

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

Dated: 20.03.2023

Meeting ID: IA/IND2/13462/15/03/2023
MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE
(INDUSTRY-2 SECTOR PROJECTS)
HELD ON 15th March, 2023

Venue: Ministry of Environment, Forest and Climate Change, Indira ParyavaranBhawan, JorBagh 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/IND2/13457/13/03/2023) held on 13th March, 2023 conducted through Video Conferencing (VC), confirmed the same. After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

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

15th March, 2023 (Wednesday)

Agenda No. 01

Drilling of Development wells (40 nos.) and Exploratory / Appraisal wells (5 Wells) in the Kharsang Oil Field at district Changlang, Arunachal Pradesh by M/s Geo Enpro Petroleum– Re-consideration of Environmental Clearance.

[IA/AR/IND2/28663/2015, IA-J-11011/341/2 014 IA II (I)]

The proposal was considered in 3rd EAC meeting held on 18th - 19th January, 2016, wherein the committee recommended the proposal for Environmental clearance subject to submission of stage-1 Forest Clearance for the proposed diversion of 94.712 Ha forest land involved. The proposal was again considered in 16th EAC meeting held on 08th - 09th December, 2016. During presentation PP informed that Forest clearance has not received yet, therefore committee suggested to delist the proposal from the pending list of proposal till the stage-1 Forest clearance gets submitted. PP has submitted Stage -I FC approval through parviesh portal on 09.03.2023 for diversion of 83.12 ha (originally proposed 94.712 ha) granted by the MoEF&CC vide letter dated 14.02.2023. Since stage -I FC was submitted after more than 18 months, considering OM dated 19th June, 2014, Ministry referred the matter to EAC for relook of the project in case, primary data used in preparation of EIA report is more than three years old.

During deliberation, PP informed about the details of project. PP also informed that Stage-I FC has been received for diversion of 83.12 ha forest land instead on originally proposed 94.712 ha. Accordingly, no. of wells to be drilled were reduced from 45 to 38 wells. Environmental Consultant who has prepared the existing EIA/EMP report is no longer QCI accredited consultant. Therefore, Committee suggested to hire a new QCI accredited consultant for the project. Accordingly, the Committee recommended the following:

1. During presentation PP informed that air quality monitoring study was conducted for one month in the year 2015 and also more than three years old. As per OM dated 19.06.2014, EAC suggested PP to collect environmental data and carry out fresh ambient air quality monitoring for 3 months.

2. Submit Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.
3. Air quality modelling shall be carried out considering the topography of the proposed area.
4. Risk assessment for issues related land slide in the project area.
5. CCR of the existing project by IRO shall be submitted.
6. Fresh water requirement shall be reduced from 50 to 25 KLPD per drilling well.
7. Treatment and disposal system for formation water from the proposed project. Availability of the existing capacity of ETP for treatment of formation water.

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

Agenda No. 02

Expansion of existing distillery unit from 90 KLPD to 210 KLPD, Power plant from 57 MW to 60.5 [54 MW through Co-generation power plant (Fuel : Bagasse along with Coal) 6.5 MW through Incineration boilers (Fuel : Concentrated Spent wash along with coal)], located at Survey No of Hullatti Village 6/1 part, 6/2 part, 7/1 part, 7/2, 9 part, 10, 11 part, 12/1, 12/2, 12/3, 13/1, 13/2, 13/3, 13/4, 14/1 part, 14/2 part, 16/1, 17, 18/1, 18/2, 18/3, 19, 20/1, 21/1, 20/2, 21/2, 22, 23, 24, 25, 26, 27/1, 27/2 A, 27/2B, 28, 30, 31/1, 31/2, 80 part, 81/1, 81/2 A, 81/2B, 81/2C, 81/2D, 82, 83/1, 86 Part, 90, 115/3 Part, 122/A3, 123/2 Part, 124 part, 125/1A Part, 125/1B, 126/part and Survey No of Alloli village 18/1, 18/2, Haliyal Taluk, Uttara kannada District, Karnataka by M/s. E.I.D. Parry (India) Limited –Consideration of Environmental Clearance

[IA/KA/IND2/413530/2022, IA-J-11011/382/2016-IA-II(I)]

The Proposal was earlier considered by the EAC (Ind-2) in its meeting ID IA/IND2/13429/24/01/2023 held on 24th - 25th January, 2023 wherein EAC deferred the proposal and desired certain requisite information/inputs.

Information desired by the EAC and responses submitted by the project proponent is as under:

S.N O	ADS by MOEFCC	Reply of PP
1.	The committee noted that non installation of OCEMS even after 2 years of grant of existing EC is a serious non-compliance and suggested to install the OCEMS system within 3 months and to submit credible evidence for procuring OCEMS.	As per the existing conditions of Environmental clearance, we have installed OCEMS to 120 TPH, 100 TPH & 45 TPH boilers. The photographs of the same were submitted.

EAC found the response submitted by PP for ADS satisfactory.

The Project Proponent and the accredited Consultant M/s. Pioneer Enviro Laboratories and Consultants Private Limited (NABET / EIA/ 1922 / SA 0148 valid upto 11-03-2023) , 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 90 KLPD to 210 KLPD, Power plant from 57 MW to 60.5 [54 MW through Co-generation power plant (Fuel : Bagasse along with Coal) 6.5 MW through Incineration boilers (Fuel : Concentrated Spent wash along with coal)], located at Survey No of Hullatti Village 6/1 part, 6/2 part, 7/1 part, 7/2, 9 part, 10, 11 part, 12/1, 12/2, 12/3, 13/1, 13/2, 13/3, 13/4, 14/1 part, 14/2 part, 16/1, 17, 18/1, 18/2, 18/3, 19, 20/1, 21/1, 20/2, 21/2, 22, 23, 24, 25, 26, 27/1, 27/2 A, 27/2B, 28, 30, 31/1, 31/2, 80 part, 81/1, 81/2 A, 81/2B, 81/2C, 81/2D, 82, 83/1, 86 Part, 90, 115/3 Part, 122/A3, 123/2 Part, 124 part, 125/1A Part, 125/1B, 126/part and Survey No of Alloli village 18/1, 18/2, Haliyal Taluk, Uttara kannada District, Karnataka by M/s E.I.D. Parry (India) Limited.

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

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

The details of products and capacity as under:

Sr. No	Unit	Name of the Product/By Product	Existing	Expansion	Total
1.	Sugar	Sugar	11500 TCD	--	11500 TCD
2.	Co-gen Power plant	Power	54 MW	--	54 MW
3.	Distillery	Rectified Spirit /ENA/Ethanol	90 KLPD (Rectified Spirit /ENA/Ethanol)	120 KLPD (only Ethanol)	210 KLPD
4.	Power from Incineration boiler	Power	3 MW	3.5 MW	6.5 MW

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 90 KLPD Distillery vide File No. J-11011/382/2016-IA-II dated 11-08-2020. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEF&CC Bangalore, vide File no EP/12.1/2020-12/1/KAR/1091 dated 15th December, 2022. Action Taken Report has been submitted to IRO, MOEFCC, Bangalore dated 24-12-2022 for 5 partial compliances.

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

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 91.5 Ha (22.6 Acres), 38.5 Ha (95 acres) i.e. 42% of the total plant area has already been developed as greenbelt & plantation and the same will be maintained. The estimated project cost is Rs.161.16 Crores. Capital cost of EMP would be Rs.12.0 Crores and recurring cost for EMP would be Rs.1.02 Crores per annum. Industry propose to allocate Rs. 1.6 Crores towards extended EMP

(Corporate Environment Responsibility). Total Employment after expansion will be 917 persons as direct & indirect.

Capital cost and recurring cost of EMP are given below:

S.NO	ITEM	Capital Cost (Rs in Crores)	Recurring cost (Rs in Crores/Annum)
1.	Air emission control systems (ESP, stack, bag filters, dust suppression, etc.)	4.0	0.50
2.	Ash handling & management	0.5	0.20
3.	Effluent Treatment Plant	7.0	0.3
5.	Online monitoring equipment (CEMS& OEMS)	0.5	0.02
TOTAL		12.0	1.02

Details of CER with proposed activities and budgetary allocation:

S.NO.	Proposed Activity	Proposed Budget (RS. In Crores)
1	Community & Infrastructure Development Programs	0.55
2	for Health & Hygiene of the community (Mineral Water plants, construction toilets in villages, Distribution of Medicines etc.)	0.50
3	Skill Development A Community Centre will be established in the village which will consist of the following: i)Vocational Training Institute with latest tools, machinery &softwares etc. for making them Industry ready. ii)Workshop centre with latest tailoring machines for training women (like tailoring, stitching etc.) iii)Skill development / Computer / IT Training Centre for improving computer knowledge and making Industry ready.	0.30

4	for Education & Sports (construction of class rooms in schools, providing computers in class rooms, development of library facility)	0.15
5	Other Need based activities	0.10
	Total	1.6

There are no National parks / Wild life sanctuaries, Biosphere Reserves, Tiger / Elephant reserves, Wildlife corridors etc. within 10 Km radius. Unnamed RF is at a distance of 0.8 Kms in South direction. Water bodies: Tattihala river is at a distance of 2.2 Kms in West direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $0.1 \mu\text{g}/\text{m}^3$, $0.1 \mu\text{g}/\text{m}^3$, $0.4 \mu\text{g}/\text{m}^3$, and $0.4 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, SO_2 and NO_x . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement after expansion will be $3491 \text{ m}^3/\text{day}$ (Existing Sugar & Distillery unit: 2771 KLD, Expansion Distillery expansion : 720 KLD) which will be sourced from Kali river. The committee suggested to restrict the fresh water requirement of distillery @ 4 kL/kL alcohol produced. The committee also suggested that entire waste water of Sugar plant shall be treated and recycled/reused in the distillery unit in order to reduce net fresh water requirement. NOC has been obtained from Water Resources Department, Karnataka vide G.O no 78 dated 19-09-2022 and is valid up to 2027. Existing effluent generation is 2494 KLD which is being treated Sugar Plant ETP. Proposed effluent generation will be 280 KLD from the proposed Distillery unit which will be treated in Condensate Polishing unit. Spent wash generated from the analyser column during distillation will be concentrated in Multi Effect Evaporator and concentrated spent wash will be burnt in incineration boiler. Domestic waste water is being treated in Sugar ETP and same will be followed after proposed expansion. Zero liquid discharge system is being following in the existing and same will be followed after proposed expansion project.

