

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

Dated: 02.12.2021

**MINUTES OF THE 44th MEETING OF THE EXPERT APPRAISAL
COMMITTEE**

(INDUSTRY-2 SECTOR PROJECTS)

HELD ON 22nd November, 2021

**Venue: Ministry of Environment, Forest and Climate Change,
Indira Paryavaran Bhawan, JorBagh Road, New Delhi-
110003 through Hybrid Mode (Physical+Video
Conferencing)**

(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 43th Meeting of the EAC (Industry-2) held during 08th-09th November, 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 Hybrid Mode (Physical+Video Conferencing)**, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under: -

22nd November, 2021 (Monday)

Agenda No. 44.1

Establishment of 110 KLPD Molasses/Cane Syrup Based distillery by M/s. Jagruti Sugar & Allied Industries Limited (JSAIL) located at Achwala village, Talegoan (Bho), Tal. Deoni, Dist. Latur, Maharashtra - Consideration of Environment Clearance.

[IA/MH/IND2/229683/2021, J-11011/145/2021-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 for Establishment of 110 KLPD Molasses/Cane Syrup Based distillery by M/s. Jagruti Sugar & Allied Industries Limited (JSAIL) located at Achwala village, Talegoan (Bho), Tal. Deoni, Dist. Latur, Maharashtra.

All the Molasses & Cane Juice based Distilleries are listed at S.N. 5 (g) of Environmental Impact Assessment (EIA) notification, 2006 and amendments thereto; were appraised at Centre Level as Category A.

The Standard ToRs has been issued by Ministry vide letter No. IA-J-11011/145/2021-IA-II(I) dated 07th April 2021, for Establishment of 110 KLPD Molasses (B & C)/Cane Syrup based Distillery. Public hearing for proposed project was conducted by the Maharashtra Pollution Control Board on 20.07.2021 on site at Jagruti Sugar & Allied Industries Limited, Latur and chaired by Additional District Magistrate, Latur. Issues were raised mainly w.r.t ash & effluent generation & its management, employment generation, Benefits to farmers and villagers, etc. 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 110 KLPD)	Product	
	Rectified Spirit/ Ethanol/ ENA	3,300 KL/M
	By-product	
	Carbon Di-oxide (CO ₂) Gas	2,490 MT/M
	Fusel Oil	5.7 KL/M
	Spentwash Dry Powder	2850 MT/M

Total plot land area is 5,34,379 M². Proposed Distillery Built- up is 45,100 M². Existing Sugar Factory Built up is 53,549 M². Industry will develop the Green Belt in an area of 1,76,345 M² which accounts for 33% of total plot area. The estimated proposed project cost is Rs.120 Crores. The distillery will be operated for 330 days. Total capital cost earmarked towards environmental pollution control measures under distillery is Rs. 16.4 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.67 Crores per annum. Total Employment under proposed project would be 25 persons as direct as well as indirect after establishment of projects. Industry proposes to allocate Rs. 2.4 Crores @ of 2% towards Corporate Environmental Responsibility (CER).

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 Km Study Area. River Manjara is flowing at a distance of 9 Km at South -West.

Ambient air quality monitoring was carried out at 8 locations during October 2019 – December- 2019 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (46.30 – 63.30 µg/m³), PM_{2.5} (13.10 – 22.40 µg/m³), SO₂ (12.40 – 21.60 µg/m³) and NO_x (17.30 – 31.60 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the establishment project would be 0.083 µg/m³ PM₁₀ (towards West side), 0.021 µg/m³ PM_{2.5} (towards West side), 0.781 SO₂ µg/m³ (towards West side) and 0.310 µg/m³ NO_x (towards West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement for Distillery project will be 1,465 CMD. Out of which, 165 CMD will fresh water from Devarjan Scheme on Manjra river while 943 CMD will be CPU treated effluent and 357 CMD will be harvested rainwater. The effluent generated from 110 KLPD distillery would be in the form of raw spentwash to the tune of 880 M³/Day. Here, raw spentwash shall be concentration in Multiple (Five) Effect Evaporator (MEE). Concentrated spentwash to the tune of 176 M³/Day (1.6 KL/KL of alcohol against norm of 8 KL/KL of alcohol) shall be dried in ATFD to form powder.

