

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

Dated: 01.11.2021

**MINUTES OF THE 42nd MEETING OF THE EXPERT APPRAISAL
COMMITTEE**

(INDUSTRY-2 SECTOR PROJECTS)

HELD ON 20th – 22nd October, 2021

**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 41st Meeting of the EAC (Industry-2) held during 28th - 30th September, 2021 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: -

20th October, 2021 (Wednesday)

Agenda No. 42.1

Proposed 200 KLPD Grain based Ethanol Plant at village Begrajpur Paragana Khatauli District Muzaffarnagar Uttar Pradesh by M/s CRYSTAL BALAJI INDUSTRIES PRIVATE LIMITED- Consideration of Environment Clearance.

[IA/UP/IND2/228826/2021, J-11011/365/2021-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 for establishment of 200 KLPD grain-based ethanol plant with 5.0 MW co-generation of power at Begrajpur village, Khatauli Paragana, Muzaffarnagar district Uttar Pradesh by M/S Crystal Balaji Industries 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:

Sr. No.	Product Details	Quantity
1	Ethanol	200 KLD
2	Co-Gen Power	5 MW

Proposed land area is 5.949 hectares, which is already under the possession of M/s Crystal Balaji Industries Private Limited. Conversion of land documents has been obtained from Collectorate office, Muzaffarnagar vide letter dated 19.07.2021 which has been accepted by EAC. Industry will develop greenbelt in an area of 33 % i.e., 1.97 hectares out of total area of the project.

The estimated project cost is Rs 19900 lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs 1925 Lakh and the Recurring cost (operation and maintenance) will be about Rs 120 Lakh per annum. Total Employment will be 136 persons as direct & indirect. Industry proposes to allocate Rs. 290 lakhs towards Corporate Environmental Responsibility.

There is no National Parks, Reserved Forests (RF)/ Protected Forests (PF), within 10 Km radius. River/ water body Kali Nadi is flowing at a distance of 1.07 Km in the West direction.

Total water requirement for the Grain based Ethanol Plant will be 2437 KLPD out of which 1137 KLPD will be recycled in plant operations. Hence, the fresh water requirement for the project will be 1300 KLPD which will be met from ground water. Spent Wash (Slops) generation from

Distillation, will be sent through separation of suspended solids in Decanter Centrifuge, part Thin Slops are concentrated in multi-effect evaporators to form a Thick (Protein) Syrup, which is mixed with the Wet Cake DWG separated earlier from Decanters. This interim product called DWGS has 30-32% w/w Solids is subject to drying in a rotating steam tube bundle dryer to deliver a value-added by-product – DDGS – Distillers Dried Grains with soluble and which has min. 90% Solids and max 10% moisture. This DDGS sells as Cattle Feed / Poultry Feed / Fish Feed based on its Protein Content. Hence, entire spent wash is decanted, concentrated into syrup in a Multi-Effect Evaporation followed by Drying, in order to achieve Zero Effluent Discharge. Effluent of 1137 KLPD quantity will be treated through state of art CPU/Effluent Treatment Plant of 1300 KLPD capacity (Anaerobic, aerobic, Filters, & RO system). The plant will be based on Zero Liquid discharge system.

Power requirement for proposed project will be 4 MW (maximum) will be met from Co-generation power plant of 5 MW. Unit has proposed 1 no.s of boiler of capacity 50 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/Nm³ for the proposed boilers.

Details of process emissions generation and its management:

ESP with a stack height of 72 m will be installed for controlling the particulate emissions. Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers. CO₂ generated (120 TPD) during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.

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

Waste	Quantity	Uses / Disposal
Total Ash	8 MT/Day	Due to high potash content, will be used as manure.
Yeast Sludge	18 MT/Day	Due to high potash content
Condensate polishing unit sludge	2 KLD	Due to high potash content
Cattle Feed DDGS	96 MT/Day	Will be sold as cattle feed.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 200 KLPD will be for manufacturing of fuel ethanol only.

During the deliberations EAC desired the following information/commitments:

- Proposed parking area shall be increased to 15 %.
- Fuel used in the boiler shall be biomass based.
- Water balance shall be revised @4kL fresh water consumed/kL production of Ethanol.

- Industry shall conform to ZLD and no waste or treated water shall be discharged outside the premises.
- Solar power plant of 0.5 MW shall be installed within the plant and it shall be utilized in meeting power requirement of the plant.
- The proposed budget to be spent on CER shall be increased to Rs 3.00 crores and it shall be spent on installing solar power to the villages nearby. It was also suggested that the proposed activities under CER shall be completed before the commissioning of the plant.

PP has agreed to the above conditions. However, desired information/commitments sought by EAC have not been submitted.

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 additional capacity of 200 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). 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). Total fresh water requirement shall not exceed 4kL fresh water consumed/kL production of Ethanol and it shall be met from ground water. Extraction of ground water shall not be done without obtaining prior permission of CGWA/concerned authority. No ground water recharge shall be permitted within the premises.
- (v). Effluent will be treated through state of art CPU/Effluent Treatment Plant. The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). 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.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement 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 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.
- (xiii). PP proposed to allocate Rs. 3.00 Crores for CER and it shall be spent on installing solar power to the villages nearby. All the proposed activities under CER shall be completed before the commissioning of the plant.
- (xiv). There shall be 15% 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.
- (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. 41.2

Establishment of new Sugar Syrup/ Molasses (C or B Heavy Molasses) / Grain Based Distillery Having Capacity – 350 KLD along with 15 MW Co Gen Power at village: Maizapur, PO: Haldharmau, Tehsil: Colonelganj, Distt – Gonda (UP) – 271126 (UP) of M/s Balrampur Chini Mills Ltd, Unit Maizapur.

[IA/UP/IND2/209541/2021, J-11011/178/2021-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 new Sugar Syrup/ Molasses (C or B Heavy Molasses) / Grain Based Distillery Having Capacity – 350 KLD along with 15 MW Co Gen Power at village: Maizapur, PO: Haldharmau, Tehsil: Colonelganj, Distt – Gonda (UP) – 271126 (UP) of M/s Balrampur Chini Mills Ltd, Unit Maizapur.

All Molasses based distilleries >100 KLPD & Non-Molasses based distilleries >200 KLD are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification dated 14.9.2006 and as amended on 13.6.2019 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.

Standard ToR has been issued by Ministry of Environment, Forests & Climate Change vide letter IA-J-11011/178/2021-IA-II(I) dated 30th April 2021. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 12.08.2021 at the project site presided by Additional District Magistrate, Gonda district. The main issues raised during the public hearing are related to about air Pollution, water pollution, noise pollution and their mitigation measures in the proposed project.

The details of products and capacity are as under:

Sr. No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1	RS /Ethanol / ENA	-	350 KLD	350 KLD
2	Co-Gen Power	-	15 MW	15 MW

Proposed land area is 26.559 hectare, which is already under the ownership of M/s Balrampur Chini Mills limited (Unit: Maizapur). Industry will develop greenbelt in an area of 33 % i.e., 8.83 hectare out of total area of the project. Proposed land is already industrial in land use and proposed establishment is proposed adjacent to existing sugar premises.

The estimated project cost is Rs 45584.94 Lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs 6000 Lakh and the Recurring cost (operation and maintenance) will be about Rs 350 Lakh per annum. Total Employment will be 300 persons as direct & indirect after expansion. Industry proposes to allocate Rs 350 Lakhs towards Corporate Environmental Responsibility.

There are no National Parks, Reserved Forests (RF)/ Protected Forests (PF), within 10 Km radius. River/ water body Terhi River is flowing at a distance of 4.45 Km in the East direction. Sarju River is flowing at distance of 13.35 km in south west.

Ambient air quality monitoring was carried out at 8 locations during winter season 01st December, 2020 to 28th February, 2021 and the baseline data indicates the ranges of concentrations as: PM₁₀ (58.2 to 85.5 µg/m³), PM_{2.5} (35.7 to 48.9 µg/m³), SO₂ (9.5 to 14.5 µg/m³) and NO₂ (11.6 to 22.9 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.91 µg/m³, 0.58 µg/m³, 1.62 µg/m³ and 1.07 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NO₂. 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 Sugar Syrup based operation 1400 KLD (@ 4.0 KL / KL of Product), for Molasses (B heavy Molasses or C Heavy Molasses) based operation 2000 KLD (@ 5.7 KL / KL of product) and for Grain based operation 1920 KLD (@ 5.5 KL/KL of Product). Maximum fresh water requirement will be 2000 KLD (@ 5.7 KL / KL of product). Spent wash generation from the distillation which is a variable in different mode operations. Spent wash generation in Mode-I, 350 KLD (100 % Sugar Syrup based distillery) operation will be 2030 KLD, in Mode-II, 350 KLD (100 Molasses based distillery) operation will be 2436 KLD and in Mode-III, 350 KLD grain based (100% Grain based Operation) operation it will be 2248 KLD. Spent wash generated will be concentrated in MEE then concentrate from MEE will be used as fuel in Slop fired Boiler of Capacity 75 TPH & 50 TPH during Mode I & Mode II. During mode III, Spent Wash (Slops) generation from Distillation, will be sent through separation of suspended solids in Decanter Centrifuge, part Thin Slops are concentrated in Multi-effect evaporators to form a Thick (Protein) Syrup, which is mixed with the Wet Cake DWG separated earlier from Decanters. This interim product called DWGS has 30-32% w/w Solids is subject to drying in a rotating steam tube bundle dryer to deliver a value-added by-product – DDGS – Distillers Dried Grains with soluble and which has min. 90% Solids and max 10% moisture. This DDGS sells as Cattle Feed / Poultry Feed / Fish Feed based on its Protein Content. Hence, entire spent wash is decanted, concentrated into syrup in a Multi-Effect Evaporation followed by Drying, in order to achieve Zero Effluent Discharge. 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 9135 KW (maximum) will be met from Co-generation power plant of 15 MW. The total power requirement for the proposed project will be 7400 KW (Mode-I), 9135 KW (Mode-II) and 8900 KW (Mode-III), which will be sourced from Co

generation power plant; 15 MW. D.G Set (1 x 1500 KVA) State power Distribution Corporation Limited (SPDCL). Adequate Stack (7.7 meters above roof top) will be provided as per CPCB norms to the proposed DG sets. Unit proposed 2 nos of Slope fired boiler of capacity 75 TPH & 50 TPH. Electro Static Precipitator (ESP) with a stack of height of 85 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boilers.

Details of process emissions generation and its management:

CO₂ (273 TPD) generated during the fermentation process will be recovered by CO₂ Scrubbers and sold to authorized vendors.

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

Waste	Mode -1	Mode - 2	Mode - 3	Uses / Disposal
Total Ash	40.62 MT/Day	146 MT/Day	10.68 MT/Day	Due to high potash content, will be used as manure. Fly ash generated during mode - III will be provided to brick manufacturer.
Yeast Sludge	22 MT/Day	28 MT/Day	30 MT/Day	Will be mixed with press mud of Sugarmill and sold to the farmer.
Condensate polishing unitsludge	2.0 KLD	2.2 KLD	1.8 KLD	Will be mixed with press mud of Sugarmill and sold to the farmer.
Cattle Feed DDGS	Nil	Nil	175.0 MT/Day	Will be sold as cattle feed.

During deliberations EAC suggested that:

- The integrated project sugar factory and proposed distillery shall conform to Zero Liquid Discharge.

- Industry shall construct rain water storage facility of capacity from which it can meet at least 60 days fresh water requirement.
- Proposed CER funds shall be increased to Rs. 4.55 Crores and it shall be spent on installing solar power and providing drinking water facilities to the nearby villages. The proposed activities under CER shall be completed before the commencement of operations of the plant.
- Ash generated shall be transported outside the plant only after proper packing.

Further, EAC directed that proposed parking area of 10 % shall be increased to 15 %. PP has agreed for the same and submitted an undertaking in compliance of the 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). 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 integrated industry and no waste or treated water shall be discharged outside the premises. The integrated project sugar factory and proposed distillery shall conform to Zero Liquid Discharge.
- (iii). Total freshwater requirement will be 2000 KLPD which will be sourced 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 rain water storage facility of capacity from which it can meet at least 60 days fresh water requirement.
- (xviii). Effluent will be treated through state of art CPU/Effluent Treatment Plant. The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed.
- (iv). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (v). 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.
- (vi). 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.
- (vii). 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.
- (viii). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (ix). 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.

- (x). 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.
- (xi). PP proposed to allocate Rs. 4.55 Crores for CER and it shall be spent on installing solar power and providing drinking water facilities within nearby villages. All the proposed activities under CER shall be completed before the commencement of operations of the plant.
- (xii). 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.
- (xiii). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xiv). 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.
- (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.

Agenda No. 42.3

Proposed 360 KL/Day Grain Based Distillery Project along with 9 MW CoGen Power Plant and ZLD Unit at Village Panimura Jungle, Tehsil Tarbha, District- Subranpur, Odisha by M/s. Mash Bio-Fuels Pvt. Ltd - Consideration of Environment Clearance.

[IA/OR/IND2/229184/2021, J-11011/368/2021-IA-II(I)]

The PP/consultant were absent for the appraisal of proposal. It has been informed that PP desires to withdraw the proposal. Therefore, EAC has decided to return the proposal in present form.

Accordingly, proposal was returned in present form.

Agenda No. 42.4

Establishment of 230 KLPD Grain based Distillery along with Electricity generation 5 MW at plot no. B3/1, Mul Growth Center, Tal.: Mul, Dist.:Chandrapur, by M/s Carnival Industries Pvt Ltd - Consideration of Environment Clearance.

[IA/MH/IND2/229515/2021, J-11011/380/2021-IA-II(I)]

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 for establishment of 230 KLPD Grain based Distillery along with Electricity generation 5 MW at plot no. B3/1, Mul Growth Center, Mul taluk, Chandrapur district, by M/s Carnival Industries Pvt Ltd.

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:

Industrial Unit	Description	Quantity
Distillery (Proposed 230 KLPD)	Product	
	Ethanol	230 KL/D
	By-product	
	DDGS (10% Moisture)	150 MT/D
	CO ₂	190 MT/D

Total plot land area is 1,89,650 m². Proposed Distillery Built- up is 39,718.65 m². Land has been allotted by Maharashtra Industrial Development Corporation vide letter No. MIDC/RO(NGP)/MUL/LMS-70/1633/2021 dated 29th June, 2021. Industry will develop greenbelt in an area of 34% i.e, 63,365.17 m² out of total plot area.

The estimated project cost is Rs. 207.91 Crores. Total capital cost earmarked towards environmental pollution control measures under

proposed project will be Rs.16.20 Crores and the Recurring cost (operation and maintenance) will be about Rs.1.90 Crores per annum. Total Employment will be 425 persons as direct & indirect after proposed project. Industry proposes to allocate Rs.315 Lakh @ of 1.5% towards Corporate Environment Responsibility.

The ESZ of Tadoba Andhari Tiger Reserve WLS is at 5.4 Km from the Project Site and boundary of sanctuary is at 17.31 Km from project site and do not come in the ESZ of Todabha Andhari Tiger reserve. Mul River is flowing at a distance 3 Km from North to South.

Total water requirement is 2,519 CMD. Out of which 854 CMD will be fresh water taken from MIDC Water Supply Scheme (Wainganga River). For proposed Distillery; Wet Cake from decantation operation and Thin Slop from MEE will be mixed together and this mixture known as DDGS will used as Cattle Feed. Other effluents generated from the grain distillery plant comprise of FOC lees, PRC lees, Thick Slope, RC less and condensate which are treated in CPU& the treated effluent is reused for watering of Green Belt. Lees generated from grain base distillery operations along with other effluent @ 1,380 M³/Day will be treated in proposed CPU having capacity 1500 M³/Day. Treated effluent from CPU will be reused for industrial operations, thereby achieving Zero Liquid Discharge (ZLD) for process effluent. same CPU will be used for grain-based operations. This wet cake further dried in dryers will result in to loss of moisture thereby forming Distillers Dry Grains with Soluble (DDGS- 10% moisture) @150 MT/D. This DDGS has more shelf life & sold as cattle feed.

Power requirement for proposed project will be 3.5 MW which will be met from own Cogeneration Plant. One DG set of 750 KVA which will be operated only during failure. Stack 5 M ARL will be provided as per CPCB norms to the proposed DG sets. New boiler of 45 TPH will be installed under proposed distillery unit. ESP with a stack of height of 70 M will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the boiler.

Details of process emissions generation and its management:

The CO₂ generation shall take place in fermenters of the distillery. CO₂ to the tune of 190 MT/Day shall be released from 230 KLPD distillery plant. CO₂ shall be bottled and supplied to manufacturers of beverages.

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

No.	Unit	Waste Type	Quantity (MT/D)	Disposal
1.	Distillery	Yeast Sludge	33	To Dryer / To be used as Manure
		CPU Sludge	1.3	To be used as Manure
		Boiler Ash	21	To be sold to Bricks

No.	Unit	Waste Type	Quantity (MT/D)	Disposal
				Manufacturer

No any Hazardous waste is generated from Distillery.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 230 KLPD will be for manufacturing of fuel ethanol only.