The power requirement for the expansion will be 3.5 MW and will be met from the proposed 1 x 3.5 MW captive power plant. 1 x 35 TPH boiler will be

installed in which Concentrated spent wash along with Coal / Bagasse will be used fuel. APCE Electro Static Precipitator with a stack height of 50 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm³ for the proposed boiler. 1 x 1000 KVA DG set will be used as standby during power failure and stack height (3 m above building) will be provided as per the CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

Source	Air pollution Control Equipment	Stack height	Particulate emission at the outlet
Existing			
1 x 120 TPH Boiler	Electro Static Precipitators (ESP)	72	<50 mg/Nm ³
1 x 45 TPH Boiler	Electro Static Precipitators (ESP)	44	< 50 mg/Nm ³
1 x 100 TPH Boiler	Electro Static Precipitators (ESP)	72	< 50 mg/Nm ³
1 x 15 TPH Boiler	Electro Static Precipitators (ESP)	50	< 50 mg/Nm ³
Expansion			
1 x 35 TPH Boiler	Electro Static Precipitators (ESP)	50	< 30 mg/Nm ³

- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ generated (72 TPD) during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.

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

- Concentrated Spent wash 144 m³/day will be burnt in Incineration boiler.
- Boiler ash (16 TPD) will be will be given to Group fertilizer unit
- Used oil (0.3 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 expansion of 120 KLPD will be used for manufacturing fuel ethanol only.

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 120 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 shall be obtained before start of the construction of plant and drawing of the surface 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. No ground water shall be used for the plant operations.
- (v). Total fresh water requirement for distillery expansion (120 KLPD) shall not exceed 480 m³/day, which will be met from Kali River. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days rainfall capacity and the

accumulated water to be used as fresh water thereby reducing fresh water consumption.

- (vi). Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be conducted on quarterly basis and report submitted to SPCB and RO, MOEFCC. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and Total Dissolve Solids shall be monitored and report submitted to the Ministry's Regional Office.
- (vii). The spent wash shall be concentrated in MEE and concentrated spent wash shall be incinerated in the incineration boiler. Other lean effluents Spent lees, MEE Condensates and utility effluents shall be treated in the condensate polishing unit (CPU) comprising of three stage RO. The treated permeate will be reused in cooling tower water makeup and for molasses dilution. The RO rejects will be taken back to MEE. Treated effluent will be recycled/reused for make up water of cooling towers/process etc. No wastewater or treated water from integrated unit of sugar mill and distillery shall be discharged outside the premises and Zero Liquid Discharge shall be maintained for all the units namely sugar, Distillery and Cogen Power Plant. STP shall be installed to treat sewage generated from factory premises. PP shall ensure to implement Zero Liquid Discharge (ZLD) in existing and expansion of sugar factory and cogeneration plant including proposed Distillery.
- (viii). As proposed the Industry shall upgrade the existing ESP's installed with the existing 120 TPH Boiler, 100 TPH Boiler, 45 TPH Boiler to reduce the Particulate matter emission from 150 mg/Nm³ to 50 mg/Nm³ by December - 2024. PP shall dismantle the 15 TPH incineration boiler after commissioning of the expansion project. 5 fields ESP with 99.9% efficiency with a stack height of 50 m will be installed with the 35 TPH bagasse/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control

devices/ systems will be conducted annually.

- (ix). PP shall use bagasse/Coal as fuel for the proposed boiler. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. Boiler ash (16 TPD) shall be supplied to fertilizer units. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (x). PP shall maintain the Approach from the project site to the nearest highway
- (xi). CO₂ (72 TPD) generated during the fermentation process is being/will be collected by utilizing CO₂ scrubbers and sold to authorized vendors/collected in proposed bottling plant.
- (xii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xiii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xiv). The unit shall make arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xv). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xvi). The company shall undertake waste minimization measures as below
 - (a) Metering and control of quantities of active ingredients to minimize waste;
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f)

Use of high pressure hoses for equipment clearing to reduce wastewater generation.

- (xvii). The green belt of 5-10 m width has been developed in 38.5 hectares i.e., 42.00 % of total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery which shall be maintained. Selection of plant species for gap filling shall be as per the CPCB guidelines and in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Green belt shall be developed within one year.
- (xviii). PP proposed to allocate Rs. 1.60 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xix). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xx). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xxi). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision

capability and flow meters in the channel/drain carrying effluent within the premises.

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

Agenda No. 03

Expansion of Integrated Complex from 30 KLPD to 60 KLPD Molasses Distillery and 30 KLPD to 60 KLPD Grain/ Cane Juice Syrup Distillery, 4500 TCD to 10,000 TCD Sugar Mill and 23 MW to 47 MW Co-Generation Power Plant at Village Kiri Afgana, Tehsil Batala, District Gurdaspur, Punjab” located at Village Kiri Afgana, Tehsil Batala, District Gurdaspur, State Punjab by M/s. Chadha Sugars & Industries Pvt. Ltd- Consideration of Terms of Reference.

[IA/PB/IND2/416995/2023, IA-J-11011/8/2010-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Kadam Environmental Consultants. (NABET certificate no. NABET/EIA/1922/RA 0138 & NABET/EIA/2023/SA 0164 and validity 19-03-2023) made a detailed presentation on the salient features of the project and informed that the proposal is for ToR to the project expansion of Integrated Complex from 30 KLPD to 60 KLPD Molasses Distillery and 30 KLPD to 60 KLPD Grain/ Cane Juice Syrup Distillery, 4500 TCD to 10,000 TCD Sugar Mill and 23 MW to 47 MW Co-Generation Power Plant at Village Kiri Afgana, Tehsil Batala, District

Gurdaspur, Punjab located at Village Kiri Afgana, Tehsil Batala, District Gurdaspur, State Punjab by M/s. Chadha Sugars & Industries Pvt. Ltd.

All molasses based distillery projects upto 100 KLD capacity are listed at item 5(g) under Category "B" and requires appraisal at SEIAA. The proposed project falling within 1 km of Beas River Conservation Reserve issued vide letter no.34/13/2017-Ft-5/1052756/1 dated 29/08/2017 as per notification of Government of Punjab under Wildlife (Protection) Act, 1972. Hence, due to applicability of general condition of presence of Protected Area within 5 km the project requires appraisal at central level by Expert Appraisal Committee.

The details of products and capacity as under:

S. No.	Name of Product	Production Capacity			
		Existing	Violation	Additional	After Expansion
1	Molasses based Distillery/ cane juice syrup based distillery	30 KLPD	-	30 KLPD	60 KLPD
2	Grain / cane juice syrup based distillery	30 KLPD	-	30 KLPD	60 KLPD
3	Sugar mill	4500 TCD	7500 TCD	5500 TCD	10000 TCD
4	Co-generation Power Plant	23 MW	-	24 MW	47 MW

Ministry has issued Environmental Clearance to the existing capacity 30 KLPD Molasses Distillery and 30 KLPD Grain/ Cane Juice Syrup Distillery, 4500 TCD Sugar mill & Power Plant 23 MW vide File No. J-11011/8/2010-IA II (I) dated 25.04.2011. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Chandigarh vide File no5-285/2011-RO (NZ)/513-514 dated 24/08/2021. Action taken report against CCR was submitted dated to Integrated Regional Office, MoEFCC, Chandigarh on dated 19th August 2021.

The following litigations were pending against the project proposal:

S r. N o	Case Type/Cas e no./Date of Filing	In the Court of	CASE Detail	Curre nt Statu s	Types	Last/ Next Date Of Heari ng	Next Date
1	COMA[31/ 2018]19- 05-2018	Ms. JAGMIND ER KAUR,Civ il Judge (Jr. Division) BATALA	FORE ST RANG E OFFIC ER V/S M/S CHAD HA SUGA RS & INDU ST. PVT. LTD.	For Prose cution evide nce	COMPLAINT U/S 32, 36a,50,51 OF FOREST(CONSE RVATION)ACT	03.03. 2023	19.04 .2023
2	COMA[109 /2018]19- 07-2018	MR. RACHHP AL SINGH, CHIEF JUDICIA L MAGISTR ATE, GURDAS PUR	PUNJ AB POLL UTIO N CONT ROL BOAR D V/S M/S CHAD HA SUGA RS & INDU	awaiti ng furthe r Order of Hon'bl e High court	COMPLAINT U/S 44 & 47 OF WATER(PREVEN TION & CONTROL OF POLLUTION) ACT for violation of section 25/26 of the ACT	16.02. 2023	17.04 .2023

			ST. PVT. LTD.				
3	COMA[41/ 2018]31- 10-2018	MR. LAVDEEP HUNDAL, SDJM, ZIRA(FIR OZPUR)	STAT E V/S CHAD HA SUGA RS & INDU ST. PVT. LTD. & OTHE RS	Appea rance of Accus ed No.4, 5 & 9 (non bailab le warra nt issued)	WILD LIFE (PROTECTION) ACT,1975 U/S 29,32,51,58.	23.02. 2023	31.03 .2023
4	CRM- M[9352/20 19]09-04- 2019*	HON'BLE MR. JUSTICE RAMEND RA JAIN, HIGH COURT OF PUNJAB & HARYAN A, CHANDI GARH	RATT AN ANMO L SING H V/S PUNJ AB POLL UTIO N CONT ROL BOAR D	NOTI CE OF MOTI ON	QUASHING OF COMPLAINT OF PUNJAB POLLUTION CONTROL BOARD, U/S 44 & 47 OF WATER(PREVEN TION & CONTROL OF POLLUTION) ACT	12/04 /2023	N.A
5	CRM- M[9352/20 19]09-04- 2019*	HON'BLE MR. JUSTICE SUDHIR MITTAL, HIGH	HARI NDER PAL SING H BHATI	NOTI CE OF MOTI ON	QUASHING OF COMPLAINT OF PUNJAB POLLUTION CONTROL BOARD U/S 44	12/04 /2023	N.A

		COURT OF PUNJAB & HARYANA, CHANDIGARH	A V/S PUNJAB POLLUTION CONTROL BOARD		& 47 OF WATER(PREVENTION & CONTROL OF POLLUTION) ACT		
6	Civil Appeal No(S). 3396 Of 2019	Supreme Court of India; NishaTripathi & Jayant Kumar Arora	M/S Chadha Sugar Mills Private Limited Through Director Vs. Sushil Kumar & ORS.	Civil Appeal	Disposed off; The matter has been decided in favour of the Company by the Honorable Supreme Court.	--	--

* filed ag. case no. COMA 109/201

Total land area required is 57 acres. Greenbelt will be ultimately developed in total area of 19 Acres i.e., 33.33% of total project area. The estimated proposed project cost after expansion will be Rs. 467.87 Crores. Total Employment will be 898 Persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors within 10 km distance. However, Beas River conservation reserve lies within 10 km distance (<1 Km from the project Boundary). Conservation Reserves are protected areas under the Wild Life Protection Act. Necessary Permissions, if any, will be taken from the competent authority and details of the same will be provided in the EIA report. Reserve forests/protected forests within 15 kms from the project boundary include the following: Near BhainiMirzakhan, Abdulapur at a distance of 1.5 km in SE direction, Near Salempur at 9.5 km in SW direction,

Near Passibet at 5.5 km in NE direction and at Tahli in 11.15 km in SW direction. Beas River conservation reserve does not have an ESZ. Clarification on the matter is being sought from the competent authority and their response will be included in the final EIA report. NBWL application will be submitted if applicable, based on consultation with the PCCF (WL) / CWLW. Conservation plan for schedule I species has been submitted to Divisional Forest Office, Nangal dated 24.01.2020 and a budget of 0.06 Crores has been earmarked for the same. Water bodies: Beas River is at a distance of <1 Km in ESE direction. NOC for drawl of water from the River has been submitted for approval to Principal Secretary, Water Resources Department, Punjab vide letter no. 1363-64 dated 16th Oct, 2019.

