsagar district), Sonari and Mahmora (Charaideo district, Old Sibsagar District), Districts Dibrugarh, Sibsagar and Charaideo, State Assam by M/s. Oil India Ltd.

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

The details of products and capacity as under:

S No	Unit	Product/by product	Existing quantity	Proposed Quantity	Total Quantity
1	Wells	Wells	8	89	97
2	Production Installations	Production Installations	0	9	9

Coordinates of Proposed wells and production installations

S No.	Well Name	Latitude	Longitude
1.	507	27° 1' 12.030" N	94° 58' 24.560" E
2.	511	27° 2' 57.210" N	95° 1' 41.460" E
3.	508	27° 4' 35.490" N	94° 55' 59.290" E
4.	506	27° 5' 38.250" N	94° 57' 54.500" E
5.	261	27° 7' 8.140" N	95° 0' 47.350" E
6.	264	27° 6' 47.590" N	95° 1' 40.850" E
7.	268	27° 6' 42.620" N	95° 1' 56.950" E
8.	MGO	27° 8' 2.930" N	94° 46' 34.600" E
9.	T2	27° 9' 51.047" N	94° 53' 47.328" E
10.	269	27° 8' 19.120" N	95° 1' 55.060" E

S No.	Well Name	Latitude	Longitude
11.	504	27° 6' 0.630" N	94° 48' 59.100" E
12.	258	27° 6' 46.640" N	94° 50' 8.460" E
13.	302	27° 7' 55.600" N	94° 46' 20.720" E
14.	301	27° 8' 25.300" N	94° 45' 55.980" E
15.	MFK	27° 8' 23.900" N	94° 46' 27.330" E
16.	300	27° 8' 22.900" N	94° 46' 55.060" E
17.	299	27° 8' 57.920" N	94° 46' 30.080" E
18.	503	27° 8' 2.160" N	94° 48' 57.480" E
19.	257	27° 8' 0.710" N	94° 49' 35.960" E
20.	259	27° 7' 10.940" N	94° 54' 49.770" E
21.	MEU	27° 8' 9.550" N	94° 53' 35.060" E
22.	505	27° 7' 32.700" N	94° 54' 4.240" E
23.	MEW	27° 8' 25.510" N	94° 52' 37.090" E
24.	MEV	27° 8' 10.540" N	94° 56' 1.960" E
25.	271	27° 8' 52.750" N	94° 55' 23.340" E
26.	272	27° 8' 48.090" N	94° 53' 59.450" E
27.	256	27° 9' 15.860" N	94° 53' 12.490" E
28.	255	27° 9' 3.320" N	94° 53' 51.720" E
29.	296	27° 9' 11.820" N	94° 54' 17.190" E
30.	MFA	27° 9' 20.000" N	94° 54' 40.440" E
31.	293	27° 9' 6.610" N	94° 55' 0.910" E
32.	254	27° 9' 11.370" N	94° 55' 26.220" E
33.	253	27° 9' 24.410" N	94° 54' 32.360" E
34.	295	27° 9' 28.360" N	94° 54' 26.250" E
35.	292	27° 9' 34.460" N	94° 54' 11.860" E
36.	276	27° 9' 33.080" N	94° 53' 57.150" E
37.	277	27° 9' 33.640" N	94° 53' 40.440" E
38.	273	27° 9' 42.780" N	94° 53' 47.100" E
39.	291	27° 9' 53.710" N	94° 53' 55.930" E
40.	274	27° 9' 50.790" N	94° 54' 27.190" E
41.	275	27° 10' 11.840" N	94° 54' 13.430" E
42.	251	27° 10' 17.020" N	94° 54' 26.200" E
43.	252	27° 10' 0.530" N	94° 55' 11.550" E
44.	270	27° 10' 1.270" N	94° 55' 45.060" E

S No.	Well Name	Latitude	Longitude
45.	MEQ	27° 9' 54.610" N	94° 56' 19.730" E
46.	A	27° 7' 19.656" N	94° 49' 38.389" E
47.	B	27° 6' 57.724" N	94° 46' 9.240" E
48.	MGV	27° 6' 12.439" N	94° 45' 59.062" E
49.	A	27° 7' 16.921" N	94° 45' 59.475" E
50.	510	27° 12' 11.920" N	94° 58' 6.270" E
51.	401	27° 12' 28.690" N	95° 0' 37.580" E
52.	402	27° 13' 26.110" N	95° 0' 58.470" E
53.	298	27° 11' 1.920" N	94° 48' 29.610" E
54.	280	27° 11' 2.070" N	94° 48' 44.860" E
55.	MFJ	27° 11' 14.670" N	94° 48' 39.900" E
56.	297	27° 11' 29.950" N	94° 48' 47.070" E
57.	281	27° 11' 25.120" N	94° 48' 26.970" E
58.	282	27° 11' 50.800" N	94° 48' 42.680" E
59.	A1	27° 7' 15.500" N	94° 49' 16.392" E
60.	105	27° 12' 6.570" N	94° 50' 51.790" E
61.	244	27° 11' 53.310" N	94° 51' 17.810" E
62.	MGQ	27° 7' 48.691" N	94° 46' 28.236" E
63.	MGL	27° 5' 56.266" N	94° 45' 22.066" E
64.	MGR	27° 7' 30.575" N	94° 46' 24.299" E
65.	MGN	27° 7' 13.267" N	94° 46' 16.677" E
66.	285	27° 12' 3.040" N	94° 52' 54.370" E
67.	289	27° 11' 56.940" N	94° 53' 8.760" E
68.	MGT	27° 7' 50.598" N	94° 45' 48.655" E
69.	MGU	27° 6' 42.376" N	94° 46' 3.381" E
70.	288	27° 12' 13.620" N	94° 53' 13.650" E
71.	290	27° 12' 19.930" N	94° 52' 52.980" E
72.	MFL	27° 12' 25.550" N	94° 52' 52.810" E
73.	284	27° 12' 48.920" N	94° 53' 21.410" E
74.	DYC	27° 13' 9.510" N	94° 53' 33.300" E
75.	MGP	27° 8' 10.721" N	94° 46' 1.487" E
76.	MGM	27° 7' 26.031" N	94° 45' 49.179" E
77.	278	27° 12' 53.240" N	94° 51' 11.790" E
78.	MFO	27° 13' 11.530" N	94° 51' 4.600" E

S No.	Well Name	Latitude	Longitude
79.	MGK	27° 6' 20.597" N	94° 45' 27.783" E
80.	DEC	27° 16' 21.090" N	94° 56' 50.730" E
81.	T1	27° 9' 31.970" N	94° 54' 58.178" E
82.	MGS	27° 7' 39.634" N	94° 46' 6.585" E
83.	B	27° 7' 7.710" N	94° 49' 55.450" E
84.	MFM	27° 13' 53.090" N	94° 51' 29.230" E
85.	MFU	27° 1' 0.400" N	95° 1' 38.570" E
86.	MET	27° 1' 5.600" N	95° 1' 57.660" E
87.	512	27° 6' 33.147" N	94° 45' 40.216" E
88.	513	27° 6' 44.514" N	94° 45' 35.456" E
89.	514	27° 6' 4.332" N	94° 45' 29.308" E

Production Installations

At the production installation the well fluid would be processed where oil, associated gas and water would be separated. Planned oil storage and handling capacity at each production installation based on anticipated production from proposed drilling wells in vicinity of respective production installations. The formation water generated in production installation would be treated in an ETP and would be reused in the system or injected in water injection/water disposal wells. Flare system shall be installed as per the recommended practices of OISD and CPCB guidelines.

S No.	Production Installation Name	Latitude	Longitude
1.	Kardoiguri (OCS)	27° 13' 12.690" N	94° 51' 37.470" E
2.	Borbhuibil (QPS/FGGS)	27° 11' 19.460" N	94° 48' 39.760" E
3.	Lakwagaon (QPS/FGGS)	27° 7' 23.500" N	94° 46' 8.110" E
4.	Kardoiguri(QPS/FGGS)	27° 13' 12.680" N	94° 51' 32.660" E
5.	Tiloinagar (QPS/FGGS)	27° 13' 1.330" N	94° 53' 30.640" E
6.	MFC/116 (QPS/FGGS)	27° 13' 24.480" N	94° 51' 22.620" E
7.	MFP/DKP-2 (QPS/FGGS)	27° 12' 24.700" N	94° 52' 54.200" E
8.	507 (QPS/FGGS)	27° 1' 10.360" N	94° 58' 30.980" E
9.	Tiloinagar West (GCS)	27° 13' 6.530" N	94° 52' 47.900" E

The Moran Block is located in Dibrugarh, Sibsagar and Charaideo Districts of Assam. Total area of the Block is extended over 902 sq. km.

Ministry has issued Environmental Clearance to the existing capacity of 8 wellsvide J-11011/1259/2007-IA-II(I); dated 1st November 2011. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Guwahati vide RO-NE/E/IA/AS/MI/54/1273-1275 dated 6th October 2021. Action Taken Report has been submitted to IRO, MOEFCCdated 27.10.2022 for partial compliances andCertified Action Taken Report has been obtained by IRO, MOEFCC, No. RO-NE/E/IA/AS/MI/54/1548-1550 dated 25th November 2021.EAC was satisfied with the response provided by PP.

The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 22nd meeting held during 17th-18th April 2017 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide F. no. J-11011/156/2017-IA.II (I) dated 31st May 2017.It was informed that no litigation Pending against the proposal.

Public Hearing for the proposed project had been conducted by the Pollution Control Board of Assam on 24th August, 2022 at Zilla Parishad Bhawan Rajgarh Dibrugarh district, 8th December 2020 at Jyoti Bishnu Cultural Centre Demow for Sibsagar district and 11th December 2020 at Sapekhati Tai Cultural Centre, Sapekhatifor Charaideo district. All the three Public Hearings were chaired by Additional Deputy Commissioners of respective three districts. The main issues raised during the public hearing and their action plan:

Public hearing dated 24.08.2022 for Dibrugarh District

Regarding developmental project for the uplifting of the social-economic condition of locals, Development of neighbouring school, colleges, drinking water facilities, bus sheds, plantation of evacuated drilling sites etc., PP informed that budget allocated for CER plan INR 1.70 crores for 7 years (2022-23 to 2028-29).

Regarding proper barricading of the drill sites to be undertaken, PP informed that barricading the abandoned well sites Rs. 1 lakh per well x 2 wells= Total Rs. 2 lakhs (included in CER plan).

Regarding economic sanction for Tingkhong college and development of library in the area,PP informed that fund to be allocated for development of Tingkhong College, Rs. 10 lakhs (included in CER plan).

Regarding soil, air, noise pollution and water pollution, waste management from drill sites, PP informed that detail of cost breakup of implementation of Environmental Conservation measures for each well would be INR 0.1 crore and for each production installation would be INR 0.062 crore per annum.

Regarding Protection of flora and fauna in the area, OIL prepared Wildlife Conservation plan for Schedule-I species. INR 58 lakhs for 7 years (2022-23 to 2028-29).

Regarding Noise pollution in drilling sites which affects the neighbouring village, PP informed that noise barrier will be used. Regular noise monitoring will be conducted. Cost of noise barrier included in drilling budget.

Regarding Silk worm farms are also affected due to the air pollution caused from these drilling site, PP informed that A complaint was lodged earlier, investigation conducted by OIL through Assam Agricultural University; however no conclusive evidence of impact on silkworms from drilling was established. OIL has earmarked budget as per CER plan for sericulture development in the area, Contributing to sericulture development 0.1 lakhs per family x 10 families per year x 7 years= Total Rs. 7 lakhs (included in CER plan).

Regarding Use of noise barriers made scientifically to control the noise pollution, OIL will provide noise barriers at drill site to control noise pollution, Cost of noise barrier included in drilling budget

Public hearing dated 08.12.2020 for Sibsagar District

Regarding probable environmental pollution from drill sites and protection of environment, PP informed that OIL has EMP for managing the environmental pollution related issues at the drill sites and production facilities. Detail of cost breakup of implementation of Environmental Conservation measures for each well would be INR 0.1 crore and for each production installation would be INR 0.062 crore per annum.

Regarding protection of the nature and about the plantation programme by Oil India Limited, OIL has earmarked budget for plantation at tea garden areas, degraded forest areas and abandoned drill sites. OIL will also earmark budget for conservation of Schedule-I species. Plantation at Tea Gardens Rs. 1 lakh per year for 7 years= Total Rs. 7 lakhs, Plantation at nearby forest area Rs. 1 lakh per year for 7 years= Total Rs. 7 lakhs, Plantation at abandoned drill sites Rs. 1 lakh per year for 7 years= Total Rs. 7 lakhs (included in CER Plan), INR 58 lakhs for 7 years for Wildlife Conservation Plan (2022-23 to 2028-29).

Regarding Local developments in the area including road construction, PP informed that Development activities to be conducted in the area included in the CER Plan. Budget allocated for CER plan INR 1.08 crores for 7 years (2022-23 to 2028-29).

Regarding Baghjan OIL incident, Management measures for control blowouts developed by OIL. OIL is carrying out separate studies to identify the environmental damage due to Baghjan loss. OIL already initiated bioremediation activities in the area.

Regarding Drill sites which were completed and any maintenance not conducted, PP informed that OIL has a well decommissioning plan. OIL is maintaining and implementing the decommissioning plan and following all the guidelines of PCBA and MoEF&CC.

Public hearing dated 11.12.2020 for Charaideo District

Regarding not to hand over their activities/operations to private companies, OIL is handling all its operation through its staffs. All the drilling other works done by sub-contractors are performed under the supervision of OIL officials.

Regarding Employment and road construction, PP informed that Budget allocated for CER plan INR 1.60 crores for 7 years (2022-23 to 2028-29).

Regarding social welfare, road construction, school development etc. after the completion of drilling process, PP informed that Budget allocated for CER plan INR 1.60 crores for 7 years (2022-23 to 2028-29).

Regarding Measures to control pollutions (air, water, soil etc.) Requested OIL to take precautions to the environment, PP informed **that** detail of cost breakup of implementation of Environmental Conservation measures for each well would be INR 0.1 crore and for each production installation would be INR 0.062 crore per annum.

Regarding Emergency precaution measures taken by OIL India Ltd to protect the biodiversity, OIL has conducted a detailed study on the risk assessment for their project activity based on the results OIL has developed an Emergency Response Plan. OIL has also prepared Wildlife Conservation Plan for protection of Wildlife Species. INR 58 lakhs for 7 years for Wildlife Conservation Plan (2022-23 to 2028-29).

Regarding Precautions to be taken by OIL during any accidents in their operation/after operation, Management measures for control blowouts developed by OIL. OIL is carrying out separate studies to identify the environmental damage due to Baghjan loss. OIL already initiated bioremediation activities in the area.