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

- Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
- Solar power plant of 0.5 MW shall be installed within the plant and it shall be utilized in meeting power requirement of the plant.
- The budget to be spent on CER shall be Rs 3.15 crores and it shall be spent on providing solar power to the nearby villages. It was also suggested that the proposed activities under CER shall be completed before the commissioning of the plant.

PP has submitted the desired information as sought above and EAC found it to be in order.

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 additional capacity of 230 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). 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). Total fresh water requirement shall be 854 CMD which will be met from MIDC Water Supply Scheme (Wainganga River). No ground water recharge shall be permitted within the premises.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. PP shall install brick manufacturing plant within factory for utilization of fly ash.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). 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.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement 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 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.
- (xiii). PP proposed to allocate Rs 3.15 crores and it shall be spent on providing solar power to the nearby villages. All the proposed activities under CER shall be completed before the commissioning of the plant.
- (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.
- (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. 42.5

Expansion of Molasses / Sugarcane Juice/Syrup based Distillery from 65 KLPD to 110 KLPD by using Molasses/ Cane Syrup/Grain) by M/s Davangere Sugar Company Ltd. (DSCL) - Consideration of Environment Clearance.

[IA/KA/IND2/229479/2021, J-11011/386/2021-IA-II(I)]

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 proposed expansion of Molasses / Sugarcane Juice/Syrup based Distillery from 65 KLPD to 110 KLPD by using Molasses/ Cane Syrup/Grain) by M/s Davangere Sugar Company Ltd. (DSCL).

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 2nd March, 2021. Accordingly, the proposal has been appraised as category 'B2' project.

The project proposal is exempted from obtaining ToR & conducting Public Hearing as per EIA notification, 2006 amendment vide S.O 980(E) dated 2nd March, 2021. It was informed that no litigation is pending against the project.

SEIAA, Karnataka State has issued EC earlier vide letter No. SEIAA/02/IND/2020 dated 26th August, 2020 to the existing 65 KLPD Molasses/ Sugarcane Juice based Distillery in favor of M/s Davangere Sugar Company Ltd. (DSCL).

The details of products and capacity are as under:

Industrial Unit	Product	Units	Quantity		
			Existing	Expansion	Total
Distillery (65-110 KLPD)	Rectified Spirit (RS)/ ENA	KLPD	65	-	65
	Ethanol (Molasses/ Sugarcane Syrup Based)	KLPD	65	45	110
	Ethanol (Grain Based)	KLPD	-	110	110
	Fusel Oil	MT/M	3	2.1	5.1
	By- Products				

Industrial Unit	Product	Units	Quantity		
			Existing	Expansion	Total
	CO ₂	MT/M	1620	1110	2730
	DDGS (110 KLPD)	MT/M	-	5160	5160

Total plot land area is 6,67,731.30 m². Existing built-up area 49,147.53 m²; additional built-up for proposed project will be 52,609.1 m². Industry has already developed Green Belt in an area of 1,17,359 m² (18% out of total plot area). Moreover, additional Green Belt area of 1,00,000 m² (15% out of total plot area) will be developed. After expansion of Distillery, the total Green Belt area would be 2,17,359 m² which accounts for 33% of total plot area.

The estimated project cost is Rs. 208 Crores including existing investment of Rs.98 Crores. The distillery will be operated for 330 days. Total capital cost earmarked towards environmental pollution control measures under proposed expansion project will be Rs.8.6 Crores and the Recurring cost (operation and maintenance) will be about Rs.0.70 Crores per annum. Total Employment will be 552 persons as direct & indirect after proposed project. Industry proposes to allocate Rs. 83 Lakh @ of 0.75 % towards Corporate Environment Responsibility.

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 Km Study Area. Shyagale Halla River is flowing at a distance 0.5 Km from South East to North west.

Total water requirement after Distillery expansion project will be 1,927 CMD. Out of which 919 CMD will be fresh water taken from Shyagale Halla River. After expansion of Distillery from 65 KLPD to 110 KLPD, process effluent generated from Molasses based operations in the form of raw spent wash to the tune of 880 M³/D which would be concentrated in Multiple Effect Evaporator (MEE) and the conc. Spent wash @ 176 MT/D (1.6 KL/KL of alcohol) would be blended with bagasse or coal and burnt in existing 30 TPH incineration boiler. Other effluents viz. spent lees @ 257 M³/D, MEE condensate @ 704 M³/D and Other effluents @ 153 M³/D will be treated in existing CPU which will be duly upgraded under of Distillery. Treated effluent from CPU will be reused in process and boiler makeup, thereby achieving Zero Liquid Discharge (ZLD) for Distillery. After expansion of Distillery from 65 KLPD to 110 KLPD, process effluent generated from Grain based operations in the form of FOC , PRC RC Lees – 360 M³/D, Condensate – 260 M³/D & Other effluent to the tune of 773 M³/D which will be treated in existing CPU to be upgraded under expansion activity & recycled in process. Same CPU will be used for Molasses Based, Sugarcane Syrup Based & Grain Based Operations.

Power requirement for proposed project will be 2.5 MW which will be met from own Turbine Generation. Existing unit has 250 KVA DG Set. No additional DG set will be installed under expansion activity. DG sets to be used as standby during power failure. Stack (height 5 M) is provided as per CPCB norms to the existing DG Set. Existing Distillery has one 30 TPH Incineration Boiler which is already installed. ESP with a stack of height of 74 M is installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the boiler.

Details of process emissions generation and its management:

The CO₂ generation shall take place in fermenters of the distillery. CO₂ to the tune of 91 MT/Day shall be released from 110 KLPD distillery plant. CO₂ shall be compressed, bottled and supplied to manufacturers of beverages.

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

No.	Description	Quantity (MT/D)		Disposal Facility
		Existing	After Expansion	
1	Yeast Sludge	14	23	Used as Manure.
2	Boiler Ash	30	57	Sold to Farmer (As fertilizer) / Brick Making
3	CPU Sludge	0.6	1.1	Burnt in Incineration Boiler

No any Hazardous waste is generated from Distillery.

Certified Compliance report has been issued by IRO, Bangalore vide letter No. EP/12.1/2020-21/02/SEIAA/KAR/602 dated 14th September, 2021. It mentioned that the construction work of 65 KLPD distillery was started in May 2021 but due to COVID - 19 pandemic, the construction activities were slowed down and the distillery plant erection is expected to be completed in another 7- 8 months. Further, IRO report mentioned that Since the project is in initial stage of construction and PA has obtained all necessary clearance/NOC from various departments and complied initial stage of EC conditions, detailed compliance has not been prepared and the compliance is rated as Satisfactory.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 45 KLPD will be for manufacturing of fuel ethanol only.

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

- Solar power plant of 0.5 MW shall be installed within the plant and it shall be utilized in meeting power requirement of the plant.
- The proposed budget to be spent on CER shall be increased to Rs 3.00 crores and it shall be spent on installing solar power in the nearby villages. It was also suggested that the proposed activities under CER shall be completed before the commissioning of the plant.
- Ash management plan.

PP has submitted desired information except for increase in the CER funds to Rs. 3.00 Crs.

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 additional capacity of 45 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). 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). Total fresh water requirement shall be 919 KLPD which will be met from Shyagale Halla River. Extraction of ground water shall not be done without obtaining prior permission of CGWA/concerned authority. No ground water recharge shall be permitted within the premises.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). 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.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement 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 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.
- (xiii). PP proposed to allocate Rs. 3.00 Crores for CER and it shall be spent on installing solar power in the nearby villages. All the proposed activities under CER shall be completed before the commissioning of the plant.
- (xiv). There shall be 15% 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.
- (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. 42.6

Expansion of Molasses based Distillery from 75 to 110 KLPD for Ethanol production by using C / B Heavy Molasses/ Cane Syrup with 3 MW Captive Power Plant (CPP) including expansion of cane crushing from 10,000 to 12,000 TCD along with Co-

generation Plant from 20 to 30 MW At: Bidri (Mouninagar), Tal.: Kagal, Dist.: Kolhapur, Maharashtra by M/S Shri Dudhganga Vedganga Sahakari Sakhar Karkhana Ltd (SDVSSKL)- Consideration of Environment Clearance.

[IA/MH/IND2/231257/2021, J-11011/403/2021-IA-II(I)]

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 proposed expansion of Molasses based Distillery from 75 to 110 KLPD for Ethanol production by using C / B Heavy Molasses/ Cane Syrup with 3 MW Captive Power Plant (CPP) including expansion of cane crushing from 10,000 to 12,000 TCD along with Co-generation Plant from 20 to 30 MW at Bidri (Mouninagar), Kagal taluk, Kolhapur district, Maharashtra by M/S Shri Dudhganga Vedganga Sahakari Sakhar Karkhana Ltd (SDVSSKL).

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 2nd March, 2021. Accordingly, the proposal has been appraised as category 'B2' project.

The project proposal is exempted from obtaining ToR & conducting Public Hearing as per EIA notification, 2006 amendment vide S.O 980(E) dated 2nd March, 2021. It was informed that no litigation is pending against the project.

SEIAA Maharashtra has granted EC for 20 MW Co-gen plant vide letter No. 2009/348/CR.72/TC.1 dated 05th August, 2009 in favor of Shri Dudhganga Vedganga Sahakari Sakhar Karkhana Ltd. Further, SEIAA Maharashtra has granted EC vide letter No. SIA/MH/IND2/57733/2020 dated 13th September, 2021 to the existing 75 KLPD Molasses Based Distillery, Sugar Factory expansion from 5000 TCD to 10,000 TCD & 20 MW Co-gen plant in favor of M/s Dudhganga Vedganga Sahakari Sakhar Karkhana Ltd.

The details of products and capacity are as under:

Industrial Unit	Product & By-products	Unit	Quantity		
			Existing	Proposed	Total
Distillery (Expansion from 75 to	Rectified Spirit / Extra Neural Alcohol (ENA) (B & C Heavy Molasses)	KLPD	75	0	75

110 KLPD)	Ethanol (B & C Heavy Molasses)	KLPD	75	35	110
	Ethanol (Sugarcane Syrup)	KLPD	0	110	110
	CO ₂ Gas	MT/M	1,680	1,050	2,730
	Electric Power from Incineration Boiler	MW	0	3	3
Sugar Factory (Expansion from 10,000 to 12,000 TCD)	Sugar (12%)*	MT/M	36,000	7,200	43,200
	Molasses (4%)*	MT/M	12,000	2,400	14,400
	Bagasse (30%)*	MT/M	90,000	18,000	1,08,000
	Pressmud (4%)*	MT/M	12,000	2,400	14,400
Co-gen (Expansion from 20 to 30 MW)	Electricity	MW	20	10	30

Total plot land area is 7,26,219 m². Existing built-up area 61,367 m²; additional built-up for proposed project will be 2,625 m². Industry has already developed 94,408.50 m² (13% out of total plot area) of green belt. Under Expansion of Distillery, Sugar Factory, & Co-generation Plant, 1, 45,243.80 m² (20% out of total plot area) of additional Green Belt will be developed. After proposed activity, the total Green Belt area would be 2,39,652 m² which accounts for 33% of total plot area.

The estimated project cost is Rs.475.97 Crores including existing investment of Rs.425.97 Crores. The distillery will be operated for 330 days. Total capital cost earmarked towards environmental pollution control measures under proposed project will be Rs. 4.55 Crores and the Recurring cost (operation and maintenance) will be about Rs.0.44 Crores per annum.

Total Employment will be 603 persons as direct & indirect after proposed project. Industry proposes to allocate Rs.50.5 Lakh @ of 1% towards Corporate Environment Responsibility.

There is a Radhanagari Wildlife Sanctuary at a distance of 12.2 Km from SDVSSKL Site. Radhanagari Wildlife Sanctuary ESZ got finalized vide MoEFCC Notification No. SO-3630 E on 15.10.2020. SDVSSKL site is located at 9.9 Km from ESZ & do not come in the ESZ. Protected Forest is about 1.15 Km from SDVSSKL Site. Dudhganga River is flowing at a distance of 0.7 Km from West to North direction and Vedganga River is flowing at a distance of 5.8 Km from South to East direction.

Total water requirement after Expansion of Sugar Factory, Co-generation Plant & Distillery project will be 7,760 CMD. Out of which 334 CMD will be fresh water taken from Dudhganga River. Total trade effluent generated from expansion activity of Sugar Factory & Co-gen Plant @ 713 m³/Day will be treated through existing Effluent Treatment Plant (ETP) comprising of Primary, Secondary & Tertiary Treatment units.

Treated effluent will be reused for green belt development in own factory premises. The process effluent generated after expansion of Molasses based Distillery from 75 KLPD to 110 KLPD would be in the form of raw spent wash to the tune of 880 m³/Day which would be concentrated in Multiple Effect Evaporator (MEE) and the conc. spent wash @ 176 MT/D (1.6 KL/KL of alcohol) would be burnt in existing 30 TPH incineration boiler. Other effluents viz. spent lees @ 147 m³/D, MEE condensate @ 704 m³/D and other effluents @ 51 M³/D will be treated in CPU under Distillery. Treated effluent from CPU will be reused in process and boiler makeup, thereby achieving Zero Liquid Discharge (ZLD) for Distillery.

Power requirement after Expansion of Sugar Factory, Co-generation Plant & Distillery project will be 13 MW which will be procured from own Cogeneration Plant. Existing Unit has 2 DG sets having capacity 250 KVA & 1500 KVA. No additional DG set will be installed under expansion of project. Existing units has 120 TPH bagasse fired boiler under Sugar Factory & Cogeneration Plant & 30 TPH Incineration boiler under existing Distillery. There will not be any new boiler under expansion of Distillery. After expansion, existing 30 TPH boiler will be operated with full efficiency and additional fuel will be required for same. After Expansion, 60 TPH Bagasse fired Boiler will be installed under Sugar factory & Cogeneration Plant. ESP with a stack of height of 80 M will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the boiler.

Details of process emissions generation and its management:

The CO₂ generation shall take place in fermenters of the distillery. CO₂ to the tune of 91 MT/Day shall be released from 110 KLPD distillery plant. CO₂ shall be compressed, 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.	Industrial Unit	Type	Quantity (MT/M)		Disposal
			Existing	After Expansion	
1	Sugar Factory & Co-gen Plant	Boiler Ash (Bagasse)	960	1,500	Used as manure
		ETP Sludge	18	21	
2	Distillery	Boiler Ash (Coal + Sp. Wash)	840	1,710	To be forwarded for Brick making

		Yeast Sludge	360	690	Burnt in Incineration Boiler
		CPU Sludge	18.9	28	

Details of Hazardous Waste generation & its management

No.	Category	Quantity (KL/Year)		Disposal
		Existing	After Expansion	
1	5.1 – Used Oil	6.5	7.8	Burnt in Boiler

No other Hazardous waste is generated from Distillery.

It was informed that as SEIAA Maharashtra has issued EC for expansion of sugar factory from 5000 TCD to 10000 TCD and establishment of 75 KLPD distillery on 13th September, 2021. As no progress has been made in that EC, CCR has been submitted for earlier EC granted for 20 MW Co-gen plant vide letter No. 2009/348/CR.72/TC.1 dated 05th August, 2009. IRO, Nagpur has issued CCR for the same vide letter No. EC-1247/RON/2020-NGP/7596 dated 21.12.2020 in which few non-compliances were observed. ATR for the non-complied conditions observed has been submitted to IRO on 20.07.2021. EAC found compliance status of CCR to be satisfactory.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 35 KLPD will be for manufacturing of fuel ethanol only.

During the deliberation it has been informed to EAC that Ministry is in receipt of complaint that there is a pending court case against the Industry for violation of EIA, 2006 in NGT, Pune Bench. In this regard PP informed that there is no court case at the time of submission of proposal and shall submit an undertaking for the same which has been accepted by EAC. After the deliberations EAC directed PP to submit an undertaking for the following commitments:

- Solar power plant of 0.5 MW shall be installed within the plant and it shall be utilized in meeting power requirement of the plant.
- The proposed budget to be spent on CER shall be increased to Rs 4.10 crores and it shall be spent on providing solar power in nearby villages. It was also suggested that the proposed activities under CER shall be completed before the commissioning of the plant.
- Undertaking that there is no court case pending against the Industry.
- Installation of CO2 bottling plant.
- Plan for boiler ash management.
- Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.

PP has submitted the desired information as sought above and EAC found it to be in order.

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 additional capacity of 35 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). 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). Total fresh water requirement shall be 334 CMD which will be met from Dudhganga River. Extraction of ground water shall not be done without obtaining prior permission of CGWA/concerned authority. No ground water recharge shall be permitted within the premises.
- (v). The spent wash shall be concentrated in MEE followed by incineration. Other effluents shall be treated through the CPU/ETP.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). 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.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement or any 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 5 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.

- (xiii). PP proposed to allocate Rs. 4.10 Crores for CER and it shall be spent on providing solar power in nearby villages. All the proposed activities under CER shall be completed before the commissioning of the plant.
- (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.
- (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. 42.7

Expansion of Distillery from 80 KLD to 200 KLD & Co-Generation Power Plant from 3.0 MW to 13.0 MW by installation of new 120 KLD Multi-feedbased Ethanol Plant along with 10.0 MW Co-Generation Power Plant at Village; Kothwal Kalan, Tehsil Kaisarganj, District- Bahraich, Uttar Pradesh, by M/s Parle Biscuits Pvt. Ltd. Distillery Division - Consideration of Environment Clearance.