Total fresh water requirement will be 3426 m³/day which will be met from the Beas River. Alternatively, permission has been received to draw 1600 KLD groundwater by Punjab Water Regulation and Development Authority dated 19/01/2022. Effluent of 1479 m³/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 2000 KLPD. STP of adequate capacity 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 19 MW and is met from 47 MW internal generation through existing co-gen plant. D. G. Set (E:1*1000 KVA; P:1*1000 KVA) will be used for off-season and emergency use.

Fuel gas stack details are as below:

- Boiler 130 TPH & Boiler (36 TPH) common stack height 60 m, Dia 2.8 m with ESP & wet Scrubber
- Boiler 90 TPH stack height 60 m, Dia 2.78 m with ESP
- Boiler-cum-incinerator (30 TPH) stack height 50 m, Dia 2.78 m with ESP

Details of Process emissions generation and its management:

There is no process emission from this project.

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

- Filter cake/press mud -56,000 TPA (Press mud is given to farmers for using as manure.)

- ETP/STP Sludge (Non Chemical) -300 Kg/Day (ETP/STP sludge is Used as manure for greenbelt)
- DDGS- 8400 TPA (will be sold as cattle feed)
- Boiler Ash/Fly Ash-8860 TPA (will be used for land management and pit filling.)
- Spent Oil- 300 Lit/Annum (Used within premises as lubricant).

The Committee noted that PP has obtained standard TOR from MoEF&CC vide letter No.J-11011/8/2010-IA II(I) dated 08 Oct 2018. Public hearing was conducted on 15th January, 2021, which was presided by Addl. Dy. Commissioner. The Committee deliberated on the issue and recommended that no fresh public hearing is required. The Committee noted that violation was done by exceeding the permitted production capacity i.e. 4500TCD. Last 4 years data is as given below:

Year	Average cane crushed per day	Number of days of operation
2018-19	6386.29	142
2019-20	5369.97	117
2020-21	6074.77	127
2021-22	5989.78	134

The Ministry of Environment, Forest and Climate Change has considered the proposal based on the recommendations of the Expert Appraisal Committee (violation) and hereby decided to grant Terms of Reference for the proposed project, subject to strict compliance of the following specific conditions, in addition to all standard ToR conditions applicable for such projects.

Specific Conditions:

- The State Government/SPCB to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC.
- The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory

- authority.
- iii. Assessment of ecological damage with respect to air, water, land and other environmental attributes of all the units already in existence during their construction and as well as during operation. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.
 - iv. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
 - v. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.
 - vi. One season fresh base line data shall be collected for preparation of EIA/EMP reports.
 - vii. The PP has conducted Public Hearing on 15th January, 2021 for the same area. PP should also address the all the issues raised during the already held public hearing along with commitments made with fund provision to address above issues in tabular form to be submitted along with EIA/EMP report.
 - viii. Layout plan earmarking space for development of peripheral green belt.
 - ix. Transportation details and their impact on road network to be submitted in the EIA/MEP report.
 - x. PP shall obtain clearance for NBWL regarding Beas River Conservation Reserve as applicable.
 - xi. Air cooled condenser shall be installed in sugar unit to reduce the water requirement.
 - xii. PP shall abandon the existing bio-composting plant.
 - xiii. PP shall submit the water balance of integrated sugar, distillery and cogeneration unit by recycling /reusing the treated effluent of sugar in the proposed distillery unit /co-generation power plant during crushing period. ZLD concept shall be implemented. Filter press shall be provided in place of sludge drying bed.
 - xiv. Impact due increase traffic shall be assessed and incorporate in environmental management plan.

xv. Status of all court cases against the project.

Standard ToR for Sugar unit, Thermal Power Plant & Distillery shall be applicable.

Agenda No. 4

Greenfield Proposed project 120 KLD Grain Based Ethanol plant along with 3.4 MW Co-generation Power Plant at Khasra No. 12(S), 13/1(S), 13/2(S), 13/2(S), 13/3(S) & 15(S) Village – MojhaChangheri, Tehsil- Malhargarh, District- Mandsaur (M.P) by M/s. Kripa Biotech LLP- Consideration of Environmental Clearance.

[IA/MP/IND2/417139/2023, IA-J-11011/423/2022-IA-II(I)]

The proposal was earlier considered by the EAC (Ind-2) in its Meeting ID: IA/IND2/13448/23/02/2023; held during Date: 23th February, 2023, wherein EAC deferred the proposal and desired certain requisite information/inputs. Information desired by the EAC and responses submitted by the project proponent is as under:

S.No.	ADS by MoEF&CC	Reply of PP
1.	PP shall revise water balance by reducing net fresh water requirement to 4 kL/kL of Ethanol produced.	We ensure that 4KLD water will be used for 1 KLD Production of Ethanol. Total water Fresh Requirement = 480KLD
2.	PP shall submit agreement with brick manufacturing for supplying boiler ash.	Boiler Fly ash will be used for brick manufacturing, agreement with brick manufacturing unit has been submitted.
3.	PP shall submit revised EMP and CER details.	Revised CER and EMP details were submitted.
4.	PP shall submit details of air quality modelling	Air quality modelling details were submitted.
5.	PP shall submit risk assessment plan identifying potential threat zone along with safety plan	Risk assessment plan was submitted.

6.	PP shall add one additional tank for rain water storage	One additional tank of capacity 30*30*5m will be constructed for storage of rain water collected through RWH system
7.	No activity will be undertaken below the Power transmission lines	We are submitting application for shifting of electric line which is currently passing through the land. We ensure that we will not Undertake any activity below the power transmission Line.
8.	PP shall ensure no direct entry and exit of vehicles from the road and it shall be through slip roads on	Industry will not provide Direct entry & exit of the industry traffic on the adjacent village road. We will provide service / Slip Road parallel to the existing road to properly maintain the exist of vehicle from the industrial premises. Village road will be maintained by us.
9.	PP shall develop additional 20.0 m wide green belt towards the river side	20m wide green belt shall be developed towards the river side. Green belt will be developed in 01 year before commission of project. All native species will be planted at the site.
10.	PP shall store rice husk in covered sheds.	Covered Shed Will be provided for Stored rice Husk.

EAC found the response submitted by PP for ADS satisfactory.

The Project Proponent and the accredited Consultant M/s. Ascenso Enviro Pvt Ltd (NABET certificate no. NABET/EIA/2124/SA 0175 and validity Dec 21, 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 120 KLPD Grain based Ethanol Plant & 3.4 MW Co-generation power plant (Bio fuel as Rice husk will be use as fuel) located at Village MojhaChangheri, Tehsil - Malhargarh, District – Mandsaur, State-M.P by M/s. Kripa Biotech LLP.

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

notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The details of products and capacity as under:

S. No	Name of unit	Name of the product/by-product	Production capacity
1	Distillery (using grains as Raw material)	Ethanol	120 KLPD
2	Co-generation power plant	Power	3.4 MW
3	DWGS dryer	DDGS	54 TPD
4	Fermentation unit	Carbondi-oxide	66 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 4.99 hectares. Greenbelt will be developed in total area of 1.65 hectares i.e., 33.0 % of total project area. The estimated project cost is Rs. 110 Crores. Capital cost of EMP would be Rs.12.80 Crores and recurring cost for EMP would be Rs. 2.40 Crores per annum. Industry proposes to allocate Rs. 2.50 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 250 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Reserve forests/protected forests: Protected Forest at a distance of 13.22 km in West direction. The No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Eco-sensitive Zone etc. Water bodies: Retam River is at a distance of 0.09 Km towards NW for which H.F.L Certificate has been obtained from Office of the Executive Engineer, Water Resources Division, Mandsaur (M.P.) vide letter no. 1966/tak/2022- dated 25/11/2022. Harikhayal Dam is at a distance of 6.98 Km in W direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.24 $\mu\text{g}/\text{m}^3$, 0.06 $\mu\text{g}/\text{m}^3$ and 0.6 $\mu\text{g}/\text{m}^3$ with respect to PM_{10} , SO_2 and NO_x . The resultant

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

Total fresh water requirement will be 630 KLD which will be met from Retam River, permission for withdrawal of water from Retam Barrage has been obtained vide letter no. 1521/Karya/Aavantana/2022 dated 06.09.2022. Effluent (Condensate/spent lees/blowdown etc.) of 797 KLD quantity will be treated through Condensate Polishing Unit of capacity 800 CMD. Raw stillage (830.6 KLD : quantity of raw spent wash from distillation) 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 3.4 MW and will be met from co- generation power plant. 34 TPH biofuel as rice husk 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 50 mg/Nm³ for the proposed boiler. 1000 KVA DG set will be used as standby during power failure and stack height (14 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

- APCE: ESP with a stack height of 60 meters will be installed for controlling the particulate matter emissions from 34 TPH rice husk fired boiler.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (66 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) (54 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (48 TPD) will be used for brick manufacturing and supplied

to brick manufacturers.

- Used oil (0.5 Kiloliters per annum) will be sold to authorized recyclers.
- CPU sludge 0.20 TPD) and STP Sludge (0.0001TPD) 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 120 KLPD will be used for manufacturing fuel ethanol only.