Regarding actions regarding proper water supply to public and also provide facilities/protection for Eri Muga production done by the local people, OIL will provide funds for development of drinking water facility and protection of Eri Muga production. Details provided in CER. Drinking water facilities Rs. 0.2 lakh per hand pump x 100 pumps= Total

Rs. 20 lakhs Protection Eri Muga production done by local people Rs. 2 lakh per year for 7 years= Total Rs. 14 lakhs. (Included in CER Plan).

Total plant area after expansion will be 354 Ha (existing plant area 24 Hectares and additional land required 330 Hectares for proposed capacity). Land for the drill sites will be procured prior to drilling. Oil India Ltd. will develop greenbelt at the proposed production installations having total area of 157500 m^2.The estimated project cost is Rs 3470 Crores. Capital cost of EMP would be Rs. 2.31 Crores and recurring cost for EMP would be Rs. 2.3479 Crores per annum. Industry proposes to allocate Rs. 9.0 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 180 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of proposed wells and production installations. Diroi RF and Namdang RF located within Moran Block, however, no wells or production installation locate in forest land. The Panidehing Wildlife Sanctuary is located at a distance of 10.6 km from nearest proposed well. ESZ of Panidehing Sanctuary has been finalized on 25.04.2022. Area extent of ESZ is 282.12 square kilometer. The nearest well is located 4.5 km from the notified ESZ boundary. Conservation plan for schedule I species has been submitted to PCCF & Chief Wildlife Warden Assam dated 25.08.2021 and a budget of 0.58 Crores has been earmarked for the same. Buri Dehing River is present within the Block, however, the nearest well is located at a distance of 4.2 km from BurhiDehing River. Brahmaputra River is located outside the Block as a distance of 4.64 km northwest.

Ambient air quality monitoring was carried out at 8 locations during 05.10.2017 to 31.12.2017 and the baseline data indicates the ranges of average concentrations as: PM_{10} (54.79 - 60.88 µg/m^3), $PM_{2.5}$ (27.83 - 33.71 µg/m^3), SO_2 (5.92 - 6.40 µg/m^3) and NO_2 (17.4 - 19.6 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 11.03 µg/m^3, 0.0046 µg/m^3, 0.037 µg/m^3 and 0.63 µg/m^3 with respect to NOx, SO_2, PM_{10} and HC. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Additional two weeks ambient air quality monitoring conducted during February-March 2022 the average values ranged between PM_{10} (59.55-68.20 µg/m^3), $PM_{2.5}$ (28.60-37.54 µg/m^3), SO_2 (5.79-8.40 µg/m^3) and NO_2 (14.08-20.39 µg/m^3).

Total fresh water requirement after expansion will be 39 CMD for each well which will be met from groundwater. NOC has been obtained from CGWA vide letter no. CGWA/NOC/MIN/ORIG/2021/10979 dated 17.02.2021. Existing effluent generation is 21.8 CMD (8 CMD domestic wastewater and 13.8 CMD drilling and wash wastewater). Drilling and wash wastewater will be treated through effluent treatment plant. Domestic waste water will be treated in septic tank and soak pits. The committee suggested them to provide mobile STP for treatment of sewage instead of septic tank. Produced formation water is stored in formation water tanks will be disposed to the abandoned wells of OIL after necessary treatment. Separated water from phase separation system will be treated in an ETP and will be reused. The project will be based on Zero Liquid discharge system.

Power requirement of the drill sites will be met through two Diesel Generator Sets of 1250 kVA each. Another 1250 kVA DG set will be kept as standby. Stack height of 7 m will be provided as per CPCB norms to the proposed DG sets. For Production Installations, Power requirement of production installations will be met through Gas Generator (GG) sets. Natural gas for the GG sets are supplied from the field itself. In general, a 216 KW GG set will be used for power supply at each production facilities.

Details of Process emissions generation and its management

Operation of DG sets and Movement of vehicles and machineries during construction and drilling,Flaring of natural gas will result in the generation of air pollutants. Stacks will be used with DG sets and flare system as per CPCB norms.

Details of Solid waste/ Hazardous waste generation and its management

- Drill cuttings and spent drilling mud will be disposed to HDPE lined pit within the drill site.
- The kitchen waste will be disposed in nearest municipal/village dumping site on a daily basis through approved waste handling contractors.
- Recyclable wastes will be periodically sold to local waste recyclers.
- Hazardous waste (waste and used oil) will be managed in accordance with Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2016.

During deliberations, the Committee noted that OM dated 8th 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 the proposal was considered in the meeting on 27th January, 2022 and Committee desired to carry out fresh baseline data for period of 15 days which was prior to the OM dated 8th June, 2022. So EAC was opined that there is no need to revalidate with one season monitoring data again. It was also noted that PH was conducted in 3 districts i.e. Dibrugarh, Sibsagar and Charaideo. However, PH was presided by Additional Deputy Commissioner in two districts i.e. Sibsagar and Charaideo whereas PH was presided by Circle Officer in Dibrugarh district. Therefore, the Ministry directed to comply with the provisions of EIA Notification, 2006 and re-conduct PH as per the prevailing norms. Accordingly, OIL conducted fresh public hearing for Diibrugarh district on 24th August, 2022 which was presided by ADC, Dibrugarh. Accordingly, PP presented the PH issues along with action plan to address the same.

Further, EAC discussed following issues:

- Oil India Limited (OIL) submitted an undertaking stating that the Proposed Oil & Gas Drilling wells, Production Installations and Assorted pipeline under the Project of "Onshore Oil & Gas development drilling and production in Onshore Oil & Gas development drilling and production (16 exploratory and 73 developmental drilling wells) in

Dibrugarh, Sibsagar and Charaideo Districts under Moran, Moran Extension, Dholiya and some portion of Dumduma (Block A) PMLs (Moran Block)" are NOT FALLING WITHIN ANY FORESTLAND AND PANIDEHING BIRD SANCTUARY & ITS NOTIFIED ESZ AREA.

- PP informed that Panidehing Wildlife Sanctuary is located at a distance of 10.6 km from nearest proposed well. ESZ of Panidehing Sanctuary has been finalized on 25.04.2022. Area extent of ESZ is 282.12 square kilometer. The nearest well is located 4.5 km from the notified ESZ boundary.
- PP informed that 9 nos. of production facilities will be created with the area of 17 Ha. In a particular field a Quick Production System (QPS) is set up which is small version of full-fledged OCS. QPS generally require the maximum area i.e. approximately 7 ha.
- Assorted pipelines of 50 mm -300 mm in diameter of total length of 450km will be laid from the proposed development wells to different neighbouring producing facilities. Further, gas pipeline of 100 mm and 250 mm in diameter would be laid. In total 480 km of pipelines would be laid in Moran Block These pipelines will be laid approximately 1.5 m below the ground and land will not be acquired for them. A Right of Use (RoU) of 10m will be maintained by OIL and adequate compensation will be paid to the landowners for the Right to Use.
- Increase CER cost to Rs. 9.0 Crores. PP shall keep separate fund for sericulture activities.
- After detailed deliberation, PP informed that they will consider ground flaring system with all measures (Protected by a shield or embankment/ enclosed flaring) instead of elevated flare as wildlife sanctuary is located at a distance of 10.6 km.

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

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have

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

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

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

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

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

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

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. PP shall ensure implementation of action plan proposed to address issues raised during public hearings dated 24.08.2022, 08.12.2022 & 11.12.2020.

(iv) As proposed, no pipelines or its part shall be laid in the Forest land/Protected Area without prior permission/approval from the concerned Forest Department under Forest Act/Wildlife Act.

(v) Total fresh water requirement shall not exceed 25 m3/day per well for drilling and will be met through Tankers Supply. Prior permission shall be obtained from the concerned regulatory authority.

(vi) The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. Mobile ETP coupled with RO shall be installed to reuse the treated water in drilling system. Mobile STP shall also be installed. The size of the waste pit 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 rainwater. There shall be separate storm water channel and rainwater shall not be allowed to mix with wastewater. Level of the Drilling site shall be constructed in such way that outside rainwater should not enter into the drilling site. Alternatively, if possible, pit less drilling be practiced instead of the above.

(vii) As proposed, produced formation water is stored in formation water tanks shall be disposed to the abandoned wells of OIL after necessary treatment. Separated water from phase separation system will be treated in an ETP and will be reused. Treated effluent shall meet the water quality standards for re-injection well as per the CPCB/SPCB guidelines. PP shall monitor water quality of treated effluent regularly and maintain records.

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

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

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

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

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

(xiii) Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud shall be discharged/disposed off into

nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.

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

(xv) The project proponent shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At fixed installations or plants use of ground flare shall be explored. Ground flaring system with all measures (Protected by a shield or embankment/ enclosed flaring) instead of elevated flare as wildlife sanctuary is located at a distance of 10.6 km.

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

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

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

production.

(xix) As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility (Rs. 9.0 Crores), and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within 1 year as proposed.

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

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

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

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

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

Agenda No. 2

Proposed 250 KLPD Grain Based Distillery unit located at Survey No 1090/7 at Stambampalli Village, Velgatur Mandal at Jagtial District, Telangana by M/s.KRIBHCO Green Energy Private Limited- Consideration of Environmental Clearance

[IA/TG/IND2/ 400352/2022, IA-J11011/371/2 022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. MITCON Consultancy and Engineering Services Ltd. (NABET certificate no. NABET/EIA/2124/RA 0229_Rev 02 and validity 5.02.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 250 KLPD Grain Based Ethanol Plant & 8 MW Co-generation power plant (Rice Husk/Coal based) located at Survey No 1090/7, Village Stambampalli, Tehsil Velgatur Mandal,District Jagtial, State Telangana by M/s. KRIBHCO Green Energy Private Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/ by-product	Production capacity
1	Distillery	Ethanol	250 KLPD
2	Captive/Cogeneration power plant	Power	8 MW

3	DWGS dryer	DDGS	156 TPD
4	Fermentation unit	Carbon di-oxide	145 TPD

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

Total land area required is 15.56 hectares. Greenbelt will be developed in total area of 5.14 hectares i.e., 33% of total project area. The estimated project cost is Rs. 286 Crores. Capital cost of EMP would be Rs. 27.79 Crores and recurring cost for EMP would be Rs. 1.3 Crores per annum. Industry proposes to allocate Rs. 4.29 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment will be 187 persons as direct & indirect.

There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance. Reserve forests– patches Maddunur reserve forest around at a distance of 1.4 km in North West direction, Munula Gutta reserve forest around at a distance of 3.7 km in South East direction and Kondapur reserve forest around at a distance of 6.5 km in South direction. Water bodies: River Godavari is 1.9km towards North East, Sriramsagar Canal (BC Canal) is 100m towards North, Lake PeddaCheruvu is 1.43km towards WNW, PeddaVagu is 2.31 km towards South of the project site.NOC for Sriramsagar Canal (BC Canal) is 100 m towards North has been obtained from Department of Irrigation & CAD, Govt. of Telangana stating that this is a canal and not a stream and the flow can be controlled by regulator which is the tail end of Bollicheruvu Main canal, and it will not be flooded and will not be affected due to establishment of Bio ethanol Plant.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.29 µg/m^3, 6.7 µg/m^3, 3.2µg/m^3 and with respect to SPM, SO_2 and NOx respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1037 m3/day which will be sourced from PeddaCheruvu. Industry has obtained permission for water

withdrawal vide Lr. No. CE(I)/JGL/TS/T2/Grain/2022/944 dated 17.09.2022.Effluent (Total Condensate/spent lees/blowdowns/CO2 scrubber/ Misc. etc.) of 1902 m^3/day quantity will be treated through Condensate Polishing Unit of capacity 2000 CMD. Raw stillage (1635 CMD: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 5 CMD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 7.44 MW and will be met from proposed 8 MW Co-generation power plant. 66 TPH biomass/coal fired boiler will be installed. Electro Static Precipitator (ESP) with a stack height of 68 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3 for the proposed boiler. 1250 kVA DG set will be used as standby during power failure and stack height (11 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- Electro Static Precipitator (ESP) with a stack height of 68 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 (145 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be collected in CO2 bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (156 TPD) will be sold as cattle feed / poultry feed.
- Boiler ash (Coal ash: 27 TPD&Rice Husk Ash:55 TPD) will be used for brick making in proposed in-house brick manufacturing plant.
- Used oil (0.006 KLD) will be sold to authorized recyclers.
- CPU sludge (8.5 TPD) will be used as Manure and STP Sludge (0.42 TPD) will be used as manure.

As per Notification S.0 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the

proposed capacity of 250 KLPD will be used for manufacturing fuel ethanol only.

Total land of 15.56 Hectares is under possession of the company and land is allotted by APIIC, Govt. of Telangana vide letter no. 2801/TSIIC/AMW/KRIBHCO/2021 dated 19.08.2022.EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Service road shall be provided for connecting Highway. Approach road shall be maintained.
- 50 m wide Greenbelt development shall be done towards canal.
- PP shall install in-house brick manufacturing unit for utilization of fly ash. PP has committed the same.
- Incremental concentration are on higher side i.e. 6.7 $\mu g/m^3$. Additional measures for controlling SO2 emissions shall be submitted for the same. PP has submitted that measures like use of low sulphur coal having less that 0.38% sulphur content, lime dosing with 85% efficiency and increasing the stack height from 60 m to 68 m.
- Revised cost of EMP shall be submitted as Environmental monitoring capital cost is not considered. EMP cost has been increased from Rs. 25.79 Crores to Rs. 27.79 Crores.

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

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

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

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

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

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

(i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 250 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

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

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

(iv). NOC for surface water supply shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(v). Total Fresh water requirement shall not exceed 4 KL/KL of ethanol production i.e. 1000 KLPD which will be met from Pedda Cheruvu. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

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

(vii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 68 meters will be installed with 60 TPH biomass/coal fired boiler for controlling the particulate emissions within the statutory limit of 30

mg/Nm^3. SO_2 and NOx emissions shall be less than 100 mg/Nm3. Measures like use of low sulphur coal having less that 0.38% sulphur content, lime dosing with 85% efficiency and increasing the stack height from 60 m to 68 m. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

(viii). Boiler ash (Coal ash: 27 TPD&Rice Husk Ash:55 TPD) will be used for brick making in proposed in-house brick manufacturing plant. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler.20% biomass pellets shall be used as fuel. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(ix). CO2 (145 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be collected in CO2 bottling plant.

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

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

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

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

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

(xv). The green belt of at least 5-10 m width shall be developed in nearly 5.14 hectares i.e., 33%of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant. No trees shall be cut as part of construction. 50 m wide Greenbelt development shall be done towards canal.

(xvi). PP proposed to allocate Rs. 4.29 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

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

rest rooms etc. Service road shall be provided for connecting Highway. Approach road shall be maintained.