[IA/UP/IND2/230689/2021, J-11011/398/2021-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 proposed expansion of Distillery from 80 KLD to 200 KLD & Co-Generation Power Plant from 3.0 MW to 13.0 MW by installation of new 120 KLD Multi-feedbased Ethanol Plant along with 10.0 MW Co-Generation Power Plant

at Village; Kothwal Kalan, Tehsil Kaisarganj, District- Bahraich, Uttar Pradesh, by M/s Parle Biscuits Pvt. Ltd. Distillery Division.

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 2nd March, 2021. Accordingly, the proposal has been appraised as category 'B2' project.

The project proposal is exempted from obtaining ToR & conducting Public Hearing as per EIA notification, 2006 amendment vide S.O 980(E) dated 2nd March, 2021. It was informed that no litigation is pending against the project.

SEIAA Maharashtra has issued EC earlier vide letter No. 313/Parya/SEAC/4982/2019 dated 22nd October 2019 to the existing molasses-based Distillery Plant (60 KLPD) along with Captive Power Plant (3 MW) in favour of M/s. Parle Biscuits Pvt. Ltd. Distillery Division. The unit applied for expansion (60 to 80 KLPD) in UPPCB under as per new notification of MoEF&CC vide S.O. 980 (E) dated 2nd March, 2021 and obtained Certificate of "No Increase in Pollution Load" from Uttar Pradesh Pollution Control Board vide letter no. H61102/C-6/N.O.C./145/FAZ/2021 dated 25.03.2021 for distillery capacity expansion due to use of alternative feedstock and raw material mix (B-Heavy Molasses/Sugar Syrup) from 60 KLD to 80 KLD. Thereafter, the company has obtained new CTO for Air & Water for expanded capacity of 80 KLPD vide Ref. No.- 134237/UPPCB/Faizabad (UPPCBRO)/CTO/air/ Bahraich/2021 & Ref. No. 134231/UPPCB/Faizabad(UPPCBRO)/CTO/water/Bahraich/2021 respectively dated 17.08.2021 valid till 31.12.2023

The details of products and capacity are as under:

Product details	Existing quantity	Existing quantity	Total quantity
Distillery	60 KLD RS/ENA/AA while using C-Heavy molasses as raw material and 80 KLD RS ENA AA while using B-Heavy molasses or Sugar Syrup as raw material.	120 KLD Ethanol (Cane Syrup/Grain Based)	200 KLD
Co-generation power plant	3.0 MW	10 MW	13.0 MW
Product	Absolute Alcohol- Ethanol /Extra Neutral Alcohol/Rectified Spirit	Ethanol (Bio-fuel) Only	100% Ethanol
Working Days: 365 days per annum			

Existing plant area is 3.165 ha. Additional adjacent company own land of 3.416 Ha is required for proposed expansion. Total plant area for expansion is 6.581 ha. Land is already under possession of unit. Company has already developed greenbelt in an area of 33% i.e., 1.045 hectares out of total existing area of the project and the additional 1.255 ha will be developed under greenbelt. Thus, total greenbelt area will be 2.30 ha after adding additional area.

The estimated project cost is Rs 84.15 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 2121 Lakh and the Recurring cost (operation and maintenance) will be about Rs 500 Lakh per annum. Total Employment will be 44 persons as direct & indirect. Industry proposes to allocate Rs 200 lakhs towards Corporate Environmental Responsibility.

There are no National Parks, Reserved Forests (RF)/ Protected Forests (PF), within 10 Km radius. River/ water body Jhingri River is flowing at a distance of 0.96 Km in the West direction and Pingal River at a distance of 3.45 Km in the West direction.

Total fresh water requirement after expansion will be 1200 KLD (380 KLD for molasses-based operations+ 820 KLD for Grain / cane syrup-based operations) which will be met from ground water. Effluent generation after expansion will be 1395 KLD maximum (440 KLD from molasses-based operations+ 955 KLD for Grain / cane syrup-based operations) will be treated through state of art ETP (Anaerobic, aerobic, Filters, & RO system). The plant will be based on Zero Liquid discharge system. Spent wash generation from the distillation which is a variable in different mode operations. Spent wash generated during molasses-based operations will be concentrated in MEE then concentrate from MEE will be used as fuel in Slop fired Boiler. Spent Wash (Slops) generation during Grain / cane syrup-based operations from Distillation, will be sent through separation of suspended solids in Decanter Centrifuge, part Thin Slops are concentrated in multi-effect evaporators to form a Thick (Protein) Syrup, which is mixed with the Wet Cake DWG separated earlier from Decanters. This interim product called DWGS has 30-32% w/w Solids is subject to drying in a rotating steam tube bundle dryer to deliver a value-added by-product – DDGS – Distillers Dried Grains with soluble and which has min. 90% Solids and max 10% moisture. This DDGS sells as Cattle Feed / Poultry Feed / Fish Feed based on its Protein Content. Hence, entire spent wash is decanted, concentrated into syrup in a Multi-Effect Evaporation followed by Drying, in order to achieve Zero Effluent Discharge.

Power requirement for proposed project will be 10 MW (maximum) will be met from Co-generation power plant of capacity 13 MW. Existing unit has 20 TPH Concentrated spent wash & bagasse fired boiler. Unit has

proposed 1 no.s of boiler of capacity 50 TPH (bio-mass based). Electro Static Precipitator (ESP) with a stack of height of 70 m is installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed boilers

Details of process emissions generation and its management:

- Bag filter with a stack height of 70 m is installed for controlling the particulate emissions with existing 20 TPH slop fired boiler.
- ESP will be installed with proposed biomass-based boiler.
- Online Continuous Emission Monitoring System is already installed with the stack and data is transmitted to CPCB/SPCB servers.
- CO₂ generated during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors.

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

S. No.	Type of Waste	Quantity in Molasses based Distillery in TPD	Quantity in Grain / cane syrup-based Distillery in TPD	Mode of management
1	Ash	28	25	Having high potash content will be utilized as manure. Granulation plant capacity is 50 TPD is installed.
2	Yeast sludge	10	12	Will be mixed with ash and used as manure.

The certified compliance report submitted by the Ministry’s Regional office at Lucknow vide letter VII/ENV/SCL-UP/1925/2020/271 dated 21.09.2021. IRO report mentioned that no non compliances were detected and no further action was required. EAC found the compliance status satisfactory.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 120 KLPD will be for manufacturing of fuel ethanol only.

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

- Industry shall construct rain water storage facility of capacity which can store at least 60 days fresh water requirement.
- Industry shall install solar plant of 0.5 MW and shall utilize it for captive requirement.
- Integrated Industry shall conform to ZLD
- Ash management details.

PP has submitted desired information as sought above and EAC found it to be in order. Further EAC suggested that PP shall allocate Rs. 2.00 Crores for CER and it shall be spent on providing solar power in nearby villages. All the proposed activities under CER shall be completed before the commissioning of the plant. PP agreed to it.

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 additional capacity of 120 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). 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). Total fresh water requirement shall be 1200 KLPD which will be met from ground water. Industry shall construct rain water storage facility of capacity which can store at least 60 days fresh water requirement. Extraction of ground water shall not be done without obtaining prior permission of CGWA/concerned authority. No ground water recharge shall be permitted within the premises.
- (v). Effluent generated shall be treated through ETP.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). 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.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement 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 5 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.
- (xiii). PP proposed to allocate Rs. 2.00 Crores for CER and it shall be spent on providing solar power in nearby villages. All the proposed activities under CER shall be completed before the commissioning of the plant.
- (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.
- (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. 42.8

Proposed expansion of Sugar Factory capacity from 7500 to 13,200 TCD, Distillery capacity from 45 to 145 KLPD (Rectified Spirit/ENA/Ethanol) and establishment of 24MW Co-generation Power Plant at Yeshwantnagar District: Satara, Maharashtra by M/s SAHYADRI SAHAKARI SAKHAR KARKHANA LTD- Amendment in Environment Clearance.

[IA/MH/IND2/228051/2021, J-11011/114/2018-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry of Environment, Forest and Climate Change (MOEF&CC), New Delhi vide letter no. J-11011/114/2018-IA-II(I) dated 28.10.2020

for the project expansion of Sugar Factory capacity from 7500 to 13,200 TCD, Distillery capacity from 45 to 145 KLPD (Rectified Spirit/ENA/Ethanol) and establishment of 24MW Co-generation Power Plant at Yeshwantnagar District: Satara, Maharashtra by M/s Sahyadri Sahakari Sakhar Karkhana Limited.

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

Sr. No.	Para of ToR/EC issued by MoEF&CC	Details as per EC	To be revised as/read as	Justification/reason
1	Para 10	ESP with stack height of 80 m for co-generation boilers and 80 m height for incineration boiler will be installed for controlling the particulate emission within the statutory limit of 150 mg/Nm ³ for the proposed boilers	It is proposed to adopt Bag-filter as APC equipment instead of ESP for incineration boiler only.	Advantages of Bag-filter over ESP such as; 1) Maintenance is low. 2) Energy consumption is much lower. 3) Easy to operate
2	Para 6	Certified compliance report for consent condition is issued by Karnataka SPCB.	Certified compliance report for consent condition is issued by Maharashtra SPCB.	Typographical error
3	Para 10	Power requirement shall be met from Mangalore Electricity Sully Company (MESCOM)	Power requirement shall be met from Maharashtra State Electricity Distribution Co. Ltd (MSEDCL)	Typographical error

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. 42.9

Expansion of Distillery capacity from 120 KLPD to 700 KLPD and captive power Plant capacity from 5 MW to 16 MW at Bagalkot, Karnataka by M/S NIRANI SUGARS LIMITED- Amendment in Environment Clearance regarding.

[IA/KA/IND2/220064/2021, J-11011/130/2008-IA II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry of Environment, Forest and Climate Change (MOEF&CC), New Delhi vide letter no. J-11011/130/2008-IA II(I) dated 29.09.2021 for the project expansion of of Distillery capacity from 120 KLPD to 700 KLPD and captive power Plant capacity from 5 MW to 16 MW at Bagalkot, Karnataka by M/S Nirani Sugars Limited.

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

Sl. No.	Para of EC issued by MoEF & CC	Details as per the EC	To be revised/ read as	Justification/reasons
1.	EC Specific Condition point no. (ii), page 8 of 12 the EC vide letter no. J-11011/130/2008-IA II(I) dated 27.09.2021 issued by MoEF & CC.	No construction work shall be started prior to final direction of court. After disposal of court case, construction work shall start after obtaining prior permission from SPCB	Construction work shall start after obtaining prior permission from SPCB	The court case is not likely to be disposed early in view of the Court procedures. Implementation of the project under the EBP program will get delayed if we wait till the final outcome of the court case. Therefore, the request is made for Amendment to EC condition. Further Chairman, KSPCB recommended to

				delete/revise this condition.
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During deliberations PP has informed that the court case was filed by KSPCB for alleged violation of Water (Prevention and Control of Pollution) Act, 1974. Further, PP has informed that industry shall abide by the final outcome of the case and shall take prior permission from KSPCB for implementation of the expansion. Further, PP has submitted a No Objection Certificate dated 30th September, 2021 issued by Chairman, KSPCB to delete/revise the condition stipulated at Specific Condition point no. (ii), page 8 of 12 the EC vide letter no. J-11011/130/2008-IA II(I) dated 27.09.2021 issued by MoEF & CC with certain conditions. EAC found the justification valid and sought affidavit for the same. After detailed deliberations EAC **recommended** the amendments in EC, as proposed by the project proponent, with all other terms and conditions remain unchanged.

21st October, 2021 (Thursday)

Agenda No. 42.10

Onshore Oil & Gas development drilling and production in DumdumaPengeri Area in TinsukiaDistrict under PMLs namely Mechaki PML, Borhapjan PML, Dumduma PML and Digboi PML Tinsukia Assam by M/s OIL INDIA LIMITED- Consideration of Environment Clearance reg.

[IA/AS/IND2/220363/2007, J-11011/1251/2007 - IA II (I)]

The Project Proponent and the accredited Consultant M/s ERM India 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 Onshore Oil & Gas development drilling and production in DumdumaPengeri Area in TinsukiaDistrict under PMLs namely Mechaki PML, Borhapjan PML, Dumduma PML and Digboi PML Tinsukia Assam by M/s Oil India Limited.

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

Standard ToR has been issued by Ministry vide letter No. J-11011/1251/2007 - IA II (I) dated 1st June, 2018. Ministry had issued EC earlier vide letter no. J-11011/1251/2007-IA-II(I); dated 1st November

2011 to the existing Exploratory drilling of 1 well at Dumduma-Pengry Area, District Tinsukia by M/s Oil India Limited.

Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 13th March 2020 in Tinsukia district presided by Additional Deputy Commissioner, Tinsukia district. The main issues raised during the public hearing are related to protection of ecology and environment, development activities -improvement of infrastructure in schools, health initiatives, social initiatives in the area, funds for toilet development etc. It was informed that no litigation is pending against the proposal.

The details of products and capacity are as under:

S. No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1.	Wells and production installations	1 well	26 wells and 3 production installations	27 wells and 3 production installations

The total land required for the project will be 990000 m². M/s Oil India Ltd. will develop greenbelt at the proposed production installations having total area of 52500 m².

The estimated project cost is Rs. 1109.40 crore. Recurring cost for public hearing action plan, greenbelt plan, wildlife conservation plan and environmental control measures will be a total of INR 0.9341 crores per annum. Oil India Ltd. will earmark INR 1.775 crores as part of PH Action Plan in for Tinsukia district in line with the comments and suggestions made by the local public during Public Hearing. Additionally, Oil India Ltd. will comply with the conditions mentioned by EAC in this regard. Total Employment will be 60 persons as direct & 120 persons indirect after expansion for each drill site construction and drilling. Oil India Ltd. will earmark INR 1.775 crores as part of PH Action Plan in Tinsukia district in line with the comments and suggestions made by the local public during Public Hearing. Additionally, Oil India Ltd. will comply with the conditions mentioned by EAC in this regard. OIL proposes to allocate funds for CSR activity as per CSR Act and Rules, Govt. of India.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves etc. within 10 km of the well locations or production installations. Bogapani elephant corridor is located within 1 km of the proposed well. Buri Dehing River is flowing through south-eastern portion of the Block.

Ambient air quality monitoring was carried out at 8 locations during 2.01.2019 to 26.03.2019 and the baseline data indicates the ranges of average concentrations as: PM₁₀ (76.17-80.57 µg/m³), PM_{2.5} (37.46-

40.11 $\mu\text{g}/\text{m}^3$), SO_2 (7.56-8.19 $\mu\text{g}/\text{m}^3$) and NO_2 (21.72-24.11 $\mu\text{g}/\text{m}^3$). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 15.38 $\mu\text{g}/\text{m}^3$, 0.01 $\mu\text{g}/\text{m}^3$, 0.07 $\mu\text{g}/\text{m}^3$ and 0.10 $\mu\text{g}/\text{m}^3$ with respect to NO_x , SO_2 , PM_{10} and HC. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 50 m^3/day of which fresh water requirement of 39 m^3/day will be met from groundwater. Effluent of 21.8 KLD quantity will be treated through ETP and Septic tank. The project will be based on Zero Liquid discharge system.

Power requirement will be met through two Diesel Generator Sets of 1250 kVA each. Another 1250 kVA DG set will be kept as standby. Stack height of 7 m will be provided as per CPCB norms to the proposed DG sets.

Details of Process emissions generation and its management:

The operation of DG sets, movement of vehicles and machineries during construction and drilling, flaring of natural gas will result in the generation of air pollutants, if gas reserves are encountered during drilling operations. Stacks will be used with DG sets and flare system as per CPCB norms

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

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

Certified compliance report has been by Integrated Regional Office (IRO), Guwahati vide letter No. RO-NE/E/IA/AS/MI/58/1243-1245 dated 1st October 2021. EAC found the compliance status to be satisfactory.

During deliberation the following additional information was sought from PP:

- i. Details of proposed wells and product installations.
- ii. Noise Management Plan.
- iii. Well abandonment and site restoration plan.

PP has submitted the information desired above and EAC found it in order. Also EAC noted that Bogapani elephant corridor is located within 1 km of the proposed well. In this regard PP informed that safety plan has been submitted for the same and production activities shall be done

ensuring safety considering movement of elephants based on season. Further EAC suggested PP shall allocate Rs. 1.00 Crore apart from the amount allocated to address issues raised in Public Hearing towards Corporate Environment Responsibility. PP shall utilize the amount in improving infrastructure in the schools nearby. PP agreed to it.

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area.

