GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-2 SECTOR)
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Dated: 21.02.2022

MINUTES OF THE 50th MEETING OF THE EXPERT APPRAISAL COMMITTEE

(INDUSTRY-2 SECTOR PROJECTS)

HELD ON 10th-11th February, 2022

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

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

(ii) Confirmation of minutes: The EAC, having taken note that final minutes were issued after incorporating comments received from the EAC members on the minutes of its 49th Meeting of the EAC (Industry-2) held during 27th-28th January, 2022 conducted through Video Conferencing (VC), confirmed the same.

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

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: -

10th February, 2022 (Thursday)

Agenda No. 50.1

Expansion of sugar unit from 4900 TCD to 7500 TCD, Cogeneration power plant from 30 MW to 45 MW & molasses based distillery unit from 45 KLPD to C molasses/B heavy/ cane juice based 360 KLPD distillery unit by M/s. Jai Hind Sugar Pvt. Ltd. at Achegaon, Tal- South Solapur, Dist –Solapur, Maharashtra.- Consideration of Environment Clearance .

[IA/MH/IND2/247490/2021, J-11011/94/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Ultra-Tech, made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for proposed expansion of sugar unit from 4900 TCD to 7500 TCD, Cogeneration power plant from 30 MW to 45 MW & molasses based distillery unit from 45 KLPD to C molasses/B heavy/ cane juice based 360 KLPD distillery unit by M/s. Jai Hind Sugar Pvt. Ltd. at Achegaon, Tal- South Solapur, Dist –Solapur, Maharashtra.

The project/activities are covered under category A of item 5 (g) 'Distilleries' of the Schedule to the EIA, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC). The proposal has been submitted under the Ministry's EIA Notification, 2006 amendments vide Notification no. S.O. 345(E) dated 17th January 2019 & extension of notification S.O. 750(E) dated 17th February 2020, S.O 980(E) dated 02nd March, 2021. Accordingly, the proposal has been appraised as category 'B2' project.

Standard ToR and public Hearing conduction is not applicable as the project falls under category B2 as per OM dated 2nd March, 2021 and 16th June, 2021. It was informed that no litigation is pending against the project.

Ministry had issued EC earlier vide letter no. F.No. J-11011/57/2014-IA II (I); dated 28th March, 2016 to expansion of sugar unit (from 3500TCD to 4900TCD), Cogeneration power plant up to 30 MW and establishment of new 45 KLPD molasses based Distillery at village Achegaon, Tehsil solapur South, District Solapur, Maharashtra by M/s Jai Hind Sugar Pvt. Ltd.

Certified Compliance Report (CCR) on existing Environmental clearance was issued by IRO, MOEFCC Nagpur vide File No-EC-72/RON/2016 NGP/8465. Dated 12.08.2021 wherein 3 non compliances and 4 partial compliances were observed.

The details of products and capacity are as under:

Sugar & Cogeneration Unit

Products & Co-products	**Unit**	**Quantity**		
		Existing	**Proposed**	**Total**
Sugar Unit	**TCD**	**4900**	**2600**	**7500**
Cogeneration unit	**MW**	**30**	**15**	**45**
By-product				
C molasses 'OR'	MT/M	6100	3115	9215
B Heavy Molasses	MT/M	11625	6115	17,740
Bagasse @ 30 % of sugar cane	MT/M	44100	23400	67500
Pressmud	MT/M	6100	3221	9321

Distillery Unit

Products & Co-products	Unit	Quantity		
		Existing	Proposed	Total
Molasses/B heavy/Cane Juice based Distillery Unit	**KLPD**	**45**	**315**	**360**
Rectified Spirit 'OR'	KLPD	45	--	45
Extra Neutral Alcohol (ENA) 'OR'	KLPD	44.1	--	44.1
Absolute Alcohol/Ethanol	KLPD	44.1	296.1	340.2
Fusel Oil	KLPD	0.18	1.26	1.44

Total plot area under possession is 629400 Sq.m. (155.5279 acre) Existing land area is 121.4 acre, additional 34.12 acre land will be used for proposed expansion. Industry has already developed / will develop greenbelt in an area of 33 % i.e., 207702 m2 (51.32 acre) out of total net plot area 152.86 acre of the project.

The estimated project cost is Rs 797.511 Core including existing investment of Rs 337.51 crores (Existing Sugar& Co-gen 253.511 Cr + Distillery 84 Cr). Total capital cost earmarked towards environmental pollution control measures is Rs 14.2 crores and the Recurring cost (operation and maintenance) will be about Rs 2.82 crores per annum. Total Employment will be 425 persons as direct &1500-2000 persons indirect after expansion. Industry proposes to allocate Rs 3.45 crores @ of 0.75 % towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Bhima is flowing at a distance of 18.39 Km in south direction.

Total fresh water requirement is 2812 m3/day of which fresh water requirement for sugar unit will be 1880 m3/day and for distillery unit during season will be max 1632 m3/day. Fresh water requirement will be met from Bhima river, Hilali bandhara. Effluent of quantity 1040 m3/d (Sugar unit & cogen unit) & 2379 m3/d (Distillery) will be treated through Condensate Polishing Unit.& Spent wash of quantity max 2880 m3/d will be treated by Evaporation in MEE and CSW sent to incineration The plant will be based on Zero Liquid discharge system.

Total Power Power consumption for project will be 19.74 MW. For sugar factory (7500 TCD) during season will be 7.50 MW& for 45 MW Cogeneration unit will be 3.24 MW will be met from 45 MW cogeneration unit. Power consumption for 360 KLPD distillery will be 8.5MW which will be met from own 18 MW TG set Available through own generation.

Power consumption for colony of workers – 0.3 MW. Proposed to install 1 No. of DG sets of 500 kVA capacity, additionally no DG sets are used as standby during power failure. Stack (height 5 m.) will be provided as per CPCB norms to the proposed DG sets.

Existing sugar unit has 80 & 100 TPH bagasse & biomass fired boiler. Additionally for proposed distillery expansion 100 TPH concentrated spent wash & coal fired boiler will be installed. Electrostatic precipitator (ESP) with a combine stack of height of 80m for existing boiler of capacity 80 TPH & 100 TPH is already installed. And for proposed incineration boiler of capacity 100 TPH stack of height 100 m along with Electrostatic precipitator (ESP) will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm3

Details of process emissions generation and its management:

Existing & Proposed Air pollution control measures

Sr.No.	Area of Operation	Air Pollution Mitigation Measures
Existing& proposed Sugar Cogen Unit		
1	100 TPH & 80 TPH Boiler Units	80 m stack height has been provided as per CPCB Norms with ESP
Existing& proposed Distillery Unit		
2	Proposed100 TPH incineration boiler	100 m height with ESP to achieve maximum collection of fly ash

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

Sr. No.	Type of Waste	Quantity				Treatment	Disposal	Remark
		Existing	Proposed	Total	Unit			
1	Canteen Waste	10	5	15	kg/d	Compost	Own Garden	Organic
2	Domestic (Colony) Waste	40	10	50	kg/d	Compost	Factory farm	Mixed
3	Press Mud	203	97	300	MT/d	Compost	Sold to farmer	Organic
4	ETP sludge	55	45	100	kg/d	--	Used as soil conditioner	Organic, Non-Haz
7	Yeast Sludge	1	7	8	MT/d	Composting	On green belt	Organic, and Non-Haz.

8	Bagasse ash from Sugar &cogen Unit	23	--	23	MT/M	Composting/ sale	Partly for Composting & partly will be sold to brick manufacturer	Takers available
9	Incineration Boiler ash	19	135	154	TPD	Sale	Sold to farmers& brick manufacturer	Organic & high nutrient value
10	Spent oil	625	00	625	Kg/annum	Burn in own boiler as fuel	Burn in own boiler as fuel	In season

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 315 KLPD will be for manufacturing of fuel ethanol only.

During deliberations PP made a brief presentation on CCR and ATR wherein following conditions remained non complied:

- Pucca approach road to the project site shall be constructed prior to commencing activity of the main distillery to avoid fugitive emission.
- At least 5% of the total cost project should be earmarked for Enterprise social commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to Ministry's Regional Office at Nagpur. Implementation of such program should be ensured accordingly in a time bound manner.

In this regard EAC directed that PP shall construct pucca road within 4 months and Industry shall utilize the funds committed towards ESC for the existing EC within one month under the guidance of District Magistrate.

Further, EAC sought the following information/commitments from PP:

(i). Industry shall install solar power of at least 10% of its total power requirement within plant/nearby villages as a part of EMP.

(ii). The proposed budget of Rs 3.45 crores towards CER be increased to Rs. 5.00 Crores and shall be spent on improving infrastructure of public schools in nearby villages in consultation with District Magistrate. All the proposed activities under CER shall be completed before commencement of operations of the plant.

(iii). Pucca approach road to the project site shall be constructed within 4 months.

(iv). PP shall allocate at least Rs. 75 Lakhs for Occupational Health Safety.

(v). Industry shall construct a rainwater storage facility of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). Fresh water requirement shall not exceed 3.0 kL fresh water consumed/kL production of Ethanol.

(vii). Industry shall utilize the funds committed towards ESC for the existing EC within one month under the guidance of District Magistrate

PP has submitted the desired commitments/information sought above in the form of undertaking except for points (vi) & (vii) which are imposed as specific conditions.

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 OM dated 16th June, 2021, project falls in category B2 and the proposed expansion of 315 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an 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). Industry shall utilize the funds committed towards ESC for the existing EC granted vide letter No. J-11011/57/2014-IA II (I); dated 28th March, 2016 within one month under the guidance of District Magistrate.

(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.

(iv). 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. Industry shall install solar power of at least 10% of its total power requirement within the plant/nearby villages as a part of EMP.

(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.

(vi). Total Fresh water requirement shall not exceed 3.0 kL fresh water consumed/kL production of Ethanol which shall be met from Bhima river, Hilali bandhara. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vii). Spent wash shall be concentrated followed by incineration.

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

(ix). PP proposed to allocate at least Rs. 75 Lakhs for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

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

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

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

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

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

(xv). PP proposed to allocate Rs. 5.0 Crores and shall be spent on improving infrastructure of public schools in nearby villages in consultation with District Magistrate. All the proposed activities under CER shall be completed before commencement of operations of the plant.

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

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

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

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

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

Agenda No. 50.2

Proposed expansion of Petrochemical based product manufacturing facility by M/s IG Petrochemicals Limited, Plot No T-2, V-45, V-11 to V-14, T2/1, T-1, MIDC Taloja, Tehsil Panvel, Dist Raigad, Maharashtra- Consideration of Environment Clearance.

[IA/MH/IND2/249482/2016, J-11011/73/2016-IA-II(I)]

The Project Proponent and the accredited Consultant M/s Aditya Environmental Services Pvt. Ltd, made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for proposed expansion of Petrochemical based product manufacturing facility by M/s IG Petrochemicals Limited, Plot No T-2, V-45, V-11 to V-14, T2/1, T-1, MIDC Taloja, Tehsil Panvel, Dist Raigad, Maharashtra.

The project/activities are covered under category B of item 5 (e) Petroleum products and petrochemical based processing such as production of carbon black and electrode grade graphite (processes other than cracking & reformation and not covered under the complexes). Due to applicability of General Condition i.e location of Matheran ESZ at a distance of 3.15 km, the project is appraised at Central Level by Expert Appraisal Committee (EAC).

Standard ToR has been issued by Ministry vide letter No J-11011/73/2016-IA-II (I) dated 2nd September 2021. Public Hearing for the proposed project is not applicable as the site is located in Taloja MIDC which is notified by Industries and Labour Department, Government of Maharashtra under Maharashtra Industrial Development Act, 1961 vide dated 11th March 1966.

Ministry had issued EC earlier vide letter no. J-11011/73/2016-IA-II (I) dated 18th July 2017 and 20th February 2018 to the existing Industry.

Certified compliance report was issued by Integrated Regional office, MoEF&CC, Nagpur vide F.no.EC-595/RON/2017-NGP/9007 dated

14.12.2021 wherein overall compliance is found to be satisfactory.

The details of products and capacity are as under:

S. No.	Product	Existing Capacity (TPA)	Proposed additional Capacity (TPA)	Total, TPA
	Products			
1.	Phthalic anhydride	222,110	53,000	275110
2.	Maleic Anhydride	7660	1450	9110
3.	Benzoic acid	1500	500	2000
4.	Power (Export to grid)	2.5 MW	-	2.5 MW
5.	Di ethyl phthalate (DEP)	12,600	-	12,600
6	Di methyl phthalate (DMP)			
	By Products			
1.	Sodium sulphate	900	-	900
2.	Phthalic acid	800	-	800
3	Monoester salts	3000	-	3000

Total plot area of 113282 sq. m will be used for proposed expansion. Industry will develop greenbelt in an area of 37.1% i.e. 41983.15 sq. m out of total area of the project. Out of 41983.15 sq. m total green belt area, 11398.15 sq. m is developed inside plot and 30585 sq. m will be developed outside plot.

The estimated project cost is Rs. 325 Crores in addition to existing investment of Rs. 1167 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 12.99 Cr and the Recurring cost (operation and maintenance) will be about Rs. 2.25 Cr per annum. Total Employment will be 725 persons (Existing- 665 & Proposed- 60) as direct & ~100 persons indirect after expansion. Industry proposes to allocate Rs. 2.43 Crores of proposed project cost towards CER.

Matheran Eco-sensitive Zone is about 3.15 km towards North- East of project site. The project site falls outside the area of notified Matheran Eco-Sensitive Zone. Nalla is flowing near to site from North to South direction.