Total land of 4.99 Hectares is under possession of the company and land use conversion has been completed vide letter no.278/Rider-1/2022 dated 14/10/2022. EAC found the response satisfactory.

Capital cost and recurring cost of EMP are given below:

S. No	Description	Capital Cost In Rs lacs	Annual Recurring Cost in Rs lacs
1	Air pollution control system (ESP) on 34 TPH low pressure boiler	175	35
2	Spent wash treatment including concentration using MEE (Multiple effect evaporator).	200	60
3	Scrubbing system, compressing system, liquefying system and storage for CO2 removal	150	30
4	CPU (Condensate Polishing Unit)	350	70
5	Installation of Water treatment plant (RO) and STP	35	5
6	Rainwater harvesting systems	20	5
7	OCEMS- Online Continuous Emission/Effluent Monitoring System	20	5
8	Occupational Health Management	40	10
9	Green Belt Development	25	5
10	Environment monitoring	-	10
11	Solid/ hazardous waste management	15	5
12	CER	250	-
	Total in Lacs	1280	240
	Total in Cr.	12.80	2.40

Details of CER with proposed activities and budgetary allocation:

S.No.	Proposed Activities	1st Year (Rs. In Lakhs)	2nd Year (Rs. In Lakhs)	Expenditure (Rs. In Lakhs)
1	<ul style="list-style-type: none">• Infrastructure development in Govt schools & classroom development.• Provision of digital education in school & laptop distribution and Set up of Computer lab• Sanitation facilities, safe drinking water in school.• Solar powered light installation in schools & Panchayat bhavan.• Rainwater harvesting system installation in school.	60	60	120
2	Distribution of medical instruments (X-ray and ultra sound machine) to nearby Govt. health center /hospitals.	40	40	80
3	<ul style="list-style-type: none">• Formation of skill development center and Training Centre.• Community halls Construction.• Plantations.	25	25	50
Total in Lacs				250
Total in Cr.				2.50

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 120 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 shall be obtained before start of the construction of plant and drawing of the surface 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. No ground water shall be used for the plant operations.
- (v). Total fresh water requirement shall not exceed 480 m³/day, which will be sourced from Retam 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/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant shall be based on 'Zero Liquid Discharge' system and no effluent/treated water shall be discharged outside factory premises.
- (vii). ESP with a stack height of 60 meters will be installed with the 34 TPH rice husk fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

- (viii). Boiler ash (48 TPD) shall be used for brick manufacturing and supplied to brick manufacturers. 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. Approach to the project site to the nearest highway will be maintained by the Industry.
- (ix). CO₂ (66 TPD) generated during the fermentation process is being/will be collected by utilizing CO₂ scrubbers and it shall be 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 not Undertake any activity below the power transmission Line.
- (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.
- (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 1.65 hectares i.e., 33.0 % of 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. . 20m wide green belt shall be developed towards the river side in 01 year, before commission of project. All native species will be planted at the site
- (xvi). PP proposed to allocate Rs. 2.50 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. PP shall ensure no direct entry or exit of the vehicles from MainRoad/Highway and it shall be through slip road only
- (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). PP shall construct one additional tank of capacity 30*30*5m for storage of rain water collected through RWH system
- (xxi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xxii). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 5

Expansion of Grain based Distillery from 165 KLPD to 825 KLPD & Co-Generation Power Plant from 3.3 MW to 17.5 MW under Ethanol Blending Programme at Village Jundla, Tehsil Karnal, District Karnal, Haryana by M/s. Haryana Liquors Pvt. Ltd- Consideration of Environmental Clearance.

[IA/HR/IND2/420358/2023, IA-J-11011/130/2011-IA II (I)]

The Project Proponent and the accredited Consultant M/s. 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 Expansion of Grain based distillery from 165 KLPD to 825 KLPD &

Co-Generation Power Plant from 3.3 to 17.5 MW at Village Jundla, Tehsil Karnal, District Karnal, Haryana by M/s. Haryana Liquors Pvt. Ltd.

As per the MoEF&CC, Notification number S.O. 345(E), dated 17th January, 2019, notification number S.O. 750(E), dated 17th February, 2020, S.O. 980 (E) dated 02nd March, 2021 & S.O. 2339(E), dated 16th June, 2021 a special provision in the EIA Notification, 2006 (Schedule 5 (g)), a special provision in the EIA Notification, 2006-(Schedule 5(g)) "Expansion of sugar manufacturing units or distilleries for production of ethanol, having Prior Environment Clearance (EC) for existing unit, to be used completely for Ethanol Blended Petrol (EBP) Programme only, as per self-certification in form of an affidavit by the Project Proponent, shall be appraised as category 'B2' projects."

The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by product	Existing Production capacity	Additional Production capacity	Total production capacity
1	Grain based Distillery (broken rice, maize, barley, sorghum)	Ethanol	165 KLPD (Rectified Spirit/ Extra Neutral Alcohol)	660 KLPD (Ethanol Only)	825 KLPD (165 KLPD for Rectified Spirit/Extra Neutral Alcohol & 660 KLPD for Ethanol)
3.	Co-generation Power Plant	Power	3.3 MW	14.2 MW	17.5 MW
3	IMFL/CL Bottling Plant	IMFL/CL Bottles	48 lakhs cases per annum	NIL	48 lakhs cases per annum
4	DWGS Dryer	Animal Feed Supplement (AFS)	65 TPD	265 TPD	330 TPD
5	Fermentation unit	Carbon dioxide	115 TPD	460 TPD	575 TPD

Ministry has issued Environment Clearance vide J-11011/130/2011- 1A II (I) dated 17th October 2012 for the 165 KLPD distillery. Ministry has issued Environmental Clearance to the existing industry for Expansion of Grain Based Distillery from 165 KLPD to 465 KLPD by installation of new 300 KLPD Ethanol Plant vide letter no. J-11011/130/2011- 1A II (I) dated 28th October, 2021. The company has obtained Consent to Establish from HSPCB vide HSPCB Consent no. 313106522KARCTE24566294 dated 03.08.2022 valid till 02.08.2027 & started construction & land development activities. Certified Compliance report of the Existing EC was obtained from Integrated Regional Office, MoEFCC Chandigarh vide File no. 4-1109/2012-RO (NZ)/ dated 09.11.2022. The company has given undertaking for surrender of EC granted for Expansion of Grain Based Distillery from 165 KLPD to 465 KLPD by installation of new 300 KLPD Ethanol Plant & Co-Generation Power Plant from 3.3 to 13.5 MW after obtaining EC for Expansion of Grain based Distillery from 165 KLPD to 825 KLPD & Co-Generation Power Plant from 3.3 to 17.5 MW.

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

Total plant area after expansion will be 23.84 ha (58.9 acres) (existing plant area – 14.04 Hectares and additional land required – 9.8 - Hectares for proposed capacity) which is already under possession of the company. The company has also received a NOC for unit falling outside the urban area/ controlled area from Directorate of Town & Country Planning, Haryana vide diary no. TCPOFA/23548/2021, dated 22/12/2021, hence land use conversion is not required. Out of existing plant area, 4.9 Hectares i.e. 35% of the total plant area has already been developed as greenbelt & plantation and the same will be maintained. As a part of expansion, 3.43 ha i.e., 35% of the additional land will be developed as greenbelt. Hence, total greenbelt area after expansion will be 8.33 ha. The estimated cost of the Expansion project is Rs. 236.60 Crores. Capital cost of EMP would be Rs. 18.0 Crores and recurring cost for EMP would be Rs. 2.0 Crores / annum. Industry proposes to allocate additional Rs. 3.00 Crores towards Extended EMP (Social developmental activities). Total Employment after expansion will be 275 persons as direct. Broken rice/sorghum/bajra/maize will be used as raw materials for distillery.

There are no National Parks/ Wildlife Sanctuaries / Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors, Reserved / Protected Forest within 10 km radius. Water bodies: Indri Drain is adjacent in West direction, Jundla Drain is at a distance of ~3.5 km in SE direction, Nisang Drain is at a distance of ~4.0 km in WSW direction, Nardak Major Distributary is at a distance of ~5.0 km in NW direction), Western Yamuna Canal is at a distance of ~8.5 km in SE direction, ChautangNadi is at a distance of ~8.5 km in WNW direction & Augmentation Canal is at a distance of ~9.0 km in SSE direction are present within 10 km radius. NOC has been obtained from Executive Engineer, Karnal W/S Division, I&WR Dept. Karnal vide Letter No. 217-18/10-W dated 06.01.2023 stating that the site of Haryana Liquors at Jundla does not fall in flood prone area since last 25 years.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the expansion project would be 1.29 $\mu\text{g}/\text{m}^3$, 0.518 $\mu\text{g}/\text{m}^3$, 1.49 $\mu\text{g}/\text{m}^3$ and 1.75 $\mu\text{g}/\text{m}^3$ with respect to PM10, PM2.5, SO2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total freshwater requirement after expansion will be 3467 CMD which will be met from ground water. Application has been submitted to Haryana Water Resource Authority for renewal of existing NOC for abstraction of 9000 KLPD groundwater vide Application No. HWRA/IND/R/2022/189 and is under process. Existing effluent generation (MEE condensate, Fermentation Cleaning & Bottle washing) is 600 CMD which is treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 1000 CMD & Effluent (Boiler blow down, DM/RO Reject, CT blow down) is 160 CMD from distillery which is treated through WWTP (Capacity 175 CMD). Proposed effluent generation (MEE condensate, Fermentation Cleaning & Bottle washing) will be 2385 CMD from distillery which will be treated through Condensate Polishing Unit (Capacity 3500 CMD after expansion) & effluent generation (Boiler blow down, DM/RO Reject, CT blow down) will be 495 CMD which will be treated through WWTP (Capacity 750 CMD after expansion). Raw stillage (5515 TPD) will be sent to decanter followed by MEE and dryer to produce AFS. Domestic waste water is being treated in existing STP of capacity 22 KLPD. As a part of expansion, a new STP of 25 KLPD capacity will be installed to treat domestic waste water. The plant is being/will be based on

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

Total power requirement after expansion will be 17.5 MW which will be sourced from 17.5 MW Co-generation power plant. Existing distillery has 32 TPH (20TPH&12TPH) Rice Husk/paddy straw/ cow dung/ poultry waste & other biomass fired boiler. As part of this expansion, the company has decided to drop 90 TPH boiler proposal & install 110 TPH Rice Husk/paddy straw/ cow dung/ poultry waste & other biomass based fired boiler. APCE Cyclone, Bag filter & Wet Scrubber with a stack of height of 50 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. APCE Electrostatic Precipitator (ESP) with stack height of 60m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boiler. Industry has 2 x 1000 KVA & 2x1500 KVA DG sets & proposed 2x1250 KVA which will be used as standby during power failure and stack height (7.5 m) has been/will be provided as per CPCB norms. Cyclone & Wet Scrubber as APCE with 12 TPH boiler will be replaced with Bag Filter within a span of 2 years.