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

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

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

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

Agenda No. 3

Proposed 150 KLPD grain-based Fuel Ethanol Plant and 5 MW Power Cogeneration Plant located at village Khuiyan Malkana and Mithri, Tehsil Dabwali & Kalianwali, District Sirsa, Haryana by M/s. Babu Ram Bio energies LLP – Re-consideration of Environmental Clearance [IA/HR/IND2/400859/2022, IA-J-11011/377/2022-IA-II(I)

The proposal was earlier considered by the EAC (Ind-2) in its meeting/meeting ID IA/IND2/13350/12/10/2022 held during 12th October, 2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13360/20/10/2022) held on 20th October, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

S. No.	Query	Reply	Remarks by EAC
1.	Submit action plan to achieve 33% greenbelt including details of Number of trees and species to be planted.	1.82 Ha of land from a total of 5.45 Ha of land area will be developed as green belt. Considering 2500 trees per hectares as area required for each tree, total of 6100 number of trees will be planted. 10 m greenbelt will be developed all around the boundary of the plant.	PP shall develop greenbelt with density 2500 trees per hectares . PP has committed that 7500 trees will be developed as part of greenbelt in 1.82 Ha. EAC was satisfied with the commitment submitted in writing.
2.	Process effluent shall be treated and recycled for the process activities and	The industry has submitted the revised ZLD scheme wherein the 500 m^3/day of the condensates from the process will be directly reused for slurry preparation	EAC was satisfied with the response of PP.

	proposed distillery unit shall be based on complete ZLD.	and the remaining after treatment will be reused in cooling tower makeup water. Similarly, the misc. stream effluent constituting 84 m^3/day will be treated in ETP and will be reused in cooling tower makeup water.	
3.	Cost of pollution control equipment including MEE shall be incorporated and revised cost for EMP to be submitted.	Revised cost of EMP @ Rs. 25.25 Crores including cost of MEE @ Rs. 8.75 Crores will be there for the proposed project.	EAC was satisfied with the response of PP.
4.	Increase CER cost to Rs. 1.5 Crores from Rs. 1.125 Crores. Detailed & quantitative CER activities including villages shall be submitted.	The industry has increased the CER cost to Rs. 1.50 Crores. 5 number of nearby villages namely - (i) KhuiyanMalkana, (ii) Mithri, (iii) Tappi, (iv) Sawant Khera, (v) Nilanwali will be adopted for CER activities. Budget for improvement in the school infrastructure has been kept as Rs. 95.00 Lakhs, for solar lighting @ Rs. 25.00 Lakhs and for skill development of youth @ Rs. 30.00 Lakhs.	ITI shall be adopted as part of CER. PP has submitted the same in writing .EAC was satisfied with the response of PP.
5.	PP shall commit that	The project proponent has submitted the revised water	EAC was satisfied with the response of

	there will be no effluent discharge and ZLD shall be maintained. Revised water balance shall be submitted.	balance incorporating no effluent discharge and maintenance of ZLD. After direct reuse in slurry making, the remaining effluents/condensates will be treated in ETP and used as cooling tower makeup water.	PP.
6.	Detailed risk assessment/ damage assessment studies	The industry has submitted the detailed risk assessment and probable damage studies due to the storage of Ethanol at the project site. The possible scenarios and their probable impact details have been submitted.	Distance between two ethanol storage tanks shall be submitted. PP has submitted that 15 meters will be the distance between two storage tanks. EAC desired that PP shall ensure to submit 2D risk assessment study data to PESO and IRO, MOEFCC.
7.	List of native tree species to be developed as greenbelt shall be submitted.	The industry has submitted list of 8 number of native trees to be grown in the greenbelt area. The names of the trees are - Poplar, Eucalyptus, Neem, Kair, Lasura, Shisham, Arjun, Pilkhan.	PP shall submit scientific names of tree species. PP has submitted the same. EAC was satisfied with the response of PP.

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 project proponent and the accredited Consultant M/s. Enviro Infra Solutions Pvt. Ltd. (NABET certificate no. NABET/EIA/1922/RA 0157 and validity upto 13th November, 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 150 KLPD Grain based Ethanol Plant & 5 MW Co-generation power plant (biomass based) located at Village KhuiyanMalkana and Mithri, Tehsil Dabwali&Kalianwali, District Sirsa, State Haryana by M/s Babu Ram Bio energies LLP.

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

The details of products/by-products and their capacity are as under:

S. No.	Name of the Unit	Name of Product/By-product	Production Capacity
1.	Distillery (Grain based)	Fuel Ethanol	150 KLPD
2.	Cogeneration of Power	Power	5 MW
3.	Fermentation Unit	CO_2	115 TPD
4.	DWGS Dryer	DDGS	80 TPD

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

Total land area required is 5.45 hectares. Greenbelt will be developed in total area of 1.82 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 150 Crores. Capital cost of EMP would be Rs. 25.25 Crores

and recurring cost for EMP would be Rs. 3.0 Crores per annum. Industry proposes to allocate Rs. 1.50 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. There are no major water bodies within 10 km. radius of project site.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.17 $\mu g/m^3$ for particulate matter and 3.36 $\mu g/m^3$ for SO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 532 m^3/day which will be met from canal water supply. Application has been submitted to Executive Engineer, Rori Water Services Division, Sirsa dated 12/09/2022 vide letter no. 1628. Effluent (Condensate/ Spent lees /blowdown) of 837 m3/day quantity will be treated through Condensate polishing unit. Raw Stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP will be installed to treat sewage generated. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 4 MW and will be met from proposed 5 MW cogeneration power plant. 35 TPH biomass/coal fired boiler will be installed. ESP & stack height 50 meters will be installed with the boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3 for the proposed boiler. 1 x 1000 kVA DG set will be used as standby during power failure and stack height (6.5 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- ESP with a stack height of 50 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the

stack and data will be transmitted to CPCB/SPCB servers.

- CO2 (115 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

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

- DDGS (Distilled Dried Grains Stillage) (80 TPD) will be sold as cattle feed/fish feed/prawn feed.
- Boiler ash (30 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (0.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (0.2 TPD) will be used as manure.

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

Total land of 5.45 Hectares is under possession of the company and the land use conversion has been completed vide letter no.178740/2022/TCP-OFA/1920/2022 dated 16.09.2022. EAC found the information satisfactory.

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

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

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

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

(i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 150 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

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

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

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

(iv). NOC from Irrigation Department shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

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

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

(vii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 50 meters will be installed with 35 TPH biomass/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3. SO_2 and NOx emissions shall be less than 100 mg/Nm3.At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the

respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

(viii). Boiler ash (30 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler.20% biomass pellets shall be used as fuel. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(ix). CO2 (115 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

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

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

(xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained. PP shall submit 2D risk assessment and mitigation plan to PESO and IRO, MOEFCC.

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

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

(xv). The green belt of at least 5-10 m width shall be developed in nearly 1.82 hectares i.e., 33 % of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant. No trees shall be cut as part of construction.

(xvi). PP proposed to allocate Rs. 1.50 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

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

(xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in

covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

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

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

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

Agenda No. 4

Proposed 300 KLPD Grain Based Ethanol Plant along with 8.5 MW Co-generation Power Plant at Village Dacher, Tehsil Nisang, District Karnal, Haryana by M/s Parea Industries Private Limited- Consideration of Environmental Clearance

[IA/HR/IND2/403195/2022, IA-J-11011/455/2022-IA-II(I)]

The Project Proponent and the accredited Consultant J.M. EnviroNet Pvt Ltd. (NABET certificate no. NABET/EIA/2023/SA 0172 and validity till 7th August, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for Proposed 300 KLPD Grain Based Ethanol Plant along with 8.5 MW Co-generation Power Plant at Village Dacher, Tehsil Nisang, District Karnal, State Haryana byM/s Parea Industries Private Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/ by-product	Production capacity
1.	Distillery	Ethanol	300 KLPD
2.	Co-generation power plant	Power	8.5 MW
3.	DWGS dryer	DDGS	176 TPD
4.	Fermentation unit	Carbon di-oxide	229 TPD

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16th June, 2021. It was informed that there is no litigation is pending against the project.
Total land area required is 10.12 hectares. Greenbelt will be developed in total area of 3.34 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 300 Crores. Capital cost of EMP would be Rs. 30 Crores and recurring cost for EMP would be Rs. 3.0 Crores per annum. Industry proposes to allocate Rs. 3.0 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 200 persons as direct.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. present within 10 km distance. Only part of Bir Khandakheri RF (10.0 km in SSW direction) within 10 km radius. Water bodies: Nardak Major Distributary is at a distance of 3.2 km in SE direction, Nisang Drain is at a distance of 5.2 km in East direction, Chautag Nala is at a distance of 6.0 km in NE direction, Rajaund Main Branch is at a distance of 6.4 km in NW direction, Habi Sub branch is at a distance of 6.5 km in NW direction & Indri Drain is at a distance of 10.0 km in NE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.5 µg/m3, 0.769 µg/m3 and 0.845 µg/m3 with respect to PM, SO2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1211 m3/day which will be met from Surface water/ground water. Application has been submitted to Executive Engineer, Irrigation and Water Resources Department, Karnal vide No. 2331 dated 13.10.2022. Effluent (Condensate/spent lees/blowdown etc.) of 1741 m3/day will be treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 2000 KLPD. Raw stillage (1953 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 20 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 8.0 MW and will be met from proposed 8.5 MW Co-generation power plant. 60 TPH Biomass/Rice husk briquettes fired boiler will be installed. APCE ESP with a stack height of 65 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 for the proposed boiler. A 1000 kVA DG set will be used as standby during power failure and stack height (10 m) will be provided as per CPCB norms to the proposed DG set.

Details of Process emissions generation and its management

- APCE ESP with a stack height of 65 meters will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 for the proposed boiler.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 (229 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and it shall be sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (176 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (65 TPD) will be used for brick manufacturing in proposed in-house brick manufacturing plant adjacent to plant premises.
- Used oil (1.0 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (2 TPD) and STP Sludge (0.01 TPD) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 300 KLPD will be used for manufacturing fuel ethanol only.

Total land of 10.12 Hectares is already under the possession of the company for establishment of industry. As per the Haryana Bio-Energy Policy 2018 published on 9th March, 2018 by New & Renewable Energy Department, Govt. Of Haryana, Land use conversion for the project is not required as stated in Chapter 3 (A)(iii) "land use conversion is not required as a part of incentives for development of biomass based projects in the state". EAC was satisfied with the response of PP.

During deliberations, EAC discussed following issues:

- PP shall commit that no coal will be used as fuel. PP has submitted the same.
- PP shall maintain village road/approach road/link road to project site.

- PP desired that ground water shall be allowed to use as construction of pipeline for surface water supply will take time. EAC agreed for the same. PP shall submit ground water application for the same and obtain NOC before start of construction activities.

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

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

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

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

Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

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

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

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

(iv). NOC from the Concerned Local authority for surface water supply shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

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

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

(vii). Electrostatic precipitator (5 field & 99.9 % efficiency) with a stack height of 65 meters will be installed with 60 TPH Biomass/Rice husk briquettes fired boilerfor controlling the particulate emissions within the statutory limit of 50 mg/Nm^3.No coal shall be used as fuel at any circumstances. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

(viii). Boiler ash (65 TPD) will be used for brick manufacturing in proposed in-house brick manufacturing plant adjacent to plant premises. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel in the boiler. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(ix). CO2 (229 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and it shall be sold to authorized vendors.

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

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

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

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

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

(xv). The green belt of at least 10 m width shall be developed in nearly 3.34 Hectares i.e., 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant. No trees shall be cut as part of construction.

(xvi). PP proposed to allocate Rs. 3.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

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

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

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

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

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

Agenda No. 5

Expansion of Refinery capacity from 7.8 MMTPA to 12 MMTPA with Petrochemical Complex and associated facilities by M/s. Bharat Oman Refineries Limited located at Village Agasode, Tehsil Bina, District Sagar, State Madhya Pradesh - Consideration of Environmental Clearance

[IA/MP/IND2/290279/2022, IA-J-11011/135/2013/IAII(I)]

The proposal was earlier considered by the EAC (Ind-2) in its meeting (ID:IA/IND2/13342/26/09/2022) held during 26-28th September 2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13360/20/10/2022) held on 20th October, 2022. Information desired by EAC and responses submitted by the project proponent along with remarks of EAC as discussed in meeting are as follows:

Sl. No.	ADS by MoEFCC	Reply from Project Proponent (BPCL Bina Refinery)
1.	Details regarding greenbelt. PP informed that at present 28.5% i.e. 290 Ha has already been developed which shall be maintained by industry. Remaining percentage is proposed outside for which MOU has been signed with State Forest Department and area allotted is 10 km from plant site. EAC noted that tree density is very low in existing plant premises. PP has finally proposed that additional 90 ha shall be developed instead of 65 Ha in the land identified by State Forest Department. EAC desired that PP shall submit the detailed action plan for the same.	As part of the proposed project, additional Green Belt Area in 90 ha area instead of 65 ha as originally proposed shall be developed outside the Project boundary in consultation with Forest Department. This would make the total greenbelt area as 37.43 % of the project area. PP will also take guidance of Forest Department to further enhance the density of trees in existing greenbelt area. Necessary actions with regard to both the above points have been initiated with MP State Forest Department and the same is submitted with ADS Reply.
2.	It was observed that fresh water	Water requirement for the Refinery Expansion and Petrochemical Project was critically

	requirement for the expansion project is around 101640 CMD, which seems to be on higher side. Accordingly, the Committee desired that PP shall submit detailed water conservation plan to reduce the fresh water requirement which shall also include recycle, reuse of treated effluent. PP shall also take measures by increasing COC between 6-8% to reduce the above evaporation loss.	reviewed and further reduced by 7% (94440 m3/day) through various optimization measures as stated below: The effluents generated (including process effluents, floor-washes, etc.) shall be treated in a new Effluent Treatment Plant (ETP) Treated effluent from ETP along with other blow-down streams (including cooling tower & boiler blow-downs) shall be further treated in a RO-DM Plant to recover water. The recovered water shall be utilized for DM water generation and as cooling water makeup. Part of treated wastewater shall also be utilized to meet the demand of horticulture/gardening. Balance wastewater from RO-DM plant (existing & new RO-DM plant) shall be further processed in a ZLD plant for recovery of entire water to minimize the net fresh water demand. PP shall ensure that no liquid effluent shall be discharge outside the premises of proposed project. The COC of cooling tower has also been optimized and is envisaged to be operated at about 6.0. Some of the other water conservation measures considered are rain water harvesting, use of foam/mist type water nozzles for taps, use of industrial vacuum cleaners to minimize water required for floor-wash, proper accounting & metering of water, etc. With above water conservation measures, the fresh water demand has been minimized to the extent technically feasible and has been limited to 94,440 CMD, which is primarily the evaporation and drift losses from cooling towers

<table>
<tr><td></td><td></td><td>and is attributed to design heat load of the process units.