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

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

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance and 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). No pipelines or its part shall be laid in the Forest land/Protected Area without prior permission/approval from the Competent Authority.
- (iii). The project proponent will treat and reuse the treated water within the drilling site location including at processing location and no waste or treated water shall be discharged outside the premises under any condition. Mobile ETP coupled with RO and mobile STP shall be installed to treat the waste water and sewage waste respectively.
- (iv). During production, storage and handling, the fugitive emission of methane, if any, shall be monitored using appropriate technology.
- (v). The project proponent also to ensure trapping/storing of the CO₂ generated, if any, during the process and handling.
- (vi). Approach road shall be made pucca to minimize generation of suspended dust.
- (vii). The project proponent shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.
- (viii). Total fresh water requirement shall be 39 KLPD which will be met from ground water. Extraction of ground water shall not be done without obtaining prior permission of CGWA/concerned authority.
- (ix). The company shall construct the garland drain to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated.
- (x). Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.
- (xi). Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.

- (xii). The project proponent shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At fixed installations or plants use of ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.
- (xiii). The project proponent shall develop a contingency plan for H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S detectors in locations of high risk of exposure along with self-containing breathing apparatus.
- (xiv). Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.
- (xv). On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable DGH / Indian Petroleum Regulations.
- (xvi). PP shall allocate Rs. 1.00 Crores towards CER and it shall be spent on improving infrastructure in schools nearby.
- (xvii). No lead acid batteries shall be utilized in the project/site.
- (xviii). Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xix). Oil content in the drill cuttings shall be monitored if oil-based mud is used and report shall be sent to the Ministry's Regional Office.
- (xx). The project proponent shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.

Agenda No. 42.11

Proposed 100 KLD Grain based distillery project alongwith 2.7 MW Cogeneration Plant at Mor, Mokama, Dist. Patna (Bihar) By

**M/s BRAJENDRA KUMAR BUILDERS PRIVATE LIMITED-
Consideration of Environment Clearance.**

[IA/BR/IND2/228946/2021, J-11011/360/2021-IA-II(I)]

EAC desired that the proposal shall be considered only after obtaining document from competent authority related with conversion of land use to industrial purpose.

Accordingly, the proposal was deferred for the needful.

Agenda No. 42.12

Proposed 200 KLPD Grain based Ethanol Plant along with 6.0 MW Cogeneration Power Plant at Village Deogaon, Tehsil Maneswar, District Sambalpur (Odisha) by M/s Premier Alcobev Private Limited- Consideration of Environment Clearance

[IA/OR/IND2/229712/2021, J-11011/381/2021-IA-II(I)]

EAC desired that the proposal shall be considered only after obtaining document from competent authority related with conversion of land use to industrial purpose.

Accordingly, the proposal was deferred for the needful.

Agenda No. 42.13

Proposed 100 KLPD Grain Based Distillery at Ahmedabad Gujarat by M/s. Grain Span Nutrients Private Limited- Consideration of Environment Clearance.

[IA/GJ/IND2/229772/2021, J-11011/391/2021-IA-II(I)]

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

The proposal is for environmental clearance for establishment of 100 KLPD Grain Based Distillery at Ahmedabad Gujarat by M/s. Grain Span Nutrients 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:

Sr. No.	Particulates	Capacity
1.	Ethanol	100 KLPD
2.	Captive power plant	3.5MW

Proposed land area is 64,800 m². Industry will develop greenbelt in an area of 34.3 % i.e., 22,200 m² out of total area of the project.

The estimated project cost is Rs 127.3 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs. 4.21 Cr and the recurring cost (operation and maintenance) will be about Rs. 31.5 lakhs per annum. Total Employment will be 202 persons as direct & indirect. Industry proposes to allocate Rs 1.9 Cr. @ Greenfield project: 1.5% of total project cost (Rs. 127.3 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. There is no River within 5km radius of the proposed project. River Rodh is 8.8km towards NW of the project site.

AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.066 µg/m³, 0.044 µg/m³, 3.15 µg/m³ and 0.768 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂ and NO_x. Maximum ground level concentration occurred at a distance of 486 to 527 m in East direction. There were no village observed in downwind direction.

The total freshwater requirement for the proposed project is 556 CMD which will be sourced from groundwater. Total effluent generation from various units will be 1500 CMD. (Raw stillage will be 807 CMD, Condensate, spent lees and blow down will be 693 CMD) Raw stillage will be sent to decanter followed by MEE followed by dryer to produce DDGS. Rest all other effluent stream will be treated in 750 CMD CPU.

Power requirement will be 2.65 MW and will be met from own captive power plant. Proposed unit will have 500 kVA x1. DG set will be used only as standby during power failures. Stack height >11 m will be

provided as per CPCB norms to the proposed DG set. Industry proposes to install boiler of capacity 30 TPH with 3.5 MW TG. Electrostatic precipitator with 56 m stack will be installed for proposed boiler.

Details of process emissions generation and its management:

Project Activity	Anticipated pollutant	Management
Process emissions	CO ₂ and Negligible VOCs.	CO ₂ shall not be release in the air. Industry will provide CO ₂ scrubber to scrub CO ₂ and bottle it.
Stack, Fugitive emissions, material handling.	PM ₁₀ , PM _{2.5} , NO _x , SO ₂ ,	Electrostatic precipitator with 56 m stack.

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

Sr.No.	Type of waste	Quantity	Final Disposal
1.	Coal ash	52 TPD	Sold to brick manufacturers
2.	Agri waste and husk ash	22.5 TPD	Ash will be used as manure
3.	CPU Sludge	25 TPD	Used as manure.
4.	Spent oil	0.6 KLA	Authorized recycler
5.	DDGS	70 TPD	Sold to cattle feed

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

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

- Proposed parking area shall be increased to 15 %.
- PP shall allocate Rs. 25 Lakhs Fund for occupational health and safety.
- For Ethanol production fresh water requirement should not exceed 4.0 kL/kL.
- Industry shall construct rain water storage facility of capacity from which it can meet at least 60 days fresh water requirement.
- The proposed budget on CER i.e Rs 2.0 crores shall be spent on installation of solar power & improving infrastructure of schools within villages nearby. It was also suggested that the proposed activities under CER shall be completed before the commissioning of the plant.

PP has submitted the desired information but the amount of fresh water requirement and CER is not as decided by EAC.

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 additional capacity of 100 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). 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). Total fresh water requirement shall not exceed 4kL fresh water consumed/kL production of Ethanol and it will be met from ground water. Extraction of ground water shall not be done without obtaining prior permission of CGWA/concerned authority. No ground water recharge shall be permitted within the premises. Industry shall construct rain water storage facility of capacity from which it can meet at least 60 days fresh water requirement.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). 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.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement 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 5 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.

- (xiii). PP proposed to allocate Rs. 2.00 Crores for CER and it shall be spent on shall be spent on installation of solar power & improving infrastructure of schools within villages nearby. All the proposed activities under CER shall be completed before the commissioning of the plant.
- (xiv). There shall be 15% 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.
- (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. 42.14

Expansion of 60 KLPD Molasses Based Distillery to 150 KLPD B & C Molasses/Cane Syrup based distillery by M/s. Natural Sugar and Allied Industries Ltd. (NSAIL) located at Sainagar, Village Ranjani, Tal. Kallam, Dist. Osmanabad, Maharashtra - Consideration of Environment Clearance.

[IA/MH/IND2/223246/2021, IA-J-11011/35/2021-IA-II(I)]

The proposal was earlier placed before the EAC (Ind-2) in its 40th and 41st meeting held during 14th - 16th September, 2021 and 28th - 30th September, 2021 respectively wherein EAC deferred the proposal and desired certain requisite information/inputs.

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

S. No	ADS	Reply of PP	Observation of EAC
1.	During the deliberations it was informed to EAC	PP/Consultant has stated that never concealed	EAC deliberated

<p>that the CCR issued by IRO, Nagpur dated 29.06.2021 mentioned that there is no court case against the project whereas PP has submitted (Form-2) that there is an ongoing court case against the project since 2015. Further, EAC has also noted that PP/consultant have concealed the fact in the documents and in presentation. EAC directed PP to resubmit the case furnishing the details of court case.</p>	<p>any information wrt Court case. As far as mention of 'no court case' in IRO MoEFCC report dated 29.06.2021 is concern, the same was discrepancy which was communicated to IRO when observed. Subsequent to communication of discrepancy, IRO have revised the report for statement of court case against Violation of 30 to 60 KLPD distillery. Copy of same has been submitted. Further, details of court case were also presented in Form-2, EDS reply and EC presentation at slide NO.2 Sr. 17.</p> <p>Further. PP has again submitted the documents wrt court case No. 300168/2015 dated 08.04.2015 pending in Osmanabad District Court filed against Violation of 30 to 60 KIPD distillery. The latest online status and court case documents have been submitted.</p>	<p>the issue and found it satisfactory.</p>
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The Project Proponent and the accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd., made a detailed presentation through Video Conferencing (VC) on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion of 60 KLPD Molasses Based Distillery to 150 KLPD B & C Molasses/Cane

Syrup based distillery by M/s. Natural Sugar and Allied Industries Ltd. (NSAIL) located at Sainagar, Village Ranjani, Tal. Kallam, Dist. Osmanabad, 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 2nd March, 2021. Accordingly, the proposal has been appraised as category 'B2' project.

The project proposal is exempted from obtaining ToR & conducting Public Hearing as per EIA notification, 2006 amendment vide S.O 980(E) dated 2nd March, 2021. It was informed that litigation is pending against the project. A court case is pending against distillery for violation (for Capacity 30-60 KLPD) in Osmanabad district court vide No. 300168/2015 dated 08.04.2015.

SEIAA, Maharashtra has issued EC earlier vide letter No.SIA/MH/IND2/50667/2006 dated 31st March, 2020 to the existing 60 KLPD Molasses based Distillery in favour of M/s. Natural Sugar and Allied Industries Ltd. (NSAIL).

The details of products and capacity are as under:

Industrial Unit	Product	Quantity		
		Existing-	Expansion-	Total After Expansion
Distillery Unit	Rectified Spirit (RS)/ ENA	60	--	60
	Ethanol (C-Heavy)	60	90	150
	Ethanol (B-Heavy)	--	150	150
	Ethanol (Cane Syrup)	--	150	150
	Fusel Oil	2.4	3.6	6

Total plot land area is 5,16,006 M². Existing built-up area 92,960 M²; additional built-up for proposed project will be 5400 M². Industry has already developed green belt 2,67,093 M² (51.7% out of total plot area). Deification of existing Green belt will be done under expansion activity. The estimated project cost is Rs. 129.58 Crores including existing investment of Rs. 69.58 Crores. The distillery will be operated for 330 days. Total capital cost earmarked towards environmental pollution control measures under proposed project will be Rs.5.3 Crores and the Recurring cost (operation and maintenance) will be about Rs.0.65 Crores per annum. Total Employment will be 170 persons as direct & indirect

after proposed project. Industry proposes to allocate Rs.60 Lakh @ of 1 % towards Corporate Social Responsibility.

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 Km Study Area. Manjara River is flowing at a distance 4 Km from East to west.

Total water requirement after proposed project will be 2400 CMD. Out of which 442 CMD will be fresh water taken from Manjara river. The process effluent generated after expansion of 150 KLPD Molasses/Cane Syrup based Distillery would be in the form of raw spentwash to the tune of 1200 M³/D. The same would be forwarded for Bio-methanation and concentrate in MEE, conc. spentwash to the tune of 160 M³/D (1.06 KL/KL of alcohol) would be blended with coal/bagasse and burnt in existing 20 TPH incineration boiler. Other effluents viz. spent lees @ 202 M³/D, MEE condensate @ 1040 M³/D and allied effluents @ 75 M³/D will be treated in CPU under Distillery. Treated effluent from CPU will be reused in process and boiler makeup, thereby achieving Zero Liquid Discharge (ZLD) for Distillery.

Power requirement for proposed project will be 2200 KW which will be met from own Co-Gen Plant. Existing 285 KVA DG Set, which will be operated only during failure. No additional DG set will be installed under expansion activity. Existing distillery has 20 TPH Incineration boiler. ESP with a stack of height of 60 M is installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the boiler.

Details of process emissions generation and its management:

The CO₂ generation shall take place in fermenters of the distillery. CO₂ to the tune of 124 MT/Day shall be released from 150 KLPD distillery plant. CO₂ under existing unit is being compressed, bottled and supplied to manufacturers of beverages. The same practice shall be followed after distillery expansion.

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

No.	Industrial Unit	Type	Quantity (MT/M)		Disposal
			Existing	After Expansion	
1	Distillery	Boiler Ash	360	1140	Supply to brick manufacturing
		Yeast Sludge	360	960	Burnt in Incineration Boiler
		CPU	17	40	Used as Manure

		Sludge			
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Visit of IRO, MoEFCC, Nagpur was conducted on 14.06.2021 and issued certified compliance report for the project vide File No. 5-40/2013(Env)/8198 dated 29.06.2021.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 90 KLPD will be for manufacturing of fuel ethanol only.

During deliberations PP has stated that a court case is pending against distillery for violation (for Capacity 30-60 KLPD) in Osmanabad district court vide No. 300168/2015 dated 08.04.2015. Further, PP has also submitted Bank Guarantee for violation in previous EC to Maharashtra Pollution Control Board. EAC was satisfied of the reply by PP and suggested that PP shall submit NOC from MPCB to the Ministry.

After deliberations, EAC directed that PP shall construct a brick making plant within the industry which shall utilize spent wash and coal ash after combustion in incineration boiler for making bricks. Further, EAC suggested that PP shall utilize funds allocated for RS. 1.0 Crore towards CER for providing drinking water facilities and for installing solar street lights within nearby villages. PP shall install minimum 0.5 MW Solar Generation Plant in factory premises. PP agreed for the same and submitted an undertaking in the compliance of the above.

PP has submitted the desired information as sought above and EAC found it to be in order and recommended the proposal for grant of EC.

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 additional capacity of 90 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). 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 integrated industry and no waste or treated water shall be discharged outside the premises.
- (iv). Total fresh water requirement for the industry shall not exceed 2400 CMD and it will be met from Manjara River. No ground water recharge shall be permitted within the premises. Rainwater shall be collected in storage ponds and utilized for plant activities. Ground water monitoring shall be done regularly and report is to be submitted to concerned authorities regularly.
- (v). Raw spent wash will be sent for Bio-Methanation and concentrate in MEE. Concentrated spentwash will burnt in inceneration boiler. PP shall install brick manufacturing plant within factory for utilization of ash obtained from combustion for manufacturing bricks.

- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). 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.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement 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). As committed PP shall spend Rs. 1.0 Crore for providing drinking water facilities and for installing solar street lights within nearby villages.
- (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.
- (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. 42.15

Proposed expansion of Bio-Ethanol Refinery of 100 KLPD by M/s. Bharat Petroleum Corporation Limited located at Plot no. 610 and plot no. 598 (Part-I), Baulsingha Village, Bhatli Tehsil, Bargarh District, Odisha - Consideration of Environment Clearance.

[IA/OR/IND2/221065/2021, IA-J-11011/351/2017-IA-II(I)]

The proposal was earlier placed before the EAC (Ind-2) in its 40th meeting held during 14th - 16th September, 2021 wherein EAC deferred the proposal and desired certain requisite information/inputs.

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

S. No	ADS	Reply of PP	Observation of EAC
1.	During the appraisal EAC observed that proposed fresh water requirement is high. Therefore, EAC directed PP to revise water balance reducing requirement of fresh water.	The revised fresh water consumption for 1G ethanol plant shall be around 3.95 liter/liter of ethanol production (non-monsoon season).	EAC noted that the fresh water requirement has been revised to 395 KLPD and found it in satisfactory.
2.	Further, EAC desired that PP shall incorporate details of rainwater harvesting while calculating fresh water requirement.	Rain water harvesting of around 15 kl per day is expected during monsoon season. Fresh water consumption during monsoon season shall be 3.80 liter/liter of ethanol production. Revised water balance is submitted.	EAC deliberated the issue and found it satisfactory.

The Project Proponent and the accredited Consultant M/s. Sd Engineering 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 Bio-Ethanol Refinery of 100 KLPD by M/s. Bharat Petroleum Corporation Limited located at Plot no. 610 and plot no. 598 (Part-I), Baulsingha Village, Bhatli Tehsil, Bargarh District, Odisha.

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.

Ministry had issued EC earlier vide letter no. IA-J-11011/351/2017-IA-II(I) dated 10/08/2018 to the existing project of Ligno-cellulosic 2G Ethanol Plant of 100 KLPD.

The details of products and capacity are as under:

Sr. No.	Product / By-product	Unit	Quantity (Capacity)			Remark
			Existing (2G)	Proposed (1G)	Total	
1	Ethanol	KLPD	100	100	200	Product
2	Fusel oil	L/d	200	200	400	By Product
3	DDGS	TPD	0	51	51	Co-Product

Existing land area is 227150 m² and no additional land will be required for proposed expansion. Industry will develop greenbelt in an area of 33 % i.e., 20424 m² (To meet the 33% Green Belt requirement, Green belt of 5.04 acres (20424 sq.m) in being developed inside the plot while remaining Green belt of 15.28 acres (61835 sq.m) is being developed in additional Land allotted outside the plot area through Department of Forest) out of total area of the project. The estimated project cost is Rs. 170 Cr. including existing investment of Rs.747.46 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs. 3.4 Cr. and the Recurring cost (operation and maintenance) will be about Rs. 0.34 Cr per annum. Total additional employment will be 25 persons per shift (Skilled: 10 nos. per shift + Unskilled: 15 nos. per shift) after expansion. Industry already

allocated/spent more than Rs. 4.25 Cr (more than @ of 2.5 %) towards Corporate Social Responsibility in the state of Odisha in current financial year.