Ambient air quality monitoring was carried out at 11 locations during March to May 2021 and the baseline data indicates the ranges of concentrations as: PM_{10} (30.5 to 75.4 µg/m^3), $PM_{2.5}$ (20.7 to 36.8 µg/m^3), SO_2 (8.3 to 26.5 µg/m^3), NOx (10.5 to 36.4 µg/m^3), NH_3 (10.2 to 49.2 µg/m^3), CO (0.12 to 1.7 mg/m^3), nMHC (BDL to 0.2 ppm). O_3, Pb, C_6H_6, BaP, As & Ni are found to be BDL. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.24 µg/m^3, 8.75 µg/m^3, 1.65 µg/m^3 and 0.71 µg/m^3 with respect to PM_{10}, SO_2, NOx and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement in post expansion scenario is 6739 cmd of which fresh water requirement of 6371 cmd will be met from MIDC Taloja and balance will be met by recycling treated effluent. Trade effluent of 851 cmd quantity will be treated through ETP, UF, RO, MEE & ATFD. Domestic sewage of 44 cmd will be treated at Aeration tank of ETP. Effluent discharge to CETP will be 220 cmd (maintained as per existing consented discharge qty.) and balance will be recycled back.

Power requirement after expansion will be 9900 KW including existing 7150 KW. Power requirement will be fulfilled from co-generation plant in proposed expansion. Existing unit has 2000 KVA and 2500 KVA DG sets. Stack height of 15 m above roof is be provided as per CPCB norms to the DG sets.

Existing unit has 3 nos. of LSHS Premium fired boiler (10 TPH each), 2 nos. of FO & Distillation residue fired Hot oil heater (3.1 MW & 4.9 MW) and 1 no. of Diesel & Distillation Residue fired Thermal oxidizer/heater. There are 4 nos. of PA De- dusting stacks, 1 no. of MA bagging stack and 1 no. of MA flaker stack. Additionally, 3.4 MW FO & Distillation residue fired Hot oil heater will be installed. Cyclone dust separator & Alkali Scrubber with Stack height of 38 m will be provided to proposed Hot oil heater. Bag Filter with Stack height of 12 m will be provided to 1 no. of proposed PA de- dusting unit. Particulate emissions will be maintained within the statutory limit of 150 mg/Nm^3 .

For use of furnace oil as fuel for Hot oil heater, CPCB guideline shall be followed coupled with adequate measures such as installation of Cyclone Dust Separator and alkali Scrubber with adequate stack height shall be taken to mitigate emissions.

Details of process emissions generation and its management:

Stack attached to	**PA1 scrubber**	**PA2 scrubber**	**PA3 scrubber**	**PA4 scrubber**	**PA5 scrubber**
MOC	SS316L	SS316L	SS316L	SS316L	SS316L
Shape	Round	Round	Round	Round	Round
Height above the ground level Mts.	50	50	50	50	50
Diameter, in meters	2.0	1.7	1.7	1.7	1.7
Temp deg. C	Ambient temp.	Ambient temp.	Ambient temp.	Ambient temp.	Ambient temp.
Control equipment preceding the stack	3 stage water scrubber followed by stack	3 stage water scrubber followed by stack	3 stage water scrubber followed by stack	3 stage water scrubber followed by stack	3 stage water scrubber followed by stack

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

Non hazardous waste generation and disposal

No	Type of waste	Existing Qty. (as per CTO)	Proposed add. Qty.	UOM	Disposal
1	Biological sludge from waste water treatment	35	5	MT/M	Landfilling
2	Debris during maintenance activities like insulation/packing material / scrap iron etc.	8.5	2.5	MT/M	By sale / CHWTSDF

Hazardous waste generation and disposal

No	Type of waste	Category	Existing Qty. (as per CTO)	Proposed add. Qty.	UOM	Disposal
1	Still bottom from distillation	1.2	5467.8	1316	MT/A	Use as fuel heater
2	Discarded containers /barrels/liners	33.1	1240	50	Nos/Y	Washed and reused
3	Discarded bags used for hazardous chemicals	33.1	2.5	0.5	MT/A	Washed and reused
4	Chemical sludge from waste water treatment	35.3	18	4	MT/A	Sent to CHWTSDF
5	Spent carbon	36.2	93.7	-	MT/A	Sent to CHWTSDF
6	Ash from incineration	37.2	9.5	5	MT/A	Sent to CHWTSDF
7	Spent catalyst and molecular sieve	1.6	90	30	MT / once in 3 years	Sent back to manufacturer
8	Used oil / Spent oil	5.1	45	10	MT/A	Sale CPCB/ MPCB authorized reprocesser
9	Discarded asbestos	15.2	43	-	MT/A	Sent to CHWTSDF
10	Concentration or evaporation residue	37.3	3000	200	Mt/A	Sent to CHWTSDF
11	Organic Residue	1.4	150	40	MT/A	Sent to CHWTSDF
12	Bio Medical Waste-Soiled waste	-	10	-	kg/m	CBMWTSDF
	Bio Medical Waste-Waste sharps including metals		2	-	kg/m	CBMWTSDF
13	Sodium Sulphate	-	900	-	MT/A	Sale to

						Authorized party recycler/re processor/ CHWTSDF
14	Phthalic Acid	-	800	-	MT/A	
15	Mono Ester Salt	-	3000	-	MT/A	
16	Sludge from wet scrubbers	37.1	5	2.5	Mt/A	CHWTSDF
17	IT telecom/ Electrical, Electronic waste	-	600	100	Kg/M	Sale to Authorized E waste handler/ recycler
18	Battery waste	-	100	0	Kg/M	Sale to Authorized recycler

During deliberations PP made a brief presentation on CCR and ATR. EAC found the compliance status satisfactory. Further, EAC sought the following information/commitments from PP:

- Industry shall carry out HCl monitoring in stack emissions which is observed as partial compliance in CCR.
- Net fresh water requirement shall be reduced by 10 %.
- PP to increase stack height of proposed PA de-dusting to 30 m.
- For the proposed usage of furnace oil as fuel for Hot oil heater adequate measures such as installation of Cyclone Dust Separator and alkali Scrubber with adequate stack height shall be taken to mitigate emissions. Further, Industry shall abide by CPCB guidelines for use of Furnace oil.
- Industry shall restrict CETP discharge to 220 cmd and no additional effluent discharges from proposed project.
- The proposed budget of Rs 2.43 crores towards CER be increased to Rs. 3.00 Crores which shall be equally spent on improving infrastructure of public schools and installation of solar power in nearby villages in consultation with District Magistrate. All the proposed activities under CER shall be completed before commencement of operations of the plant.
- Industry shall install solar power of at least 10% of its total power requirement within plant/nearby villages as a part of EMP.

PP has submitted the desired commitments/information sought above in the form of undertaking.

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, subject to compliance of terms and conditions as under, and general terms of conditions at Annexure: -

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. Industry shall install solar power of at least 10% of its total power requirement within plant/nearby villages as a part of EMP.

(ii). Net fresh water requirement shall not exceed 5734 m^3/day will be met from MIDC Taloja. Necessary permission in this regard shall be obtained from the concerned regulatory authority. 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.

(iii). For use of furnace oil as fuel for Hot oil heater, CPCB guideline shall be followed coupled with adequate measures such as installation of

Cyclone Dust Separator and alkali Scrubber with adequate stack height shall be taken to mitigate emissions.

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

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

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

(vii). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.

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

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

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

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

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

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

(xiii). PP proposed to allocate Rs. 3.0 Crores which shall be equally spent on improving infrastructure of public schools and installation of solar power in nearby villages in consultation with District Magistrate. All the proposed activities under CER shall be completed before commencement of operations of the plant.

(xiv). The project proponent shall set up a skill development centre/provide skill development training to village people.

(xv). 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.

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

(xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.

(xviii). PP to set up occupational health Centre for surveillance of the worker's health within and outside the plant on a regular basis. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

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

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

Agenda No. 50.3

Proposed integrated expansion of Sugar from 5000 TCD to 10000 TCD and Distillery from 90 KLPD to 240 KLPD by M/s. KPR Sugar Mill Limited located at Village Almel, Tal. Sindagi, Dist. Bijapur, Karnataka - Consideration of Environment Clearance.

[IA/KA/IND2/251291/2012, J-11011/88/2012-IA II(I)]

The Project Proponent and the accredited Consultant M/s. MITCON Consultancy and Engineering Services Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project Proposed integrated expansion of Sugar from 5000 TCD to 10000 TCD and Distillery from 90 KLPD to 240 KLPD by M/s. KPR Sugar Mill Limited located at Village Almel, Tal. Sindagi, Dist. Bijapur, Karnataka.

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

"As per MOEF&CC notification S.O.2339 (E) dated 16.06.2021. *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 project proposal is exempted from obtaining ToR & conducting Public Hearing as per EIA notification, 2006 amendment vide S.O. 980(E) dated 02nd March, 2021 & S.O. 2339 dated 16th June 2021. It was informed that no litigation is pending against the project.

Ministry had issued EC earlier vide letter no. F. No. J-11011/88/2012-IA II (I) dated 23rd May 2014 to the existing Sugar factory (5000 TCD), Cogeneration Power plant (34 MW), & Molasses based Distillery plant (90 KLPD) of M/s. KPR Sugar Mills Private Limited at village Almel, Taluka Sindagi, District Bijapur, Karnataka.

Certified Compliance Report (CCR) on existing Environmental clearance order was issued by IRO, MoEFCC, Bangalore vide letter no. EP/12.1/2014-15/2/KAR/28 dated 23.06.2021. Certified Compliance Report (CCR) is found satisfactory by the EAC.

The details of products and capacity are as under:

Sr. No.	Particulates	Capacity	
		Existing	**Proposed**
1.	Sugar	5000 TCD	10000 TCD
2.	Distillery/ Ethanol plant	90 KLPD	240 KLPD

The land area available for the project is 692027.52 $m^{2.}$ Industry will develop greenbelt in an area of 33 % i.e., 230675.8 m^2 out of total area of the project. The estimated project cost is Rs 33.82 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs. 5.06 Cr and the recurring cost (operation and maintenance) will be about Rs. 96.0 lakhs per annum. Total employment will be 80 persons as direct & indirect (Construction & Operation Phase). Industry proposes to allocate Rs 0.34 Cr. @ 1.0% of Total Project Cost (Rs. 33.82 Cr.) towards Corporate Environment Responsibility.

There are No national parks, wildlife sanctuaries, biosphere reserves, Tiger / Elephant reserves, Wildlife Corridors etc., within 10 km distance from the project site. River Bhima is flowing at a distance of 5.10 km towards NE direction.

Ambient air quality monitoring was carried out at nine locations during March 2021 to May 2021 and the baseline data indicates the ranges of concentrations as, PM_{10} (45.6 - 65.0 µg/m^3), $PM_{2.5}$ (18.2 - 26.4 µg/m^3), SO_2 (7.2 to 16.3 µg/m^3) and NO_x (13.1 - 22.9 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.95 µg/m^3, 20.50 µg/m^3 and 0.81 µg/m^3 with respect to SPM, SO_2 and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 11041 m^3/day of which fresh water requirement of 1625 m^3/day will be met from Bhima River. (Water drawl permission obtained vide letter no. EE/KNNL/IPC/Dn.1/K/PB-10/2019-20/1794 dated 04.01.2021). Distillery effluent of 2464 m^3/day* quantity will be treated through 2500 CMD Condensate treatment Plant. The plant will be based on Zero Liquid discharge system. (*Conc. Spent wash 405 CMD will be through Multi effect evaporator (MEE) followed by Incineration boiler.) Sugar effluent 1286 CMD will be treated through 1500 CMD ETP. Excess condensate from Sugar will be treated in 2000 CMD CPU. 24 CMD Domestic Effluent shall be treated in 30 CMD STP).

Power requirement will be 22.52 MW and will be met own Turbine. Proposed integrated unit will have four D.G. sets of capacities 750 kVA x 3 & 380 kVA x 1. All DG sets will be used only as standby during power failures. Stack height >11 m will be provided as per CPCB norms to the proposed DG sets. Proposed 160 TPH bagasse boiler will be installed for Sugar unit and 45 TPH multi feed incineration boiler will be installed for proposed Distillery. Electrostatic precipitator with 81 m stack will be installed for sugar and Cogeneration boiler and 81 m stack with ESP followed by Bag filter will be provided with proposed distillery boiler, for controlling of particulate emission within statutory limit of 115 mg/Nm^3 for the proposed boilers.

Details of process emissions generation and its management:

Project Activity	**Anticipated pollutant**	**Management**
Process emissions	CO_2 and Negligible VOCs	CO2 shall not be release in the air. CO2 will be either Bottling/ dry ice.
Stack, fugitive emissions, material handling.	PM_{10}, $PM_{2.5}$, NO_X and SO_2.	Sugar: 160 TPH with 81 m stack height, Electro Static Precipitator used as APC equipment. Distillery: 45TPH boiler with 81 m stack height, ESP followed by Bag filter.

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

SN	Type of waste	Quantity TPD	Final Disposal
1.	Sugar press mud	400	Press mud will be sold to the farmer as manure.
2.	Bagasse Ash from cogen boiler and incineration boiler	58.9	Bagasse ash will be sold to farmer as manure
3.	Concentrated Spent wash ash	60.75	Potash rich ash will be sold to farmers.
4.	Yeast sludge	572.67	Partly recirculated and remaining can be used as a manure in greenbelt development or mix with press mud and reused in greenbelt development.
5.	ETP Sludge	128.6	Partly recirculate and remaining will be mix with press mud for use as manure.
6.	CPU sludge from both plant	246.4	
7.	Spent oil (5.1)	0.0066	Authorized recycler

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 150 KLPD will be for manufacturing of fuel ethanol only.