Updated Water balance diagram of the complex is submitted with ADS Reply.</td></tr>
<tr><td>3.</td><td>PP shall commit that existing and proposed refinery is being/will be based on ZLD concept and no treated water/waste water shall be discharged outside premises.</td><td>PP commits that existing and proposed project would comply with the ZLD concept and no liquid effluent shall be discharged outside premises.</td></tr>
<tr><td>4.</td><td>Maximum incremental GLC for SO2 & NOx emissions are on higher side. EAC suggested to submit details of sulphur balance for existing as well as proposed unit. PP shall also submit details of pollution control measures to be undertaken for reducing incremental SO2 and NOx emissions.
Accordingly, PP shall also submit revised GLC for SO2 & NOx emissions considering various pollution control measures.</td><td>SO_2 and NO_x emissions from the project were critically reviewed and have been minimized by following measures:
By maximizing low Sulphur Fuel firing
Installing modern Low NO_x Burners for Crackers Heaters & Utility Boilers/CDU VDU
Stack heights have been increased for Utility Boilers, Cracker Heaters and CDU/VDU unit heaters
With above pollution control measures, Ground Level Concentration (GLC) for SO_2& NO_x emissions has been predicted & updated details of resultant GLC’s are shown in table below:

<table>
<tr><td>Name of Pollutant</td><td>Baseline Concentration</td><td>Incremental Concentration</td><td>Resultant ground level concentrations (GLC)</td><td>Allowable Limit as per NAAQS in $\mu g/m^3$</td></tr>
</table>
</td></tr>
</table>

		nts | in $\mu g/m^3$ | on in $\mu g/m^3$ | Value in $\mu g/m^3$ | SO_2 | 22.5 | 5.94 | 28.44 | 80 NO_x | 25.5 | 19.4 | 44.90 | 80 Total SO_2 emission post expansion project will be 31.4 TPD, which includes additional 2.15 TPD from proposed project.
5.	Details of existing as well as proposed sulphur recovery unit to be submitted.	Existing refinery has 3 trains (2 working + 1 standby) of Sulphur Recovery Unit (SRU), each having 243 TPD capacity and sulphur recovery of 99.9% with TGTU. Utilization of 2 working trains of SRU works out to be 86.0% (Pre expansion) and 89.6% (post expansion). As such, post expansion; the refinery will still have a standby SRU train of 100% capacity of the working train. Therefore, no additional SRU train is required for post expansion.
6.	PP shall ensure that threat zone of identified hazard shall not be beyond the boundary level of plant premises. Societal risk from existing facilities, perceived risk from proposed facilities and cumulative risk shall be studied and submitted. PP shall commit that OISD	RRA study for this project has been carried out and hazards have been restricted within the complex. PP confirms that Societal Risk and Cumulative Risk shall be studied during detail engineering stage when Process/ Engineering data and detailed Equipment Layouts are firmed up and, additional hazards if any identified will be mitigated with appropriate measures. OISD 244 shall be followed, as applicable.

	244 shall be implemented.	
7.	Ground water and surface water has very high fluoride concentration as submitted in EIA/EMP Report. Clarification regarding the same shall be submitted.	Based on published literature, the fluoride levels in Betwa river basin have been recorded in the range of 0.6 mg / l to 1.2 mg /l. In this study from water quality measurements in different months found a higher Fluoride levels in Betwa river. *(Source: Research Article on Assessment of water quality in betwa river (M.P.) - Vol. 33, Issue, 5, pp.027-031, May, 2011_ International Journal of Current Research)* The occurrence of fluoride in groundwater is due to weathering and leaching of fluoride-bearing minerals from rocks and sediments. As per aquifer mapping report of Sagar District (Central Ground Water Board, North Central Region, Bhopal), the fluoride concentration in Sagar district ranges between 0.15 to 0.92 mg/l, which represent that all the samples are within the permissible limit i.e. 1.5mg/l as per BIS (IS 10500 :2012). PP submits that the processes adopted in the project will not add any fluoride to the water.
8.	Detailed traffic management plan shall be submitted.	A new road from the north side of the existing refinery along the greenbelt is envisaged for the proposed project. The same shall be utilized during the project construction activities and for petrochemical products evacuation during operation phase. Based on analysis of baseline data of traffic study during mid of January, 2022 to Mid of April, 2022 & the level of service at both the roads (Bina Refinery Township & Bina Despatch Terminal) falls under "Category A" (Excellent) as per IRC code 64 & 106:1960 and the passenger

		car unit conversion of traffic study data. Adequate buffer for handling additional vehicle of traffic from proposed project is available during the construction as well as operation phase. Considering the additional traffic load both during construction & operation phase, the level of service w.r.t. to vehicle to capacity ratio still falls under the range of excellent Category-A.
9.	In the public hearing, it has been noted that many issues have not been addressed/implemented as agreed earlier for existing unit. Action plan for the issues still not addressed as reported by public shall be submitted.	Action plan to address issues raised by villagers during public hearing has been updated along with the budget provision and timeline. Total budget allocated for CER as per public hearing is Rs. 30 Crores. Updated Public hearing action plan is submitted with ADS reply.
10.	Background concentration of ammonia is very high. Clarification regarding the same shall be submitted.	The 98th percentile value of ammonia is ranging between 30.3 to 34.3 µg/m^3, which are within 400 µg/m^3 (24 hourly) as per NAAQS Standards, 2009. The possible sources of ammonia as detected in the baseline data are given below: Farms/agricultural activities: NH_3 is emitted by use of fertilizers in agricultural activities in nearby areas Putrefaction of animal and vegetable matter Animal husbandry & Livestock waste management
11.	Details of court case, action plan for the	During an inspection of Refinery in Oct'2017, MPPCB team observed outflow of water from

	court case. PP shall submit action plan to address all issues mentioned in court case.	Refinery premises, however the quality of water as analysed by MPPCB lab was found to be well within the limits. Based on above observations, MPPCB filed a case in July'2018 in Judicial Magistrate, First Class Court, Bina. It may be mentioned that, subsequent to the above inspection, a number of inspections have been carried out by MPPCB and no discharge of water was observed. MPPCB have also been periodically renewing CTO for the Refinery. Additionally, PP has installed camera with live display of Refinery discharge at MPPCB. Based on the above PP confirms that the issues mentioned in the court case have already been addressed.
12.	Current status of the court case w.r.t. stay by the Hon'ble Court on the existing as well as proposed industry.	PP has lodged application in Hon'ble High court, Jabalpur for quashing of above case by MPPCB which is presently pending for admitting / interim order. Further it may be noted that there is no court case against the Proposed Refinery Expansion and Petrochem Project.

EAC was satisfied with the response provided by PP.

The Project Proponent and the accredited Consultant M/s. Engineers India Limited (NABET certificate no. NABET/EIA/1922/RA0189_Rev01 and validity 22/11/2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project of Expansion of BPCL Bina Refinery (Erstwhile M/s Bharat Oman Refineries Limited)capacity from 7.8 MMTPA to 12 MMTPA with Petrochemical Complex and associated facilities located at Village Agasode, Tehsil Bina, District Sagar, State Madhya Pradesh by M/s. Bharat Petroleum Corporation Limited (BPCL).

All project/activity are listed at S.N. 4(a) - Petroleum Refining Industry and 5(c) - Petro-chemical complexes 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 unit capacities and product pattern as under**:**

Unit Capacities

S. No.	**Unit**	**Existing Capacity (MMTPA)**	**Proposed Capacity (MMTPA)**	**Total Capacity after expansion (MMTPA)**
1	Ethylene Cracker Unit	0	1.2	1.2
2	Hydrocracker Unit	2.623	0.927	3.55
3	LLDPE HDPE Swing Unit	0	0.650	0.650
4	Butene-1 Unit	0	0.050	0.050
5	CDU/VDU Unit	7.8	4.2	12
6'	Diesel Hydrotreater	2.372	0	2.372
7	CCR Reformer Unit	0.835	0	0.835
8	Isomerization Unit	0.633	0	0.633
9	SWS I & II Units	161 & 59 TPH	94 TPH	314 TPH
10	Delayed Coker Unit	1.822	0	1.822
11	ATF Merox Unit	0.569	0	0.569
12	Naphtha Hydrotreater	1.55	0	1.55
13	Kero Hydro-desulphurization Unit	0.6	0	0.6
14	HDPE Unit	0	0.500	0.500
15	Hydrogen Unit	0.098	0	0.098
16	Sulphur Recovery Unit	3 x 243 MTPD	0	3 x 243 MTPD
17	Amine Regeneration Unit	468 TPH	106 TPH	574 TPH
18	LPG Treating Unit	0.277	0.09	0.317
19	Bitumen Blowing Unit	0a	0.3	0.3
20	Polypropylene Unit	0	0.550	0.550

Associated facilities such as utility plants, power plant, tankages and dispatch terminal shall be installed, commensurate with above process capacities.

Product Pattern:

S. No.	Product/ By-product	Existing Quantity (KTPA)	Proposed Quantity (KTPA)	Total Quantity (KTPA)
1	LPG	344	6	350
2	Bitumen	0	300	300
3	Sulphur	152	0	152
4	Benzene	0	300	300
5	BS VI Diesel	3641	1459	5100
6	Mineral Turpentine Oil (MTO)	0	100	100
7	Naphtha	189	-89	100
8	Petcoke	523	2	525
9	Polypropylene	0	570	570
10	Toluene	0	180	180
11	Propylene	0	100	100
12	Pyrolysis Fuel Oil (PFO)/Carbon Black Feed Stock (CBFS)	0	50	50
13	BS VI Gasoline	1242	258	1500
14	ATF+SKO	1118	-118	1000
15	PE(HDPE+LLDPE)	0	1200	1200
16	Mixed Xylene	0	100	100

MoEF&CC has issued Environmental Clearance to the existing capacity 7.8 MMTPA vide File No. J-11011/135/2013-IA II (I) dated 15/05/2015. Certified Compliance report of existing ECs has been obtained from Integrated Regional Office, MoEFCC, vide File no 5(0)-1/2022(Env.) dated 10/08/2022. Action Taken Report has been submitted to IRO, MoEFCC, File No. BORL/MoEF/EC/2022/05 dated 07/09/2022 for partial compliances.

Standard Terms of Reference have been obtained vide F. No. J-11011/135/2013/IA II (I) dated 8th February, 2022. It was informed that litigation is pending against the proposal. Details are given below:
One case is pending against the project proponent in the court of Judicial Magistrate Bina, filed by M.P. Pollution Control Board in July 2018 on Zero Liquid Discharge in regard to inspection carried out in October 2017. A petition is lodged in the Hon'ble High Court at Jabalpur for quashing of complaint filed by MPPCB, which is pending for admission/interim orders.

Public Hearing for the proposed project had been conducted by the Madhya Pradesh Pollution Control Board (MPPCB) on 12/08/2022 at Gram Panchayat Bhawan Parisar, Village-Agasod, Tehsil-Bina, District-Sagar chaired by Additional Collector, Sagar District. The main issues raised during the public hearing and their action plan given below:

Regarding Health support, Education, school admission & upgradation of school,provision of potable water supply,Industry will continue to carry out various CSR & CER activities in future for development in surrounding villages under the proposed project. PP proposes to spend approximately Rs 12 Cr towards Health, Education and skill development of surrounding villagers as part of proposed project under CER.

Regarding employment, PP informed that during the constructionphase, average temporary manpower requirement is about 5000. During operational phase, employment ofapproximately 400 persons directly and around 1500 persons indirectly is envisaged.

Regarding BPCL shall make more efforts to preserve the environment.
Domestic waste accumulated near refinery shall be removed. BPCL shall start planting of trees, PP informed thatAs part of the project, about Rs 10 Cr have been earmarked for environmental activities as mentioned - Rs 1 Cr. has been allocated towards Additional Plantation, Rainwater Harvesting & Pond Rejuvenation etc. , Rs 1 Cr. For Awareness workshops/programs for solar electrification., Rs. 3 Cr for Dust suppression facilities within complex as well as surrounding areas., Rs. 5 cr. towards mitigation measures for environmental pollution for surrounding

areas/villages of BPCL Complex. The CER expenditure will be incurred during the plant construction/ commissioning phase (5 years maximum). Additionally, CSR budget will be allocated as per Govt. guidelines.

Regarding School Admission shall be given to children of poor villagers.Villagers requested to open a school in nearby area. BPCL shall utililize CSR fund for benefit of people, PP informed that Rs. 2 Crores has been allotted for Education and Skill Development for local youths / peoples & expansion of DAV School under CER activities.

Regarding Prior information of Public hearingwas not given to peoplewithin 5 km radius area, PP informedthat Public noticewasissued in 2 nos. of newspapers on 5th July 2022 (36 Days in advance). Project information reportswerekept at 05 locations at offices of District Industries Department, Zilla Panchayat, Agasod Gram Panchayat, regional office of MP Pollution Control Board (MPPCB) and Ministry of Environment, Forest &Climate Change (MoEFCC) as per the guidelines. Additionally, the projectreportwaspublished on the website of MPPCB.
Also, prior to public hearing, information wasdisseminated in surroundingvillages in 5 KMs radius of the Refinerythrough public address system.

Regarding no arrangement of water in Agasodvillage. Agasodvillage is adopted by BPCL. Still there is no developmenthere, PP informedthat Bina Refinery has spentclose to Rs 110 Cr under various CSR initiatives over the years. In Agasodvillageapprox. 2 Cr has beenspenttowardseducation, sports development, healthcare, hygiene, water and livelyhoodrelatedactivities. PP confirmsthat CSR activitieswillbecontinued as on-goingprocess in the surroundingvillagesincludingAgasodvillage and Rs. 8 Crores has beenearmarked for drinkingwater / supportinginfrastructure / transport facilities in surroundingvillages under CER activitieswhichwillincludeAgasodevillage, as well.

Regarding lands wereforcefullytaken, PP informedthat This issue pertains to personal matter of an individual with no linkage of

existingRefinery or proposedproject and falls under the purview of Administration.

CER activities with budget allocation as per Public Consultation

Sl. No.	Activities as per public consultation	Allocated Budget (In Rs. Lakh)
1.	Education and Skill Development for Local Youths / peoples & Expansion of DAV School	200.0
2.	Abatement in environmental pollution for surrounding areas/villages of BPCL Complex	500.0
3.	Additional Plantation, Rainwater Harvesting & Pond Rejuvenation etc.	100.0
4.	Healthcare Facilitates (Such as Dispensaries & Super-Specialty Hospitals for Villagers	1000.0
5.	Dust suppression facilities within complex as well as surrounding areas	300.0
6.	Support in Infrastructure / Transport facility / Surrounding development within 10 kms radius of Proposed Petrochemical Complex	100.0
7.	Awareness workshops/programs for solar electrification and solid waste management	100.0
8.	Drinking Water Facilities for surrounding villagers	700.0
Total Expense (Rs. in Lakhs)		**3000.0**
Total Expense (Rs. in Crores)		**30.0**

Total plant area after expansion will be 1015 Ha. No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area 1015 Hectares i.e. 290 Ha greenbelt is already developed. Additional 90 Ha greenbelt will be developed in collaboration with State Forest Department. This would make the total greenbelt area as 37.43 % of the project area. The estimated project cost is Rs. 35000 Crores. Capital cost of EMP would be Rs. 510.6 Crores and recurring cost for EMP would be Rs. 2.8 Crores per annum. Industry

proposes to allocate Rs. 30 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 1900 persons as direct (400) & indirect (1500).