There is Debrigarh wildlife sanctuary away from plot area by distance of 7.6 km towards NEE direction. Eco Sensitive Zone (notified vide dated 07th June, 2017) around sanctuary is away from plot area by distance of 2.65 km towards NEE direction. Danta river is flowing in the NEE (3.4 km) and Jira river is 7.86 km in SSW from the project site.

Water requirement for 1G ethanol plant is 2139 CMD (Fresh – 395 CMD & Recycled-1744 CMD) will be met from canal ~ 7 km Bargarh canal. Total Industrial Effluent of 46.978 m³/Hr (1128 CMD) quantity will be treated through existing ETP of capacity: 67 m³/hr i.e. 1608 CMD; complying with MoEF&CC/CPCB norms. Treated process condensates & treated effluent shall be recycled. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 18 MW including (Existing 15 MW + Proposed 3 MW) and will be met from Western electricity Supply Company of Odisha Limited (WESCO). Also 3 MW captive power plant (CPP) shall be proposed for catering the power requirement (1G Ethanol plant). Existing unit has 2 DG sets of 2500 KVA capacity each and same shall be utilized for proposed plant also. Stack height (16 m) will be provided as per CPCB norms to the DG sets. Existing unit has 2 boilers of capacity 48TPH and fuel as Mixture feed (Syrup: 250 TPD + Lignin cake: 380 TPD + Rice straw: 262 TPD). Additionally 1 boiler of capacity 30TPH and fuel as Rice Husk/Straw (210 TPD) will be used. ESP with a stack of height of 90 m (common stack) for 48TPH boiler and 39 m for 30 TPH boiler will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm³ for the proposed boilers.

Details of process emissions generation and its management:

CO2 shall be emitted and adequate measures shall be taken. Biogas shall be generated which shall be flared/burned in boiler

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

Non- Hazardous Waste

Sr. No	Type of Waste	Quantity (TPD)			Source of Generation	Disposal
		Existing	Proposed	Total		
1.	Dewatered Sludge	12 TPD	3 TPD	15 TPD	Process Condensate Treatment	as manure for agricultural

					Plant	fields
2.	Boiler Ash	120 TPD	35 TPD	155 TPD	From Boiler	Sale to Brick Manufacturer Industry
3.	Mud	21 TPD	0	21 TPD	-	Landfilling

Hazardous Waste: There is no Hazardous Waste from site

Details of Certified compliance report submitted by RO, MoEF&CC. – CCR received from MoEF&CC RO-Bhubaneshwar vide letter dated File No. 101-1034/EPE/955 dated 18/08/2021.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 100 KLPD will be for manufacturing of 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 100 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). 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). Total fresh water requirement shall not exceed 395 KLPD will be met from Bargarh canal. 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.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). 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.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement 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). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.
- (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.
- (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. 42.16

Proposal for distillery expansion from 200 KLPD to 845 KLPD to manufacture Ethanol at Belgaum, Karnataka by M/s. The Ugar Sugar Works Ltd located at Ugar Khurd village, Athani Taluk, Belgaum District, Karnataka State - Consideration of Environment Clearance reg.

[IA/KA/IND2/221757/2021, J-11011/335/2012-IA II (I)]

The proposal has been considered in the 39th EAC meeting wherein expansion has been recommended without achieving existing EC production capacity i.e 200 KLPD. The proposal has been referred back to EAC by competent authority to provide justification for recommending the proposal without fully achieving the production capacities of existing EC. In this regard EAC informed that the following things were considered before recommending the proposal:

- Production of biofuels is the need of hour and the proposal is in line with EBP programme under National Policy of Biofuels.
- Increase in production capacity results in the optimum utilization of raw materials and other utilities involved.
- Economies of scale are better for a project of larger production capacity compared to a project of smaller production capacity.
- There has been no compromise to the environmental standards/issues as the project is adhering to Zero Liquid Discharge.
- PP has submitted the proposal with CCR (Certified Compliance Report) issued by concerned IRO (Integrated Regional Office) with the capacity at which plant is operating.
- As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion will be for manufacturing of fuel Ethanol only.

Agenda No. 42.17

Proposed expansion of sugarcane crushing capacity from 10000 TCD to 15000 TCD to augment the requirement of sugarcane syrup/juice as raw material during sugarcane crushing season and to expand the Distillery capacity from 300 KLPD to 600 KLPD for production of Ethanol and captive power plant from 5 MW to 8 MW under EBP programme by M/s. Shri Sai Priya Sugars Ltd.,

located at Survey Nos. 144, 145, 146, 147, 148, 149, 150 & 151 of Maigur Village and Survey Nos. 238 & 239 of Hipparagi Village, Jamakhandi Taluk, Bagalkot District, Karnataka - Consideration of Environment Clearance.

[IA/KA/IND2/219708/2021, J-11011/277/2010-IA II(I)]

The proposal has been considered in the 39th EAC meeting wherein expansion has been recommended without achieving existing EC production capacity i.e 300 KLPD. The proposal has been referred back to EAC by competent authority to provide justification for recommending the proposal without fully achieving the production capacities of existing EC. In this regard EAC informed that the following things were considered before recommending the proposal:

- Production of biofuels is the need of hour and the proposal is in line with EBP programme under National Policy of Biofuels.
- Increase in production capacity results in the optimum utilization of raw materials and other utilities involved.
- Economies of scale are better for a project of larger production capacity compared to a project of smaller production capacity.
- There has been no compromise to the environmental standards/issues as the project is adhering to Zero Liquid Discharge.
- PP has submitted the proposal with CCR (Certified Compliance Report) issued by concerned IRO (Integrated Regional Office) with the capacity at which plant is operating.
- As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion will be for manufacturing of fuel Ethanol only.

Agenda No. 42.18

Proposed Increase in Distillery capacity from 135 KLPD to 350 KLPD to produce Ethanol Based on Sugarcane juice/ Syrup/"C"/"B" Heavy Molasses/ Grains/ Raw Sugar by M/s. SGZ & SGA Sugars (JV) Limited located at Turchi, Taluka Tasgaon, District Sangli, Maharashtra - Consideration of Environment Clearance.

[IA/MH/IND2/216976/2020, J-11011/226/2020-IA-II(I)]

The proposal has been considered in the 40th EAC meeting wherein expansion has been recommended without achieving existing EC production capacity i.e 135 KLPD. The proposal has been referred back to

EAC by competent authority to provide justification for recommending the proposal without fully achieving the production capacities of existing EC. In this regard EAC informed that the following things were considered before recommending the proposal:

- Production of biofuels is the need of hour and the proposal is in line with EBP programme under National Policy of Biofuels.
- Increase in production capacity results in the optimum utilization of raw materials and other utilities involved.
- Economies of scale are better for a project of larger production capacity compared to a project of smaller production capacity.
- There has been no compromise to the environmental standards/issues as the project is adhering to Zero Liquid Discharge.
- PP has submitted the proposal with CCR (Certified Compliance Report) issued by concerned IRO (Integrated Regional Office) with the capacity at which plant is operating.
- As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion will be for manufacturing of fuel Ethanol only.

Agenda No. 42.19

Panipat Refinery Capacity Expansion from Existing 15 MMTPA to 25 MMTPA within the Existing Refinery Complex by M/S. Indian Oil Corporation Limited (IOCL) located at PR 42-128, Baholi Village, Panipat District, Haryana - Consideration of Environment Clearance reg.

[IA/HR/IND2/220613/2018, J-11011/177/2016- IA II(I)]

The proposal was earlier placed before the EAC (Ind-2) in its 40th meeting held during 14th - 16th September, 2021 wherein EAC deferred the proposal and desired certain requisite information/inputs.

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

S. No	ADS	Reply of PP	Observation of EAC
1.	The emission concentrations of different stack is mentioned in g/sec, which is required to be converted in mg/Nm ³ w.r.t gas/liquid fuel type	The tabulation after conversion of values to mg/Nm ³ has been submitted.	EAC deliberated the issue and found it satisfactory.

	of boiler, furnace, power plant, FCC generators. The emission norms are prescribed in mg/Nm ³ and fuel used by the refinery is mixed fuel. Accordingly, the concentration of PM, SOX, NOX, CO, H ₂ S of the stack should be mentioned in mg/Nm ³ .		
2.	Further Sulphur content in liquid fuel in % is not mentioned and recovery of sulphur in % in terms of capacity (Tonnes/day) is required.	Sulphur content in the liquid fuel is less than 0.5%. Total Sulphur Recovery Unit capacity is 135% of recoverable sulphur. The sulphur balance for proposed SRU requirement in P25 Project has been submitted.	EAC deliberated the issue and found it satisfactory.
3.	As the plant is located in NCR zone, what extra precaution has been taken by the unit to reduce further air pollution in NCR area.	Precautions taken for the proposed facility to reduce further air pollution in NCR area: a) RLNG will be the major fuel for the proposed facility. Liquid fuel consumption will be minimized <i>except in case of emergency</i> . b) VOC recovery system will be installed in the proposed ETP. c) Low NOx burners will be used in the proposed furnaces. The same are already in use in the existing furnaces. d) Vacuum Gas Oil (VGO) Hydrotreater unit is being incorporated to remove sulphur from the VGO stream before feeding to	EAC found the explanation satisfactory.

		<p>downstream conversion units.</p> <p>e) Off-gases will be treated with amine to remove the sulphur present in it before being utilized in furnaces.</p> <p>f) Ten number of ambient air stations (2 in Panipat city, 1 in township & 7 within the refinery premises) have been installed by IOCL Panipat for monitoring of ambient air quality as per the NAAQS standards.</p> <p>g) 2G and 3G Plants are already under implementation by IOCL Panipat. The 2G plant will help in reduction of PM caused by indiscriminate prairie burning.</p>	
4.	<p>Existing List of Hazardous emissions in work environment including Hydrogen Sulphide, the levels (annual average) in micrograms, Additional hazardous emissions following additional, plant, technology, raw material use and waste, Medical surveillance using Biological monitoring, Results of Bio monitoring.</p>	<p>List of Hazardous Emissions:</p> <p>VOCs (Methane and other HCs), Benzene, H₂S, SO₂, NO_x, PM, CO, Sulphides / Di-Sulphides.</p> <p>Measures for arresting hazardous emissions in work environment for the proposed facility:</p> <p>a) VOC recovery system shall be installed in proposed ETP facility.</p> <p>b) External Floating roof tanks will have double foam seals to</p>	EAC found the explanation satisfactory.

		<p>reduce fugitive emissions.</p> <p>c) LDAR monitoring through external agency will be conducted on quarterly basis for leak detection of VOCs and any leak is being attended promptly.</p> <p>d) H₂S gas detectors shall be installed at H₂S potential locations for early detection and rectifications. In potential units Operating personnel shall be provided with personal responders.</p> <p>e) Amine absorption system shall be incorporated to scavenge H₂S, which will then be routed to SRU for extraction of sulphur in elemental form.</p> <p>No new chemical, waste and raw material is being envisaged in proposed facility. So, no further addition of any new hazardous emissions from the proposed facility.</p> <p>Biological Monitoring: Occupational Health Assessment is done of the employees at fixed periodicity. Reports are generated and monitored for adverse impact, if any. Bio monitoring detail has been submitted.</p>	
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5.	Compliance report of recommendations given by the committee constituted by Hon'ble NGT comprising of members of NEERI & CPCB.	As per the present status, all recommendations have been complied. The latest compliance status has been submitted.	EAC found the reply satisfactory.
6.	Total pollution load generated in terms of sulphur dioxide emissions & mitigating measures for the same along with standby sulphur recovery unit in case of failure of any SRU to avoid acid rain in the surrounding areas.	5 Sulphur Recovery Unit are existing. 2 additional units will be installed. Hence, total 7 units shall be available with a combined capacity of 135% of recoverable sulphur. Accordingly, one unit will be in standby mode. The sulphur balance with capacity calculation has been submitted.	EAC found the reply satisfactory.
7.	No effluent shall be discharged in any of drains which may lead to pollution in river Yamuna.	Proposed facility shall be having ZLD. Hence, no effluent shall be discharged outside the premises.	EAC found the reply satisfactory.
8.	As per policy of government, 10% of H ₂ shall be produced by the PP through Green Hydrogen route.	IOCL shall comply with the policy of Government on Green H ₂ .	EAC found the reply satisfactory.

The project proponent and their consultant M/s. Hubert Enviro Care System (P) Ltd, Chennai, made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal is for Environmental Clearance to the project for Panipat Refinery Capacity Expansion from Existing 15 MMTPA to 25 MMTPA within the Existing Refinery Complex by M/S. Indian Oil Corporation Limited (IOCL) located at PR 42-128, Baholi Village, Panipat District, Haryana.

All main products: Propylene, LPG, Naphtha, MS BS-VI, ATF, HSD BS-VI, Bitumen, RPC, Sulphur and LOBS listed at S. No. 4 (a) - "Petroleum Refining Industries" of Schedule of Environmental Impact Assessment (EIA) Notification under Category 'A', and are appraised by Central Level by Expert Appraisal Committee (EAC).

The ToR has been issued by Ministry vide letter No. IA- J-11011/177/2016-IA II(I); dated 24th August, 2018. Public Hearing for the proposed project has been conducted by Haryana State Pollution

Control Board on 06.04.2021 and chaired by Deputy Commissioner, Panipat. The main issues raised during the public hearing are related to basic facilities for schools, labour facilities and crops getting damaged by neel gaye due to the green belt area of the PRPC. It was informed that no litigation is pending against the proposal.

Ministry had issued EC earlier vide letter no. J-11011/177/2016-IA-II(I) dated 26.03.2018 to the existing project in favour of M/s. Indian Oil Corporation Limited, Panipat Refinery.

The details of products and capacity are as under:

Existing & Proposed Products

S. No.	Products details	Unit	Existing Quantity	Proposed Quantity	Total Quantity
1	Propylene	TMTPA	123	554	677
2	LPG	TMTPA	438	752	1190
3	Naphtha	TMTPA	1435	407	1842
4	MS BS-VI	TMTPA	1965	1483	3448
5	ATF	TMTPA	1751	500	2251
6	HSD BS-VI	TMTPA	6932	5074	12006
7	Bitumen	TMTPA	449	41	490
8	RPC	TMTPA	884	0	884
9	Sulphur	TMTPA	200	187	387
10	LOBS	TMTPA	0	526	526

Existing & Proposed Capacities

S. No.	Plant / Equipment / Facility	Units	Existing Configuration	Proposed Configuration	Final configuration after expansion
1.	CDU 1	MMTPA	7.5	-	7.5
2.	VDU 1	MMTPA	3.75	-	3.75
3.	Resid Fluidized Catalytic Cracking Unit (RDCCU)	MMTPA	0.85	-	0.85
4.	Propylene Separation Unit (PSU)	MMTPA	0.225	-	0.225
5.	Once Thru Hydrocracker Unit	MMTPA	1.9	-	1.9
6.	Continuous Catalytic Reforming Unit (CCRU)	MMTPA	0.65	-	0.65
7.	Hydrogen	TMTPA	38	-	38

S · N o	Plant / Equipment / Facility	Units	Existing Configura tion	Proposed Configurat ion	Final configurat ion after expansion
	Generation Unit (HGU)				
8.	VisbreakerUnit (VBU)	MMTPA	0.4	-	0.4
9.	Diesel Hydro Desulphurisation Unit (DHDS)	TMTPA	0.77	-	0.77
10.	Bitumen Blowing Unit (BBU)	MMTPA	0.5	-	0.5
11.	SulphurRecovery Units (SRU/SSRU)	TPD	2 *115	-	2 *115
12.	Amine Regeneration Unit	m ³ /hr	400	-	400
13.	Sour Water Strippers I (Refinery)	m ³ /hr	71.8	-	71.8
14.	Sour Water Strippers II (OHCU)	m ³ /hr	16	-	16
15.	SR LPG treatment	MMTPA	0.142	-	0.142
16.	Mercox: 1.FCCGasoline 2.CrackedLPG(FC C+DCU) 3.ATF/KERO	TPA	190000 200000+1 00000 1150000	-	190000 200000+1 00000 1150000
17.	Crude Distillation Unit (CDU-II)	MMTPA	7.5	-	7.5
18.	Vacuum Distillation Unit (VDU-II)	MMTPA	3.75	-	3.75
19.	Hydrocracker Unit	MMTPA	1.8 1.7	-	1.8 1.7
20.	Delayed Coker Unit	MMTPA	3.0	-	3.0
21.	Hydrogen Generation Unit (HGU -2&3)	MTPA	2*70	-	2*70
22.	Sulphur Recovery Units SRU (3,4 &5)	TPD	3 *225	-	3 *225
23.	Coker LPG Mercox unit	MMTPA	0.1	-	0.1