During the deliberations, EAC opined that the proposed project cost i.e Rs. 33.82 Cr is very much unrealistic for expansion from 90 KLPD to 240 KLPD. In this regard, EAC desired the following additional information from PP:

- List of existing and proposed equipment.
- Size & cost of proposed equipment for expansion.
- All above data shall be incorporated in revised EMP report and submitted.

Accordingly, the proposal was ***deferred*** for the needful.

Agenda No. 50.4

Establishment of Molasses / Cane Juice based distillery having capacity 120 KLD along with 5.0 MW Co gen Power at khasra No – 317 Mi in vill - Rithiya, khasra no – 319 mi, 317mi, 316 Mi, 178 Mi, 181 Mi, 182, 319 mi, 178 mi, 1260 / 1, 1267 in village: Tadaiv, Khasra no – 1259 in vill – Pipraich, Block : Pipraich, Tehsil : Sadar , Distt; Gorakhpur (UP) by M/s U.P. State Sugar Corporation Limited - Consideration of Environment Clearance.

[IA/UP/IND2/148849/2020, IA-J-11011/75/2020-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Environmental and Technical Research Centre made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project establishment of Molasses / Cane Juice based distillery having capacity 120 KLD along with 5.0 MW Co gen Power at khasra No – 317 Mi in vill - Rithiya, khasra no – 319 mi, 317mi, 316 Mi, 178 Mi, 181 Mi, 182, 319 mi, 178 mi, 1260 / 1, 1267 in village: Tadaiv, Khasra no – 1259 in vill – Pipraich, Block : Pipraich, Tehsil : Sadar , Distt; Gorakhpur (UP) by M/s U.P. State Sugar Corporation Limited.

All Molasses based distilleries having capacity more than 100 KLPD are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC). It was informed that no litigation is pending against the proposal.

The Standard ToR has been issued online by Ministry vide letter No. IA-J-11011/75/2020-IA-II(I) dated 28th June 2020. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 26.07.2021 at 11:00 am presided by Additional District Magistrate, Gorakhpur at the project site. The main issues raised during the public hearing are related to the surrounding people will get employment in the proposed project and Solid waste management.

The details of products and capacity are as under:

Sr. No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1	RS /Ethanol / ENA	-	120 KLD	120 KLD
2	Co-Gen Power	-	5 MW	5 MW

Proposed land area is 13.55 hectare, which is already under the ownership of M/s U.P. State Sugar Corporation Limited. Industry will develop greenbelt in an area of 33 % i.e., 4.472 hectare out of total area of the project.

The estimated project cost is Rs 22500 Lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs 6500 Lakh and the Recurring cost (operation and maintenance) will be about Rs 300 Lakh per annum. Total Employment will be 150 persons as direct after establishment. Industry proposes to allocate Rs 290 Lakhs towards Corporate Environmental Responsibility

There are no National Parks, Reserved Forests (RF)/ Protected Forests (PF), within 10 Km radius. Kapuri Nala upstream is located at 8.67 in km

respectively in south west direction. Pahrendra Nala is also located 2.98 km in the southwest direction.

Ambient air quality monitoring was carried out at 8 locations during post monsoon season 01st October 2020 to 31st December 2020 and the baseline data indicates the ranges of concentrations as: PM_{10} (63.3 to 87.3 µg/m^3), $PM_{2.5}$ (31.5 to 48.6 µg/m^3), SO_2 (8.3 to 14.5µg/m^3) and NO_2 (12.8 to 18.9 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.68 µg/m^3, 0.41 µg/m^3, 2.59 µg/m^3 and 2.057 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Source of fresh water requirement will be met through Ground water. Fresh Water requirement for operation phase: 720 KLD. Maximum fresh water requirement for distillery will be 480 KLD (@ 4.0 KL / KL of product). Spent wash generation from the distillation will be 744 KLD. Spent wash generated will be concentrated in MEE then concentrate from MEE will be used as fuel in Slop fired Boiler of Capacity 55 TPH. Other effluent generated from cooling tower blow down, boiler blow down, vacuum pump, process condensate will be treated in CPU and recycled in the process after treatment. The plant will be based on Zero Liquid discharge system.

Power requirement for proposed project will be 4000 KW (maximum) will be met from Co-generation power plant of 5.0 MW. D.G Set (1 x 1000 KVA) State power Distribution Corporation Limited (SPDCL). Adequate Stack (6.0 meters above roof top) will be provided as per CPCB norms to the proposed DG sets.

Unit proposed 1 no of Slop fired boiler of capacity 55 TPH. Electro Static Precipitator (ESP) with a stack of height of 72 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3 for the proposed boilers.

Details of process emissions generation and its management: CO_2

(90 TPD) generated during the fermentation process will be collected and sold to authorized vendors.

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

Waste	Mode -1	Uses / Disposal
Total Ash	58.83 MT/Day	Due to high potash content, will be used as manure.

Yeast Sludge	12 MT/Day	Will be mixed with press mud of Sugar mill and sold to the farmer.
Condensate polishing unit sludge	2 KLD	Will be mixed with press mud of Sugar mill and sold to the farmer.

During deliberations EAC sought the following information/commitments from PP:

- Industry shall install solar power of at least 10% of its total power requirement within plant/nearby villages as a part of EMP.
- PP shall allocate at least Rs. 50 Lakhs for Occupational Health Safety.
- Fresh water requirement shall not exceed 3.0 kL fresh water consumed/kL production of Ethanol.
- Industry shall construct a rainwater storage facility of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- The proposed budget towards CER be increased to Rs. 3.5 Crores which shall be equally spent on improving infrastructure of public schools and installation of solar power in nearby villages in consultation with District Magistrate. All the proposed activities under CER shall be completed before commencement of operations of the plant.
- Fly ash generated will be converted into granules used for manure. Granules shall be stored and transported in 25 kg bags.

PP has submitted the desired commitments/information sought above in the form of undertaking.

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 ToR. 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). 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. Industry shall install solar power of at least 10% of its total power requirement within plant/nearby villages as a part of EMP.

(ii). The project proponent will treat and reuse the treated water within the integrated industry and no waste or treated water shall be discharged outside the premises.

(iii). Total fresh water requirement shall not exceed @ 3.0 kL fresh water consumed/kL production of Ethanol which shall be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/Irrigation division in this regard, and renewed from time to time. Industry shall construct a rainwater storage facility of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(iv). Spent wash shall be concentrated followed by incineration. Fly ash generated will be converted into granules used for manure. Granules shall be stored and transported in 25 kg bags.

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

(vi). PP proposed to allocate Rs. 50 Lakhs per annum towards OHS. 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.

(vii). 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.

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

(ix). 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 TSD.

(x). 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.

(xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Development of greenbelt shall be completed along with commissioning of the project.

(xii). PP proposed to Rs. 3.5 Crores which shall be equally spent on improving infrastructure of public schools and installation of solar power in nearby villages in consultation with District Magistrate. All the proposed activities under CER shall be completed before commencement of operations of the plant.

(xiii). There shall be at least 15% of the total plant area shall be earmarked for parking of vehicles for raw materials and finished products as per CPCB norms along with the facilities of toilets, drinking water facility and restrooms; no parking to be allowed outside on public places.

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

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

(xvi). 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.

Agenda No. 50.5

Proposed 250 KLPD Grain based Ethanol Plant along with 6.0 MW Cogeneration Power Plant at Village Bazidpur, Tehsil & District Ferozepur, Punjab by M/s PetroflexAgro Private Limited- Consideration of Environment Clearance.

[IA/PB/IND2/253916/2022, J-11011/32/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s J.M. EnviroNet Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project proposed 250 KLPD Grain based Ethanol Plant along with 6.0 MW Cogeneration Power Plant at Village Bazidpur, Tehsil & District Ferozepur, Punjab by M/s PetroflexAgro Private Limited.

All grain based distilleries producing ethanol, solely to be used for Ethanol Blended Petrol Programme of the Government of India are listed at S.N. 5(ga) of Schedule of Environmental Impact Assessment (EIA) Notification, 2006 amendment vide S.O 2339 dated 16th June 2021 under category 'B-2' and are appraised at Central Level by Expert Appraisal Committee (EAC).

The project proposal is exempted from obtaining ToR & conducting Public Hearing as per EIA notification, 2006 amendment vide S.O 2339 dated 16th June 2021. It was informed that no litigation is pending against the project.

The details of products and capacity are as under:

Unit	Capacity	Product
Grain Based Ethanol Plant	250 KLPD	Ethanol (Biofuel)
Co-generation Power Plant	6.0 MW	Power

Total project area is 8.68 ha (86800 m2) and the same is already under the possession of the company. The project site lies at a distance of 16.7 km in NW direction from India-Pakistan International boundary. As per Industrial and Business Development Policy 2017 by Department of Industries and Commerce, Government of Punjab and Notification from

Department of Housing & Urban Development vide No. 13/64/17-5hg2/1880 dated 16.11.18, no CLU is required for projects to be set up in Border Zone within 30 kms of International Border. Hence, no CLU is required for the proposed project. Industry will develop greenbelt in an area of 33% i.e., 2.86 ha (28600 m2) out of total area of the project.

The estimated project cost is Rs. 200 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 21.50 Crores and the Recurring cost (operation and maintenance) will be about Rs. 2.0 Crores / annum. No. of working days will be 350 days/annum. Total Employment will be 120 persons (Permanent 80 & Temporary 40) during operation phase. Industry proposes to allocate Rs. 2.0 Crores (1% of total project cost) towards Corporate Environmental Responsibility.

There are no National Parks, Reserved Forests (RF)/ Protected Forests (PF), Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km radius. Keshu Begu Distributary, Ferozepore Feeder, Tidda Out Fall Drain (~ 2.0 km in SSE direction), Sukhbar Nala (~ 4.5 km in NW direction), Mamara Drain (~ 7.0 km in South direction), Maya Distributary (~ 8.0 km in NNE direction), Jit Distributary (~ 8.5 km in SE direction) & Bikaner Canal (~9.0 km in West direction) are the water bodies which lies within 10 km radiuss.

Total fresh water requirement will be 1249 KLPD (1229 Process & 20 KLPD Domestic) which will be sourced from Canal water. Total input for first run for Ethanol Plant will be 4209 KLPD. 2981 KLPD will be recycled and net fresh water requirement will be 1229 KLPD for proposed Ethanol Plant and 20 KLPD Domestic use. Effluent of 1193 KLPD will be treated through state of art CPU/Effluent Treatment Plant of 1500 KLPD capacity. The plant will be based on Zero Liquid Discharge system.

Power requirement for proposed Ethanol plant will be 5.5 MW, which will be sourced from the 6.0 MW Co-generation Power Plant. Unit will be having two D.G. Sets of 1000 KVA each which will be used as standby during power failure. Adequate Stack height (7 m) will be provided as per CPCB norms. Boiler of 55 TPH capacity with ESP as Air Pollution Control Equipment will be installed with a stack height of 60 m for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3

Details of process emissions generation and its management:

CO_2 (189 TPD) generated during the fermentation process will be collected and sold to authorized vendors.

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

- Solid waste from the Grain based operations generally comprises of fibres and proteins in the form of DDGS (117 TPD), which will be ideally used as Cattle, poultry & fish feed ingredients.
- Ash (52 TPD) generated from boiler will be used for brick manufacturing. Company will supply ash to nearby brick manufacturers in covered vehicles and will also explore possibilities for in-house briquetting unit.
- Used oil (0.75 KL/annum) generated from plant machinery/gear boxes as hazardous waste will be sold out to the CPCB authorized recyclers.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 250 KLPD will be for manufacturing of fuel ethanol only.

During the deliberations, EAC directed PP that Industry shall take prior permission for usage of canal water before commencing operations of the plant. PP has agreed to it and submitted undertaking for the same.

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 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 OM dated 16th June, 2021, project falls in category B2 and the proposed capacity of 250 KLPD shall be only for fuel ethanol manufacturing as per self-certification in form of an 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). 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

(iii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. Industry shall install solar power of at least 10% of its total power requirement within the plant/nearby villages as a part of EMP.

(iv). 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.

(v). Total fresh water requirement shall not exceed 1249 KLPD which will be sourced from canal water. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage facility of 15 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Brick manufacturing plant shall be installed for utilization of fly ash.

(vii). Industry shall install CO_2 plant premises for efficient collection of CO_2 generated during fermentation.

(viii). PP proposed to allocate Rs. 50 Lakhs/annum for occupational health safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the

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

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

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

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

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

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

(xiv). PP proposed to allocate Rs. 2.00 Crores for improving infrastructure in the public schools and installation of solar power in nearby villages. All the proposed activities under CER shall be completed within 2 years.

(xv). There shall be at least 15% of the total plant area shall be earmarked for parking of vehicles for raw materials and finished products as per CPCB norms along with the facilities of toilets, drinking water facility and restrooms; no parking to be allowed outside on public places.

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

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

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

Agenda No. 50.6

Expansion of existing Distillery unit capacity from 160 KLD (C-Heavy Molasses) to 330 KLD (B Heavy Molasses/Sugar Syrup) along with 8.5 MW Co Generation Power at village- Bishunipur, Tehsil & District- Balrampur, Uttar Pradesh by M/s Balrampur Chini Mills Limited, Chemical Division Unit- Balrampur- Consideration of Environment Clearance.