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors within 10 km distance. There are no Reserve forests/protected forests within 10 km distance. Betwa river is located at a distance of 4.5 Km in west direction.

Ambient air quality monitoring was carried out at 8 locations during January to April 2022 and the baseline data indicates the ranges of concentrations as: PM10 (65-76 µg/m3), PM2.5 (20-40 µg/m3), SO2 (15-23 µg/m3) and NO2 (20-26 µg/m3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would 28.4 µg/m3 and 44.9 µg/m3 with respect to SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be 94440 m3 /day, out of which 63240 m3/day will be used for expansion of refinery with petrochemical complex. Fresh water will be met from Betwa river. NOC has been obtained from Water Resources Division vide letter no. 14/ 2006/134 dated 06.03.2019. Existing effluent generation from refinery is 9000 m3/day which is treated through Effluent Treatment Plant. Proposed effluent generation will be 6240 m3/day which will be treated through new Effluent Treatment Plant. Domestic waste water will be treated in STP having 360 KLD capacity. The plant will be based on Zero Liquid Discharge system and treated effluent will not be discharged outside the factory premises.

Total power requirement of refinery cum petrochemical complex after expansion will be 350 MW (Existing 100 MW and Proposed 250 MW for expansion) which will be sourced from existing co-generation power plant and State Grid. NOC for power requirement from State Grid has been obtained vide letter no. 04-01/CRZ/CS-10-W/6876 dated 10/03/2022. Three numbers of CFBC boilers each of 275 TPH and one Utility Boiler of 160 TPH capacity are there in existing refinery. Two Utility Boilers of 180 TPH each will be installed in the proposed project. A stack of height of 100 m will be

installed with the proposed boilers for controlling the particulate emissions within the statutory limit of 50 mg/Nm3. Industry will install 6.5 MW DG set, which will be used as standby during power failure and adequate stack height will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- The SOx emission of the existing refinery is 29.25 TPD. There will be additional 2.15 TPD SOx emission from the refinery expansion and Petrochemical complex. The overall SOx emission post expansion cum Petrochemical complex will be 31.4 TPD. However, below mitigation measures will be followed to control the process emissions:
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- A stack height of 100 meters for utility boilers will be installed for controlling the particulate emissions.
- Low NOx burners will be used in all process heaters, furnaces and boilers.
- Low Sulphur Fuel Oil and Fuel Gas will be used as fuel in Process fired heaters and Boilers.
- Adequate stacks height will be provided for better dispersion of flue gases.
- Online stack analyzers for monitoring of SOx, NOx, CO and PM emissions from furnaces/boilers.
- Installation of internal floating roof with double seals in all Class-A tanks for reduction of fugitive emissions.
- Provision of mechanical seals in all the hydrocarbon pumps for reduction of fugitive emissions.
- LDAR surveys will be carried out periodically.

Details of Solid waste/ Hazardous waste generation and its management

- Used Lubricating oil will be collected in metal drums kept in secured area and will be recycled/disposed through authorized recyclers.
- Discarded containers/barrels/ liners contaminated with hazardous waste - Will be disposed as per Hazardous Waste Rules, 2016.
- Spent catalyst will be disposed through authorized recyclers.

- Hazardous waste and salt from ZLD plant from proposed project will be disposed off to nearest Treatment, Storage and Disposal Facility (TSDF).
- Oily chemical sludge will be routed to Delayed Coker Unit (DCU)/bio-remediated/co-processed.
- Salts from ZLD plant will be disposed to nearest TSDF facility.

Total land of 1015 Hectares (Refinery – 774 Ha and Bina Dispatch Terminal – 241 Ha) is under possession of the company. No additional land is required for proposed expansion of refinery with petrochemical complex.

During deliberations, EAC discussed following issues:

- PP informed that after considering the water conservation method, they have reduced the water requirement by 7% (94440 m3/day) through various optimization measures.
- PP informed that by taking control measures such as maximizing low Sulphur Fuel firing, Installing modern Low NO_x Burners for Crackers Heaters & Utility Boilers/CDU VDU, stack heights shall be increased for Utility Boilers, Cracker Heaters and CDU/VDU unit heaters, incremental GLC of SO2 has been reduced from 28.4 $\mu g/m^3$ to 5.94 $\mu g/m^3$ and NOx has been reduced from 38.3 $\mu g/m^3$ to 19.4 $\mu g/m^3$.

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: -

(i). This Environmental clearance is granted subject to final outcome of Hon'ble High Court.

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

of environmental management, and risk mitigation measures relating to the project shall be implemented. All public hearing issues shall be addressed as per timeline and budget (Rs. 30 Crores) submitted.

(iii). The National Emission Standards for Petroleum Oil Refinery issued by the Ministry vide G.S.R. 186(E) dated 18th March, 2008 and G.S.R.595(E) dated 21st August, 2009 as amended from time to time, shall be followed.

(iv). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. For emission control and management, use of FG/NG in heater as fuel, adequate stack height, use of Low NOX burners in heater & boiler, continuous stack monitoring, Sulphur recovery plant, etc. shall be installed/ensured.

(v). Total fresh water requirement for the proposed project shall not exceed 94440 m3/day to be met from Betwa river. Necessary permission in this regard shall be obtained from the concerned regulatory authority. Entire effluent from the plant premises shall be treated and recycled/reused for make up water in process etc. and no waste or treated water shall be discharged outside the premises. Domestic sewage shall be treated in the STP.

(vi). Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme.

(vii). Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

(viii). Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.

(ix). Industry shall reduce SO2 and NOx emissions by maximizing low Sulphur Fuel firing, Installing modern Low NO_x Burners for Crackers Heaters & Utility Boilers/CDU VDU, stack heights shall be increased for Utility Boilers, Cracker Heaters and CDU/VDU unit heaters.

(x). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.

(xi). Study on Lifecycle assessment for Bitumen , Benzene, Toluene and Xylene (BTX) shall be instituted to understand the environmental

impacts associated with all stages of the cycle of these products being hazardous and highly toxic for human exposure. Report be submitted to the Regional Office of MoEF&CC.

(xii). Regular VOC monitoring shall be done at vulnerable points

(xiii). Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided. The ash from boiler shall be sold to brick manufacturers/cement industry.

(xiv). The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system.

(xv). Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.

(xvi). The company shall undertake waste minimization measures as below:

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

(xvii). The green belt of 5-10 m width shall be developed in the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. The project proponent shall ensure 33% greenbelt area vis-à-vis the project area through afforestation in the degraded area. The Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

(xviii). Additional Green Belt Area in 90 ha area instead of 65 ha as originally proposed shall be developed outside the Project boundary in consultation with Forest Department. This would make the total greenbelt area as 37.43 % of the project area.

(xix). PP will also take guidance of Forest Department to further enhance the density of trees in existing greenbelt area.

(xx). As per the Ministry's OM dated 30.09.2020 superseding the OM dated

01.05.2018 regarding the Corporate Environmental Responsibility, 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.

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

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

(xxiii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.

(xxiv). The project proponent shall ensure 70% of the employment to the local people, as per the applicable law. The project proponent shall set up a skill development center/provide skill development training to village people.

(xxv). PP to set up occupational health Centre for surveillance of the worker's health within and outside the plant on a regular basis. 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. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

(xxvi). Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be

undertaken/implemented accordingly.

(xxvii). The National Emission Standards for Petrochemical (Basic & Intermediates) issued by the Ministry vide G.S.R. 820 (E) dated 9th November, 2012 as amended time to time shall be followed.

(xxviii). Recommendations of mitigation measures from possible accident shall be implemented based on Risk Assessment studies conducted for worst case scenarios using latest techniques.

(xxix). The project proponent shall develop R& D facilities to develop their own technologies for propylene and polypropylene processing.

(xxx). 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.

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

Agenda No. 6

Proposal for establishment of Grain based distillery plant of capacity – 250 KLD along with Co Gen Power of 5.0 MW at Plot no – 24, Industrial Estate, Sahar Logate, District – Kathua, (J&K) by M/s Shree Katyani Metal Pvt. Ltd. – Re-consideration of Environmental Clearance
[IA/JK/IND2/291084/2022, IA-J11011/353/2022-IA-II(I)]

The proposal was earlier considered by the EAC (Ind-2) in its EAC meeting/meeting IDIA/IND2/13348/0/2022 held during 10.10.2022 wherein EAC deferred the proposal and desired certain requisite information/inputs. After submission of ADS reply by Project Proponent, proposal was again considered in EAC meeting (Meeting ID: IA/IND2/13360/20/10/2022) held on 20th October, 2022. Information desired by EAC and responses submitted

by the project proponent along with remarks of EAC as discussed in meeting are as follows:

S.No	ADS by MOEFCC	Reply of PP	Remarks by EAC
1.	PP shall obtain NOC, which mentions HFL of the streams & RL as per OM dated 14th February 2022. The Committee noted that the proposed site is located nearby streams. However, it was noted that HFL is not mentioned in the NOC and altitude of the project site from MSL, which are essential for ascertaining the flood plain of the location. In this regard, EAC suggested PP to bring the details of HFL from State Irrigation Department in writing & altitude of the proposed site from the land and revenue Department.	HFL certificate and Reference Level along with project site elevation level is obtained from Executive Engineer Flood Control Division, Kathua (J&K) vide letter no FCDK/6329 dated 12.10.2022.	EAC was satisfied with the response and details presented by the PP.
2.	Also, EAC noted that encroachment of water bodies is being done. EAC suggested to construct dyke/concrete/RCC wall to protect the project site from flood as no. of streams are adjacent to project site as seen in kml file. Also, PP shall submit	SICOP (A government body) already made provision and given commitment letter to Industry for RCC compound wall on the east side of the industrial estate facing the nallah, Spur (07 Nos) and RCC retaining	EAC was satisfied with the response and details presented by the PP.

	action plan for protecting their block from natural disaster like flood or cloud burst. Buffer land of 50 m shall be provided from the drain boundary to plant boundary followed by strong retaining wall, which must be designed for high flood level.	wall for diversion of rainwater vide SICOP/PM/IID/K/442 dated 11/10/2022. HFL of project site 436.5 meter and proposed site elevation level is 439.5 meters above mean sea level. It shows that, project site is 03 meter above from high flood level. Although as plan for natural disaster like flood or cloudburst situation, Industry will provide buffer land of 50 m from drain boundary to plant boundary followed by strong retaining wall of height 3 meter from Site level.	
3.	Source of secondary data for baseline concentration shall be clarified and submitted in writing.	Baseline concentration for PM_{10}, $PM_{2.5}$, SO_2 & NO_2 has been taken from Industrial monitoring report of Industrial Estate situated at Kathua distance of 6.0 km in south east direction.	EAC was satisfied with the response and details presented by the PP.

The project proponent and the accredited Consultant M/s. Environmental and Technical Research Centre (NABET certificate no. NABET/EIA/1922/IA0050 and validity 1 November 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 250 KLPD Grain

based Ethanol Plant 5.0 MW Co-generation power plant (Biomass / Coal) located at Plot no – 24, Industrial Estate, Sahar Logate, District Kathua, (J&K) by M/s Shree Katyani Metal Pvt. Ltd.

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

The details of products and capacity as under:

S.No	Name of unit	Name of the product / by -product	Production capacity
1.	Distillery	Ethanol	250 KLD
2.	Co-generation power plant	Power	5.0 MW
3.	DWGS dryer	DDGS	118 TPD
4.	Fermentation unit	Carbon di-oxide	175 TPD

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

Total land area required is 5.0 Hectares. Greenbelt will be developed in total area of 1.72 Hectares i.e., 33% of total project area. The estimated project cost is Rs. 285 Crores. Capital cost of EMP would be Rs.36.36 Crores and recurring cost for EMP would be Rs. 3.94 Crores per annum. Industry proposes to allocate Rs. 2.75 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 150 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance.

Water bodies: Ujh River is at a distance of 8.30 Km in West direction, Jasrota Left Canal is at a distance of 2.43 km in South direction. Proposed site is located nearby streams. HFL certificate and Reference Level along with project site elevation level is obtained from Executive Engineer Flood Control Division, Kathua (J&K) vide letter no FCDK/6329 dated 12.10.2022. HFL of project site 436.5 meter and proposed site elevation level is 439.5 meters above mean sea level. It shows that, project site is 03 meter above from high flood level.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.57 µg/m^3, 1.38 µg/m^3, 3.07 µg/m^3 and 4.22 µg/$m^3$with respect to PM_{10}, $PM_{2.5}$, SO_2 and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 1025 m^3 /day, which will be met from ground water. Application for NOC has been submitted to Public Health Engineering Department dated 15/09/2022. Effluent (Condensate/spent lees/blowdown etc.) of 1349 m^3 /day quantity will be treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 1600 KLPD. Raw stillage (1450 KLPD: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 20 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3.670 MW and will be met from proposed 5.0 MW co-generation power plant. 45 TPH Rice Husk / Coal fired boiler will be installed. ESP with a stack height of 72 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3 for the proposed boiler. 1000 kVA DG set will be used as standby during power failure and stack height (6.3 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- Electrostatic Precipitator with a stack height of 72 meters will be

installed for controlling the particulate emissions.

- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2 (175 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (118 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (biomass ash 7 TPD & coal ash 52 TPD) will be utilized for brick manufacturing in proposed in-house brick manufacturing unit.
- Used oil (1.1 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (1.7 TPD) and STP Sludge (0.06 TPD) will be used as manure.

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

Total land of 5.0 Hectares (1.72 Acre) is under possession of the company and Jammu & Kashmir Small Scale Industries Development Corporation Limited (SICOP) allotted the industrial land for proposed distillery vide letter no : SICOP/2022/1630-38 dated 15.02.2022. Land use of the proposed site is industrial as it is situated in Industrial area. EAC found the information satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his

knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

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

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

(i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 250 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the

requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

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

(iii). RCC compound wall on the east side of the industrial estate facing the nallah, Spur (07 Nos) and RCC retaining wall for diversion of rainwater shall be constructed. Buffer land of 50 m shall be provided from the drain boundary to plant boundary followed by strong retaining wall, which must be designed for high flood level. 50 m wide greenbelt shall be provided in the buffer area. PP shall ensure that in no case, untreated /treated effluent shall be discharged into the water bodies.