S · N o	Plant / Equipment / Facility	Units	Existing Configura tion	Proposed Configurat ion	Final configurat ion after expansion
24.	Straight Run LPG Mercox unit	MMTPA	0.142	-	0.142
25.	Diesel Hydrotreating Unit (DHDT)	TMTPA	3.5	-	3.5
26.	Amine Regeneration Unit (ARU-II)	m ³ /hr	410	-	410
27.	Sour Water Stripper (SWS- III)	m ³ /hr	170	-	170
28.	Hydrocracker Sour Water Stripper (SWS-IV)	m ³ /hr	40	-	40
29.	NSU-II	TPA	0.75	-	0.75
30.	Naptha oxygen stripping unit	MTPA	400,000	-	400,000
31.	Naptha hydrotreating	MTPA	500,000	-	500,000
32.	Continuous catalyst (Platforming + Regeneration)	MTPA	500,000	-	500,000
33.	Shell sulfolane extraction unit	MTPA	152,200	-	152,200
34.	Benzene Toluene fractionation unit	MTPA	379,800	-	379,800
35.	Paraxylene Extraction unit (PAREX)	MTPA	2,025,400	-	2,025,400
36.	Xylene fractionation unit	MTPA	481,700	-	481,700
37.	Trans alkylaton Disproportionate (Tatoray) unit	MTPA	360,200	-	360,200
38.	Isomerisation unit (Isomar)	MTPA	1,656,500	-	1,656,500
39.	PTA UNITS	MTPA	553000	-	553000
40.	<u>PXFEEDUNIT(NS U-I)</u>	MMTPA (BH)	1.3	-	1.3
41.	NHT	TMTPA	410	-	410
42.	PENEX	TMTPA	400	-	400

S · N o	Plant / Equipment / Facility	Units	Existing Configura tion	Proposed Configurat ion	Final configurat ion after expansion
43.	RSU	TMTPA	470	-	470
44.	FCCGDU	TMTPA	370	-	370
45.	AVU	MMTPA	-	10	10
46.	State Run LPG treatment unit (SR-LPGT)	MMTPA	-	0.152	0.152
47.	VGO Hydrotreater unit	MMTPA	-	3.6	3.6
48.	Diesel hydrotreater unit	MMTPA	-	5.0	5.0
49.	Propylene Recovery unit	MMTPA	-	1.15	1.15
50.	Resid Hydrocracker unit- RHCU	MMTPA	-	2.5	2.5
51.	INDMAX	MMTPA	-	2.5	2.5
52.	NHT/ CCR/ ISOM	MMTPA	-	0.95/0.625/ 0.205	0.95/0.625/ 0.205
53.	HGU	MMTPA	-	0.081	0.081
54.	ALKYLATION	MMTPA	-	0.67	0.67
55.	SARU	MTPD	-	185	185
56.	CDW/LOBS	MMTPA	-	0.56	0.56
57.	SRU-I/II/ TGTU	TPD	-	2*465 /930	2*465 /930
58.	SWS-I/II	TPH	-	252+180	252+180
59.	ARU	TPH	-	1256	1256
60.	MUG Compressor	MMTPA	-	0.17	0.17

Proposed Utilities Capacity

S.No.	Utility	Units	Capacity	Remarks
1	Raw water	m ³ /hr	2400	
2	Cooling water from CT1 and CT2	m ³ /hr	64000	
3	DM water	m ³ /hr	850	
4	Suspect condensate generation	TPH	232.5	This condensate shall be treated in CPU
5	HP steam	TPH	23.5	Case1, All units running at design capacity, except SRU operating to SRU balance
6	MP steam	TPH	231.5	Case1
7	LP steam	TPH	106.3	Case1

S.No.	Utility	Units	Capacity	Remarks
8	HP BFW	TPH	122.3	Case1
9	MP BFW	TPH	171	Case1
10	LP BFW	TPH	14.4	Case1
11	Power	KW	222513	Case1
12	Nitrogen	Nm ³ /hr	6500	
13	RLNG	Kg/hr	115116	
14	Plant air	Nm ³ /hr	9450	
15	Instrumentation air	Nm ³ /hr	11895	
16	ETP	m ³ /hr	450	
17	Flare	Kg/hr	2191374	Design

*Note- Total steam requirement is 549 TPH

Existing land area is 6319570.99 m² (1561.6 Acres). No additional land will be used for proposed expansion. Industry has already developed greenbelt in an area of 34.5 % (539 Acres) and will develop further 5.5% (86 Acres) greenbelt taking the total to 40% (since it is located in Panipat which is coming under CEPI index) i.e. 2529000 m² (625 Acres) out of total area of the project (1561.6 Acres). The estimated project cost is Rs.32946 Crore (30349 for P25+ 2597 Cr for PP). Total capital cost earmarked towards environmental pollution control measures is Rs. 28161.32 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 2742.74 Lakhs per annum. Total Employment will be 300 persons as direct and 480 persons as indirect after expansion. Industry proposes to allocate Rs.100 Lakhs @ of 5/2.5% towards Corporate Social Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km radius from the project site. Water bodies: Munak Drain (adjacent to project site(W), New Delhi Branch (Western Yamuna Canal) ~0.05km(S), Main Drain No 2/Indri Drain ~0.05km(E), New Delhi Parallel Branch (Western Yamuna Canal) ~0.1km(S), Gohana Distributary ~0.1km(S), Nahar Kuna Hansi/Hanal Nadi ~0.19km(N), Madlauda Minor ~0.22km(S), Thirana Minor ~0.23km(S), Khandra Drain ~0.67km(S), Begampur Minor ~0.8km(N), Joshi Drain ~0.82km(W), Untala Minor ~1.78km(S), Phurlak Drain ~2.14km(N), Tributary Drain No 1 ~2.32km(SSW), Gagsina East Drain ~2.62(N), Rer Kalan Minor ~2.67km(WNW), Kabir Branch/Bazida Distributary ~2.7km(E), Munak Minor ~2.76km(N), Hansi Branch(Western Yamuna Canal) ~4.31km(NW), Munak Canal ~4.46km(NNW), Goli Distributary ~4.88km(NNW), Gudah Minor ~5.34km(E), Binjhaul Minor ~5.39km(SE), Pabana/Pawana Drain ~5.47km(WNW), Nohra/Nauhra Drain ~5.68km(SSE), Ganda Nala/Panipat Main Drain ~5.7km(ESE), Joshi Distributary ~5.82km(W), Kurian Minor ~5.86km(NW), Untala Drain ~6.6km(S), Mor Majra Drain ~6.81km(W), Ganda Nala ~7.11km(E), Jind Distributary ~7.13km(W),

Khukrana Branch Canal ~7.21km(S), Bhalsi Minor ~7.87km(SSW), Lift Irrigation Channel ~9.7km(N) and Bhadaur Drain ~9.91km(S).

Ambient air quality monitoring was carried out at 8 locations during March 2019 to May 2019 and average baseline data indicates the ranges of concentrations as: PM₁₀ (83.59 to 128 µg/m³), PM_{2.5} (42.77 to 64.98 µg/m³), SO₂ (14.92 to 22.83 µg/m³) and NO₂ (27.89 to 43.71 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.89 µg/m³, 30.52 µg/m³ and 22.29 µg/m³ with respect to PM, SO_x, and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 1,62,864 m³/day of which fresh water requirement of 98880 m³/day will be met from Western Yamuna Canal.

Effluent of 1392 m³/hr quantities will be treated through existing ETP of capacity 1075 m³/hr & proposed ETP of capacity 450 m³/hr. The quantity of 255m³/hr of treated effluent discharged to Thirana Drain and remaining reused in the plant.

Wastewater treatment and Disposal Management as follows:

Unit	Existing (m ³ /hr)	Proposed (m ³ /hr)	After expansion (m ³ /hr)	Disposal Method	Facility Details
Effluent	1030	362	1392	Existing: 255m ³ /hr of treated effluent discharged to Thirana Drain and remaining reused in the plant Proposed: ZLD	Existing: Combined ETP-1 of capacity 400m ³ /hr, Combined ETP-2 of capacity 400m ³ /hr and Combined PX/PTA ETP of capacity 275m ³ /hr Proposed: ETP of capacity 450m ³ /hr. Sewage will be combined into the proposed ETP for treatment
Sewage	235	9	244		

Power requirement after expansion will be 397513 kVA including existing 175000 kVA where the existing is being met from Existing Gas Turbine while the proposed power of 222513 kVA will be met from Uttar Haryana Bijili Vitran Nigam Limited's. No DG set available in IOCL Panipat Refinery.

Existing unit has 2 nos of Boiler of 160 TPH & 230 TPH capacity of each, additionally 3 no. of Boiler of 160 TPH (2nos) & 230 TPH (1no) capacity is being used as standby and all are Low sulphur liquid fuel+Gas fired Boiler. Additionally, 3nos of Boiler of 300MTPH capacity of each is proposed from which 1no will be used as standby and all proposed are Gas+Low sulphur liquid fuel fired boiler will be installed.

Details of process emissions generation and its management:

Existing Process Emission

S. no	Process Stack	Exit Gas Volume (Nm ³ /Hr) @ 25C	Emission(g/s)			
			PM (g/sec)	SO ₂ (g/sec)	NO _x (g/sec)	CO (g/sec)
A	Panipat refining unit					
1	RFCC Heater	10702.17	0.0380	0.1479	0.4250	0.0851
2	RFCC Boiler	77661.33	0.2431	1.1861	3.0435	0.7904
3	AVU- 1	335341.24	1.2370	4.8774	9.8125	1.9198
B	MCR					
4	OHCU- Recycle gas Heater	23609.14	0.1097	0.3090	0.8758	0.1427
5	OHCU LP Section	78410.6	0.3004	1.3114	2.9498	0.5985
6	DHDS- Furnace	24562.62	0.0721	0.3572	0.8727	0.2031
7	CCRU stack- FF101, FF 102 FF 204	73167.78	0.2833	1.2237	2.5233	0.5120
8	CCRU Stack- FF 201, FF 202 FF 203	36088.83	0.1536	0.7611	1.2068	0.2640
9	CCRU Stack- FF 205	21186.13	0.0816	0.3543	0.8081	0.1685
10	VBU	21385.69	0.0766	0.4044	0.6146	0.1837
11	HGU	101595.74	0.5576	1.7731	4.0875	0.8401
C	PR Expansion Unit					
12	HCU Unit	42215.04	0.1867	0.5833	1.1249	0.2148
13	AVU- 2	341972.09	1.4230	5.9684	11.0780	2.7196
D	Hydrogen Generation Unit					
14	HGU-PDS	38499.52	0.1766	0.5039	1.2673	0.2694
15	HGU-76	140182.48	0.5775	1.9369	5.0540	1.2484
16	HGU-77	155111.13	0.7316	2.2560	5.1867	1.0362

S. no	Process Stack	Exit Gas Volume (Nm ³ /Hr) @ 25C	Emission(g/s)			
			PM (g/sec)	SO ₂ (g/sec)	NO _x (g/sec)	CO (g/sec)
E	Diesel Hydrotreater Unit					
17	DHDT-72 Heater 01	44393.26	0.1599	0.6780	1.5773	0.4095
18	DHDT-72 Heater 02	45833.96	0.1892	0.8666	1.7721	0.4956
F	Paraxylene Aromatic Section					
19	CCR-Heater	47019.04	0.1614	0.6839	1.2775	0.2842
20	NHT Heater	12715.52	0.0377	0.2127	0.3521	0.0809
21	Xylene Charge Heater	52943.5	0.1610	0.6546	1.5215	0.3200
22	Isomer Charge Heater	18592.5	0.0525	0.2839	0.6412	0.0710
23	Tatoray charge Heater	18392.82	0.0580	0.2407	0.6150	0.1287
G	Thermal Power Station					
24	HRSG 01	146887.37	0.6218	2.0295	6.3700	0.6541
25	HRSG 02	148251.99	0.5819	1.9405	6.6619	0.6132
26	HRSG 03	159843.57	0.5093	2.6734	7.0993	0.7628
27	HRSG 04	151283.04	0.5429	2.2003	6.8771	0.6736
28	HRSG 05	158248.86	0.5495	1.9566	6.7801	0.5033
29	VHP Boiler 01	130260.73	0.5142	1.9894	5.1728	0.6629
30	VHP Boiler 02	134520.21	0.6681	2.3478	5.4824	0.6420
31	Utility Boiler 02	163531.04	0.7359	3.0921	6.5794	0.7282
H	Pur. Teraphthalic AC-Aromatic section					
32	Fired combustion preHeater	72693.78	0.3354	0.9515	2.7727	0.2312
33	Hot oil heater	73286.64	0.2463	0.7994	2.2975	0.4662
34	thermal Oxidizer	16642.03	0.0733	0.1573	0.5739	0.0794
I	Delayed Coker Unit					
35	DCU	13826.97	0.0679	0.2413	0.3974	0.1012
J	MS Quality Unit					
36	HDS (303 Heater 201) (MSQ)	63025.7	0.2495	0.7792	1.6795	0.4410
37	NHT (301 H101)	-	-	-	-	-
38	Old SRU-22/44	126752.64	-	-	-	-
39	CPP VHP-3	149983.92	-	-	-	-
40	SRU-26	126752.54	-	-	-	-
41	New SRU -57	151935.71	-	-	-	-
42	UB-1	146307.28	-	-	-	-
43	BBU Heater	-	-	-	-	-

S. no	Process Stack	Exit Gas Volume (Nm ³ /Hr) @ 25C	Emission(g/s)			
			PM (g/sec)	SO ₂ (g/sec)	NO _x (g/sec)	CO (g/sec)
44	BBU incinerator	-	-	-	-	-
45	NSRU	-	-	-	-	-
K	BS-VI	-	-	-	-	-
46	Prime G	-	-	-	-	-
47	DHDT	-	-	-	-	-
48	HGU	180000	-	-	-	-
Total (g/s)			12.7641	48.7328	117.4312	19.5453
Total (Kg/hr)			45.95076	175.4381	422.7523	70.36308

Note: Item no.37 to 48 are idle. So the emissions are not mentioned.

Proposed Process Emission

S. No	Stack details	Stack Coordinates		Stack Details					Emission per stack (g/s)			
		N	E	Height (m)	Temp (°C)	Dia. (m)	Exit Velocity (m/s)	Flue gas Flow Rate (Nm ³ /hr)	PM	SO ₂	NO _x	CO
1.	AVU (CDU/VDU)	29°29'6.07"N	76°52'1.49"E	90	165	5.3	4.76	257400	0.751	50.8	13.829	8.297
2.	VGO- HDT	29°28'52.97"N	76°52'12.69"E	65	154	3.55	3.61	89750	0.125	0.306	4.778	1.972
3.	Diesel Hydrotreater Unit	29°29'0.89"N	76°52'10.39"E	48	165	2.1	5.12	41430	0.058	0.142	2.208	0.908
4.	MS Block_Charge Heater	29°28'55.06"N	76°52'25.87"E	70	161	2.8	6	92520	0.129	0.319	4.931	2.031
5.	NHT Charge Heater	29°28'55.44"N	76°52'19.27"E	55	204	1.55	5.98	25380	0.035	0.086	1.353	0.556
6.	Naphtha Stripper reboiler Heater	29°28'57.22"N	76°52'19.86"E	50	264	1.35	6	17260	0.024	0.058	0.919	0.378
7.	CDWU_HCR Reactor Feed Heater	29°28'52.39"N	76°52'48.73"E	40	370	0.85	6	5700	0.008	0.019	0.297	0.131
8.	CDWU_DW Reactor feed Heater	29°28'49.21"N	76°52'48.75"E	40	385	0.73	6	4150	0.006	0.014	0.217	0.094
9.	CDWU_Vaccum Column Feed Furnace	29°28'51.32"N	76°52'51.05"E	50	220	1.35	6	18300	0.025	0.064	0.975	0.403
10.	Resid Hydrocracking Unit (RHCU)	29°28'52.57"N	76°52'35.96"E	70	182	2.25	5.67	53160	0.074	0.183	2.833	1.167
11.	Resid Hydrocracking Unit (RHCU)_Vaccum Heater	29°28'47.64"N	76°52'33.42"E	65	206	0.964	5.28	8630	0.012	0.031	0.469	0.206
12.	Indmax FCC_Fresh Feed Furnace	29°29'0.65"N	76°51'45.77"E	60	155	1.8	6	38500	0.053	0.133	2.050	0.844

13.	Indmax FCC_Flue Gas cooler	29°28'58.47"N	76°51'50.63"E	60	200	3.5	12	260750	3.622	3.711	6.084	7.189
14.	Sulphur recovery unit (SRU)	29°29'8.51"N	76°51'45.77"E	65	290	2.6	21.38	216570	0.037	17.889	5.464	4.925
15.	Spent Acid Recovery unit (SARU)_APH System & Stack	29°29'7.13"N	76°51'49.23"E	60	200	0.8	3.5	3850	0.005	0.047	0.233	0.094
16.	Spent Acid Recovery unit (SARU)_Decomposition furnace burner	29°29'5.73"N	76°51'52.10"E	60	80	1	8	18790	0.159	2.000	0.778	0.467
17.	Hydrogen Generation Unit	29°29'1.13"N	76°52'25.54"E	60	188	3.4	7.64	155111.13	0.732	2.256	5.186	1.036
18.	CPP Stack	29°28'56.27"N	76°52'2.03"E	90	160	3.25	17.5	871660	11.555	101.795	78.190	22.303
Total (g/s)									17.41	179.853	130.794	53.001
Total (Kg/hr)									62.676	647.4708	470.8584	190.8036