Details of Process emissions generation and its management

- APCE Cyclone, Bag filter & wet scrubber with a stack of height of 50 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. APCE ESP with a stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed 110 TPH boiler.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (575TPD) generated during the fermentation process is being/will be collected and sold to authorized vendors as per local demand.

Details of solid waste/Hazardous waste generation and its management

- AFS (Animal Feed Supplement) (330 TPD) is being/will be sold as cattle feed.

- Boiler ash (180 TPD) is being/will be supplied to brick manufactures for brick manufacturing and nearby farmers for farm filling in covered vehicles only.
- Used oil & grease (2.0 Kilolitres per annum) is being/ will be sold to authorized recyclers.
- ETP/CPU sludge (3.5 TPD), WWTP sludge (0.75 TPD) and STP Sludge (0.012 TPD) is being/will be used as manure.

As per Notification S.O 2339(E), dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of 660 KLPD will be used for manufacturing fuel ethanol only.

Total land of 4.913 Hectares is under possession of the company and land use conversion has been completed vide letter no. patwarihalka no. 05. EAC found the information satisfactory.

Capital cost and recurring cost of EMP are given below:

S. No.	Description		Capital Cost (Crores)	Recurring Cost/annum (Crores)
1.	Air Pollution management	Boiler stack + ESP	7.80	0.40
2.	Effluent Treatment	ZLD System - Condensate polishing unit /WWTP and STP	5.0	1.0
3.	Environment monitoring	Lab instrument, Online monitoring System, Third party monitoring, audit	1.0	0.25
4.	Solid waste management	Ash handling & management	2.50	0.25
5.	Greenbelt & plantation development	Plantation for greenbelt	0.50	0.10
6.	Rain water harvesting	Required infrastructure	1.20	-
	Total		18.0	2.0

Details of CER with proposed activities and budgetary allocation:

S. No.	Activities	1st Year (Rs. in lakhs)	2nd Year (Rs. in lakhs)	Expenditure (Rs. In lakhs)
1.	Education - Infrastructure development in Govt schools & classroom development, Provision of digital education in school & laptop distribution, sanitation facilities, safe drinking water etc.	Rs. 50 lakhs (Govt school in Village Jundla) (8 nos of water purifiers-Rs. 1.2 lakhs, 8 nos. of sanitized toilets Rs 16 Lakhs, Solar panel installation Rs. 30 lakhs, Rs. 2.8 lakhs for desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, water bottles, sports equipments, etc)	Rs. 50 lakhs (Govt school in Village Katlaheri) (8 nos of water purifiers-Rs. 1.2 lakhs, 8 nos. of sanitized toilets Rs 16 Lakhs, Solar panel installation Rs. 30 lakhs, Rs. 2.8 lakhs for desktop computers, projectors, Interactive White Boards and distributing study materials, school bags, water bottles, sports equipments, etc)	100
2.	Health facilities- Distribution of medical instruments, oxygen cylinders to nearby health centre and hospitals	Rs. 50 lakhs (Village Katlaheri PHC) (Rs. 35 Lakhs for medical instruments & Rs. 15 Lakhs for oxygen cylinders)	Rs. 50 lakhs (Village Jundla Civil hospital &Jundla PHC) (Rs. 35 Lakhs for medical instruments & Rs. 15 Lakhs for oxygen cylinders)	100
3	Skill	Rs. 15 lakhs	Rs. 15 lakhs	30

	Development - Establishment of Skill Development centre for Youth & organising Training programmes for youth/residents	(Village Jundla - Benefits to be extended to 150 persons)	(Village Katlaheri - Benefits to be extended to 150 persons)	
4	Infrastructure development- Solar Street light installation along with road & Panchayat bhavan, rainwater harvesting system & avenue plantations, village road repair, etc	Rs. 10 lakhs (60 nos. of Solar Street light for Village Jundla)	Rs. 10 lakhs (60 nos. of Solar Street lights for Village Katlaheri)	70
		Rs. 10 lakhs (Village Katlaheri- Development of RWH pond in school/colleges & pond development)	Rs. 10 lakhs (Village Jundla- Development of RWH pond in school/colleges & pond development)	
		Rs. 15 lakhs (Avenue plantation of 3,000 saplings in Village Jundla)	Rs. 15 lakhs (Avenue plantation of 3,000 saplings in Village Katlaheri)	
	Total	150	150	300

During deliberations, EAC discussed following issues:

- PP has informed that for contributing to Ethanol blending Programme at the maximum level, the management has decided to install 660 KLPD Grain based Ethanol plant instead of 300 KLPD Grain based Ethanol plant. Hence the company is proposing Expansion of Grain based distillery from 165 KLPD to 825 KLPD & Co-Generation Power Plant from 3.3 to 17.5 MW at Village Jundla, Tehsil Karnal, District Karnal, Haryana by M/s. Haryana Liquors Pvt. Ltd.

- PP submitted an undertaking for surrender of EC granted by MoEFCC, New Delhi vide letter no. J-11011/130/2011- 1A II (I) dated 28th October, 2021 for Expansion of Grain Based Distillery from 165 KLPD to 465 KLPD by installation of new 300 KLPD Ethanol Plant & Co-Generation Power Plant from 3.3 to 13.5 MW after obtaining EC for Expansion of Grain based Distillery from 165 KLPD to 825 KLPD & Co-Generation Power Plant from 3.3 to 17.5 MW
- EAC noted that proposed fresh water requirement and suggested to reduce the same. Accordingly, PP submitted that additional fresh water requirement for 660 KLPD Ethanol plant will be reduced from 3006 KLPD to 2627 KLPD. Hence, the total freshwater requirement will be 3467 KLPD after expansion after reducing from 4.5 KL/KL (3006 KLPD) to 4.0 KL/KL (2627 KLPD) water consumption After Expansion Total Fresh water requirement will be 3467 KLPD which will be sourced from groundwater.
- PP informed that proposed 17.5 MW cogeneration power plant is based on biomass. As per EIA Notification 2006 as amended from time to time, upto 25 MW biomass based power plant is exempted from EC.
- EAC suggested to increase the budget for socio-economic development activities from Rs. 2.36 Crores to Rs. 3.0 Crores. Accordingly, PP enhanced the financial allocation to Rs. 3.00 Crores and submitted that they will be spent partnering with District & State Government Agencies before commissioning of the plant.
- As a part of expansion, the company will install 110 TPH paddy straw/biomass/rice husk/agro waste fired boiler with 60 m high stack and ESP as air pollution control device to control the particulate emissions within statutory limit of 50 mg/Nm³. Existing power and steam requirement of the plant is being met by 32 TPH (20+12 TPH) paddy straw/biomass/rice husk/agro waste fired boiler. On the recommendation of committee, Cyclone & Wet Scrubber as APCE with (20+12 TPH) boiler will be replaced with Bag Filter to achieve particulate matter emissions norms of 50 mg//Nm³ within a span of 2 years e.i. 30 march 2025. . The proposed 90 TPH boiler as per EC dated 28.01.2021 shall be dropped.
- On the recommendation of EAC PP has submitted detailed action plan for greenbelt development which will be achieved within December, 2023. After Expansion 20.58 Acres (8.33 ha) i.e., 35% of the total plant area will be developed as greenbelt with a tree density of 2500 trees/ha, in order to reduce dust & noise pollution levels & to increase

aesthetic beauty of the area. The company will plant total more than 21,000 trees inside the plant premises which will be achieved within December, 2023 & the month-wise action plan with revised Plant layout.

S. No.	Month of plantation inside plant premises	No. of saplings to be planted
1	June, 2023	4,000
2	July, 2023	2,500
3	August, 2023	2,500
4	September, 2023	1,000
	TOTAL	10,000
<p>After Expansion 20.58 Acres (8.33 ha) i.e., 35% of the total plant area will be developed as greenbelt & plantation with a density of 2500 trees/ha, in order to reduce dust & noise pollution levels & to increase aesthetic beauty of the area. After Expansion, the company will plant total more than 21,000 trees inside the plant premises which will be achieved within December, 2023</p>		

- As suggested by EAC PP increased the occupational health & safety budget from Rs. 50 lakhs to Rs. 1.0 Crore.
- PP informed that the new alcohol storage section for 660 KLPD Grain based Ethanol plant will remain the same as depicted in the plant layout & storage tank sizes will not be changed as per the Risk Assessment Plan submitted.

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

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

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

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

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

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

- (i). As per the Notification S.O. 2339(E), dated 16th June, 2021, project falls in category B2 and the proposed expansion capacity of 660 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 shall be obtained before start of the construction of plant and drawing of the ground water for the distillery 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. No ground water shall be used for the plant operations.
- (v). Total fresh water requirement shall not exceed 3467 m³/day after expansion, which will be sourced 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. Air cooled condenser shall be installed to reduce fresh water requirement.
- (vi). Spent Wash/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). 25 KLPD STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.

- (vii). Cyclone & Wet Scrubber as APCE with 12 TPH boiler will be replaced with Bag Filter within a span of 2 years. APCE Cyclone, Bag filter & Wet Scrubber with a stack of height of 50 m is installed with the existing boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. APCE Electrostatic Precipitator (ESP) with stack height of 60 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (viii). Boiler ash (180 TPD) is being/will be supplied to brick manufactures for brick manufacturing and nearby farmers for farm filling in covered vehicles only. PP shall meet 10% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO₂ (575 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. 1.00 Crore for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (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.
- (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 has already been developed in 4.9 hectares i.e., 35.00 % of total project area shall be maintained 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.
- (xvi). PP proposed to allocate Rs. 3.00 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be

interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

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

Agenda No. 06

Greenfield Project of 200 KLD Grain Based Ethanol Plant along with 6 MW Co-generation Power Plant located at located at Khata No.: 227/172, Plot Nos. 44/1054, 802/880, 802//875 (P-1), 802/875 (P-2), Village- Talajaring, Tehsil- Junagarh, District- Kalahandi, Odisha by M/s Sao Breweries and Distilleries Private Limited- Consideration of Environmental Clearance.