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

(v). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

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

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

(viii). Electrostatic precipitator (5 field & 99.9 % efficiency) with a stack height of 72 meters will be installed with 45 TPH Rice Husk / Coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3. SO_2 and NOx emissions shall be less than 100 mg/Nm3.At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

(ix). Boiler ash (biomass ash 7 TPD & coal ash 52 TPD) will be utilized for brick manufacturing in proposed in-house brick manufacturing unit. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(x). CO_2 (175 TPD) generated during the fermentation process will be collected by utilizing CO_2 scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

(xi). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the

duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

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

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

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

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

(xvi). The green belt of at least 5-10 m width shall be developed in nearly 1.72 Hectares i.e., 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant. No trees shall be cut as part of construction.

(xvii). PP proposed to allocate Rs. 2.75 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms,

playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

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

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

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

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

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

Agenda No. 7

Proposed 100 KLD Grain based Ethanol Plant with Zero effluent discharge and Captive Power Co-generation of 3.0 MW at Village: Chacherbeng, Po: NunhadVai/Ps/Block & Tehsil: Belpada, District: Bolangir, Odisha by M/s. Maa Bhawani Gintech Pvt. Ltd – Consideration of Environmental Clearance

[**IA/OR/IND2/400425/2022**; **IA-J/11011/373/2022-IA -II(I)]**

The Project Proponent and the accredited Consultant M/s. Ecomen Laboratories Pvt. Ltd., Lucknow (NABET Certificate No.: NABET/EIA/2023/RA 0203 Valid till September 21, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 100 KLD Grain based Ethanol plant along with 3.0 MW Co-Generation Power Plant (biomass/coal based) located at Village Chacherbeng, PO NunhadVai/Ps/Block & Tehsil Belpada, District Bolangir, State Odisha by M/s. Maa Bhawani GintechPvt. Ltd.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by-product	Production capacity
1.	Distillery (Grain-broken rice)	Ethanol	100 KLPD
2.	Co-generation power plant	Power	3.0 MW
3.	DWGS dryer	DDGS	48 TPD
4.	Fermentation unit	Carbon Di-oxide	76 TPD

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

Total land area required is 4.84004 hectares. Greenbelt will be developed in total area of 1.59446 hectares i.e., 33% of total project area. The estimated project cost is Rs. 136.50 Crores. Capital cost of EMP would be Rs. 28.50 Crores and recurring cost for EMP would be Rs. 0.51 Crores per annum. Industry proposes to allocate Rs. 1.3650 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 158 persons as direct & indirect.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Eco-sensitive Zone etc. within 10 km distance from the Project Site. Following RF are located within 10 km radius area. Reserved Forests: Ramurh RF 4.4km (SW), Babder-l RF 6.5km (NW), Bander-ll RF 7.4 km (NW), Bhutikudari RF 9.3 km (NE). Water Bodies: Laul River is at a distance of approx. 0.05 Km in South direction, Dharlujoris at a distance of approx. 2.8 km in West direction, Sautenjoris at a distance of approx. 6.8 km in East direction, Jabra joris at a distance of approx. 4.6 km in South-East direction. NOC has been obtained for Laul River from Superintending Engineer stating that there is no river/ river flood plain near

the site and the proposed plant and machinery area is located outside the river flood plain.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.01 to 0.2 µg/m^3, 0.01 to 0.40 µg/m^3 and 0.12 to 0.32 µg/m^3 with respect to $PM_{2.5,}$ $PM_{10}$and SO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 495 KLD which will be sourced from ground water. Application of Ground water withdrawal permission for 495 KLD is submitted to CGWA, Ministry of Jal Shakti, Dept. of Water Resource, GOI vide NOC No: 21-4/4213/OR/IND/2022 dated 9 September, 2022. Certificate for Exemption for 9 KLD Ground water withdrawal has been already taken from CGWA, Ministry of Jal Shakti, Dept. of Water Resource, GOI vide NOC No: 21-4/4032/OR/IND/2022.Effluent (Condensate/spent lees) of 460 KLD quantity will be treated through Condensate Polishing Unit of capacity 570 KLD. Raw stillage (spent wash from distillation) will be sent to the decanter followed by MEE and dryer to produce DDGS. ETP of 750 KLD & STP of capacity 10 KLD will be installed to treat boiler blowdown cooling tower blow down, RO water reject, lab reject, soft water reject and domestic sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3.0 MW and will be met from proposed 3.0 MW Co- Generation Power Plant. 25 TPH rice husk/coal fired boiler will be installed. Bag filter & stack height 45 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm3for the proposed boiler.1 x 500 KVA DG sets will be used as standby during power failure with stack height (12 m) of proposed DG set will be provided as per CPCB norms.

Details of process emissions generation and its management

- Bag filter & stack height 45 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm3for the proposed boiler.

- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2(76 TPD) generatedduringthefermentationprocesswillberecoveredbyCO_2Scrubbersa ndsoldtobeverage&packagingindustry.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) 48 TPD will be used as cattle feed.
- Ash from the boiler will be given to brick manufacturing unit.
- Yeast sludge will be added to wet cake.
- Used oil & grease generated from plant machinery/gear boxes as hazardous waste will stored in covered HDPE drums in a designated area and to be sold out to CPCB authorized vendors
- ETP/STP sludge will be dewatered in filter press and will be disposed off as per applicable norms.

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

Total land of 4.84004 Hectares land is under possession of the company and land use conversion has been completed dated 23.03.2021. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- During presentation, PP was not able to produce land ownership papers i.e. registered sale deed and tried to convince that they have lease deed without proper registration with the land revenue department. The Committee suggested that without proper duly registered land ownership documents, the case cannot be considered.
- NOC from Irrigation department has been obtained for Lanth River whereas as per the application submitted on the PARIVESH portal, the name of river is Laul river. The committee desired that correct document indicating Laul River as well as the name of company to be

submitted.

- The committee noted that as per the documents submitted by PP mentions that river is 50 m away from the project site. However, during presentation, PP presented that river is 20 m away from the project site. It was felt that the proposed location of the site is surrounded by the river which is meandering. So, the site does not appear to be suitable for the proposed project and no justification was also provided by PP for selecting the site very close to the river. So, the committee suggested them to select some suitable site which is away from the river.

Accordingly, proposal was returned in the present form.

Agenda No. 8

Expansion of Molasses or Sugar syrup or Sugarcane juice based distillery from 60 KLPD to 150 KLPD at Village Vilasnagar, Chincholiraowadi Tal. & Dist. - Latur, Maharashtra by M/s. Vikasratna Vilasrao Deshmukh Manjara Shetkari Sahakari Sakhar Karkhana Ltd. Consideration of Environmental Clearance

[IA/MH/IND2/400571/2022,J-11011/652/2009-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 December 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of existing distillery unit from 60 KLPD to 150 KLPDlocated at Village Vilasnagar, Tehsil Chincholiraowadi, District Latur, State Maharashtra by M/s. Vikasratna Vilasrao Deshmukh Manjara Shetkari Sahakari Sakhar Karkhana Ltd.(VVDMSSSKL).

As per EIA Notification 2006 (Schedule 5 (g) Category A);however,as per in theMoEFCC Notification S.O. 345(E), dated the 17thJanuary, 2019, notification number S.O.750(E), dated the 17thFebruary, 2020, S.O. 980 (E) dated 02ndMarch, 2021 & S. No.2339(E) 16thJune, 2021, a special provision

in the EIA Notification, 2006 "Expansion ofsugarmanufacturingunitsordistilleriesforproductionofethanol,havingPriorEnvironment Clearance (EC) for existing unit, to be used completely for Ethanol BlendedPetrol(EBP)Programmeonly,asperself-certificationinformofanaffidavitbytheProjectProponent,shallbeappraisedascategory'B2'projects.

Thedetailsofproductsandcapacityasunder:

S. No.	Nameofunit	Name of theproduct/by-product	ExistingProductioncapacity	Additional productioncapacity	Totalproductioncapacity
1	Distillery (Molasses or Sugar syrup or Sugarcane juice)	Ethanol	60 KLPD	90 KLPD	150 KLPD
2	Fermentation unit	Carbon di-oxide	~ 46 TPD	~ 69 TPD	115 TPD
3	Dryer (ATFD/spray dryer)	Conc. spentwashpowder	-	54 TPD	54 TPD

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 60 KLPD vide File No. J-11011/652/2009-IA-II (I) dated 26.07.2011 and Consent No.: Format-1.0/CAC/UAN No. MPCB-CONSENT-0000115732/CO-2110000090 dated 04.10.2021. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Nagpur vide File no. 5-60/2011(ENV)-NGP/10314 dated 19.09.2022. Action Taken Report has been submitted to IRO, MOEFCC, Nagpur dated21.09.2022 for partial compliances and non- compliances related to submission of six-monthly compliance report and financial closure/ final approval not submitted to the Ministry and only 1 piezometer has been installed whereas 2-3 piezometers shall be installed in and around project area. EAC was satisfied with the response provided by PP.

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

Totalplant area after expansion will be 25.35 Ha (existing plant area 14.50 Hectares and additional land required 10.85 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, 9.0 Hectares i.e. 35.50% is reserved for greenbelt development, out of which 5.17 ha. land is already developed as greenbelt & plantation and the same will be maintained. Remaining 3.83 Ha will be developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 125.74 Crores. Capital cost of EMP would be Rs. 45.03 Crores and recurring cost for EMP would be Rs. 88 Lakhs per annum. Industry proposes to allocate Rs. 1.5Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansionwillbe 92personsasdirect&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 Harangul Bk. at a distance of 3 km towards North-East direction.Waterbodies:Nearest major water body is Tawarja Dam (medium scale reservoir) at a distance of 8 km towards South-West direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs of PM_{10}, $PM_{2.5}$ and SO_2 after the proposed project would be 0.05 µg/m^3, 0.1 µg/m^3 and 1.05µg/m^3 respectively. The resultant concentrations are within the National Ambient Air Quality Standards(NAAQS).

Total fresh water requirement after expansion will be 600m^3/day which will be met from Tawarja Dam. Application for additional water drawl permission has been submitted to Latur irrigation department on 01 September 2022. Effluent generation after expansion will be 1080 m3/day from distillery

which will be treated through upgraded Condensate Polishing Unitof capacity 1200 m3/day.In molasses based operation, spent wash generated from the analyzer column during distillation will be treated in biomethanation unit and concentrated in Multi Effect Evaporator andconcentrated spent wash will be converted into powder form by spray dryer/ATFD technology and will begiventofarmers or fertilizer manufacturerinpackedform.Domestic waste water will be treated in proposed STP of capacity 50 m^3/day. The plant is being/will be based on Zero Liquid dischargesystem and treated effluent will not be discharged outside the factorypremises.

Total power requirement of distillery after expansion will be 3.0 MW whichwill be sourced from proposed 3 MW co-generation power plant. New 35 TPH bagasse fired boiler will be installed to source the steam and power requirement after expansion.Separate Electrostatic precipitator (ESP) as APCE withexisting stackof 65 m height will be used for controlling the particulate emissions within the statutory limit of 50 mg/Nm3.Industryhas made provision of DG set in sugar unit. It will be used as a standby during power failure. DG set stack height (5m)provided as per CPCB norms.

DetailsofProcessemissionsgenerationanditsmanagement

- Separate Electrostatic precipitator (ESP) with existing stack of 65 m height for proposed 35 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm3.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data is transmitted to CPCB/SPCB servers.
- CO2 (115 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and sold to authorized vendors/converted to dry ice/ used in bottling unit.
- 48,000 m3/day Biogas will be generated (when distillery operated on B-heavy molasses as a feedstock) of which 20,600 m3/day converted in 8 TPD CBG Plant, 15,600 m3/day utilized for spray dryer plant and balance 11,800 m3/day utilized for proposed 35 TPH boiler (along with bagasse)

Detailsofsolidwaste/Hazardouswastegenerationanditsmanagement

- Concentrated spent wash (120 m3/day) will be converted to powder

by ATFD or spray dryer. Spent wash powder to be used as a manure.

- Boiler ash (7.5 TPD) is being/will be will be given tofarmerstomixed into soil as it is rich in potash.
- CPU sludge 3.0 TPD and Yeastsludge(4TPD)is being/will be dried and mixed into soil.

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

Dr. Sanjay Patil, Member (EAC) recused himself from the appraisal of the Agenda No. 8 held on 20th October, 2022 similar to the earlier cases as Vasantada Sugar Institute, Pune is involved as the environmental consultant in this project proposal.

During deliberations, EAC discussed following issues:

- As per CCR submitted, there is one partial compliance related to installation of piezometers, hence PP shall commit that piezometers will be installed within 2-3 days and photographs of the same shall be submitted.
- Increase CER budget to Rs. 1.5 Crores. Revised cost and activities shall be submitted.
- PP shall commit that 18% parking area shall be provided out of total project area.

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

INFORMATION NOT RECEIVED YET.

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

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

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

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

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

(i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the expanded capacity of 90 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently

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

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

(iii). NOC from the Concerned Local authority for surface water supply shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

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

(v). Concentrated spent wash will be dried to form powder. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment (Condensate Polishing Unit). Treated effluent will be recycled/reused for make up water of cooling towers/process etc. and no waste or treated water shall be discharged outside the premises. STP shall be installed to treat the sewage generated from factory premises.

(vi). ESP (5 field & 99.9% efficiency) & stack height of 65 m will be provided with 35TPHbagassefiredboiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3. At no time, the emission levels

shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

(vii). Boiler ash (7.5 TPD) is being/will be will be given tofarmerstomixed into soil as it is rich in potash. 20% biomass pellets shall be used as fuel in boiler. PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(viii). CO2 (115 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and sold to authorized vendors/converted to dry ice/ used in bottling unit.

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

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

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

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

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

(xiv). The green belt of at least 5-10 m width shall be developed in nearly 9.0 Hectares i.e. 35.50% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant.

(xv). PP proposed to allocate Rs. 1.5 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

(xvi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 18% shall be allotted solely for parking purposes with facilities like rest rooms etc.

(xvii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in

covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xviii). Continuous online (24x7) monitoring system for stack emissions/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.

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

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

Agenda No. 9

Proposed 100 KLPD Grain based Ethanol plant along with 3.0 MW Cogeneration Power Plant at Village Podabahal, Tehsil & District Sundargarh, Odisha by M/s Vibrant Spirits Private Limited- Consideration of Environmental Clearance

[IA/OR/IND2/402465/2022, IA-J-11011/438/2022-IA-II(I)]

The Project Proponent and the accredited Consultant J.M. EnviroNet Pvt Ltd. (NABET certificate no. NABET/EIA/2023/SA 0172 and validity till 7th August, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for Proposed 100 KLPD Grain based Ethanol plant along with 3.0 MW Co-generation Power Plant at Village Podabahal, Tehsil & District Sundargarh, State Odisha by M/s Vibrant Spirits Private Limited.