[IA/UP/IND2/252916/2022, J-11011/151/2006-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Environmental and Technical Research Centre, made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for proposed expansion of existing Distillery unit capacity from 160 KLD (C-Heavy Molasses) to 330 KLD (B Heavy Molasses/Sugar Syrup) along with 8.5 MW Co Generation Power at village- Bishunipur, Tehsil & District- Balrampur, Uttar Pradesh by M/s Balrampur Chini Mills Limited, Chemical Division Unit- Balrampur.

The project/activities are covered under category A of item 5 (g) 'Distilleries' of the Schedule to the EIA, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC). The proposal has been submitted under the Ministry's EIA Notification, 2006 amendments vide Notification no. S.O. 345(E) dated 17th January 2019 & extension of notification S.O. 750(E) dated 17th February 2020, S.O 980(E) dated 02nd March, 2021. Accordingly, the proposal has been appraised as category 'B2' project.

Standard ToR and public Hearing conduction is not applicable as the project falls under category B2 as per OM dated 2nd March, 2021 and 16th June, 2021. It was informed that no litigation is pending against the project.

Ministry had issued EC earlier vide letter no. J-11011/151/2006-IA-II(I); dated 20th June 2006 to the existing project Distillery Unit – 160 KLD Molasses based Distillery in favour of M/s Balrampur Chini Mills Limited, Chemical Division, Unit- Balrampur.

Certified Compliance Report (CCR) on existing Environmental clearance was issued by IRO, MOEFCC Nagpur vide letter no – IV/ENV/UP/IND-

81/201/2006/455 dated 07.01.2022 wherein compliance status is found satisfactory.

The details of products and capacity are as under:

Sr No	Products Details	Existing quantity	Proposed quantity	Total Quantity
1.	RS/Ethanol	160 KLD	170 KLD	330 KLD
2.	Co Gen power	8.5 MW	-	8.5 MW

Existing land area is 299500 m^2, no additional land will be used for proposed expansion. Industry has already developed greenbelt in an area of 33 % i.e., 100300 m2 out of total area of the project.

The estimated project cost is Rs 16000 Lakhs for proposed expansion. Total capital cost earmarked towards environmental pollution control measures is Rs 4725 Lakh including proposed modernisation and the Recurring cost (operation and maintenance) will be about Rs 634 Lakh per annum after expansion. Total Employment after expansion will be 235 persons as direct & 270 persons indirect after expansion. Industry proposes to allocate Rs 320 Lakhs towards Corporate Environmental Responsibility against the proposed expansion.

There is no national park, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc. within 10 km distance from the project site. River: Rapti River is flowing at a distance of 6.75 Km in the northeast direction.

Existing total water requirement is 4418 KLD. Total water requirement after expansion will be 4800 KLD of which fresh water requirement – 1600 KLD. Fresh water is being / will be met from ground water. Permission for 1600 KLD has been obtained from Ground Water Department of Uttar Pradesh. Effluent of Spent wash generation after expansion 1914 KLD (@ 5.8 KL/KL of product) quantity is being / will be treated through Multi effect evaporators. Concentrated spent wash is being / will be used as fuel in incineration boiler of capacity – 40 TPH & 20 TPH. The plant is being / will be based on Zero Liquid discharge system.

Power requirement after expansion will be 7796 KW will be met from Co-generation power plant of 8.5 MW & State power distribution corporation Limited. Existing unit has 40 TPH & 20 TPH Slop fired boiler. ESP (Electrostatic Precipitator) with a stack of height of 70 m has been installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 for the existing boilers.

Details of process emissions generation and its management:

CO_2 (237 TPD) generated during the fermentation process will be collected and sold to authorized vendors.

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

Particulars	Existing Distillery	After proposed expansion	Remarks
Fly Ash	83.46 TPD	93.76 TPD (Maximum)	Fly ash generated will be converted to granule and utilized as manure.
Fermenter Sludge	16 TPD	22 TPD	Utilized as manure
Used Oil & Grease	1000 Kg/Annum	1250 kg/Annum	Hazardous waste will be disposed as per the Hazardous Waste Management Rules 2016.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 170 KLPD will be for manufacturing of fuel ethanol only.

During deliberations PP made a brief presentation on CCR and EAC found the compliance status satisfactory. Further, EAC sought the following information/commitments from PP:

- Industry shall install solar power of at least 10% of its total power requirement within plant/nearby villages as a part of EMP.
- PP shall allocate at least Rs. 70 Lakhs for Occupational Health Safety.
- Fresh water requirement shall not exceed 3.5 kL fresh water consumed/kL production of Ethanol.
- Industry shall construct a rainwater storage facility of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- The proposed budget towards CER be increased to Rs. 3.50 Crores which shall be equally spent on improving infrastructure of public schools and installation of solar power in nearby villages in

consultation with District Magistrate. All the proposed activities under CER shall be completed before commencement of operations of the plant.

- Fly ash generated will be converted into granules used for manure. Granules shall be stored and transported in 25 kg bags.

PP has submitted the desired commitments/information sought above in the form of undertaking.

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 OM dated 16th June, 2021, project falls in category B2 and the proposed expansion of 170 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an 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). 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.

(iii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. Industry shall install solar power of at least 10% of its total power requirement within plant/nearby villages as a part of EMP.

(iv). The project proponent will treat and reuse the treated water within the integrated industry and no waste or treated water shall be discharged outside the premises.

(v). Total fresh water requirement shall not exceed 3.5 kL fresh water consumed/kL production of Ethanol which shall be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/Irrigation division in this regard, and renewed from time to time. Industry shall construct a rainwater storage facility of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). Spent wash shall be concentrated followed by incineration. Fly ash generated will be converted into granules used for manure. Granules shall be stored and transported in 25 kg bags.

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

(viii). PP proposed to allocate Rs. 70 Lakhs per annum towards OHS. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

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

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

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

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

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

(xiv). PP proposed to Rs. 3.50 Crores which shall be equally spent on improving infrastructure of public schools and installation of solar power in nearby villages in consultation with District Magistrate. All the proposed activities under CER shall be completed before commencement of operations of the plant.

(xv). There shall be at least 15% of the total plant area shall be earmarked for parking of vehicles for raw materials and finished products as per CPCB norms along with the facilities of toilets, drinking water facility and restrooms; no parking to be allowed outside on public places.

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

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

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

Agenda No. 50.7

Proposed Expansion of sugar plant and distillery of crushing capacity from 5000 TCD to 10,000 TCD and Distillery to enhance production of Ethanol from 60 KLPD to 200 KLPD under the EBP by M/s. NSL Sugars Limited located at Chikkonahalli – Village of Thaggahalli Gram Panchayat and Huragalwadi – Village of Koppa Gram Panchayat, Maddur Taluk, Mandya District, Karnataka - Consideration of Environment Clearance.

[IA/KA/IND2/242442/2021, J-11011/94/2015-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Samrakshan, made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Proposed Expansion of sugar plant and distillery of crushing capacity from 5000 TCD to 10,000 TCD and Distillery to enhance production of Ethanol from 60 KLPD to 200 KLPD under the EBP by M/s. NSL Sugars Limited located at Chikkonahalli – Village of Thaggahalli Gram Panchayat and Huragalwadi – Village of Koppa Gram Panchayat, Maddur Taluk, Mandya District, Karnataka.

All Sugar and Distillery projects are listed at S. No. 5(j) & 5(g)/ 5(ga) of Schedule of Environment Impact Assessment (EIA) and as per the EIA Notification 2006 and amendment vide Notification S.O 2339(E) dated 16.06.2021 the proposal is to be appraised as B2 category.

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

Ministry had issued Environment Clearances earlier vide letter EC vide F. No. J-11011/11/2011-IA II (I) dated 23.04.2013 and Amendment EC F. No. J-11011/2011 - IA II (I) dated 09.03.2015 for distillery unit at capacity 60 KLPD, captive power plant 2.1 MW. Sugar plant of capacity 5000 TCD & Co-gen plant 26 MW is in operation which is established prior to EIA Notification 2006.

Further, Ministry has issued Environment Clearance vide EC file no. J-11011/94/2015-IA-II (I) dated 07.04.2017 for expansion of sugar plant from 5000 TCD to 7500 TCD and Molasses/ Sugarcane juice-based distillery expansion from 60 KLPD to 75 KLPD and grain-based distillery 60 KLPD. This EC implementation is kept on hold and fresh EC is being sought for higher capacities under EBP programme.

Certified Compliance Report (CCR) was submitted by IRO, MoEFCC,

Bangalore vide letter no. EP/12.1/2013-14/1/KAR/888 dated 29.10.2021. Certified Compliance Report is found satisfactory by the EAC and recommended the proposal.

The details of products and capacity are as under:

Particular	**Existing Capacity**	**Proposed expansion capacity**	**After expansion Total capacity**
Sugar plant Expansion			
Sugar plant crushing capacity in TCD	5000	5000	10000
Co-generation in MW	26	-	26
Distillery Expansion			
Distillery Unit	60 KLPD RS/ENA/Ethanol using C Heavy molasses	Addition of new 100 KLPD distillery plant to produce; 100 KLPD Ethanol using C-heavy molasses Or 100 KLPD Ethanol using B-heavy molasses Or 140 KLPD Ethanol using Sugarcane syrup Or Grain based distillery to produce 60 KLPD Ethanol	•60 KLPD RS/ENA/Ethanol Or • 160 KLPD Ethanol Using C-Heavy molasses Or • 160 KLPD Ethanol using B-Heavy molasses Or • 200 KLPD Ethanol using Sugarcane Juice/syrup Or • 60 KLPD Ethanol using Grains
Distillery captive power plant in MW	2.1	0.9	3.0

Existing land area of Sugar, Cogen and distillery unit is 416826 m^2 (103 Acres), no additional land will be used for proposed expansion. Industry has already developed greenbelt in an area of 35.96 % i.e., 149734 m^2 (37 Acres) out of total area of the project 416826 m^2 (103 Acres). The estimated project cost is Rs. 609.12 Crores including existing investment of Rs. 424.12 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 81.18 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.98 Crores per annum. Total Employment will be 544 persons, out of this the direct employment is 476 persons & indirect is 68 persons after expansion. Industry proposes to allocate Rs. 1.38 Crores towards Corporate Environment Responsibility (CER).

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River Shimsha is flowing at a distance of 2.1 km in East of the industry.

Baseline ambient air quality monitoring is not carried out since the project is to be appraised as B2 category as per the Notification of MoEF&CC S.O 2339(E) dated 16.06.2021. However, ambient air quality monitoring is carried out by the industry as per the conditions of the Consent issued by KSPCB. The monitoring data during January 2021 indicate PM_{10} 50.4 µg/m^3, SO_2 8.16 µg/m^3 and NOx 45.64 µg/m^3. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM 2.1 µg/m^3, SO_2 1.03 µg/m^3 and NOx 1.17 µg/m^3. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is as under;

Sugar & Distillery water requirement is as in the table below;

Freshwater is met from Shimsha River located at about 2.1 km in East direction from project site. (Permission to draw 56.504 mcft per year or 4705.88 KLD, is obtained from Karnataka Neeravari Nigam Limited, Government of Karnataka).

A. Total water requirements for Sugar, Co-gen plant and Domestic use Freshwater and recycle water requirement for Sugar and co-generation plant

Sl. No	Particular	Total in KLD (After expansion)	
		Freshwater	Recycle water

1	Process	-	900
2	Sugar plant cooling tower	-	2100
3	Co-gen cooling tower	-	700
4	DM plant	555	-
5	Lab and washings	10	-
6	Domestic	90	-
	Total	**655**	**3700**
Reuse in Distillery			
1	Treated condensate from sugar plant	-	350
2	C-heavy/B-heavy/ sugarcane syrup from sugar plant		511
3	**Total recycle/reuse in distillery**		**861**

B. Total water requirements for Distillery unit

Particulars	Freshwater		Domestic use in KLD	Recycled Water in KLD	Total Water Requirement in KLD
	in KLD	KL/KL of Ethanol			
60 KLPD RS/ ENA/ Ethanol with C/B-Heavy Molasses (Existing)	**357**	5.95	15	488	**860**
160 KLPD Ethanol with C-Heavy Molasses (Proposed)	**725**	4.53	15	1599	**2339**
160 KLPD Ethanol with B-Heavy Molasses (Proposed)	**506**	3.16	15	1370	**1891**
200 KLPD Ethanol with sugarcane syrup (Proposed)	**639**	3.19	15	1628	**2282**
60 KLPD Ethanol with grains (Proposed)	**333**	5.55	15	412	**760**

A. wastewater generated from the Sugar, Co-gen plant and domestic sewage is as in the table below;

Sl. No.	Wastewater generation	Quantity KLD	Treatment and Disposal
1			
i	Sugar Plant Process	750	Sugar plant process effluents and lab washings will be treated in existing ETP of 800 KLD plant. Treated effluent is reused for gardening
ii	Lab	10	
	Total	**760**	
2			
i	Sugar cooling tower bleed	430	Cooling tower bleed, DM plant rejects, boilers blow down will be treated in exiting polishing unit pond of 310 KLD capacity. Polishing pond capacity will be enhanced to meet the additional load.
ii	Co-gen cooling tower bleed	290	
iii	DM plant reject	120	
iv	Boiler's blowdown	140	
v	Excess condensate	489	
	Total	**1469**	
3	**Excess condensate to CPU**	**1950**	Sugar plant excess condensate will be treated in existing CPU of 1000 KLD capacity and this will be enhanced to 2000 KLPD meet the additional load from proposed. Treated condensate will be stored in 5000 KLD tank. Treated effluent water of 2229 KLPD is sent to Agricultural purpose.
	Total (1+2+3)	**4179**	
4	**Domestic sewage**	**66**	Domestic sewage will be treated in STP of 87 KLD plant and treated sewage will be used for gardening