[IA/OR/IND2/420678/2023,IA-J-11011/395/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. GRC India Pvt Ltd (NABET certificate no. NABET/EIA/2124/RA0213 and valid till 15.02.2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project 200

KLD Grain Based Ethanol Plant along with 6 MW Co-generation Power Plant located at Khata No.: 227/172, Plot Nos. 44/1054, 802/880, 802//875 (P-1), 802/875 (P-2), Village- Talajaring, Tehsil- Junagarh, District- Kalahandi, Odisha by M/s Sao Breweries and Distilleries 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	200 KLD
2	Co-generation powerplant	Power	6 MW
3	DWGS dryer	DDGS	91 TPD
4	Fermentation unit	Carbon di-oxide	142 TPD

Ministry has granted EC Identification No EC22A022OR198264 vide letter dated 28.11.2022 for the project establishment of 200 KLD Grain Based Ethanol Plant along with 6 MW Co-generation Power Plant located at Village Talajaring, Tehsil Junagarh, District Kalahandi, State Odisha by M/s. SAO Breweries and Distilleries Private Limited. PP has informed that Govt. of Odisha has proposed a road which is passing through the plot area for which has been granted. IDCO vide letter IDCO/HO/P&A-LA-E 8228/21-22/2949 dated 01.02.2023 has re allotted the 40 acre (2 pieces 30 acre + 10 acre) land for setting up of 200 KLPD distillery unit to M/s Sao Breweries and Distilleries Private Limited. PP has proposed to set up the current project in 30 acres land. PP vide letter dated 06.03.2023 requested to surrender the EC Identification No EC22A022OR198264 vide letter dated 28.11.2022 for the project establishment of 200 KLD Grain Based Ethanol Plant and consider the application for fresh EC proposed now.

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 12.14 hectares. Greenbelt will be developed in total area of 4.0 hectares i.e., 33% of total project area. The estimated project cost is INR Rs. 250Crores. Capital cost of EMP would be INR Rs. 37.5 Crores and recurring cost for EMP would be INR Rs. 6.30 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 & indirect.

There are no national parks, wildlife sanctuaries, Wildlife Corridors etc. within 10 km distance. Parhiagarh Reserve forest is approx. 0.56 km towards W; Ghana Reserve forest is approx. 1.82 km towards SW; Panigan Reserve forest is approx. 4.12 km towards NW; Shaledangar Reserve forest is approx. 4.2 km towards NE; Kanamajura Reserve forest is approx. 4.75 km towards ESE; Brahmani Reserve forest is approx. 4.9 km towards NE; Bhallipaharh Reserve forest is approx. 6 km towards W; Garjan Reserve forest is approx. 6.4 km towards S; Singapaharh Reserve forest is approx. 7.3 km towards E; Chura Reserve forest is approx. 7.6 km towards W; Junagarh forest is approx. 7.8 km towards WSW and Jharabandha Reserve forest is approx. 9.2 km towards SSE. A dry nala is at approx. 10 m away from the project site towards W direction. A Canal is at approx. 60 m away from the project site towards East direction. Sagda River is at approx. 1.9 km towards E direction. Tel River is at approx. 5.2 km, E direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.19 $\mu\text{g}/\text{m}^3$, 0.13 $\mu\text{g}/\text{m}^3$, 2.65 $\mu\text{g}/\text{m}^3$, 1.73 $\mu\text{g}/\text{m}^3$ and 0.91 $\mu\text{g}/\text{m}^3$ with respect to PM₁₀, PM_{2.5}, SO₂, NO₂ and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement including CPP will be 800 m³/day which will be met from surface water. The recommendation for drawing water from Sagada river has been forwarded by IPICOL to Department of Water Resources vide letter no. GM/SLNA/TPSB/358/21/2843, dated 04/11/2021. Effluent (Condensate/spent lees/blowdown etc.) of 821 m³/day quantity will

be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 1000 KLPD. Raw stillage will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 10 KLD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside factory premises.

Power requirement will be 4.4 MW and will be met from proposed 6 MW co-generation power plant. 50 TPH Coal/Rice Husk fired boiler will be installed. ESP/bag filter/Multi cyclone separator 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. 2 x 1010 kVA DG sets will be used as standby during power failure and stack height will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management

- 5 field ESP with 99.9% efficiency with a stack height of 60 m will be installed with the 50 TPH Rice Husk/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ (142 TPD) generated during the fermentation process will be collected by utilizing CO₂ scrubbers and it shall be sold to authorized vendors/collected in installed bottling plant.

Details of solid waste/Hazardous waste generation and its management

- DDGS (Distilled Dried Grains Stillage) (91 TPD) will be sold as cattle feed/fish feed/ prawn feed.
- Boiler ash (150 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises of capacity approx. 7.4 Cr. bricks per annum.
- Used oil (2.0 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (112.06 kg/day) and STP Sludge (1.09 kg/day) will be used as manure.

As per Notification S.O 2339(E), dated 16 June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed Capacity of 120 KLPD will be used for manufacturing fuel ethanol only.

Total land of 16.19 hectares which has been allotted to the company for 90 years on lease basis Vide Letter No.- IDCO/HO/P&A-LA-E-8228/21-22/2949 dated 01.02.2023 by Odisha Industrial Infrastructure Development Corporation (IDCO). Out of total only 12.14 ha. will be utilized and rest will be vacant for future expansion. EAC found the information satisfactory.

Capital cost and recurring cost of EMP are given below:

S. No	Particulars	Capital Cost (INR Cr.)	Annual Recurring (INR Cr.)
1.	Air pollution control system ESP on stack of 50 TPH low pressure boiler, Stack, Industrial vacuum cleaner, road sweeping machine.	8.0	1.6
2.	Ambient air quality management system (AAQMS) and Continuous emission monitoring	1.1	0.25
3.	Scrubbing system, compressing system, liquefying system and storage for CO ₂ removal.	6.2	1.0
4.	Treatment system for spent wash, DWGS centrifuge decanter, DDGS dryer for ZLD system, Construction of Garland drains, Water	6.4	1.0
5.	Condensate Polishing unit for water treatment and recycle, STP	6.2	1.02
6.	In-house Solar power Plant	2.5	0.18
7.	Rainwater harvesting systems	0.85	0.15
8.	Ash Handling and Management	0.50	0.25
9.	Fire safety and fire-fighting measures	0.80	0.20
10.	Occupational Health Management	0.80	0.15
11.	Noise Reduction Systems	0.40	0.05
12.	Green Belt Development	0.75	0.15
13.	Environment monitoring	---	0.25
14.	Environment management cell	0.50	0.05

15.	CER	2.5	---
Total		37.5	6.30

Details of CER with proposed activities and budgetary allocation:

S. No.	Description	Budget (INR Cr.)
1.	a. Development of Village Roads b. Upgradation of drinking water facility by Installation of RO and water Purifier in nearby i.e. village-Talajaring, Bagabari, Jaya Durga High School,Nandul Colony and Government School,Tiljhudi.	0.75
2.	Installation of solar panels (30 nos.) in village-Talajaring, Jaya Durga High School,Nandul Colony and Government School,Tiljhudi.	0.65
3.	Upgradation of medical facility in nearby hospital as Donating medical equipment like Beds, Stretcher, Portable Oxygen Cylinder (330 Litre), Oxygen Concentrator (0.5 to 5 Litre), AC (Window AC of 1.5 Ton), inin Primary health center,Kutrukhamar.	0.65
4.	Development of smart class, distribution of benches, Fans, drinking water facility, Upgradation of sanitary facility (One for male and one for female), Distribution of IT gadgets (students of class 12), Printers, Computers in village- Talajaring, Bagabari, Jaya Durga High School,Nandul Colony and Government School,Tiljhudi.	0.50
5.	Awareness Programs (10 nos.) for local farmers to increase soil productivity and water conservation	0.45
Total		3.0

During deliberations, EAC discussed following issues:

- 5 field ESP with 99.9% efficiency with a stack height of 60 m will be

installed with the 50 TPH Rice Husk/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³.

- PP informed that 95040 TPA rice husk and 20 % biomass pellets will be used as fuel in 50 TPH boiler. During non availability of biomass, PP will use coal as fuel. Entire steam will be consumed in the distillery. It was also informed that the resulting power generation is incidental to process steam demand.
- PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises.
- EAC noted that the budget allocated for environmental monitoring is Rs. 02.00 Lakhs which is a very low and suggested to increase it to at least Rs. 25.00 Lakhs. Accordingly, PP has submitted the revised details of EMP increasing the budget for environmental monitoring to Rs. 25.00 Lakhs.
- PP shall submit revised details of CER increasing the budget to Rs. 3.00 Crores.
- EAC noted that the depth of RWH structure proposed is 10 m and suggested to reduce the depth to 5 m. Accordingly, PP submitted revised details of RWH structure as 40 m x 25 m x 5 m.
- PP shall remove alien species from the proposed list for green belt and submit the revised list of tree species increasing the density of greenbelt proposed. Accordingly, PP has submitted the revised list of greenbelt.

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

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

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

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

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

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

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

the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

- (iii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (iv). NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the surface water for the distillery 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. No ground water shall be used for the plant operations.
- (v). Total fresh water requirement shall not exceed 800 m³/day, which will be sourced from Sagda 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/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). 10 KLPD STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (vii). 5 field ESP with 99.9% efficiency with a stack height of 60 m will be installed with the 50 TPH Rice Husk/coal fired boiler for controlling the particulate emissions within the statutory limit of 30 mg/Nm³. SO₂ and NO_x emissions shall be less than 100 mg/Nm³. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not

be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

- (viii). Boiler ash (150 TPD) will be used for brick manufacturing in proposed brick manufacturing plant inside plant premises. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall use biomass like rice husk/coal as fuel for the proposed boiler. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises.
- (ix). CO₂ (142 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. 0.8 Crore for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (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.
- (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 4.00 hectares i.e., 33.00 % of 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.
- (xvi). PP proposed to allocate Rs. 3.0 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (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, 1.82 ha i.e. 15% shall be allotted solely for parking purposes with facilities like rest rooms etc.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

Agenda No. 07

Expansion of Distillery capacity from 25 KLPD to 200 KLPD based on Sugar cane juice/ Syrup/C/B Heavy Molasses as Raw material along with expansion of sugarcane crushing capacity from 2000 TCD to 5500 TCD at Harali, Tal. Gadhinglaj, Dist. Kolhapur by M/s Appasaheb Nalawade Gadhinglaj Taluka Sahakari Sakhar Karkhana- Consideration of Environmental Clearance.