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

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/ by-product	Production capacity
1.	Distillery	Ethanol	100 KLPD
2.	Co-generation power plant	Power	3.0 MW
3.	DWGS dryer	DDGS	45 TPD
4.	Fermentation unit	Carbon di-oxide	75 TPD

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

Total land area required is 8.90 hectares. Greenbelt will be developed in total area of 2.94 hectares i.e., 33 % of total project area. The estimated project cost is Rs. 100 Crores. Capital cost of EMP would be Rs. 13.95 Crores and recurring cost for EMP would be Rs. 1.0 Crores per annum. Industry proposes to allocate additional Rs. 1.0 Crores towards Extended EMP

(Corporate Environment Responsibility). Total Employment will be 90 persons as direct.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. present within 10 km distance. Reserved Forest (RF) -Deuli RF is at a distance of 1.8 km in SSE direction, Jamatalia RF is at a distance of 6.2 km in SE direction, KachlaDungri RF is at a distance of 8.0 km in WSW direction &Satparlia RF is at a distance of 9.5 km in NE direction. Protected Forest- Tangarpali PF is at a distance of 8.5 km in NW direction &Barabanga PF is at a distance of 9.5 km in WNW direction. Water bodies: IB river is at a distance of 2.3 km in NW direction, IchhaNadi is at a distance of 3.4 km in west direction, Gai Jor is at a distance of 3.4 km in East direction, TangarJor is at a distance of 4.5 km in East direction, Sapai River is at a distance of 4.6 km in SSE direction, GhuraliJor is at a distance of 6.3 km in ESE direction, Karli Jhor is at a distance of 6.5 km in SW direction, Tamga river is at a distance of 7.5 km in WNW direction, Mahi Jor is at a distance of 7.9 km in North direction, Sankarjor is at a distance of 8.0 km in North direction, BhurkaJor is at a distance of 9.0 km in SE direction & Medinipur Nala is at a distance of 9.0 km in SE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.415 µg/m3, 0.727 µg/m3 and 0.882 µg/m3 with respect to PM, SO2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 415 m3/day which will be met from Surface water (IB River). NOC has been obtained from IPICOL vide. No. : GM/SLNA/VSPL/337/21/ dated 07.12.2021. Effluent (Condensate/spent lees/blowdown etc.) of 407 m3/day will be treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 500 KLPD. Raw stillage (603 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 15 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 3.0 MW and will be met from proposed 3.0 MW Co-generation power plant. 30 TPH Biomass/ Coal fired boiler will be installed. APCE ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm3 for the proposed boiler. A 1000 kVA DG set will be used as standby during power failure and stack height (7 m) will be provided as per CPCB norms to the proposed DG set.

Details of Process emissions generation and its management

- APCE ESP with a stack height of 60 meters will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm3 for the proposed boiler.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 (75 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and it shall be sold to authorized vendors.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (45 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (55 TPD) generated during coal based operations will be given to cement manufactures & during biomass based (30 TPD) operations will be given to brick manufacturers in covered vehicles. PP shall also install brick manufacturing unit inside plant premises.
- Used oil (0.3 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (0.5 TPD) and STP Sludge (0.0075TPD) will be used as manure.

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

Total land of 8.90 Hectares is under possession of the company. The land has been allotted by Odisha Industrial Infrastructure Development

Corporation (IDCO) in Village Podabahal, Tehsil & District Sundargarh and is already industrial land vide letter no. IDCO/P&A/LAE/8207/2021/ 697 dated 11.01.2022&IDCO:HO:P&A:LA-E/8207/2021/20882 dated 17.08.2022 for establishment of industry. EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- PP shall commit to install brick manufacturing unit for utilization of fly ash. PP has committed the same.
- PP shall commit that industry shall maintain the village road/approach road to project site. PP has committed the same.
- PP shall commit that fresh water consumption shall not exceed 4 KL/KL. Revised water balance shall be provided. PP has submitted the reduced fresh water consumption from 540 KLPD to 415 KLPD wherein 15 KLPD will be domestic fresh water requirement and 400 KLPD will be used for distillery process.

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

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

The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made

due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

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

(i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

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

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

(iv). NOC from concerned Department for surface water supply shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

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

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

(vii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 60 meters will be installed with 30 TPH Biomass/ Coal fired boilerfor controlling the particulate emissions within the statutory limit of 30 mg/Nm^3. SO_2 and NOx emissions shall be less than 100 mg/Nm3.At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

(viii). Boiler ash (55 TPD) generated during coal based operations will be given to cement manufactures & during biomass based (30 TPD) operations will be given to brick manufacturers in covered vehicles. PP shall also install brick manufacturing unit inside plant premises.PP shall use biomass like rice husk/bagasse as fuel for the proposed boiler. 20% biomass pellets shall be used as fuel. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(ix). CO2 (75 TPD) generated during the fermentation process will be collected by utilizing CO2 scrubbers and it shall be sold to authorized vendors.

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

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

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

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

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

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

(xv). The green belt of at least 5-10 m width shall be developed in nearly 2.94 hectares i.e., 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant. No trees shall be cut as part of construction.

(xvi). PP proposed to allocate Rs. 1.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

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

(xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind

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

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

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

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

Agenda No. 10

Proposed 80 KLPD Grain Based Distillery along with 2.8 MW Co-generation Power Plant under Ethanol Blended Petrol Programme (EBP) by Anfinite Bioenergy Pvt. Ltd. at Survey No. 330/1 and 330/2, Village-Sagadiyaw, Taluka Sanawad, District Khargone, Madhya Pradeshby M/s. Anfinite Bioenergy Pvt. Ltd.- Consideration of Environmental Clearance

[IA/MP/IND2/402202/2022; IA-J11011/430/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Ampl Environ Pvt. Ltd. (NABET certificate No. NABET/EIA/2023/IA0061 and validity 22nd October, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 80 KLPD Grain based Ethanol Plant & 2.8 MWCo-generation power plant located at Survey No. 330/1 and 330/2, Village Sagadiyaw, Tehsil Sanawad, District Khargone, State Madhya Pradeshby M/s. Anfinite Bioenergy Pvt. Ltd.

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

The details of products andcapacity as under:

S. No.	**Name of unit**	**Name of the product/by-product**	**Production capacity**
1	Distillery	Ethanol	80 KLPD
2	Co-generation power plant	Power	2.8 MW
3	DDGS dryer	DDGS	36 TPD
4	Fermentation unit	Carbon di-oxide	64 TPD

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

Total land area required is 4.5931 hectares. Greenbelt will be developed in total area of 1.6561 hectares i.e., 36% of total project area.The estimated project cost is Rs.111.65 Crores. Capital cost of EMP would be Rs.27.2877 Crores and recurring cost for EMP would be Rs.2.0917 Crores per annum. Industry proposes to allocate Rs.1.68 Crores towards Extended EMP(Corporate Environment Responsibility).Total Employment will be 80 persons as direct &indirect.

There are no national parks,wildlife sanctuaries,Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, protected forest etc. within 10 km distance. Reserve forest: Andariyavaoriya Reserve Forest is at distance of 1.79 km in SW direction, Sagariyan Reserve Forest is at distance of 0.68 km in NW direction and Chappra Reserve Forest is at distance of 5.64 km in West direction. Water bodies: Bakur River is at distance of 1.25 km in NE direction and Satsoi River is at distance of 3.6 km in NW direction. ISP Left Canal is at distance of 0.063 km in North direction for which NOC has been obtained from Narmada Valley Development Authority vide letter no: 1297/Karya/2022 dated: 29.09.2022.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.13 $\mu g/m^3$, 0.06 $\mu g/m^3$,5.31 $\mu g/m^3$and0.89 $\mu g/m^3$with respect to PM10,PM2.5,SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards(NAAQS).

Total fresh water requirement will be 319.92 KLD (3.99 KL/KL of alcohol Production) which will be met from Ground & ISP Left Canal water. Application has been submitted to CGWA Vide application number: 21-4/1569/MP/IND/2022 dated 26.09.2022 and to Indira Sagar Project Canal Department vide application dated. 26.08.2022. Effluent (Condensate/spent lees/dryer process condensate, sealing water etc.) of 532.08 m3/day quantity will be treated through Condensate Polishing Unit of capacity 650 CMD. Raw stillage (454 KLPD) will be sent to decanter followed by MEE and dryer to produce DDGS. STP will be installed to treat sewage generated from domestic activities. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 2.8 MW and will be met from proposed 2.8 MW Co- generation power plant.26 TPH Rice Husk/Coal fired boiler will be installed.ESP (5 field) with 99.9% efficiency with a stack height of 45m will be installed for controlling the particulate emissions within the statutory limit of 30mg/Nm3 for the proposed boiler. 2x 500 kVA DG set will be used as standby during power failure and stack height(4.5m to each DG set)will be provided as per CPCB norms to the proposed DGsets.

Details of Processemissionsgeneration and its management

- ESP (5 field) with 99.9% efficiency with a stack height of 45 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2(64TPD)generated during the fermentation process will be collected by utilizing CO2 scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (36 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (Biomass ash - 6.52 TPD& coal ash – 15.62 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.
- Used oil (0.2 Kilolitres per annum) will be sold to authorized recyclers.
- Sludge from Waste water treatment (0.04 TPD) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self- certification in the form of notarized affidavit declaring that the proposed capacity of 80 KLPD will be used for manufacturing fuel ethanol only.

Total land of 4.5931 Hectares is under possession of company and land use conversion application has been submitted to Revenue Department, Govt. of

Madhya Pradesh. For S. No 330/1 and 330/2; Vide application No: 2204 0591 833 dated 02/10/2022. And Vide application No: 2204 1617 732 dated 18/10/2022 respectively.EAC found the information satisfactory.

During deliberations, EAC discussed following issues:

- Commitment to obtain CLU certificate and Ground/ ISP Left Canal water withdrawal permission shall be obtained before start of construction activities. PP has committed the same.
- Incremental GLC of SO2 emissions have been taken as 5.31 µg/m^3which is on higher side· PP shall submit additional measures to reduce SO2 emissions. Recalculate incremental GLC of SO2 as pollutant. PP has submitted that company will provide ESP followed by flue gas desulphurization system using lime and efficiency of FGD will be 80%.

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

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

The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made

due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

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

(i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed capacity of 80 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

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

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

(iv). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

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

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

(vii). Electrostatic precipitator (5 field & 99.9% efficiency) with a stack height of 45 meters will be installed with 26TPH Rice Husk/Coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm^3. SO_2 and NOx emissions shall be less than 100 mg/Nm3. To control SO2 emissions, ESP followed by flue gas desulphurization system using lime and efficiency of FGD will be 80%. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the

respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

(viii). Boiler ash (Biomass ash - 6.52 TPD& coal ash – 15.62 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises.20% biomass pellets shall be used as fuel. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

(ix). CO2(64TPD)generatedduringthefermentationprocesswillbecollectedbyutilizingCO2scrubbersanditshallbesoldtoauthorizedvendors/collectedininstalledbottlingplant.

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

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

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

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

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

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

(xv). The green belt of at least 5-10 m width shall be developed in nearly 1.6561hectaresi.e.,36%of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant. No trees shall be cut as part of construction.

(xvi). PP proposed to allocate Rs. 1.68 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.

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

(xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall

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

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

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

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

Agenda No. 11

40 KLPD Grain based Ethanol Plant & 0.9 MW Co-generation power plant located at Village Karatagi, Tehsil Karatagi, District Koppal, State Karnataka by M/s. Tungabhadra Ethanol Private Limited- Consideration of Environmental Clearance

[IA/KA/IND2/289386/2022, IA-J 11011/326/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Enviro Resources (NABET certificate no. NABET/EIA/1922/SA0133 and validity 28th December 2022) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 40 KLPD Grain based Ethanol Plant & 0.9 MW Co-generation power plant (Rice Husk/Coal) located at Village Karatagi, Tehsil Karatagi, District Koppal, State Karnataka by M/s.Tungabhadra Ethanol Private Limited.

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

The details of products and capacity as under

Sl. No.	Name of unit	Name of the product/by-product	Production capacity
1	Distillery (grain)	Ethanol	40 KLPD
2	Co-generation power plant	Power	0.9 MW
3	DWGS dryer	DDGS	18 TPD
4	Fermentation unit	Carbon di-oxide	18 TPD

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

Total land area required is 1.618 hectares. Greenbelt will be developed in total area of 0.54 hectares i.e., 33.3% of total project area. The estimated

project cost is Rs. 57.38 Crores. Capital cost of EMP would be Rs. 3.75 Crores and recurring cost for EMP would be Rs. 0.22 Crores per annum. Industry proposes to allocateRs. 0.15 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 43 persons as direct & indirect.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4 $\mu g/m^3$, 1 $\mu g/m^3$ and 8 $\mu g/m^3$ with respect to PM10, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total freshwater requirement will be 256 CMD which will be met from SomanahalHalla. Application has been submitted to Irrigation Department, Raichur dated 4th August 2022. Effluent (Condensate/spent lees/blowdown etc.) of 293.7 CMD quantity will be treated through Effluent Treatment Plant of capacity 700 CMD. Raw stillage (274 KLPD: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. Domestic sewage will be sent to Septic tank followed by Multigrade Filter. STP will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement willbe 0.9 MW and will be met from proposed 0.9 MW co-generation power plant.10 TPH Rice husk/Coal fired boiler will be installed. APCE Bag Filter with a stack height of 30m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 for the proposed boiler. 1 X 325 kVA. DG set will be used as standby during power failure and stack height (10 m ARL) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- APCE Bag Filter with a stack height of 30 meters will be installedfor controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO_2 (18 TPD) generated during the fermentation process will be

collected and sold to authorized vendors.

PLEASE CLARIFY REGARDING CARBON DI-OXIDE DISPOSAL AS IT IS INFORMED THAT IT WILL BE DISPERSED IN THE ATMOSPHERE.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (18 TPD) will be sold as cattle feed.
- Boiler ash (10 TPD) will be sold to brick manufacturers.
- Used oil (0.23 Kilolitres per annum) will be sold to authorized recyclers.
- ETP sludge (1 TPD) will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self- certification in the form of notarized affidavit declaring that the proposed capacity of 40 KLPD will be used for manufacturing fuel ethanol only.

Total land of 1.618 Hectares is under possession of the company and land use conversion has been completed vide letter no. 273507 dated 30/03/2022. EAC found the information satisfactory.

During deliberations, EAC noted that land area is very less i.e. 1.618 Ha which is practically not feasible as the area is too less. Further, PP informed that they have 7 acres of land under possession whereas land use conversion has been completed for only 4 acres and remaining is under process. Therefore, Committee suggested to revise the proposal accordingly on PARIVESH portal for further consideration.

Accordingly, PP shall apply afresh with complete 7 acres land. Hence, proposal was **returned in present form**.