B. Wastewater generated from the distillery plant is as in the table below;

Sl. No.	Process route	Wastewater generation in KLD					Treatment and Disposal
		60 KLPD	160 KLPD	160 KLPD	200 KLPD	60 KLPD	
		C-Heavy molasses		B-Heavy molasses	Sugarcane syrup/ Juice	Grains	
A	**Spent wash**						
1	Total spent wash generation	480	1280	960	721	360	The raw spent wash is

2	Spent wash recycle to process	-	-	-	389	-	concentrated in MEE and concentrated spent wash / slop is incinerated in incineration boiler. Existing MEE capacity is 800 KLD and propose to enhance it to 1400 KLD. 5 % of concentrated spent wash is used for organic manure preparation with press mud.
3	**Spent wash to MEE**	**480**	**1280**	**960**	**721**	**251**	
4	**Treatment & Disposal**						
	After concentration in MEE and incinerate in Incineration Boiler	108	407	306	241	53	
	Concentrated spent wash use in organic manure preparation	108	20	16	13	-	
B	**Other process effluents**						The spent lees and MEE condensate are treated in CPU. The treated water from CPU is partially recycled for molasses dilution, used for cooling
1	Spent lees	336	192	192	240	51	
2	Condensate from MEE	400	995	752	592	186	
	Total	**736**	**1187**	**944**	**832**	**237**	
C	**Other lean effluents**						
1	Cooling tower bleed	20	62	47	38	25	
2	CPU reject	10	142	114	124	15	
3	DM plant reject	5	15	15	15	15	
4	Boiler blowdown	15	18	18	18	18	
Total		**50**	**237**	**194**	**195**	**73**	

						tower makeup and CO_2 scrubber. The cooling tower bleed and boiler blow down, CO_2 scrubber water and DM plant reject are treated in ETP plant. The CPU reject is taken back to MEE.

The specific spent wash generation from the distillery with respect to alcohol produced is as under;

Sl. No.	**Particular**	**Spent wash generation & disposal per KL/KL of Ethanol**				
		C/B – heavy molasses 60 KLPD	**C – heavy molasses 160 KLPD**	**B - heavy molasses 160 KLPD**	**Sugarcane syrup 200 KLPD**	**Grain based 60 KLPD**
1	Total spent wash generation	480	1280	960	721	360
	Raw spent wash generation KL/KL of alcohol	8	8	6	3.60	6
2	Concentrated spent wash after MEE	108	407	306	241	53
	Concentrated spent wash	1.8	2.54	1.91	1.2	0.88

	generation KL/KL of alcohol					

Grain based distillery operation

- Raw spent wash will be treated in Decanter. Partial thin slop is sent as wet cake to DDGS drier and remaining spent wash is sent to MEE. Concentrated spent wash from MEE will be sent as wet cake to DDGS drier. DDGS is sent for Cattle feed.
- Spent lees, MEE condensates and other lean effluents will be treated in CPU.
- Treated effluent from CPU will be reused in cooling tower makeup and in process of grain liquification.

Power requirement after expansion will be 16.8 MW to the Sugar, Cogen and Distillery unit and will be met from co-generation power plant and distillery captive power plant. Existing industry has 1000 KVA and 1500 KVA capacity DG sets. Stack of 30 m AGL height is provided as per CPCB norms to the DG sets.

Air pollution sources and control measures

Sl. No.	**Chimney attached to as per the existing consent**	**Proposed**	**Chimney height provided**	**Constituents controlled in the emissions**	**Tolerance limits mg/Nm^3**	**Air pollution control equipment provided in addition to chimney**
1	100 TPH boiler (Bagasse / coal/ Biomass)	100 TPH will be enhanced to 110 TPH	83 m AGL	Particulate matter	115	ESP
2	20 TPH coal screening plant	-	5 m ARL	Particulate matter	115	Cyclone dust collector
3	Boiler 25 TPH	25 TPH will be enhanced to 28 TPH	Chimney of 55 m AGL	Particulate matter	115	ESP

4	-	35 TPH incineration boiler	Chimney of 66 m AGL	Particulate matter	115	ESP
5	1000 kVA DG Set	-	22 m AGL	NOx, NMHC, PM CO	710 ppmv 100 ppmv 75 ppmv 150 ppmv	Acoustic measures
6	-	1500 kVA D.G. Set	30 m AGL	NOx, NMHC, PM CO	710 ppmv 100 ppmv 75 ppmv 150 ppmv	Acoustic measures

The particulate emissions from the boilers will be within the statutory limit of 115 mg/Nm^3.

Details of process emissions generation and its management:

During fermentation 153 TPD of CO_2 is estimated to be released. The CO_2 will be scrubbed and sent to CO_2 plant for production of liquefied CO_2 for commercial purpose.

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

Solid waste generation and its management

Sl. No.	Plant	Solid waste	Existing MT/Day	Proposed MT/ Day	Total MT/ Day	Utilization existing and after proposed modification
1	Sugar plant	Bagasse	1500	1500	3000	Utilized as Fuel in Boilers
		Press mud	150	150	300	Utilized as raw material for organic manure preparation
		Sugar Plant: ETP sludge and Lime Grit	1580	1580	3160	Mixed with Press mud and used is organic manure preparation

2	Co-gen Plant	Ash	2483	-	2483	Mixed with Press mud and used is organic manure preparation
3	Distillery Plant	Yeast sludge	8.38	21.6	30	Mixed with Press mud and used is organic manure preparation
		Incinerated Ash	-	15	15	Mixed with Press mud and used for organic manure preparation as well as supply as potash rich source for canefarmers.

Hazardous waste generation and its management

Waste category	Hazardous waste Generated	Quantity	Method of handling
5.1	Used Oil	6 KL/A	Stored in leak proof containers in secure manner and handed over to KSPCB authorized re-processors/ incinerator
5.2	Wastes Residues Containing Oil	8 MT	Stored in leak proof containers in secure manner and handed over to KSPCB authorized re-processors/ incinerator

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

During the deliberation, PP has informed that:

- There is Court case before the Magistrate of First class, Maddur Taluk, Mandya District. The Case is filed by the Karnataka State Pollution Control Board against M/s. NSL Sugars Limited, Chikkonahalli and Huragalwadi villages, Koppa Hobli, Maddur

Taluk, Mandya District, Karnataka State. Case Number is CC 143/2019.

- A complaint is filed under Section 200 of Cr. P. C -1973 read with section 43, 44 and 49 of the Water (Prevention and Control of Pollution) Act, 1974 for the offences under section 24, 25 and 31. The allegation made in the compliant is because of the accidental collapse of the old digester in which spent wash was stored and storage of spent wash was not informed to KSPCB. The spent wash which was stored in the collapsed digester has gone out of the premises and has reached natural nala leading to Shimsha River. Enroute, it has affected the standing agricultural crop, public utility services.
- The compliant is under adjudication before the Magistrate. The case is posted for 21.03.2022.

In view of the above, accident-causing damage to crop and fish life, the District Magistrate has assessed the damage and the industry has paid the compensation to farmers and fishermen as per the assessment. The details are as under;

Abstract Showing Amount Disbursed to Spent Wash Affected Farmers				
Sl.No.	Description	No of Farmers	Amount (Rs.)	Remarks
1	Crops Compensation paid	71	1933695	Amount Disbursed from the Unit Level.
2	Crops Compensation Deposited to Thasildhar	16	1584563	As per instruction Taluk Legal Aid Service authority a DD bearing number 815683, dated 30.05.2019 for balance crops compensation deposited to Thasildhar, Maddur.
3	Compensation paid to Fisherman	8	617336	Amount Disbursed from the Unit Level.
4	Coconut trees compensation paid	67	3922600	Amount Disbursed from the Unit Level.
		Total	**8058194**	

At present all the conditions stipulated in earlier EC's and CTO's have been complied with. KSPCB is regularly renewing the consents. The present consent is valid up to 30.06.2026. For EC compliance IRO, MoEF&CC has verified and issued satisfactory compliance certificate.

EAC opined that, as per the court case details, PP has paid the compensation for damage cost to farmers and fishermen as per the assessment by District Magistrate. EAC found it to be in order and recommended the proposal. Further, EAC has also stated that PP shall start work after prior permission & obtaining valid Consent to Operate from Karnataka State Pollution Control Board. The project proponent shall abide by all orders and judicial pronouncements, made from time to time in case no. CC 143/2019 pending at Magistrate of First class, Maddur Taluk, Mandya District.

During deliberations EAC sought the following information/commitments from PP:

- Company to construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- Incineration boiler ash shall be made in to granules and to be packed in 25/50 Kgs bags to ensure that there is no spillage.
- PP shall be ensuring that no recurrence of the digester incident shall take place and submit an action plan for the same.
- Approx. 20% of the total plant area will be reserved for parking. PP shall provide rest rooms, drinking water, toilets and other facilities for the truck drivers within the premises. PP shall enhance some more facilities depending on the need basis.
- PP shall meet 10% (500 kVA) of the total power requirement from solar power.
- PP shall allocate at least Rs. 1.5 Crores/annum for Occupational Health Safety.
- PP shall utilize fresh water @4.0 KL/KL of ethanol production.
- The proposed budget allocation Rs. 2.0 Crores towards CER. An amount of Rs. 1.0 Crores shall be used for construction/up-gradation of school building with provision of facilities e.g. Class rooms, Playground, Laboratory, Library, Computer class, Toilets, Drinking Water Facilities, Solar light etc and remaining Rs. 1.0 Crores shall be used for providing solar lights in nearby villages.

PP has submitted the desired information as sought above.

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 OM dated 16th June, 2021, project falls in category B2 and the proposed capacity of 100 KLPD shall be 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 project proponent shall abide by all orders and judicial pronouncements, made from time to time in case no. CC 143/2019 pending at Magistrate of First class, Maddur Taluk, Mandya District.

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

(iv). 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.

(v). 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.

(vi). Total Fresh water requirement shall not exceed @ 4.0 KL/KL and will be met from Shimsha River. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Company to construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vii). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed in grain based mode and in molasses based mode, spent wash shall be dried and incinerated. PP shall meet 10% (500 kVA) of the total power requirement from solar power. Incineration boiler ash shall be made in to granules and to packed in 25/50 Kgs bags to ensure that there is no spillage. PP shall be ensuring that recurrence of the digester incident shall not take place.

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

(ix). PP shall allocate at least Rs. 1.5 Crores/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

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

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

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

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

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

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

(xv). The proposed budget allocation Rs. 2.0 Crores towards CER. An amount of Rs. 1.0 Crores shall be used for construction/up-gradation of school building with provision of facilities e.g. Class rooms, Playground, Laboratory, Library, Computer class, Toilets, Drinking Water Facilities, Solar light etc and remaining Rs. 1.0 Crores shall be used for providing solar lights in nearby villages.

(xvi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, approx. 20% shall be allotted solely for parking purposes.

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

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

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

Agenda No. 50.8

Expansion of Sugar plant from 5000 TCD to 10000 TCD by Deshbhakt Ratnappa Kumbhar Panchganga Sahakari Sakhar Karkhana Ltd. (D.B.R.K. Panchganga S.S.K. Ltd.) leased unit of M/s. Shree Renuka Sugars Limited (SRSL) 22 located at Ganganagar, Ichalkaranji, Hatkanangale Taluk Kolhapur District, Maharashtra - Amendment of Environment Clearance.

[IA/MH/IND2/252268/2022, J-11011/116/2017-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter F. No. J-11011/116/2017-IA II (I) dated 30.03.2021 for the project expansion of Sugar plant from 5000 TCD to 10000 TCD by Deshbhakt Ratnappa Kumbhar Panchganga Sahakari Sakhar Karkhana Ltd. (D.B.R.K.Panchganga S.S.K. Ltd.) leased unit of M/s. Shree Renuka Sugars Limited (SRSL) 22 located at Ganganagar, Ichalkaranji, Hatkanangale Taluk Kolhapur District, Maharashtra.

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

Sl. No.	**Para of EC issued by MoEF & CC**	**Details as per the EC**	**To be revised/ read as**	**Justification/reason**
1.	EC B. Sector Specific Condition point no. (ii), page 10 of 14 in the EC vide letter no. J-11011/116/2017-IA II (I) dated 30th March 2021 issued by MoEF&CC.	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/green belt development/horticulture and not to send outside/used for farming	Treated effluent shall be reused in the process/utilities and for gardening/greenbelt development/horticulture within its own premises on 19.62 Hectares of land and to give the balance treated effluent to farmers nearby industry on their request duly following manifestation indicating the name of the farmers, extent of land and quantity of water supplied	It is not possible to achieve Zero Liquid Discharge for sugar factory as the surplus treated effluent is 1095 KLD and if the effluent remains unused it will result in storage problem. **As per the Environment Protection Rule amendment no GSR (E) dated 16.01.2016** Irrigation protocol and waste water conservation or waste water management in **Sugar**

				industries; • The loading rate for **Loamy textured soil is 110 – 170 m3/hectare/day** • Therefore, at the rate of 110 m3/Ha/day **land area required is 09.95 say 10 Ha.** • **Land area available is 19.62 ha** Since the EP rule permits use of treated effluent for irrigation, the same may please be extended to this project. The Farmers in the vicinity of the factory are also requested to supply the treated water for their own land for crop cultivation on land area of 30.74 ha.