[IA/MH/IND2/419744/2023, IA-J11011/44/20 23-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Dr.Subbarao's Environment Center, Sangli. (NABET Certificate no: - NABET/EIA/2023/SA0174 and validity - DEC 12, 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project expansion of Distillery capacity from 25 KLPD to 200 KLPD based on Sugar cane juice/ Syrup/C/B Heavy Molasses as Raw material along with expansion of sugarcane crushing capacity from 2000 TCD to 5500 TCD located at Harali village, Gadhinglaj taluka, Kolhapur district, Karnataka by M/s Appasaheb Nalawade Gadhinglaj Taluka Sahakari Sakhar Karkhana.

The committee noted that PP submitted proposal under B2 category as per S.O. 345(E), dated the 17th January, 2019. During deliberations EAC noted

that feedstock existing distillery is molasses which does not have prior EC. As per SO 345(E) dated 17.01.2019 only expansion projects of sugar manufacturing or distilleries having prior ECs are allowed for special dispensation under EBP Programme. Further, it was also noted that Ministry has sent communication conveying the same vide letter IA-J11011/44/2023-IA-II(I) dated 06.03.2023. Accordingly, PP shall apply for EC under category 'A' project instead of B2 category.

In view of above, committee suggested to return the proposal in present form. Accordingly, proposal was returned in present form

Agenda No. 08

Proposed 300 KLPD Grain based Ethanol Plant & 7 MW Co-generation power plant (biomass based) located at village Nodiyur, Taluka Gandarvakottai and District Pudukottai, Tamil Naduby M/s Big Star Fuels LLP. – Consideration of Environmental Clearance.

[IA/TN/IND2/419482/2023, IA-J-11011/82/2023-IA-II(I)]

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 14th May, 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 300 KLPD Grain based Ethanol Plant & 7 MW Co-generation power plant (biomass based) located at village Nodiyur, Taluka Gandarvakottai and District Pudukottai, Tamil Nadu by M/s Big Star Fuels LLP.

During deliberations EIA coordinator of M/s. Enviro Infra Solutions Pvt. Ltd informed that EMP report has been prepared without visiting the project site. Accordingly, committee recommended to issue show cause notice to environmental consultant M/s. Enviro Infra Solutions Pvt. Ltd for preparing documents without assessing the site conditions.

Further, committee directed the consultant to prepare EMP report only after visiting and assessing the site conditions and decided to return the proposal in present form.

Accordingly, the proposal is returned in present form.

Agenda No. 09

Onshore Development and Production of Oil and Gas from 15 Development Wells and Establishment of Quick Production System (QPS) in NELP-VII Block WB-ONN-2005/4 in North 24 Parganas and Nadia Districts, West Bengal by M/S Oil and Natural Gas Corporation Limited– Consideration of Environmental Clearance

[IA/WB/IND2/407038/2022, IA-J-11011/150/2019-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Kadam Environmental Consultants (NABET certificate no. NABET/EIA/2023/SA 0164 and validity Mar 19 2023) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project Onshore Development and Production of Oil and Gas from 15 Development Wells and Establishment of Quick Production System (QPS) in NELP-VII Block WB-ONN-2005/4 located at Village Ashoknagar, Tehsil Habra II, District North 24 Parganas& Nadia, State West Bengal by M/s. Oil and Natural Gas Corporation Limited.

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	ExistingQuantity	Proposed Quantity	Total Quantity
1.	Cu mtr/day	Oil and Gas	-----	12	12

Coordinates of Proposed wells are as given below:

Sr. No.	Well location	Latitude	Longitude
1	ASOKENAGAR (D1)	22°50'14.69" N	88°35'40.86" E
2	B3 (D2)	22°50'05.08" N	88°35'35.07" E
3	K-WB-C (D3)	22°52'05.39" N	88°37'11.88" E
4	B-B-AS-B (D4)	22°52'46.35" N	88°35'32.53" E
5	K-WB-J (D5)	22°50'04.12" N	88°32'58.17" E
6	D6	22°50'14.13" N	88°38'29.28" E
7	D7	22°54'58.54" N	88°40'20.33" E
8	D8	22°47'43.74" N	88°35'15.83" E
9	D9	22°47'31.36" N	88°39'36.64" E
10	D10	22°44'55.82" N	88°34'08.24" E
11	D11	22°45'21.11" N	88°41'06.11" E
12	D12	22°55'33.00" N	88°36'09.55" E
13	D13	22°49'18.09" N	88°35'44.54" E
14	D14	22°50'07.66" N	88°35'02.19" E
15	D15	22°50'54.67" N	88°35'31.95" E

Standard Terms of Reference have been obtained vide F. No. No.IA-J-11011/55/2020-IA-II(I) dated 18th April 2020. It was informed that no litigation is pending against the proposal.

Public Hearing for the proposed project had been conducted by the West Bengal Pollution Control Board on 01.08.2022 at Ashoknagar chaired by ADM (DLLRO) North 24 Parganas Barasat & on 29.07.2022 at Krishnanagar chaired by ADM Nadia. The main issues raised during the public hearing and their action plan:

S. No.	Name and Address	Issues Raised by Public	Response by Project Proponent at the time of Public Hearing	Action Taken/ Action to be Taken/Responsibility	Fund Required /Timeline
NADIA DISTRICT					
1	Md. Hasi Mondal, Baliadanga	About the terms and condition of	The lease period is for 3 years and	Lease compensation will be done as per &	-

S. No .	Name and Address	Issues Raised by Public	Response by Project Proponent at the time of Public Hearing	Action Taken/ Action to be Taken/Responsibility	Fund Required /Timeline
		the land lease and duration of the work. About the development of village roads, street lights etc.	after negotiation with the land owners, proper compensation would be given. Street lights, water purifiers, infrastructure development at school etc. will be done by ONGC.	regulatory norms. Street lights, water purifiers, infrastructure development at school etc. will be undertaken by ONGC.	~ 30 lacs Timeline: within 2 years from the commencement of the project
2	Sri Durgaprasad Goswami, Baliandang a	About the site restoration process after the work is completed. About the benefits of the local villagers due to the project.	The land will be restored in the previous condition with all the necessary testing and handed over back to the land owners. ONGC will help in developing schools, toilets, sports activities, drinking water facilities etc. for the local	ONGC have SOP in place for restoration of well site in case of abandonment. ONGC will extend financial support towards the development of <ul style="list-style-type: none"> • Toilets & sports activities for schools • Drinking water facilities etc. for the local villagers. • Medical camps and will engage local people for temporary works at site. 	- ~ 20 lacs Timeline: within 2 years from the commencement of the project

S. No	Name and Address	Issues Raised by Public	Response by Project Proponent at the time of Public Hearing	Action Taken/ Action to be Taken/Responsibility	Fund Required /Timeline
			villagers. ONGC will also setup medical camps and engage local people for temporary works at site.		
3	Sri Rajkumar Mondal (Panchayat Pradhan, Fatepur GP) of Baikara Village	If the land belongs to multiple owners then how ONGC will acquire the same.	The land will be taken on lease after negotiation with multiple land owners.	Lease & compensation will be done as per regulatory norms.	-
4	Sri Predeep Mondal, Baliadanga	Whether ONGC will do the levelling work for the total land as different crops need different level of land. He also asked that whether the drilling activities will affect the ground water level.	After the end of lease period the top soil would be removed and filled up with fresh soil. The land will be levelled as per previous condition. The drilling activities will be performed with conductor casing and the ground water will not be	ONGC will do the levelling work & top soil will be removed and will be filled up with fresh soil as per SOP.	-

S. No	Name and Address	Issues Raised by Public	Response by Project Proponent at the time of Public Hearing	Action Taken/ Action to be Taken/Responsibility	Fund Required /Timeline
			contaminated. Moreover, ONGC uses surface water for drilling activities which will not affect the ground water level.		
5	Sri Sannyasi Mondal, Baliadanga	Due to the movement of vehicles the crops and the vegetables in the adjoining agricultural fields will be affected by dust emission.	Separate land would be acquired for approach roads so that the adjoining agricultural fields will not be affected due to dust emission.	<ul style="list-style-type: none"> • Since the well locations are tentative locations and it might change, so road constructions will take place after finalising the drilling location. • Provision of Pucca road will be made • Water sprinkling for dust suppression 	~ 50 lacs Timeline: within 2 years from the commencement of the project
6	Sri Madhab Mondal, Baliadanga	Requested ONGC to fulfil their commitments as discussed in the public hearing.	ONGC explained about the provisions of CER activities to the villagers.	No action is required	-
NORTH 24 PARGANAS DISTRICT					
1	Sri Narayan Goswami, M.L.A. Ashokenagar	He expressed his support for the proposed	-	No action is required	-

S. No	Name and Address	Issues Raised by Public	Response by Project Proponent at the time of Public Hearing	Action Taken/ Action to be Taken/Responsibility	Fund Required /Timeline
		<p>project and explained everyone the importance of the project as it will help in financial development of the surrounding areas. He also stated that ONGC will materialise the project by maintaining the balance of all the environmental factors. Besides, he stated that ONGC has fulfilled the previous CSR activities and will do the same in near future.</p>			
2	Shri Probodh Sarkar, Chairman-Ashokenagar Kalyangarh Municipality	He admired and supported the project. He said that due to the said project, ancillary industries	-	No action is required	-

S. No .	Name and Address	Issues Raised by Public	Response by Project Proponent at the time of Public Hearing	Action Taken/ Action to be Taken/Responsibility	Fund Required /Timeline
		will develop in the adjoining areas which will help in employment generation. This project will help in the development of socio-economic condition of the locality.			
3	Sri Md. Golam Ahiya, Mandalhat	Enquired about the size of the land that has to be acquired, whether the development wells will affect the adjoining agricultural fields. He also asked about employment generation & education qualification required for the same and the compensation package for the acquired land.	For each well only 150 mtr X 150 mtr land is required and the drilling activities will not have any adverse effect on the adjoining agricultural fields. He also replied that employment will be generated via the contractors engaged in ONGC drilling activities.	Employment will be generated via the contractors engaged in ONGC drilling activities.	-