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

Solid Waste (Operation Phase):

Municipal solid waste:

S. No	Waste	Quantity (kg/day)			Collection method	Treatment / disposal method
		Existing	Proposed	After expansion		
1	Organic waste	271.89	81	352.89	Bins	Composting and used as manure for Green Belt
2	Inorganic waste	181.26	54	235.26	Bins	Disposed through authorised vendors

Existing & Proposed Hazardous Waste Management:

S. No.	Plant	Waste category	Quantity (MTPA)		Source of Waste generation	Mode of Disposal/Facility
			Existing	Proposed		
1	DHDT	Spent Catalyst	134	175	DHDT	Disposed to SPCB authorised

S. N o.	Plant	Waste category	Quantity (MTPA)		Source of Waste generation	Mode of Disposal/F acility
			Exist ing	Propo sed		
						Recycler
2	CCR Regeneration Section	Spent Catalyst Fines	0.85	1.58	Catalyst Fines from Spent Catalyst Fines Collection Pot	Disposed to SPCB authorised Recycler
3	CCR Platforming Process Unit	Spent Catalyst	7.25	4.173	Spent catalyst from Reactors	Disposed to SPCB authorised Recycler
4	CCR Platforming Process Unit	Spent Adsorbent	0.6	31.2	Net GAS Chloride Treaters Adsorbents	To TSDF/ Disposed to SPCB authorised Recycler
5	CCR Platforming Process Unit	Spent Adsorbent	4.25	1.8	Fuel gas Chloride Adsorbent	To TSDF/ Disposed to SPCB authorised Recycler
6	CCR Platforming Process Unit	Spent adsorbent	0.05	1.26	LPG Chloride Treatment Adsorbent	To TSDF/ Disposed to SPCB authorised Recycler
7	CCR Platforming Process Unit	Spent Adsorbent	10.2	33.26	Debutanizer feed Chloride Treater	To TSDF/ Disposed to SPCB authorised Recycler
8	INDMAX FCC	Spent Catalyst	50	839.5	Indmax equilibrium catalyst (E-cat) is withdrawn from Indmax FCC unit.	To TSDF/ Disposed to SPCB authorised Recycler
9	Propylene Recovery unit	Spent adsorbent	10	20	Adsorbents from Propylene Driers	To TSDF/ Disposed to SPCB authorised Recycler
10	Propylene Recover	Spent adsorbent	20	11	Adsorbent from Arsine Guard Bed	To TSDF/ Disposed to SPCB

S. N o.	Plant	Waste category	Quantity (MTPA)		Source of Waste generation	Mode of Disposal/F acility
			Exist ing	Propo sed		
	y unit					authorised Recycler
11	HCU/RH CU Reaction Section	Spent Catalyst	136.5	5.256	Spent catalyst withdrawn from the reactors	To TSDF/ Disposed to SPCB authorised Recycler
12	UOP Naphtha Hydrotreating Process Unit	Spent Catalyst	1.4	4.5	Spent Catalyst from Reactor	To TSDF/ Disposed to SPCB authorised Recycler
13	PENEX	Spent Catalyst	1.4	2.96	Spent Catalyst From Reactor A	Disposed to SPCB authorised Recycler
14	PENEX	Spent Catalyst	10.25	1.48	Spent Catalyst From Reactor B	Disposed to SPCB authorised Recycler
15	PENEX	Spent Catalyst	5.125	0.987	Spent Catalyst From Reactor C	Disposed to SPCB authorised Recycler
16	PENEX	Spent Catalyst	4	0.312	Spent Catalyst from Methanator Reactor	Disposed to SPCB authorised Recycler
17	PENEX	Spent Adsorbent	4	0.45	Makeup Gas Chloride Treater	To TSDF/ Disposed to SPCB authorised Recycler
18	PENEX	Spent Molecular Sieve	7	3.25	Makeup Gas Driers	To TSDF/ Disposed to SPCB authorised Recycler
19	PENEX	Spent Molecular Sieve	1.19	0.595	Penex Feed Driers	To TSDF/ Disposed to SPCB authorised

S. N o.	Plant	Waste category	Quantity (MTPA)		Source of Waste generation	Mode of Disposal/F acility
			Exist ing	Propo sed		
						Recycler
20	VGOHDT	REACTOR SPENT CATALYST	NA	500	VGO REACTOR/ DIESEL OPOLISHING REACTOR	To TSDF/ Disposed to SPCB authorised Recycler
21	CDWU	Spent Catalyst	NA	3.762	HCR Reactor	Disposed to SPCB authorised Recycler
22	CDWU	Spent Catalyst	NA	3.864	DW Reactor	Disposed to SPCB authorised Recycler
23	CDWU	Spent Catalyst	NA	3.621	HDF Reactor	Disposed to SPCB authorised Recycler
24	SR LPG Treater	Spent Catalyst	NA	3.250	Spent Catalyst from Reactor	To TSDF/ Disposed to SPCB authorised Recycler
25	SR LPG Treater	Spent Grading Bed Catalyst	NA	0.15	Spent Grading Bed Catalyst from Reactor	To TSDF/ Disposed to SPCB authorised Recycler
26	HGU (Note-1)	Spent Catalyst	4.5	1.583	Spent Catalyst from Hydrogenatio n Reactor	To TSDF/ Disposed to SPCB authorised Recycler
27	HGU (Note-1)	Spent Catalyst	63	21	Spent Catalyst from Predesuffuriza tion Reactor A/B (Dechlorinatio n)	To TSDF/ Disposed to SPCB authorised Recycler
28	HGU (Note-1)	Spent Catalyst	18.12	505.2	Spent Catalyst from Predesuffuriza tion Reactor	To TSDF/ Disposed to SPCB authorised

S. No.	Plant	Waste category	Quantity (MTPA)		Source of Waste generation	Mode of Disposal/Facility
			Existing	Proposed		
					A/B (Removal of Sulfur compound)	Recycler
29	HGU (Note-1)	Spent Catalyst	19	6.387	Spent Catalyst from Desulfurization Reactor (Removal of Sulfur compound)	To TSDF/ Disposed to SPCB authorised Recycler
30	HGU (Note-1)	Spent Catalyst	8	2.667	Spent Catalyst from Desulfurization Reactor (Deep Desulfurization)	To TSDF/ Disposed to SPCB authorised Recycler
31	HGU (Note-1)	Spent Catalyst	25	9.4	Spent Catalyst from Prereformer A/B	To TSDF/ Disposed to SPCB authorised Recycler
32	HGU (Note-1)	Spent Catalyst	8	5.883	Spent Catalyst from Reformer	To TSDF/ Disposed to SPCB authorised Recycler
33	HGU (Note-1)	Spent Catalyst	30	10.107	Spent Catalyst from High Temp Shift Reactor	To TSDF/ Disposed to SPCB authorised Recycler
34	HGU (Note-1)	Spent Catalyst	24	16.883	Spent Catalyst from Low Temp Shift Reactor	To TSDF/ Disposed to SPCB authorised Recycler
35	HGU (Note-1)	Catalyst Support Material (Ceramic balls)	16	5.6	Spent Support Material from Reactors, Prereformer, Reformer & Shift Reactors	To TSDF/ Disposed to SPCB authorised Recycler
36	HGU (Note-1)	Catalyst Support	28	9.79	Spent Support Material from	To TSDF/ Disposed to

S. No.	Plant	Waste category	Quantity (MTPA)		Source of Waste generation	Mode of Disposal/Facility
			Existing	Proposed		
		Material (Aluminium balls)			Reactors, Prereformer, Reformer & Shift Reactors	SPCB authorised Recycler
37	HGU /PSA (Note-1)	Spent Adsorbent	250	51.938	Spent Adsorbent from PSA	To TSDF/ Disposed to SPCB authorised Recycler
38	SRU	Spent Catalyst	36.8	53.5	Claus reactors	To TSDF/ Disposed to SPCB authorised Recycler
39	TGTU	Spent Catalyst	15	11.34	Reactor	To TSDF/ Disposed to SPCB authorised Recycler
40	SRU/TGTU	Catalyst Support Material (Ceramic/alumina balls)	8	11.4	Claus and TGTU reactors	To TSDF/ Disposed to SPCB authorised Recycler

Note-1: All data for HGU are preliminary for proposed case. Data given has been prorated from BS VI Panipat HGU data. Data shall be confirmed after getting data from the selected

Details of Certified compliance report submitted by RO, MoEF&CC officials done on 10-05-2021 and the compliance of EC recommendations was certified. Status of compliance is Partially Complied. ATR has been submitted to RO, MoEF&CC on 07.05.2021 depicting compliance.

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

- i. In the new proposed facility, RLNG & FG (Fuel Gas) will be fired in furnaces & boilers in normal operations and liquid fuel (S < 0.5%) will be fired in case of emergency/ non availability of RLNG. Additional SO_x emission from these new proposed facilities shall be 647 Kg/hr.
- ii. IOCL shall comply with the policy of Government on Green H₂.

- iii. Two Sulphur Recovery Units (having capacity 465 TPD for each unit) shall be installed in the proposed expansion project.
- iv. Joint committee formed by Hon'ble NGT visited PRPC on 06.01.2021 for verification of compliance of NGT recommendations. Joint committee submitted the compliance report with respect to the NGT recommendations on 15.02.2021. Based on the compliance report given by the joint committee, OA 738/2018 has been disposed off by Hon'ble NGT on 22.03.2021.
- v. The project shall conform to ZLD

PP has agreed to the above conditions and submitted the desired information as sought above; EAC found it to be in order and recommended the proposal for grant of EC. However, ZLD was not covered in the 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 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 project shall conform to ZLD.
- (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 treated effluent of 4.2 KLPH shall be sent for deep sea discharge through diffuser recommended by NIO.
- (iv). The National Emission Standards for Petroleum Oil Refinery issued by the Ministry vide G.S.R. 186(E) dated 18th March, 2008 and G.S.R.595(E) dated 21st August, 2009 as amended from time to time, shall be followed.
- (v). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. For emission control and management, use of FG/NG in heater as fuel, adequate stack height, use of Low NOX burners in heater & boiler, continuous stack monitoring, Sulphur recovery plant, etc. shall be installed/ensured.
- (vi). Total water requirement is 1,62,864 m³/day of which fresh water requirement of 98880 m³/day will be met from Western Yamuna Canal. Necessary permission in this regard shall be obtained from the concerned regulatory authority.
- (vii). Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- (viii). Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.
- (ix). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (x). Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided. The ash from boiler shall be sold to brick manufacturers/cement industry.

- (xi). The company shall undertake waste minimization measures as below: -
 - a. Metering and control of quantities of active ingredients to minimize waste.
 - b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - c. Use of automated filling to minimize spillage.
 - d. Use of Close Feed system into batch reactors.
 - e. Venting equipment through vapour recovery system.
 - f. Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xii). The green belt of 5-10 m width shall be developed in the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. The project proponent shall ensure 33% greenbelt area vis-à-vis the project area through afforestation in the degraded area. The Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xiii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.
- (xiv). For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xv). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.
- (xvii). Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

- (xviii). Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.
- (xix). The PP should improve the efficiency of ETP Plant and the water discharge should be as per prescribed CPCB Norms. They should also install 24x7 hours monitoring system (of the discharge) and the same should be connected to the server of SCPB/CPCB.

22nd October, 2021 (Friday)

Agenda No. 42.20

Grain Base fuel ethanol unit of 190 KLD, 6 MW Co- generation power plant By product: 145 TPD of CO2 Generation & 97 TPD of DDGS by M/s. Zircon Advance Fuels Pvt. Ltd. Located at Khasara No. 282, 283, 284, 285 Village- Kundla Agar, Teh. Agar, Dist. Agar-Malwa, Madhya Pradesh - Consideration of Environment Clearance.

[IA/MP/IND2/231111/2021, J-11011/424/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Creative Enviro Services, Bhopal (MP), made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Grain Base fuel ethanol unit of 190 KLD, 6 MW Co- generation power plant By product: 145 TPD of CO2 Generation & 97 TPD of DDGS by M/s. Zircon Advance Fuels Pvt. Ltd. Located at Khasara No. 282, 283, 284, 285 Village- Kundla Agar, Teh. Agar, Dist. Agar-Malwa, 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:

Sr No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1.	Fuel Ethanol	Nil	190 KLD of Fuel Ethanol	190 KLD of Fuel Ethanol
2	Co generation of Power	Nil	6 MW	6 MW
3	DDGS	Nil	97 TPD	97 TPD

The acquired land area is 11.768 ha with proposed built-up area of 27000 sq mtrs. Green belt will be developed in area of 33 % i.e. 4.0 hact of area with 8000 number of trees within 02 years of time. The estimated project cost is Rs 175.2722 Crores. Total capital cost for environmental measures is proposed as Rs 1720 Lacs. The recurring cost (operation and maintenance) will be about Rs 92 Lacs per annum. Total Employment will be 100 persons as direct & 130 persons as indirect after the commissioning of project. Industry proposes to allocate Rs. 351 Lacs (2.0% of project cost) towards Corporate Environment Responsibility (CER).

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. No protected forest are reported in the study area. No Major River is flowing within distance of 10 km from the site.

Total water requirement is estimated to be 4170 KLD and after recycling & reuse of 3168 KLD of water, net fresh water requirement is estimated to be 1002 KLD, which will be supplied by Water Resource Department of Govt. of MP from Pipliya Kumar Dam. Spent wash of 1460 TPD will be treated through Multi Effect Evaporator with thermal recompression for thin slops evaporation and followed by CPU. The plant will be based on zero liquid discharge concept.

Power requirement for the project will 4566 KWH and will be met from Co-generation unit of 6 MW and MPSEB. 02 DG sets of 1010 KVA is proposed and will have Stack height of 30mt as per CPCB norms and will be used as standby during power failure. Unit will have 01 boilers of 50 TPH, which will be coal and husk fired. ESP with a stack having height of 46 mt will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/nm³) for proposed boiler.

Details of Process emissions generation and its management:

Details of Process emissions generation and its management w.r.t. fuel ethanol plant.

PM, SO₂, NO_x will be generated from the fuel combustion. Following measures are proposed for implementation:

- ESP shall be provided at stack of boiler to control the emission below 50 mg per cubic meter.
- Adequate stack height of 46 mt for boiler shall be provided for better dispersion.
- Dust collectors system shall be provided at various material transfer points.
- Online continuous monitoring system shall be provided for stack of boiler.
- Development of green belt shall be carried out in consultation with forest department.
- Dense phase conveying system for ash handling shall be provided to prevent the fugitive emission.
- Provision of cover over coal conveyors belt along with dust suppression system.
- Provision of dust mask for workers and instruction of compulsory use.
- It is proposed to use low sulphur coal in the boiler.
- CO₂ generated during the fermentation process will be collected by utilizing CO₂ Scrubbers.

Details of Solid waste/ Hazardous waste generation and its management

Detail Of By Products / Solid/Hazardous Waste And Management			
Type Of Waste	Quantity	Storage	Utilization/ Disposal
DDGS - (by product)	97 TPD	Covered shed	Sold as Cattle Feed, Poultry & Fisheries
Boiler ash	19 TPD	Silo	Brick making or land filling
ETP sludge	60 KGD		As Manure
Waste papers/Boxes	1.5-2 TPD	Covered shed	to recyclers
Used Oil	< 500 Lit /Year	HDPE drums in covered shed	Given to re-cycler authorized by MPPCB/MoEF
Spent Resin from DM Plant	<50Kg/Yr	HDPE drums in covered shed	Given to re-cycler authorized by MPPCB/MoEF

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 190 KLD will be for manufacturing of fuel ethanol only.

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

- PP shall utilize fresh water 3.9 KL/KL ethanol.
- PP shall install 10% of the total power requirement from solar power.
- PP shall not utilize fuel as a coal.
- Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
- 15% of the total plant area will be reserved for parking.
- Development of greenbelt to be completed along with commissioning of the project.
- 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.
- The proposed budget allocate Rs. 3.51 Crores towards CER and it 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. for villagers free of cost.

PP has submitted the desired information as sought above and EAC found it to be in order and recommended the proposal for grant of EC.

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 190 KLD 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). 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). Total fresh water requirement shall not exceed 750 KLD (3.9 KL/KL) for any kind of raw material used and shall be met from Pipliya Kumar Dam. 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.
- (v). 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.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

- (vii). 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.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement 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). PP proposed to allocate Rs. 3.51 Crores towards CER and it 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. for villagers free of cost.
- (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.
- (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. 42.21

Grain Base fuel ethanol unit of 120 KLD, 1.8 MW Co- generation power plant By product : 90 TPD of CO2 Generation & 65 TPD of DDGS by M/s. Great Galleon Ventures Limited located at Khasara No. 280/2, village-Sejwaiya Tehsil- Dhar Dist.- Dhar Madhya Pradesh - Consideration of Environment Clearance.