During deliberations EAC sought the following information/commitments from PP:

- To adhere to the standards of treated effluent quality to be maintained as per consent issued by Maharashtra Pollution Control Board.

- To ensure that the soil quality shall not be affected in the irrigation land where treated effluent is discharged.
- To provide online monitoring systems at the disposal point and connect to CPCB and SPCB servers.

PP has submitted the desired information sought above.

After details deliberations, EAC found the justifications satisfactory and **recommended** the amendments in EC, as proposed by the project proponent, with all other terms and conditions remain unchanged.

Agenda No. 50.9

Installation of Ethylene Recovery Unit, Mono Ethylene Glycol Unit & BS-VI Facility with Proposed Aviation Gasoline of 6TMTPA within the Existing Refinery Complex by M/s. Indian Oil Corporation Limited at Paradip Refinery cum Petrochemical Complex, Village Abhayachandrapur, Tehsil Kujang, District Jagatsinghpur Odisha- Amendment of Environment Clearance.

[IA/OR/IND2/251949/2022, J-11011/121/2017-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter F. No. J-11011/121/2017-IA-II(I) dated 11th October, 2018 for the project Installation of Ethylene Recovery Unit, Mono Ethylene Glycol Unit & BS-VI Facilities located at Village Abhayachandrapur, Tehsil Kujang, District Jagatsinghpur (Odisha) in favour of M/s. Indian Oil Corporation Ltd., Paradip Refinery cum Petrochemical Complex.

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

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revisd/ read as	Justification/ reasons

1	Subject	Installation of Ethylene Recovery Unit, Mono Ethylene Glycol Unit & BS-VI Facilities by M/s Indian Oil Corporation Ltd. (IOCL), Paradip Refinery cum Petrochemical Complex, Village Abhayachandrapur, Tehsil Kujang, District Jagatsinghpur (Odisha)	Installation of Ethylene Recovery Unit, Mono Ethylene Glycol Unit & BS-VI Facilities by M/s Indian Oil Corporation Ltd. (IOCL), Paradip Refinery cum Petrochemical Complex, Village Abhayachandrapr, Tehsil Kujang, District Jagatsinghpur (Odisha) – **Amendment in Environment Clearance to include Aviation Gasoline facility of 6 TMTPA within the Existing Refinery Complex located at IOCL Paradip Refinery cum Petrochemical Complex.**	Aviation Gasoline (AV Gas), a specialized product used in piston engine aircrafts, has so far been imported to cater Indian Market. As an Atmanirbhar Bharat initiative of Govt. of India, IOCL has identified potential streams from Paradip Refinery to produce Aviation Gasoline within India. The product will cater to the Indian market and will serve as an import substitute. Aviation Gasoline (AV Gas) project is a small facility and an extension of existing Alkylation Unit within the existing Refinery premises. There is no change in Refinery Crude processing capacity, only there is slight

				change in Product mix. Motor Spirit (MS) production will be reduced by 6 TMTPA (3260 TMTPA to 3254 TMTPA) and instead 6 TMTPA Aviation Gasoline (AV Gas) will be produced.
2	Para 3	Total Estimated project cost is Rs.7801 Crores	Total Estimated incremental cost for Aviation Gasoline project is Rs. 92 Crores.	For Aviation Gasoline (AV Gas) Facilities.
3	Para 3	Industry has already developed greenbelt in an area of 250 ha out of 1194 ha area of the project. Additionally, 53 ha has been planted in Refinery Township, CISF Colony, Balia (Jagatsinghpur) and Kisanagar (Cuttack).	Industry has already developed greenbelt in an area of 31.57 %, i.e. 356.60 Ha (881.19 ac) out of the total area of the project.	Additional plantation carried out during 2018-2021.
4	Para 5	The details of the proposed facilities/units are as under:	Inclusion at S. No.-8, Unit- Aviation Gasoline - Capacity 6 TMTPA	Proposed Unit -Change in Configuration of existing facilities.
5	Para 5	Table for Product pattern post BS-VI/ERU/MEG projects S. No. 3 of Refinery Products BS-VI MS - 3260 TMT/Year	Change at S. No. 3 of Refinery Products BS-VI MS - 3254 TMT/Year Addition in Refinery Products Aviation Gasoline - 6 TMT/Year	Reduction in TMT/Year of BS-VI MS and production of 6 TMT/Year of Aviation Gasoline.

6	Para 6	Total water requirement is estimated to be 4685 m3/hr (existing – 3861 cum/h, additional – 824 cum/h)	Total water requirement is estimated to be 3498.34 m3/hr (additional water requirement for Aviation Gasoline project - 1.34 m3/hr)	Post Aviation Gasoline project, Total Water will be 3498.34 m3/hr- Reduction in Refinery water consumption due to implementation of water conservation measures.
7	Para 6	Power requirement for the proposed projects are estimated to be 56 MW, which will be met from existing CPP & State Grid	Power requirement for the proposed projects are estimated to be 56.0079 MW, which will be met from existing CPP & State Grid	Post Aviation Gasoline project - 240.5079 MW.
8	Para 6	Emission due to new units under BS-VI & ERU/MEG Projects have been estimated to be 12.9 kg/hr.	Emission due to new units under BS-VI, ERU/MEG & AV Project have been estimated to be 12.9 kg/hr.	No Stack is proposed. The total emission after proposed project will be within 1000 kg/hr as per the prescribed standards.
9	Para 9	As per the provisions of the CRZ Notification 2011, Odisha Coastal Zone management Authority vide letter dt. 11th January, 2018 has recommended CRZ clearance to the project for laying of pipelines over the existing bridge on Santra Creek for the proposed project.	As per the provisions of the CRZ Notification 2011, Odisha Coastal Zone management Authority vide letter dt. 11th January, 2018 has recommended CRZ clearance to the project for laying of pipelines over the existing bridge on Santra Creek for the proposed project. As part of the Aviation	A 2" pipeline is proposed which is part of the Existing CRZ approval vide F. No. J-11011/344/2016-IA-II(I) dated 11th Oct 2018 for 9 nos. (for BS-VI project), out of which only 2 nos are installed and the Aviation Gasoline line

			Gasoline project, a product pipeline (2" size) is proposed in existing Pipe rack which is part of the Existing CRZ approval.	will be the 3rd line.

During deliberations EAC sought the following information/commitments from PP:

- Detailed air emission due to amendment desired.
- Information on all effluent generated and their mitigation.
- Solid Waste generated and their disposal.
- Hazardous Waste and its disposal.

PP has submitted the desired information as sought above.

After details deliberations, EAC found the justifications satisfactory and **recommended** the amendments in EC, as proposed by the project proponent, with all other terms and conditions remain unchanged.

Agenda No. 50.10

Development drilling in Cauvery basin in 7 blocks (On-shore), Tamil Nadu by M/s. Oil and Natural Gas Corporation Limited- Amendment in Environment Clearance

[IA/TN/IND2/253585/2022, J-11011/250/2011-IA II (I)]

The proposal is for extension of validity of Environmental Clearance granted by the Ministry vide letter No. J-11011/250/2011-IA-II(I) dated 30.01.2015 for the Project "Development Drilling of 30 Wells (on-shore) in Cauvery Basin in 7 Blocks (On-shore), Greater Narimanam ML Block, Adiyakkamangalam ML Block, Nannilam-I & Nannilam-II ML Block, Kali & Kali # 6 ML Block, Kuthanallur ML Block, Greater Kovilkalapal ML Block and Pundi ML Block, Tamil Nadu in favour of M/s Oil and Natural Gas Corporation Limited (ONGCL)".

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

S. No.	EC issued by MoEF&CC	Period of Extension	Justification/ reasons
1.	F. No. J-11011/ 250/2011- IA	3 years	EC was granted for drilling of 30 Development wells out of which 21 wells are drilled. The remaining 09

	II (I) dated 30.01.2015		wells could not be taken up as: a. Production performance and reservoir behaviors of these fields were under observation and study as the pay-sands of these fields are discrete in nature and highly heterogeneous. b. These fields are currently identified for production enhancement contract to improve production. Development plan and drilling of new wells in these fields to be firmed after detailed study by PEC contractor.

As per extant rules, the maximum validity for proposed projects shall be 10 years. The Expert Appraisal Committee, after detailed deliberations **recommended** for extension of validity for 3 years in the EC vide letter No. J-11011/250/2011-IA-II(I) dated 30.01.2015 till 29th January, 2025, with all other terms and conditions remain unchanged.

11th February, 2022 (Friday)

Agenda No. 50.11

Proposed 250 KLPD Grain Based Ethanol Plant along with 7.0 MW Cogeneration Power Plant by M/s. Grainfuel Distilleries Private Limited located at Village Baroda, Tehsil Matar, District Kheda, Gujarat - Consideration of Environment Clearance.

[IA/GJ/IND2/254506/2022, IA-J-11011/39/2022-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. J.M. EnviroNet Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Proposed 250 KLPD Grain Based Ethanol Plant along with 7.0 MW Cogeneration Power Plant by M/s. Grainfuel Distilleries Private Limited located at Village Baroda, Tehsil Matar, District Kheda, Gujarat.

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.

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

The details of products and capacity are as under:

Unit	Capacity	Product
Grain Based Ethanol Plant	250 KLPD	Ethanol (Biofuel)
Co-generation Power Plant	7.0 MW	Power

Total project area is 14.24 ha (142400 m^2) and the same is already under the possession of the company and converted to industrial use. Industry will develop greenbelt in an area of 33% i.e., 4.7 ha (47000 m^2) out of total area of the project. The estimated project cost is Rs.170 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 30 Crores and the Recurring cost (operation and maintenance) will be about Rs. 2.0 Crores / annum. No. of working days will be 350 days/annum. Total Employment will be 150 persons (Permanent 120 & Temporary 30) during operation phase. Industry proposes to allocate Rs. 1.7 Crores (1% of total project cost) towards Corporate Environmental Responsibility.

There are no National Parks, Reserved Forests (RF)/ Protected Forests (PF), Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km radius. Traj Distributary (~0.3 m in NNW direction), Vatrak River (~ 1.14 Km in North direction), Kaliya Vahera Nadi (~2.0 Km in NNE direction), Limbasi Distributary (~3.0 Km in SSW direction), Sabarmati River (~ 3.5 Km in WNW direction), Khari Nadi (~4.0 Km in NW direction), Meshwa Canal (~5.0 Km in North direction), Moti Vero Canal (~6.0 Km in NNW direction), Limbasi Branch (~7.5 Km in SE direction) are the water bodies which lies within 10 km radius.

Total fresh water requirement will be 1256 KLPD (1236 Process & 20 KLPD Domestic) which will be sourced from Groundwater. Total input for first run for Ethanol Plant will be 4179 KLPD. 2943 KLPD will be recycled and net fresh water requirement will be 1236 KLPD for proposed Ethanol Plant and 20 KLPD Domestic use. Effluent of 1173 KLPD will be treated through state of art CPU/Effluent Treatment Plant of 1500 KLPD capacity. The plant will be based on Zero Liquid Discharge system.

Power requirement for proposed Ethanol plant will be 6.0 MW, which will be sourced from the 7.0 MW Co-generation Power Plant. Unit will be having two D.G. Sets of 1000 KVA each which will be used as standby during power failure. Adequate Stack height (7 m) will be provided as per CPCB norms. Boiler of 55 TPH capacity with ESP as Air Pollution Control Equipment will be installed with a stack height of 57 m for controlling the particulate emissions within the statutory limit of 50 mg/Nm^3.

Details of process emissions generation and its management:

CO_2 (189 TPD) generated during the fermentation process will be collected and sold to authorized vendors.

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

- Solid waste from the Grain based operations generally comprises of fibres and proteins in the form of DDGS (116 TPD), which will be ideally used as Cattle, poultry & fish feed ingredients.
- Ash (47 TPD) generated from the boiler will be used for brick manufacturing. Company will supply ash to nearby brick manufacturers in covered vehicles and will also explore possibilities for in-house briquetting unit.
- Used oil (0.5 KL/annum) generated from plant machinery/gear boxes as hazardous waste will be sold out to the CPCB authorized recyclers.

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

During deliberations EAC sought the following information/commitments from PP:

- PP shall use biomass like rice husk/agrowaste/sawdust and coal as fuel for the proposed boiler due to unavailability of gas pipeline in nearby areas. Low sulphur coal with maximum sulphur content of 0.5% shall only be used.
- The proposed budget allocation Rs. 2.0 Crores towards CER and shall be used for construction/up-gradation of school building with provision of facilities e.g. Class rooms, Playground, Laboratory, Library, Computer class, Toilets, Drinking Water Facilities, Solar light etc. Further, the works under CER Plan shall be implemented in consultation with District Collector.
- Necessary permission from competent authority shall be obtained by the company for freshwater (groundwater).
- The company shall follow all the norms and conditions as stipulated by Gujarat State Pollution Control Board.

PP has submitted the desired information as sought above.

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

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

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

(iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project.

(v). Total Fresh water requirement shall not exceed 1256 KLPD and will be met from Groundwater. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Brick manufacturing unit will be installed within the plant premises for utilization of fly ash. ESP shall be installed with the boiler. PP shall use biomass like rice husk/agrowaste/sawdust and coal as fuel for the proposed boiler due to unavailability of gas pipeline in nearby areas. Low sulphur coal with maximum sulphur content of 0.5% shall only be used. PP shall meet 10% of the total power requirement from solar power.