Agenda No. 12

Proposed CDU Revamp from Existing 1.0MMTPA to 1.2 MMTPA within the Existing Refinery Complex located at Village Noonmati, Tehsil

Guwahati, District Kamrup (Metro), State Assam by M/s. Indian Oil Corporation Limited, Guwahati Refinery (IOCL Guwahati refinery) - Consideration of Environmental Clearance
[IA/AS/IND2/263391/2019, J-11011/71/2012- IA II(I)]

The project proponent and the accredited consultant M/s. Hubert Enviro Care Systems (p) Limited (NABET certificate no. NABET/EIA/1922/RA0172 and validity till 03.01.2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project Proposed CDU Revamp from Existing 1.0 MMTPA to 1.2 MMTPA within the Existing Refinery Complex located at Village Noonmati, Tehsil Guwahati, District Kamrup (Metro), State Assam by M/s. Indian Oil Corporation Limited, Guwahati Refinery (IOCL Guwahati refinery)

All Products are listed at S.No. 4(a) Category 'A' – Petroleum Refining Industry as per EIA Notification 2006 and its Amendments] of Schedule of Environmental Impact Assessment (EIA) Notification under Category 'A' and are appraised by Central Level by Expert Appraisal Committee (EAC).

The details of product and capacity of Crude Distillation Unit as under:

S.No	Product/ By-product	Existing Quantity (kg/h)	Proposed Quantity (kg/h)	Total Quantity (kg/h)
1	LPG	1125.0	375	1500.0
2	Light Naphtha	8687.5	4232.5	12920.0
3	Reformer Naphtha	4500.0	5977.0	10477.0
4	Heavy Naphtha*	7625.0	-7625	-
5	Kero-I	13937.5	6762.5	20700.0
6	Kero-II	19437.5	-5237.5	14200.0
7	SR Gas Oil	18000.0	13900	31900.0
8	RCO	50500.0	7864	58364.0

Note: *HN product after revamp has not been envisaged.Existing product as - 8 Nos. Now proposed product is Nil whereas the quantity is to be increased.

Ministry has issued Environmental Clearance to the existing capacity 1 MMTPA. The latest Environmental Clearance obtained vide File no. J-11011/197/2017-IA II(I) dated 15.02.2021. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Guwahati vide File no. RO-NE/E/IA/AS/OR/29/2033-2035dated 28-02-2022. Action taken report has been submitted to IRO, MoEFCC, Received no 3010 dated 09-05-2022 for partial compliances. Certified Action Taken report has been obtained by IRO, MoEFCC, File No. RO-N E/E/lA/AS/OR/29/2982-2984 dated 06.09.2022.EAC was satisfied with the response provided by PP.

Standard Terms of Reference have been obtained vide F.No**.** J-11011/71/2012-IA II (I), dated 28.03.2019. It was informed that no litigation is pending against the project.

Public hearing for the proposed project had been conducted by the Assam Pollution Control Board on 05-10-2021 at L&D centre, Guwahati Refinery, Noonmati, Guwahati-781020 chaired by Additional Deputy Commissioner (ADC), Kamrup (M) District and SEE cum Regional Officer, Guwahati Regional Office, Pollution Control Board Assam. The main issues raised during the public hearing and their action plan:

Regarding a layer of black carbon (dust particles) is seen on the leaves and other surface during the winter season. Sometimes around 2.30-3.30 am (at night), some smell of obnoxious gas emission. He also stated that approximately 10,000 ltrs water is discharged near his residence. He has requested the concerned authorities to take the necessary actions for control of the probable pollution due to expansion of production capacity from 1.00 MMTPA to 1.2 MMPTA.

Regarding Human Resource should not be affected due to the proposed expansion because health is wealth. Therefore, at the cost of health no wealth or development is expected. He told that they are laymen and they are not aware and have lack of knowledge regarding means to control and

about pollution control board and other concerned government department should advice the Guwahati refinery by adopting appropriate mitigating measures. He has requested that in future also people, and public should be informed before taking such initiatives.

Please discuss PH issues as no action plan has been provided in brief.

Total plant area after expansion will be 198.29 Hectares same as existing which is under possession of the company. 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 167.45ha i.e. 34.173% of the total plant area has already been developed as greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 30.01 Crores. Capital cost of EMP would be Nil and recurring cost of EMP would be Rs. 1.65 Crores per annum. Industry proposes to allocate Rs.0.3 Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be 1854 persons as direct & indirect.

There are no national parks, Biosphere reserves, Tiger/ Elephant reserves, Wild life corridors, etc within 10 km distance. There are 7 Reserve forests within 10 km distance, Anchang RF is at a distance of ~3.04 km in the East direction, Amchang wildlife sanctuary core is at a distance of ~3.41 km in the East direction, Khanapara RF is at a distance of ~6.38 km in the South East direction, Mylliem RF is at a distance of ~7.06 km in the South direction, Phatasil RF is at a distance of ~7.81 km in the WSW direction, Dridheswar RF is at a distance of ~8.07 km in the NNW direction ,Garbhanga RF is at a direction of ~8.25 km in the South direction.

The Amchang Wildlife Sanctuary ESZ is at a distance of ~3.04 km in East direction from project site. The DeeparBeel Wildlife Sanctuary ESZ is at a distance of ~10.68km in SSW direction from project site. There is one Assam state zoo cum botanical garden is at a distance of~1.19 km in the South- South West direction. The project site is located ~3.04 km from notified ESZ. Conservation plan for Schedule I species has been submitted to

The Divisional Forest Officer dated 20.04.2022 and a budget of 0.10Crores has been earmarked for the same.

There are 2 rivers within 10 km boundary, Brahmaputra river is at distance of ~2.08 km in the north direction, Basistha/Barapani river is at a distance of ~4.87 km in the SSW direction.There are 17 waterbodies within 10 km boundary and the water bodies are separated into 2 categories like Nala and Nadi. Bond nala is at distance of ~2.03 km in the East direction, Moralouralunala is at a distance of ~6.63 km in the WSW direction, Gorpurinala is at a distance of ~7.46 km in the NNW direction, Bardongnala is at a distance of ~8.05 km in the South East direction, Godiabil Nala is at a distance of ~9.76 km in the north direction, Bhiralu nadi is at a distance of ~2.90km in the South east direction, Amchang Nadi is at a distance of ~3.72 km in the South direction, Dawdhara is at a distance of ~ 6.27 km in the SSE direction, Langmepa Nadi is at a distance of ~6.33 km in the East direction, bar Nadi is at a distance of ~6.43km in the NNW direction, Bahini Nadi is at a distance of ~6.43 km in the South dirction. Motbhanangadong Nadi is at a distance of ~7.86km in the South East direction, Mairangka Nadi is at a distance of ~7.91km in the SSE direction, SilguriNadi is at a distance of ~7.97km in the North West direction, jojoanadi is at a distance of ~9.27km in the South West direction, Nana nadi is at a distance of ~9.52 km in the direction of NNE direction.

Ambient air quality monitoring was carried out at 8 locations during March (2018) to May(2018) and in addition to that 1 month validation has been done during the period March 2022 and the baseline data indicates the ranges of concentration as PM_{10} (43.5– 71.7µg/m³),$PM_{2.5}$ (21.4- 39.4µg/m³), SO_2 (8.9-16.4µg/m³), NOx (18.4 – 34.1µg/m³), all the parameters are well within the prescribed National Ambient Air Quality Standards at all monitoring locations during the study period. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 74.89 µg/m3, 34.04 µg/m3, 46.19 µg/m3 and 703.9µg/m3with respect to PM, SO_2, NO_x and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total Fresh water requirement will be 3792 m³/day which will be met from River Brahmaputra (through pipeline from Brahmaputra River barrage which is ~5 km away from the project site). NOC has been obtained by Water Resources Department vide letter no. WR(ED)Tech/2336/1989/Pt-III/47 dated 16.09.2022.Existing Effluent generation is 3768m³/day quantity which is treated through Effluent Treatment plant of capacity 13200 m3/d (wet weather flow), 8760 m3/d (dry weather flow).Proposed Effluent generation will be 96 m³/day quantity which will be treated through existing Effluent Treatment plant. There is no STP provided. Domestic waste water is/ being will be treated in existing ETPof capacity 13200 m3/d (wet weather flow), 8760 m3/d (dry weather flow).The plant is being discharging 72m3/d into Brahmaputra River (Existing).The plant will be based on Zero Liquid discharge system and treated effluentwill not be discharged outside the factory premises.Reservoir pond of capacity25000 m^3 is proposed.

Total power requirement after expansion will be 17.308 MW which will be sourced from existing Internal-Captive power plant. Existing unit has, Boiler5 - 40 TPH, Boiler 6 &7- 50TPH each and Boiler 3&4 -20TPH each fired boiler. There is no additional boiler proposed. APCE for 3 no of boiler with a stack of height of 58m, 55m& 30m is installed with the existing boiler for controlling the particulate emission within the statutory limit of 50 mg/Nm³.There is no boiler &DG sets proposed as part of expansion.

Details of process emissions generation and its management

Process emission generation

- Proposed CDU-C1-A stack with the height of 46.3 m and the dia is 1.73 m with the emission of PM (0.2988g/s), SO_2 (2.9650g/s), NOx(2.0529g/s), CO (0.3558g/s).
- Proposed F001stack with the height of 36.7m and the dia is 0.95 m with the emission of PM (0.0063g/s), So_2(0.0020g/s), NOx(0.4667g/s), CO(0.2800g/s).

Process emission management

- Low NOx burners are being provided in the existing unit. Further, Fuel Gas is being fired most of the time in NSF furnaces which have lower Sulphur content compared to IFO.
- Further after expansion, due to expected availability of natural gas to

Guwahati Refinery in upcoming few years, it is envisaged to replace IFO with NG in CDU heater.

- Till now Natural Gas Infrastructure not in functional for supply of NG to Guwahati Refinery. By now, IFO (75%) and RFG (25%) will be continued for firing. After NG availability, IFO portion will be replaced with NG for normal operation.
- For Class A tanks floating roof, mech seal present in all HC pumps.
- Internal floating roof tank is present where required.
- Selected tanks are under Nitrogen blanketing.

Details of Solid waste/ Hazardous waste generation and its management

Solid waste generation

Organic waste generation

- Existing organic waste is being generated with the quantity of 419.58 Kg/day and there is no proposed organic waste generation.
- Hence the total organic waste after expansion will be 419.58 kg/day
- The generated organic wastes will be composted (organic waste converts and biogas plant) and used as manure for green belt

Inorganic waste generation

- Existing inorganic waste is being generated with the quantity of 279.72 kg/day and there is no proposed inorganic waste generation.
- Hence the total inorganic waste after expansion will be 279.72 kg/day
- The generated inorganic wastes will be disposed through authorized vendors

Hazardous Waste Generation

- Due to proposed project, only the slop oil will be generated additionally with the quantity of 21.9 MTA. The total Slop oil is generated will be 12584.9 MTA which will be disposed using the method of processed in DCU
- Residual cake generation of quantity is 911 MTA which will be disposed using the method of bioremediation (after oil recovery)
- Tank bottom sludge generation of quantity is 751 MTA which will be disposed using the method of bioremediation (after oil recovery)
- Spent catalyst generation of quantity is 25MTA (generated during shutdown of units) which will be e-auctioned through MSTC, Kolkata

to authorized vendors.

Solid and Hazardous Waste Management

- Strict guidelines will be put in place in order to manage the solid waste generation during the operational phase of the development.
- The main goals of the guidelines will be to ensure adopting recycling techniques and encouraging sorting of solid waste at source into organic and inorganic wastes.
- The existing hazardous waste generated can be processed by bioremediation techniques or with proper disposal to the authorities.
- The biodegradable waste generated can be composted and used as manure. The other waste can be disposed in municipal bins.
- No additional Solid waste will be generated in operational phase since the manpower will be Zero for the additional CDU revamp unit.

During deliberations, EAC discussed following issues:

- Committee discussed the CCR of IRO, MOEFCC, Shillong as well as Action Taken Report for partial compliances and satisfied with the response of PP.
- PP informed that 8.37% greenbelt is inside plant premises and 25.81% greenbelt outside plant premises i.e. residential area.
- Reverify incremental GLC as values are on higher side. PP has submitted revised GLC of PM, SO2 and NOx as 1.09 µg/m3, 7.98 µg/m3, 14.18 µg/m3 considering 50% FO & 50% Fuel Gas in CDU and 100% FG in F001 stack.
- Committee desired that 50% natural gas shall be used as fuel. PP has committed that they will use 50% FG instead of 25% of FG.
- PP shall commit that no discharge in Brahmaputra river shall be done after expansion of this project. PP has committed the same.

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

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

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

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

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

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

(ii). The National Emission Standards for Petroleum Oil Refinery issued by the Ministry vide G.S.R. 186(E) dated 18th March, 2008 and G.S.R.595(E) dated 21st August, 2009 as amended from time to time, shall be followed.

(iii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. For emission control and management, use of FG/NG in heater as fuel, adequate stack height, use of Low NOX burners in heater & boiler, continuous stack monitoring, Sulphur recovery plant, etc. shall be installed/ensured. As proposed, PP shall use 50% FG instead of 25% of FG.

(iv). NOC from the concerned authority for surface water supply shall be obtained before start of the construction of plant, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(v). Total fresh water requirement for the proposed project shall not exceed 3792 m^3/day to be met from River Brahmaputra. Necessary permission in this regard shall be obtained from the concerned regulatory authority.

(vi). Effluent of 3768 m3/day + 96 m^3/day quantity after expansion shall be treated through existing Effluent Treatment plant. Domestic waste water is/ being will be treated in existing ETP of capacity 13200 m3/d

(wet weather flow), 8760 m3/d (dry weather flow). The plant will be based on Zero Liquid discharge system and treated effluent will not be discharged outside the factory premises. No discharge in Brahmaputra river shall be done after expansion of this project.

(vii). Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

(viii). Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.

(ix). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.

(x). Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided. The ash from boiler shall be sold to brick manufacturers/cement industry.

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

(xii). The green belt of 5-10 m width shall be developed in the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. The project proponent shall ensure 33% greenbelt area vis-à-vis the project area through afforestation in the degraded area. The Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

(xiii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility (Rs.

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

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

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

(xvi). Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

(xvii). Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(xviii). The PP should improve the efficiency of ETP Plant and the water discharge should be as per prescribed CPCB Norms. They should also install 24x7 hours monitoring system (of the discharge) and the same should be connected to the server of SCPB/CPCB.

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

(xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall

be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/ Director/CEO as per company hierarchy.

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

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ANNEXURE

GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

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

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

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

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

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

(vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

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

(viii) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.

(ix) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.

(x) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.

(xi) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

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

S. No.	Name and Address	Position
1.	Shri S. C. Mann	Chairman
2.	Dr. J.S. Sharma	Member
3.	Prof. Y. V. Rami Reddy	Member
4.	Dr. Onkar Nath Tiwari	Member
5.	Dr. Rahul Rameshrao Mungikar	Member
6.	Dr. Sanjay V Patil	Member
7.	Dr. Siddhartha Singh (IMD)	Member
8.	Shri A.N. Singh, Scientist 'E'	Member Secretary
MoEFCC		
9.	Mr. Kanaka Teja	Research Assistant
10.	Ms. Meetika Gupta	Research Associate

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