S. No	Name and Address	Issues Raised by Public	Response by Project Proponent at the time of Public Hearing	Action Taken/ Action to be Taken/Responsibility	Fund Required /Timeline
			After discussion with the agricultural department and the land owners, the compensation package is decided and the land is acquired for a lease period of 3 years.	Lease & compensation will be done as per regulatory norms.	-
4	Sri Saifuddin Golder, Kamarpur	Whether preference would be given to the locals for employment. He also asked about the compensation package for the lands.	The contractors of ONGC will hire local people depending on the requirement. Compensation will be provided to the private land owners before acquiring the land.	ONGC will provide employment to local people depending on the requirement. Compensation will be provided by ONGC to the private land owners before acquiring the land	-
5	Sri Md. Rahamatullah Mondal, Mandalhat	If the land owners can cultivate in the adjoining plots of the site. He also enquired	The agricultural work can continue at the adjoining plots of the site and ONGC will	ONGC will return the acquired land in original state after site restoration works.	-

S. No	Name and Address	Issues Raised by Public	Response by Project Proponent at the time of Public Hearing	Action Taken/ Action to be Taken/Responsibility	Fund Required /Timeline
		about the future of the acquired land after the lease period is over	return the acquired land in original state after site restoration works.		
6	Sri Bappa Ghosh, Pumlia	About the contribution that ONGC will make in health & education sector at the local villages. He also requested ONGC to provide solar lighting arrangements in the school	ONGC has identified 3 Nos. primary health centres in Pumlia village. ONGC will help in developing the infrastructure of these primary health centres. In the next phase, ONGC will develop the infrastructure for the schools located in the village.	Development of 3 Nos. identified primary health centres infrastructure by ONGC. ONGC will develop solar lighting arrangements and other infrastructure for schools located in the villages.	~ 30 lacs Timeline: within 2 years from the commencement of the project.
7	Shri Nazimul Hossain, Kamarpur	About employment generation and development of local areas due to the proposed	If oil & gas is found then ancillary industries will develop in the adjoining areas which	ONGC will provide employment to local people depending on the requirement.	-

S. No	Name and Address	Issues Raised by Public	Response by Project Proponent at the time of Public Hearing	Action Taken/ Action to be Taken/Responsibility	Fund Required /Timeline
		project	will help in employment generation. This will also help in development of the surrounding areas		
8	Sri Abdul Ali Mondal, Mandalhat	About the development of the local villages	Street lights, school buildings etc. will be developed by ONGC.	ONGC will develop Street lights, school buildings, solar lightings for the schools etc.	~ 20 lacs Timeline: within 2 years from the commencement of the project.
9	Sri Saiful Gazi, Kamarpur	Enquired about the results of the air, water, soil samples collected from all the proposed well locations. He also enquired whether ONGC will mitigate the environmental risk that might arise due to drilling works	The results of the samples tested are within acceptable limits as per WBPCB norms. As per the EIA report submitted by ONGC, they are committed to mitigate any environmental risk or hazard that might occur due to the said project.	Mitigation of any environmental risk or hazard that might occur due to the said project will be done by ONGC.	-
10	Sri Ashis Ghosh,	Whether there would	The fluid will be	No action required	-

S. No .	Name and Address	Issues Raised by Public	Response by Project Proponent at the time of Public Hearing	Action Taken/ Action to be Taken/Responsibility	Fund Required /Timeline
	Tajpur	be any adverse effect in the adjoining agricultural fields due to the fluid extracted from drilling activities. He also asked about site restoration activities. He enquired about the process for contacting the ONGC officials if required	extracted from a depth of approx. 3000 meters and drilling activity will not affect the adjoining agricultural fields. He also replied that after 3 years of lease period the land will be returned to the owners after proper site restoration works. The local villagers can directly contact the site in-charge of ONGC if required.		

Total land area required for QPS is 5.46 hectares & for drilling wells is 33.75 hectares. Greenbelt will be developed in total area of 1.8 hectares i.e., 33% of total QPS area. The estimated project cost is Rs. 516 Crores. Capital cost of EMP would be Rs 1.19 Crores and recurring cost for EMP would be Rs. 0.22 Crores per annum. Industry proposes to allocate Rs. 1.50 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will be 70 persons as direct & indirect.

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

Ambient air quality monitoring was carried out at 12 locations during 11.11.2021 to 10.01.2022 and the baseline data indicates the ranges of concentrations as: PM10 (87-100 $\mu\text{g}/\text{m}^3$), PM2.5 (20-45 $\mu\text{g}/\text{m}^3$), SO2 (7.0-8.1 $\mu\text{g}/\text{m}^3$) and NO2 (17.7-20.6 $\mu\text{g}/\text{m}^3$). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.051 $\mu\text{g}/\text{m}^3$, - $\mu\text{g}/\text{m}^3$, 0.051 $\mu\text{g}/\text{m}^3$ and 2.81 $\mu\text{g}/\text{m}^3$ with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 45 CMD which will be met from Surface water. The committed suggested to restrict the fresh water requirement to 25 CMD. Effluent of 24.5 CMD quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 100 KLPD & 80 KLPD. STP will be installed to treat sewage generated from the project site.

Power requirement will be 3.8 MW for drilling activity & 135 KW for QPS. It will be met from local State Electricity Board & DG set. The emissions to the atmosphere from the drilling operations shall be from the DG Sets. These emissions will contain traces of PM, SOx & mainly NOx. The concentration of SO2 in the emitted gas will depend on the fuel source, which in this case shall be diesel containing low sulphur. The flare stack will be provided at a distance of 30 m from well, given the fact that, flaring is a temporary activity which will not last for more than a few days, the impacts on air quality will not be significant.

A Quick Production Set-up (QPS) contains the following setup:

- 02 gas wells with 1,20,000 SCMD of gas, 2 CMD Condensate and 60 CMD of water.
- 02 oil wells with 25.5 CMD of oil, 9 CMD of water and around 2000 CMD associated gas.
- Oil / Condensate will be stored in separate tanks after gas & water separation and will be evacuated through road tankers to IOC-Refinery (Indian Oil Corporation), Haldia.

- Gas will be treated through separation of condensate & water, Gas dehydration unit & Dew point depression unit and will be despatched to trunk line after compression.
- Effluent water from oil and gas processing will be treated in a ETP before disposal. Disposal of treated effluent will be done with the prior approval of SPCB.

Details of Solid waste/ Hazardous waste generation and its management

- Used oil – The used oil will be sent to authorized recyclers.
- ETP sludge – It will be sent to TSDF site
- Empty barrels /containers/ liners contaminated with hazardous chemicals/ wastes- It will be sent to TSDF site

Capital Cost and Recurring cost of EMP are given below:

Sl.No	Description	CapitalCost in Lakhs	Recurring Cost inLakhs /Annum
1.	Wastewater Effluent Management	10.5	6.3
2.	Noise and Vibration	5.5	0.03
3.	Solid Waste Management	5.5	0.14
4.	Air Emission	54.0	5.25
5.	Soil	43.8	10.61
	GrandTotal	119.3	22.33

Details of CER with proposed activities and budgetary allocation:

S. no.	District	Particulars	Activity	Timeline	Total
1	NADIA	Community infrastructure	<ul style="list-style-type: none"> • Solar Street lights, water purifiers, infrastructure development at school • Drinking water facilities etc. for the local villagers. 	Within 2 years from the commencement of the project	30 Lac

2		Pollution Control	<ul style="list-style-type: none"> • Provision of Pucca road will be made • Water sprinkling for dust suppression 		50 lacs
3		Health & Sanitation	<ul style="list-style-type: none"> • Medical camps and will engage local people • Toilets & sports activities for schools 		20 Lac
4	NORTH 24 PARGANAS	Health	3 Nos. identified primary health centres	Within 2 years from the commencement of the project	30 Lac
5		Infrastructure	Solar Street lights, school buildings		20 Lac
Total funds under CER					Rs. 1.5 Crores

During deliberations EAC discussed the following issues:

- PP informed to take following measures for storm water management at drilling site located near the water bodies:
 - I. Level of the Drilling site shall be constructed in such way that outside rainwater should not enter into the drilling site
 - II. Garland drain will be constructed to prevent runoff of anywaste into the nearby water bodies.
 - III. Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. No effluent/drilling mud shall be discharged/disposed off into nearby surface water bodies
 - IV. Provision of HDPE lined pit for storage of waste water
 - V. Surface drains will be adequately graded and maintained and kept debris free to ensure quick disposal of their contents.
- PP has submitted plant species for plantation proposed in 1.8 Ha of QPS will be developed as greenbelt considering 1500 trees per hectare as per CPCB guidelines.
- EAC noted that budget allocated towards CER is only for addressing issues raised in public hearing and suggested to do CER activities apart from that increasing the budget to Rs. 5.00 Crore. However, PP

submitted a revised CER detailed list for enhanced the budgetary allocation to Rs. 1.5 Crore.

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) Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing.
- (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) No pipelines or its part shall be laid in the Forest land/Protected Area without prior permission/approval from the Competent Authority.
- (iv) Total fresh water requirement shall not exceed 25 CMD and will be met from surface water. Prior permission shall be obtained from the concerned regulatory authority.
- (v) The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. Mobile ETP coupled with RO shall be installed to reuse the treated water in drilling system. Mobile STP 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 above.

- (vi) 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.
- (vii) As proposed, produced formation water is stored in formation water tanks shall be disposed to the abandoned wells of ONGC 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) 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 HOW(M&TM) Rules, 2016. No effluent/drilling mud shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.
- (xiii) Oil spillage prevention and mitigation scheme shall be prepared. In

- case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.
- (xiv) The project proponent shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At fixed installations or plants use of ground flare shall be explored.
 - (xv) The project proponent shall develop a contingency plan for H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S detectors in locations of high risk of exposure along with self-containing breathing apparatus.
 - (xvi) Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.
 - (xvii) On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable DGH / Indian Petroleum Regulations. After completion of drilling of any well, the owner or operator shall restore the well site, remove or fill all pits used to contain produced fluids or industrial waste and remove all drilling supplies and equipment not needed for production.
 - (xviii) PP proposed to allocate Rs. 1.50 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed within 2 years of commencement of project activities in consultation with District Administration.
 - (xix) End of life lead acid batteries shall be disposed in compliance with the rules specified in Battery Waste Management Rules,

- (xx) Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xxi) Oil content in the drill cuttings shall be monitored and report & shall sent to the Ministry's Regional Office.
- (xxii) The project proponent shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.
- (xxiii) PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup at site which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis instead of engaging environment monitoring laboratories/consultants. Any non- compliance or infringement should be reported to the concerned authority
- (xxiv) The Project Proponent shall undertake Occupational Health survey for initial and Periodical medical examination of the workers engaged in the Project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS Circulars. Besides carrying out regular periodic health check-up of their workers, 20% of the workers engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.
- (xxv) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

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