(vii). CO_2 bottling plant shall be installed within plant premises.

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

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

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

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

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

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

(xiv). PP proposed to allocate Rs. 2.0 Crores towards CER and shall be used for construction/up-gradation of school building with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light etc. Further, the works under CER Plan shall be implemented in consultation with District Collector.

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

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

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

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

Agenda 50.12

Onshore Oil & Gas development drilling of 73 Nos drilling wells in Tinsukia and Dibrugarh districts under Hugrijan, Naharkatiya & Naharkatiya Extn, Sapkaint and few parts of Dumduma (BlockA & B),Borha , Assam by M/s OIL INDIA LIMITED- Consideration of Environment Clearance.

[IA/AS/IND2/248260/2016, J-11011/388/2016-IA II (I)]

It has been informed to EAC that the baseline data is older than three years which is contravention to the extant rules. In this regard EAC desired that in addition to fresh base line data for a period of 15 days of the study area, Public Hearing (PH) conducted by prescribed rank officer or documentary proof of with proper authorization to be submitted for consideration of the proposal.

Accordingly, the proposal was ***deferred*** for the needful.

Agenda No. 50.13

Greenfield project for manufacturing of Grain Based Bio Ethanol along with Co-Generation power plant by M/s Kalindi Ispat Private Limited (Bioenergy Division) at Village Beplan, Tehsil Masturi and District Bilaspur of Chhattisgarh State – Re-consideration of Environment Clearance.

[IA/CG/IND2/244421/2021, J-11011/371/2021-IA-II(I)]

The proposal was considered in 48th EAC meeting held during 06th – 07th January, 2022 wherein proposal was deferred to submit revised Layout Plan showing clearly 33% of the total project area earmarked for greenbelt, 15% of the total plant area for parking and storage pond of 60 days capacity. PP has now submitted it and EAC found it in order.

The Project Proponent and the accredited Consultant M/s. Anacon Laboratories Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Greenfield project for manufacturing of 180 KLPD Grain Based Bio Ethanol along with 5.0 MW Co-Generation power plant by M/s. Kalindi Ispat Private Limited (Bioenergy Division) located at Village Beplan, Tehsil Masturi, District Bilaspur, Chhattisgarh.

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.

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

The details of products and capacity are as under:

S. No	ProductDetails	Existing Quantity	Proposed Quantity	Total Quantity
1.	Bio Ethanol (Anhydrous Alcohol)	---	180 KLPD (63000 KLA)	180 KLPD (63000 KLA)
2.	Animal Feed Grade Protein (DDGS)	---	28140MT per annum	28140 MT per annum
3.	CO_2 (Carbon Di-oxide)	---	28540 MT per annum	28540 MT per annum
4.	Co-Generation based Power Plant	---	5 MW	5 MW

Total proposed land area is 161880 m^2. Industry will develop greenbelt in an area of 34.50 % i.e. 55800 m^2 out of total area of the project 161880 m^2. The estimated project cost is Rs. 195.09 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 15.65 crores and the Recurring cost (operation and maintenance) will be approx. Rs. 2.0 Crores per annum. Total Employment will be 200 persons as direct & 300 persons indirect. Industry proposes to allocate Rs 100 Lakhs towards CorporateEnvironment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Shivnath River is flowing at a distance of 4.8 km in W direction.

Ambient air quality monitoring was carried out at 8 locations during 1st December 2020 to 28th February 2021 and the baseline data indicates the ranges of concentrations as: PM10 (69.8-72.3) µg/m3), PM2.5 (26.5-28.8 µg/m3), SO2 (9.1- 10.0µg/m3) and NO2 (17.9-18.0µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.44 µg/m3, 0.15 µg/m3, 0.9 µg/m3 and 0.9 µg/m3 with respect to PM10, PM2.5 Sox and

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

Total raw water requirement is 990 m3/day which will be met from Shivnath River and collected rain water. PP has already applied for permission of surface water from State Water Resource Department Government of Chhattisgarh. The project proponent has received firm assurance from the SIPB and WRD for grant of required surface water. During the process 672 m^3/day waste water will be treated online through condensate polishing unit (CPU)/ or ETP having more than 1750 Cubic Meter per day treatment capacity. After treatment 205 m3/day will be returned to MEE/ MVR for evaporation and Vapour recovery. This way Zero Liquid discharge will be maintained. There will be no effluent generated or discharged from the Battery Limits.

Power requirement will be 5 MW and will be met from 5 MW Captive Co-gen power plant Additionally 1000 kVA x 2 nos. of DG sets will be used as standby during power failure. Stack (height of 30meters) will be provided as per CPCB norms to the proposed DG sets. A grid Back up from CSPDCL will be obtained to maintain the Power fluctuation in demand and supply. The unit proposes to install a 45 TPH biomass/ coal fired boiler. Electro-static precipitator with a stack of height of 56m will be installed for controlling the particulate emissions within the statutorylimit of 50 mg/Nm^3 for the proposed boilers.

Details of process emissions generation and its management:

Sl. No.	Stack attached to	Ht. (m)	Dia. (m)	Temp (°C)	Velocity (m/s)	Volumetric Flow Nm^3/hr	PM	SO_2	NO_2	PM	SO_2	NO_2
							(gm/sec)			(TPA)		
	Bioethanol plant											
1.	COGEN power 5 MW	56	2.1	130	6.50	81000	1.2	2.5	2.5	37.8	78.8	78.8
2.	DG set 2x1000 KVA	30	0.3	115	10	1953.4	0.04	0.001	0.8	1.3	0.03	25.2

Note: Emission Calculation based on PM concentration 50 mg/NM_3; SOx and NOx concentration @ 100 mg/NM_3 each.

S. No.	Name of Process	Type of Equipment	Emission controlled
1	Distillery Plant with Material Handling	1.Dust extraction system, ESP with Chimney 2. Bag Filters for Grain house; and transfer points. Total 2 Nos.	PM - 50 mg/Nm^3
2	Co-Generation power plant	ESP with Chimney And 2 Bag Filters at Coal conveyors	PM - 50 mg/Nm^3 SO2 - 100 mg/Nm^3 Nox - 100 mg/Nm^3 Mercury (Hg) – 0.03 mg/Nm3

Details of Solid waste/ Hazardous waste generation and its management

Name of Solid Waste	Qty (TPA)	Disposal / Utilization
Rice Husk Ash with Waste Media	14385.00	To be given free for Brick Making; Cement Plant or for back filling of Mined out land area
ETP sludge from waste water treatment plant	175.00	Will be used in brick making after drying or would be given to Cement plant.
Sludge from CPU	1425.00	Will be given to farmers as high potash manure
STP Sludge from Human Sewage treatment and Food waste	15.00	To be used in composting and then applied on green belt
Total (of Highest):	16000.00	

Hazardous & e-waste Management

The plant facility will result in generation of about 5 kL/year of spent oils (lubricants and transformer oil), which will be stored on site and sold to authorized recyclers.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 180 KLPD will be used for manufacturing of fuel ethanol only.

During the deliberations EAC directed PP to submit an undertaking for the following commitments/information:

- PP shall allocate at least Rs. 50 Lakhs for Occupational Health Safety.
- Fresh water requirement shall not exceed 4.0 kL fresh water consumed/kL production of Ethanol.
- Industry shall construct a rainwater storage facility of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- The proposed budget towards CER be increased to Rs. 2.0 Crores which shall be equally spent on improving infrastructure of public schools and installation of solar power in nearby villages in consultation with District Magistrate. All the proposed activities under CER shall be completed within 2 years.
- Fly ash generated shall be stored in covered silos and shall be transported to nearby brick manufacturing plants in closed trucks.

PP has submitted the desired commitments/information sought above in the form of undertaking.

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 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 OM dated 16th June, 2021, project falls in category B2 and the proposed capacity of 180 KLPD shall be only for fuel ethanol manufacturing as per self-certification in form of an 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). 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.

(iii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. Industry shall install solar power of at least 10% of its total power requirement within the plant/nearby villages as a part of EMP.

(iv). 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.

(v). Total fresh water requirement shall not exceed 4.0 kL fresh water consumed/kL production of Ethanol which will be met from Shivnath River. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage facility of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Fly ash generated shall be stored in covered silos and shall be transported to nearby brick manufacturing plants in closed trucks.

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

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

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

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

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

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

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

(xiv). PP proposed to allocate Rs. 2.00 Crores for improving infrastructure in the public schools nearby. All the proposed activities under CER shall be completed within 2 years.

(xv). There shall be at least 15% of the total plant area shall be earmarked for parking of vehicles for raw materials and finished products as per CPCB norms along with the facilities of toilets, drinking water facility and restrooms; no parking to be allowed outside on public places.

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

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

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

Agenda No. 50.14

Proposed grain-based Fuel Ethanol plant having proposed production capacity of 120 KLPD of Fuel Ethanol and 3 MW of power cogeneration, to be installed by M/s. Shreebalaji Biosolutions Fuels LLP located at Village Kaithra, Tehsil

Shahpura, District Jabalpur, Madhya Pradesh – Reconsideration of Environment Clearance.

[IA/MP/IND2/246378/2021, J-11011/527/2021-IA-II(I)]

The proposal was earlier placed before the EAC (Ind-2) in its 48th meeting held on 06-07th January, 2022 wherein EAC deferred the proposal.

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

S. No	ADS	Reply of PP	Observation of EAC
1.	During the deliberations, EAC directed PP to submit revised Layout Plan and approval of Petroleum and Explosives Safety Organization (PESO).	PP has submitted revised Layout Plan with approval of Petroleum and Explosives Safety Organization (PESO).	EAC deliberated the issue and found it satisfactory.

Again, the case has been placed in 50th EAC meeting held during 10th 11th February, 2022 for re-consideration.

The Project Proponent and the accredited Consultant M/s. Enviro Infra Solutions Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Proposed grain-based Fuel Ethanol plant having proposed production capacity of 120 KLPD of Fuel Ethanol and 3 MW of power cogeneration, to be installed by M/s. Shreebalaji Biosolutions Fuels LLP located at Village Kaithra, Tehsil Shahpura, District Jabalpur, Madhya Pradesh.

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.

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

The details of products and capacity are as under:

S. No.	Item	Unit	Total
1.	Fuel Ethanol	KL	120
2.	By-products		
	CO_2	MT	85
	Fusel Oil	MT	1.0
	DDGS	MT	65

The industry has already purchased land area of 5.742 hectares of land at Village Kaithra, Tehsil Shahpura, District Jabalpur, Madhya Pradesh. Out of the total land area of 5.742 hectares, the promoters have dedicated 4.11 hectares (41110 sq. meters) for the proposed fuel ethanol plant and balance 1.631 hectares will be used for other purposes. Change of Land Use for 4.111 hectares of land has already been done. Industry will develop green belt in an area of 1.35 hectares of land which is 33 % of total land area to be used for fuel ethanol plant. The estimated project cost is Rs. 115.00 crores for the proposed project. Total capital cost earmarked towards environmental pollution control measures is Rs. 11.50 crores and recurring cost (operation and maintenance) will be about Rs. 2.1 crores. Total employment generation will be 300 persons as direct and indirect employment due to the proposed expansion. Industry proposes to allocate Rs. 0.862 crores towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, biosphere reserves, Tiger/Elephant reserves, Wildlife corridors etc. within 10 km distance from the project site.

Total water requirements for the proposed project will be 493 m3/day. All the fresh water requirements for the existing as well as proposed project will be met from river water supply. The industry has already applied for the approval from Water Resources Department, Madhya Pradesh for the supply of river water @ 625 m3/day. The industry will construct a water reservoir of more than 1000 KL capacity for water/rain water storage. The industry will generate a total of 700 m3/day of condensates including spent lees from the proposed project. Out of this, 353 m3/day will be directly used in the process for slurry preparation. Remaining condensates @ 347 m3/day will be treated in condensate polishing unit and reused for cooling tower makeup water. Effluent from misc. streams will be 79 m3/day which will be treated in ETP and reused for water of green belt within the industrial premises. The plant will be based on Zero Liquid Discharge system.

Power requirements for the proposed expansion will be 2500 KVA and will be met from inhouse cogeneration power plant. The industry will purchase 1 x 1000 KVA D G set to be used as standby during power failure. Stack height to the D G sets has been provided as per norms. The industry will install a biomass/coal fired boiler of 25 TPH capacity.

Electrostatic precipitator will be installed as pollution control system to achieve the statutory limit of 50 mg/Nm^3 for the proposed boiler.

Details of process emissions generation and its management:

CO_2 generated during Fermentation Process will be scrubbed, collected and sold to end users.

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

The industry will install dryers for the handling of DWGS for controlling process odors from the factory.

During deliberations EAC sought the following information/commitments from PP:

(i). PP shall utilize fresh water @4.0 KL/KL of ethanol production.
(ii). PP shall be install silos for the feeding of rice husk to the rice husk fired boiler.
(iii). Company to construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
(iv). 15% of the total plant area will be reserved for parking.
(v). 33% of the total project area shall be developed with greenbelt within the plant premises including 5-10 m width greenbelt peripherally.
(vi). PP shall meet 10% of the total power requirement from solar power.
(vii). Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
(viii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety.
(ix). The proposed budget allocation Rs. 1.25 Crores towards CER. An amount of Rs. 0.625 Crores shall be used for construction/up-gradation of school building with provision of facilities e.g. Class rooms, Playground, Laboratory, Library, Computer class, Toilets, Drinking Water Facilities, Solar light etc and remaining Rs. 0.625 Crores shall be used for providing solar lights in nearby villages before the commencing of project.