[IA/MP/IND2/231983/2021, J-11011/418/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Creative Enviro Services, Bhopal (MP), made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Grain Base fuel ethanol unit of 120 KLD, 1.8 MW Co- generation power plant By product : 90 TPD of CO2 Generation & 65 TPD of DDGS by M/s. Great Galleon Ventures Limited located at Khasara No. 280/2, village-Sejwaiya Tehsil- Dhar Dist.- Dhar 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:

Sr No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1.	Fuel Ethanol	Nil	120 KLD of fuel ethanol	120 KLD of fuel Ethanol
2	Co generation of Power	Nil	1.8 MW	1.8 MW
3	DDGS	Nil	65 TPD	65 TPD

The acquired land area is 6.82 ha with proposed built-up area of 23500 sq mtrs. Green belt will be developed in area of 33 % i.e. 2.3 ha of area with 4600 number of trees within 02 years of time. The estimated project cost is Rs 6500 Lacs. Total capital cost for environmental measures is proposed as Rs 2136.44 Lacs. The recurring cost (operation and maintenance) will be about Rs 78.66 Lacs per annum. Total Employment will be 50 persons as direct & 25 persons as indirect after the commissioning of project. Industry proposes to allocate Rs. 160 Lacs (2.5% of project cost) towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. No protected forest are reported in the study area. Major River Chabal is flowing at a distance of 6.25 km in north direction.

Total water requirement is estimated to be 1426 KLD and after recycling & reuse of 966 KLD of water, net fresh water requirement is estimated to be 460 KLD (3.8 KI per KI) which will be supplied by DMIC Pithampur Jal Prabandhan Limited, Pithampur Dist Dhar (MP). Spent wash of 585 TPD will be treated through Multi Effect Evaporator with thermal recompression for thin slops evaporation and followed by CPU. The plant will be based on zero liquid discharge concept.

Power requirement for the project will 1800 KWH and will be met from Co-generation unit of 1.8 MW and MPSEB. Unit will have 01 boilers of 20 TPH, which will be coal and husk fired. ESP with a stack having height of 42 mt will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm³) for proposed boiler.

Details of Process emissions generation and its management:

Details of Process emissions generation and its management w.r.t. fuel ethanol plant.

PM, SO₂, NO_x will be generated from the fuel combustion. Following measures are proposed for implementation:

- ESP shall be provided at stack of boiler to control the emission below 50 mg per cubic meter.
- Adequate stack height of 42 mt for boiler shall be provided for better dispersion.
- Low Sulphur Coal Shall be Used having Sulphur content less than 0.4%.

- Dust collectors system shall be provided at various material transfer points.
- Online continuous monitoring system shall be provided for stack of boiler
- Development of green belt shall be carried out in consultation with forest department.
- Dense phase conveying system for ash handling shall be provided to prevent the fugitive emission.
- Provision of cover over coal conveyors belt along with dust suppression system.
- Provision of dust mask for workers and instruction of compulsory use.
- It is proposed to use low sulphur coal in the boiler.
- CO₂ generated during the fermentation process will be collected by utilizing CO₂ Scrubbers.

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

Detail Of By Products / Solid/Hazardous Waste And Management			
Type Of Waste	Quantity	Storage	Utilization/ Disposal
DDGS - (by product)	65 TPD	Covered shed	Sold as Cattle Feed, Poultry & Fisheries
Boiler ash	30TPD	Silo	Brick making or land filling within the plant premises
ETP sludge	0.1MT/DAY	Drying Beds	Will be used as Manure
Used Oil	< 100 lit per year	HDPE drums in covered shed	Given to re-cycler authorized by MPPCB/MoEF
Spent Resin from DM Plant	<50Kg/Yr	HDPE drums in covered shed	Given to re-cycler authorized by MPPCB/MoEF

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 120 KLD will be for manufacturing of fuel ethanol only.

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

- Commitment towards compliance of zero discharge for existing and proposed units.
- Development of greenbelt to be completed along with commissioning of the project.
- 15% of the total plant area will be reserved for parking.

- 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.
- Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
- PP shall not utilize fuel as a coal.
- The proposed budget of Rs. 1.60 Crores towards CER activities to be increased to Rs. 2.0 Crores and it 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. for villagers free of cost

PP has submitted the desired information as sought above and EAC found it to be in order and recommended the proposal for grant of EC.

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 120 KLD 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). 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). Total water requirement is estimated to be 1426 KLD and after recycling & reuse of 966 KLD of water, net fresh water requirement is estimated to be 460 KLD (3.8 KI per KI) which will be supplied by DMIC Pithampur Jal Prabandhan Limited, Pithampur Dist Dhar (MP). 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.
- (v). 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.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). 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.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement or any 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). PP proposed to allocate Rs. 2.0 crores towards CER and it 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. for villagers free of cost.
- (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.
- (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. 42.22

Expansion of Grain based Distillery 120 KLPD to 250 KLPD & Co-Generation Power Plant from 3.5 to 5.55 MW by new installation 130 KLPD Grain based Ethanol plant by M/s. RSL Distilleries Private Limited located at Village Chandrao, Tehsil Indri, District Karnal, Haryana - Consideration of Environment Clearance

[IA/HR/IND2/233126/2011, J-11011/209/2011-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 Expansion of Grain based Distillery 120 KLPD to 250 KLPD & Co-Generation Power Plant from 3.5 to 5.55 MW by new installation 130 KLPD Grain based Ethanol plant by M/s. RSL Distilleries Private Limited located at Village Chandrao, Tehsil Indri, District Karnal, Haryana.

All Distillery projects are listed at S. No. 5 (g) of Schedule of Environment Impact Assessment (EIA) and as per as per the EIA Notification 2006 and amendment vide Notification S.O. 345(E), dated the 17th January, 2019, S.O. 750(E), dated the 17th February, 2020, S.O. 980 (E) dated 02nd March, 2021 and S.O 2339(E) dated 16.06.2021 the proposal is to be appraised as 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 2nd March, 2021 & 16th June, 2021. It was informed that no litigation is pending against the project.

M/s. RSL Distilleries Pvt. Ltd. has obtained Environmental clearance from MoEFCC vide F. No. J-11011/209/2011-IA-II(I) dated 10th September, 2013 for 120 KLPD Grain Based Distillery Plant & 3.5 MW Co-generation Power Plant at Village Chandrao, Tehsil Indri, District Karnal, Haryana.

The details of products and capacity are as under:

Particulars	Capacity			Remarks
	Existing	Additional	Total after expansion	
Grain based Distillery	120 KLPD	130 KLPD	250 KLPD	Additional increased 130 KLPD capacity will
Product	Extra Neutral Alcohol/Rectified	Ethanol (Biofuel)		

	Spirit/ Ethanol			be Ethanol (Biofuel) only
By Product	DWGS/DDGS and CO2	DDGS and CO2		
Co-generation Power Plant	3.5 MW	2.05 MW	5.55 MW	-
IMFL/CL Bottling Plant	80 lakh cases per annum	NIL	80 lakh cases per annum	No Change

Existing land area is 9.11 ha (22.5 acres), No additional land is required for the expansion, as the same will be done within the existing plant premises. Industry has already developed greenbelt in an area of 33% i.e. 3.1 ha (7.5 acres) out of total area of the project. The estimated expansion project cost is Rs. 40 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 2.0 Crores and the Recurring cost (operation and maintenance) will be about Rs. 0.2 Crores / annum. No. of working days will be 350 days/annum. Total Employment will be 200 persons during operational phase after expansion. Industry proposes to allocate Rs. 80 Lakhs (2.0% of total project cost) towards Corporate Environment Responsibility (CER).

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. Dhanaura Escape & Nala (Adjacent in South direction), Prani Nadi (~1.5 km in East direction), Augmentation Canal (~2.5 km in NW direction), Yamuna River (~3.0 km in SE direction), Rakshi Nala (~5.5 km in NNW direction), Budhi Nadi (~6.0 km in East direction), Hanauri Drain (~6.5 km in WSW direction), Western Yamuna Canal (~6.5 km in NW direction), Khurdban Drain (~7.0 km in NNW direction) & Khera Drain (~7.5 km in WSW direction) are the water bodies available within 10 km radius.

Existing fresh water requirement is 730 KLPD and the additional fresh water requirement for expansion will be 610 KLPD. Hence, the total fresh water requirement after expansion will be 1340 KLPD which will be sourced from ground water. Effluent (MEE Condensate, blow down & others) of existing (507 m³/day) & Additional (544 m³/day) will be treated through state of art ETP/CPU. A full-fledged state of art ETP/CPU (Capacity 1200 KLPD) is already in place to treat waste water generated at the plant premises. The plant will be based on Zero Liquid discharge system.

The power requirement for the existing plant is 3.5 MW. Additional power

requirement for expansion project will be 2.05 MW. Total requirement after expansion will be 5.55 MW which will be sourced from 5.55 MW Co-Generation Power Plant. 1 x 700 KVA & 1 x 500 KVA DG sets are already present for emergency backup and no additional D.G set will be installed of expansion. Stack height (7 m) is provided as per CPCB norms. Existing power and steam requirement of the plant is being met by 35 TPH Biomass / Rice Husk / Paddy straw fired boiler having ESP as air pollution control device. As a part of expansion, the existing boiler capacity will be sufficient for steam. The unit proposes capacity enhancement of cogeneration power plant from 3.5 to 5.55 MW by modification & efficiency improvement in turbine. ESP with a stack of height of 50 meter has been installed with the existing boiler (35 TPH) for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.

Details of process emissions generation and its management:

CO₂ plant has already been installed in the existing unit for collection of CO₂ generated (191 TPD) during Fermentation Process and the same will be expanded for proposed expansion.

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 (115 TPD), which will be ideally used as Cattle Feed.
- Ash (35 TPD) from the boiler is being /will be given to nearby brick manufacturers.
- Used oil (1.0 KL /annum) generated from the plant machinery/ gear boxes as hazardous waste is being/will be sold out to the CPCB authorized recycler.

Certified Compliance report of Existing EC obtained from Integrated Regional Office, MoEFCC, Chandigarh vide F. No: 4-1005/2011-RO(NZ)/588-589 dated 16.09.2021.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity from 120 KLPD to 250 KLPD will be for manufacturing of fuel ethanol only.

During deliberation EAC sought the following commitments from PP:

- The capacity of rainwater storage tank should be of 60 days.
- No coal to be used as fuel in boiler.
- 15% area to be reserved for truck parking inside the plant premises.
- Proposed budget for social developmental activities to be increased to Rs. 1.0 Crore and to be spent on providing solar power to the nearby schools and villages. The company will provide solar power

to the nearby areas to the tune of 10% of total power consumption of the unit in form of solar lights/solar panels etc. The social developmental activities to be completed along with the commissioning of the project.

- Ash to be transferred in covered vehicles to the nearby brick manufacturers.

PP agreed to the above conditions and submitted an undertaking in compliance of the 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 from 120 KLPD to 250 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). 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). Existing fresh water requirement is 730 KLPD and the additional fresh water requirement for expansion will be 610 KLPD. Hence, the total fresh water requirement after expansion will be 1340 KLPD which will be sourced from ground water. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Brick manufacturing unit shall be installed within plant for utilization of fly ash.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). 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.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement 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). PP proposed to allocate Rs. 1.0 crores for CER and it shall be spent on installation of solar power to the villages nearby.
- (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.
- (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. 42.23

Proposed 150 KLPD grain based distillery along with 4.0 MW Cogeneration power plant by M/s. Betul Biofuels Pvt. Ltd. located at village: Bodi Junavani , Tehsil and District Betul, Madhya Pradesh - Consideration of Environment Clearance.

[IA/MP/IND2/226867/2021, J-11011/372/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Ampl Environ 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 150 KLPD grain based distillery along with 4.0 MW Cogeneration power plant by M/s. Betul Biofuels Pvt. Ltd. located at village: Bodi Junavani, Tehsil and District Betul, 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:

Unit	Capacity	Product
Grain Based Ethanol Plant	150 KLPD	Product –Ethanol (Fuel) By Product – DDGS & CO2
CO- Generation Plant	4.0 MW	Power

Total project area is 11.0 Acres for proposed project. Industry will develop greenbelt in an area of 33% i.e. 3.63 acres out of total area of the project. The estimated project cost is Rs. 110 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 6.09 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.0 Crores / annum. No. of working days will be 330 days/annum. Total Employment will be 150 persons (Permanent 90 & temporary 60) during operation phase. Industry proposes to allocate INR 2.3 Crores of total project cost towards Corporate Environment Responsibility (CER).

No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km radius. Tapi Reserved Forest – 0.28 km – SW, Bodi Reserved Forest – 2.12 km – NNE, Kund Reserved Forest – 4.81 km – NW and Bor Nadi – 6.28 km – SW, Tank near Kumhali – 6.36 km – NE, Pond near Jin – 8.47 km – N , Machna River – 8.64 km – E, Pond near Kund Reserved Forest – 8.70 km – NW, Tapi River – 9.44 – S are the water bodies found within 10 km radius.

One Time Total water requirement for the project will be 4039 KLD which will be further reduced through recycling & reuse to 3126 KLD.

555 KLD will be fresh water demand for distillery plant @3.7KL/KL of Ethanol. The total fresh water demand for proposed project will be 913 KLD which will be sourced from ground water. The applications for permission of withdrawal of ground water has been submitted to CGWA. Effluent will be treated through state of art PCTP/Effluent Treatment Plant (Bio tower, clarifiers, ACF). The plant will be based on Zero Liquid discharge system.

Power requirement for Ethanol plant will be 3.44 MW, which will be sourced from the 4.0 MW Co-generation Power Plant. Unit will be having D.G. Sets of 1 x 1000 KVA which will be used as standby during power failure. Stack height (9 m) will be provided as per CPCB norms. Proposed Boiler of 30 TPH capacity with ESP as Air Pollution Control Equipment will be installed with a stack height of 70 m for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.

Details of Process emissions generation and its management:

CO₂ (82 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 (105 TPD), which will be ideally used as Cattle, poultry & fish feed ingredients.
- Ash (35 TPD) generated from boiler will be supplied to brick manufacturers.
- Used oil & grease (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 affidavit declaring that the proposed capacity of 150 KLD will be for manufacturing of fuel ethanol only.

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

- a) Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
- b) 15% of the total plant area will be reserved for parking.
- c) Development of greenbelt to be completed along with commissioning of the project.
- d) OHS fund to be increased to Rs. 50 Lakhs per annum.

- e) 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.
- f) The proposed budget to be spent on social development activities to be increased Rs. 2.5 crores and to be spent on solar power and providing drinking water facilities.
- g) Out of total power requirement 10 % shall be met from renewable energy
- h) Further, EAC directed that PP shall submit land conversion document for industrial use and is in possession of the company.

PP has submitted the desired information except commitment (e).

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 150 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). 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). The total fresh water demand for proposed project will be 913 KLD which will be sourced from ground 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. Company shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (v). 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.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). 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.

- (x). Process organic residue and spent carbon, if any, shall be sent to Cement or any 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). PP proposed to allocate Rs. 2.5 crores towards CER and it shall be used for installation of solar power, upgradation of schools and for providing drinking water for villagers free of cost.
- (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.
- (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. 42.24

Expansion of Grain Based Distillery from 25 KLPD to 60 KLPD by M/s. Adlers Bioenergy Ltd. located at Sy. No. 284 (B), Village Gaurgaon, Taluka Kallamb, District Osmanabad, Maharashtra -

Consideration of Environment Clearance. [The project is under violation category].

[IA/MH/IND2/230734/2010, EC(MR)-2009/290/CR.57/TC.1]

As per directions of Madras High Court vide Writ Petition(MD) No. 11757 of 2021 and WMP(MD) No. 9239 of 2021 dated 15.07.2021 there has been an interim stay for considering proposals of violation category.

Accordingly, the proposal was returned in present form.

Agenda No. 42.25

On shore Oil & Gas exploration in Deomali PEL area in Tirap and Changlang Districts by M/s Oil India Limited (NEF PROJECT) located at Districts Tirap and Changlang, Arunachal Pradesh - Consideration of Environment Clearance reg.

[IA/AR/IND2/56550/2013, J-11011/98/2013-IA II (I)]

The PP/consultant were absent for the appraisal of the proposal. EAC has informed that if the proposal has been pending just for submitting required clearances the same may checked by the ministry and if found sufficient, it is recommended as per earlier recommendation. In this regard PP has submitted Stage-I FC but NBWL clearance was not obtained as mentioned in the earlier deliberations of the 12th EAC meeting held during 23rd -24th August, 2016.

In view of the above, EAC **recommended** this proposal, subject to clearance from NBWL if applicable.

GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

- (i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (ii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- (iii) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- (iv) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- (v) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- (vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from

whom suggestions/ representations, if any, were received while processing the proposal.

- (vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- (viii) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
- (ix) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.nic.in/>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- (x) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- (xi) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

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

S. No.	Name and Address	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.	Dr. T. K. Joshi	Member
7.	Dr. J. S. Sharma	Member
8.	Sh. Dinabandhu Gouda, CPCB	Member
9.	Sh. Ashok Kr. Pateshwary, Director, MoEFCC	Member Secretary
MoEFCC		
10.	Dr. Mahendra Phulwaria	Scientist 'C'
11.	Sh. Kanaka Teja	Research Assistant