PP has submitted the desired information as sought above except condition no. (viii).This condition have been imposed as specific condition.

As per OM 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.

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 Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee. 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 OM dated 16th June, 2021, project falls in category B2 and the proposed capacity of 120 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

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

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

(iv). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project.

(v). Total Fresh water requirement shall not exceed 4.0 KL/KL and will be met from river water supply. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Company to construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. PP shall be install silos for the feeding of rice husk to the rice husk fired boiler. Brick manufacturing unit will be installed within the plant premises for utilization of fly ash. PP shall meet 10% of the total power requirement from solar power.

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

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

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

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

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

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

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

(xiv). The proposed budget allocation Rs. 1.25 Crores towards CER. An amount of Rs. 0.625 Crores shall be used for construction/up-gradation of school building with provision of facilities e.g. Class rooms, Playground, Laboratory, Library, Computer class, Toilets, Drinking Water Facilities, Solar light etc and remaining Rs. 0.625 Crores shall be used for providing solar lights in nearby villages before the commencing of project.

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

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

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

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

Agenda No. 50.15

Expansion of Sugar Factory from 10,000 TCD to 15,000 TCD, Cogeneration Plant from 32 MW to 52 MW & Molasses Distillery from 80 KLPD to 300 KLPD (B/C Heavy Molasses/ Cane Juice/ Syrup) by M/s. Jarandeshwar Sugar Mills Pvt. Ltd. located on Gat No. 803 & 804, Chimangaon, Tal.: Koregaon, Dist: Satara, Maharashtra - Reconsideration of Environment Clearance.

[IA/MH/IND2/238182/2021, J- 11011/8/2000-IA II(I)]

The proposal was earlier placed before the EAC (Ind-2) in its 46th meeting held on 13th – 14th December, 2021 wherein EAC deferred the proposal.

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

S. No	ADS	Reply of PP	Observation of EAC
1.	PP shall submit a revised plan layout w.r.t proposed water reservoir as some part of it is coming outside the boundary of the Industry.	PP has submitted revised plan layout w.r.t proposed water reservoir as some part of it is coming outside the boundary of the Industry.	EAC deliberated the issue and found it satisfactory.
2.	PP shall submit a revised plan for ZLD.	PP has submitted revised ZLD Plan w.r.t. Integrated Project Complex of Sugar Factory, Cogen Plant & Distillery Unit	EAC deliberated the issue and found it satisfactory.

Again, the case has been placed in 50th EAC meeting held during 10th 11th February, 2022 for re-consideration.

The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd, 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 Sugar Factory from 10,000 TCD to 15,000 TCD, Cogeneration Plant from 32 MW to 52 MW & Molasses Distillery from 80 KLPD to 300 KLPD (B/C Heavy Molasses/ Cane Juice/ Syrup) by M/s. Jarandeshwar Sugar Mills Pvt. Ltd. located on Gat No. 803 & 804, Chimangaon, Tal.: Koregaon, Dist: Satara, Maharashtra.

The proposed expansion of Sugar Factory, Cogeneration Plant are listed

at activity 5(j) and 1(d) under 'Category B' and all molasses based distillery >100 KLPD are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A''. As the Sugar, Cogen & Distillery projects are located in same premises as an integrated project complex, the entire proposal of expansion of Sugar, Cogen and Distillery is appraised at Central Level by Expert Appraisal Committee (EAC).

The Standard ToR has been issued by Ministry vide letter No. J-11011/299/2021-IA-II (I) dated 24th August, 2021 for Expansion of Sugar Factory from 10,000 TCD to 15,000 TCD, Cogeneration from 32 MW to 52 MW & Distillery from 80 KLPD to 300 KLPD. Public hearing for proposed expansion project was conducted by MPCB, Satara on 30.09.2021 at project premises and presided by Additional District Magistrate, Satara. There were no major issues raised during the public hearing. Issues were raised mainly w.r.t effluent generation its management, employment generation, Benefits to farmers and villagers, etc. It was informed that no litigation is pending against the project.

SEIAA, Maharashtra has issued EC earlier vide letter no. SEIAA-EC-0000000250 dated 26.04.2018 for existing 10,000 TCD Sugar Factory & 32 MW Cogeneration plant & EC vide no. SIA/MH/IND2/53002/2019 dated 26.06.2020 to the existing 80 KLPD Distillery unit in favor of M/s Jarandeshwar Sugar Mills Pvt. Ltd.

Certified Compliance Report (CCR) submitted by IRO, MoEFCC, Nagpur vide letter No EC- 1113 /RON/2020-NGP/8800 dated 01.11.2021. Non-complied/Partly Complied conditions were observed by IRO MoEFCC, Nagpur during the site visit. ATR has been submitted by the Industry to IRO vide letter No. 522 dated 15.11.2021. ATR is found satisfactory by the EAC and recommended the proposal.

The details of products and capacity are as under:

Industrial unit	**Product& By-product**	**UoM**	**Quantity**		
			Existing	**Expansion**	**Total**
Sugar Factory (10,000 to 15,000 TCD)	Sugar	MT/D	1200	600	1800
	By-Product				
	Bagasse	MT/D	2800	1400	4200
	Press Mud	MT/D	400	200	600
	Molasses	MT/D	400	200	600
Co-gen Plant (32 to 52 MW)	Power Generation	MW	32	20	52
Distillery Unit (80 to 300 KPD)	Rectified Spirit/ ENA/ Ethanol/ Absolute Alcohol (AA)	KLPD	80	220	300
	By-product				
	Fusel Oil	MT/D	5	15	20
	CO_2	MT/D	60	170	230

Total plot land area is 8,12,633.29 M^2. Existing Sugar Factory, Cogeneration Plant & Distillery Built-up is 1,63,036.13 M^2, additional built up for proposed Sugar Factory, Cogeneration Plant & Distillery expansion is 12,920.29 $M^{2.}$ Industry has already developed Green Belt in an area of 3,02,323 M^2 (37% out of total plot area). Moreover, additional Green Belt area of 16,253 M^2 (2% out of total plot area) will be developed. After establishment of distillery, the total Green Belt area would be 3,18,576 M^2 which accounts for 39% of total plot area. The estimated project cost is Rs.537.438 Crores including existing investment of Rs. 358.95 Crores. The distillery will be operated for 330 days. Total capital cost earmarked towards environmental pollution control measures under expansion project will be Rs. 14.45 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.30 Crores per annum. Total Employment will be 867 persons as direct & indirect persons after expansion. Industry proposes to allocate Rs. 1.5 Crores @ of 0.84% towards Corporate Environmental Responsibility.

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 Km Study Area. River Tilganga is flowing at 4.5 Km (NW) & Vasana River at 8.7 Km (W).

Ambient air quality monitoring was carried out at 8 locations during January to March 2019 and baseline data indicates that ranges of concentrations of PM_{10} (50.0–67.1 µg/m^3), $PM_{2.5}$ (14.8–29.7 µg/m^3), SO_2 (14.8–29.7 µg/m^3), NOx (20.2–35.4µg/m^3) and CO (0.01-0.9 ppm) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the expansion project would be 0.22 µg/m^3 PM_{10} (towards East), 0.55 µg/m^3 $PM_{2.5}$ (towards East), 1.38 SO_2 µg/m^3 (towards East) and 0.83 µg/m^3 NO_x (towards East). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement after Expansion of Sugar Factory, Co-generation Plant & Distillery project will be 11,548 M^3/Day. Out of which 639 M^3/Day will be fresh water taken from Tilganga River. The total effluent generated from Sugar Factory & Cogeneration Plant after expansion will be 980 M^3/Day; treated in existing ETP & treated effluent will be used for green belt development. Industrial effluent generated after expansion of distillery unit will be in the form of raw spentwash 2400 M^3/Day. Here, raw spentwash shall be concentration in Multiple (Five) Effect Evaporator (MEE). Concentrated spentwash of 480 M^3/Day (1.6 KL/KL of alcohol against norm of 8 KL/KL of alcohol) shall be incinerated in existing 28 TPH incineration boiler. Other effluent generated from in the form boiler & cooling blowdown, condensate, lab-washing & DM backwash 2,432 M^3/Day will be treated in Condensate Polishing Unit (CPU) & Process Condensate Treatment Plant (PCTP). Treated effluent will be fully recycled in process to achieve ZLD. Domestic effluent generated after expansion of sugar factory, cogen plant & distillery unit will be 42 CMD;

shall be treated in proposed Sewage Treatment Plant of 50 CMD capacity.

Power requirement for proposed expansion project will be 13.5 MW will be procured from own 52 MW cogeneration plant. Existing Unit has 2 DG sets having capacity 1000 KVA each. No new DG set will be installed under expansion unit. Existing unit has 160 TPH bagasse fired Cogenration boiler and Spentwash & coal fired 28 TPH Incineration Boiler. Additionally, One 100 TPH bagasse fired boiler will be installed. ESP with a stack of height of 75 M will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boiler.

Details of process emissions generation and its management:

The CO_2 generation shall take place in fermenters of the distillery. CO_2 to the tune of 230 MT/Day shall be released from 300 KLPD distillery plant. CO_2 shall be bottled and supplied to manufacturers of beverages.

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

Details of Solid waste generated & its management

No.	Unit	Type	Quantity (MT/D)		Disposal
			Existing	After Expansion	
1	Sugar Factory & Co-gen Plant	ETP Sludge	0.5	0.8	Used as manure
		Boiler Ash (Bagasse)	33	55	To Brick manufacturing / as manure
2	Distillery	Boiler Ash (Coal + Sp. Wash)	38	153	To Brick manufacturing
		Yeast Sludge	14	50	Used as manure
		CPU Sludge	0.65	2.5	

Details of Hazardous waste generated & its management

No.	Industrial Unit	Category	Quantity (MT/Yr.)		Disposal
			Existing	After Expansion	
1	Sugar, Co-gen & Distillery	Spent Oil – Cat.5.1	0.54	3.0	Forwarded to authorized re-processor
		Contaminated Cotton	0.4	0.5	

		Waste- Cat. 33.3			
		Empty Containers- Cat. 33.1	30	80	Forwarded to authorized re-seller

During deliberations EAC sought the following information/commitments from PP:

- Entire project shall be ZLD and no single drop of water shall be discharged outside plant premises.
- Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
- 95% of the total employment shall be fulfilled by hiring local people (residents from surrounding villages in command area).
- PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety.
- The proposed budget allocation Rs. 1.5 Crores towards CER. An amount of Rs. 1.05 Crores shall be used for solar photovoltaic electricity generation systems at Grampanchayat, School Building & PHC Building and remaining Rs. 0.45 Crores shall be used for providing solar lights/solar panels in nearby villages as proposed.

PP has submitted the desired information as sought above.

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 found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended

from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

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

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

(ii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.

(iii). Total Fresh water requirement shall not exceed 639 M^3/Day and will be met from Tilganga River. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Company to construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(iv). Spent wash shall be concentrated followed by incineration. Brick manufacturing unit will be installed within the plant premises for utilization of fly ash. PP shall meet 10% of the total power requirement from solar power.

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

(vi). 95% of the total employment shall be fulfilled by hiring local people (residents from surrounding villages in command area).

(vii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's

health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

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

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

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

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

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

(xiii). The proposed budget allocation Rs. 1.5 Crores towards CER. An amount of Rs. 1.05 Crores shall be used for solar photovoltaic electricity generation systems at Grampanchayat, School Building & PHC Building and remaining amount Rs. 0.45 Crores shall be used for providing solar lights/solar panels in nearby villages as proposed.

(xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places. Out of the total project area, 20% shall be allotted solely for parking purposes.

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

(xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB

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

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

Agenda No. 50.16 Any other items with the permission of the Chair.

50.16.1

Clarification regarding applicability of Environmental Clearance (EC) for production of Bitumen Emulsion, Modified Bitumen and Road Bond from Bitumen.

The matter was deliberated during the Industry-II Expert Appraisal Committee (EAC) meetings held on 29th - 30th November, 2021 and on 23rd December, 2021 wherein the project proponent and their consultant made detailed presentation.

After detailed examination of all issues particularly with regard to unit operations and unit processes in Bitumen Emulsion, modified Bitumen and Road Bond, with respect to liquid effluents, air emissions, VOCL, HAP's emissions, Safety aspect, etc. the EAC held that the project does not require Environment Clearance. CPCB representative has also recommended in line with the EAC's decision.

In line with recommendations of EAC, a DFA has been presented before the committee as prepared in the ministry. EAC examined the DFA and found it in line with its recommendations. Accordingly, EAC vetted the proposed DFA.

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ANNEXURE

GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

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

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

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

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

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

(vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, 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	Designation
1.	Dr. J. P. Gupta	Chairman
2.	Sh. R.K. Singh	Member
3.	Dr. Y.V. Rami Reddy	Member
4.	Dr. T. Indrasena Reddy	Member
5.	Sh. S.C. Mann	Member
6.	Sh. Ashok Agarwal	Member
7.	Dr. T. K. Joshi	Member
8.	Dr. J. S. Sharma	Member
9.	Sh. Dinabandhu Gouda, CPCB	Member
10.	Sh. Sanjay Bist, IMD	Member
11.	Sh. Ashok Kr. Pateshwary, Director, MoEFCC	Member Secretary
MoEFCC		
12.	Dr. Mahendra Phulwaria	Scientist 'C'
13.	Sh. Kanaka Teja	Research Assistant

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