Raw spentwash generated from to 110 KLPD cane syrup distillery to the tune of 440 M³/Day. Here, raw spentwash shall be concentration in Multiple (Five) Effect Evaporator (MEE). Concentrated spentwash to the tune of 88 M³/Day (0.8 KL/KL of alcohol against norm of 8 KL/KL of alcohol) shall be dried in ATFD to form powder.

Power requirement for proposed distillery will be 1.8 MW will be procured from proposed 3 MW turbine. One existing DG set of 625 KVA capacity is operated during power failure. Stack of height 4 M ARL is provided as per CPCB norms to the DG sets. New boiler of 30 TPH will be installed under proposed distillery unit. ESP will be provided with a stack of height of 60 M resp. for controlling the particulate emissions within the statutory limit of 115 mg/Nm³.

Details of process emissions generation and its management:

The CO₂ generation shall take place in fermenters of the distillery. CO₂ to the tune of 83 MT/Day shall be released from 110 KLPD distillery plant. CO₂ shall be bottled and supplied to manufacturers of beverages.

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

Details of Solid waste generated & its management

No.	Unit	Waste Type	Quantity (MT/M)	Disposal
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No.	Unit	Waste Type	Quantity (MT/M)	Disposal
1	Distillery	Yeast Sludge	600	Used as manure
		CPU Sludge	24	
		Boiler Ash	324	To Brick manufacturer

Details of Hazardous waste generated & its management

No	Industrial Unit	Category	Quantity	Disposal
1	Distillery Unit	Cat.5.1 : Spent Oil	0.2 MT/M	Burnt in Boiler

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

- (1) PP shall connect the existing sugar factory boiler to proposed ESP for distillery, making sugar factory and proposed distillery an integrated complex.
- 20% of the total plant area will be reserved for parking.
- Ash to be transferred in covered vehicles to the nearby brick manufacturers.
- Company to construct a storage pond and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- The proposed budget towards CER shall be increased to Rs. 2.5 Crores and shall be used for education development in study area which will contemplate e-learning facilities, laptops /desktops to class rooms, safe drinking water units (with filtration, RO & disinfection gadgets), solar photovoltaic power generation systems, and sanitation facilities. Further, the works under CER Plan shall be implemented in consultation with District Collector before commissioning of the project.

PP has submitted the commitments above except for point (1).

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

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

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

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iii). Total fresh water requirement shall not exceed 165 CMD and will be met from Devarjan Scheme on Manjra river. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Company to construct a storage pond and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

- (iv). The spent wash/other concentrates shall be treated by concentration followed by dryer. Ash to be transferred in covered vehicles to the nearby brick manufacturers. PP shall connect the existing sugar factory boiler to proposed ESP for distillery, making sugar factory and proposed distillery an integrated complex.
- (v). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vi). Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (viii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (ix). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (x). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xii). PP proposed to allocate Rs. 2.5 Crores towards CER and it shall be used for education development in study area which will contemplate e-learning facilities, lap tops /desk tops to class rooms, safe drinking water units (with filtration, RO & disinfection gadgets), solar photovoltaic power generation systems, and sanitation facilities. Further, the works under CER Plan shall be implemented in

consultation with District Collector before commissioning of the project.

- (xiii). There shall be 20 % space of total project area inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places.
- (xiv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xv). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 44.2

Establishment of Grain based Distillery plant capacity of 2X180 KLPD by M/s. Shri Bajrang Chemical Distillery LLP located at Arang Village, Arang Tehsil, Raipur District, Chhattisgarh - Consideration of Environment Clearance.

[IA/CG/IND2/237468/2021, J-11011/470/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Pioneer Enviro Laboratories and Consultants Private Limited, made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Establishment of Grain based Distillery plant capacity of 2X180 KLPD by M/s. Shri Bajrang Chemical Distillery LLP located at Arang Village, Arang Tehsil, Raipur District, Chhattisgarh.

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

Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

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

The details of products and capacity are as under:

S.No.	Product Details	Production quantity
Product		
1	Ethanol	360 KLPD
2	Power	12 MW
By product		
1	DDGS	180 TPD
2	CO ₂	180 TPD

Total land area of 19.98 Ha. (49.394 acres) is indetified for the proposed project, which will be used for proposed Grain Based Distillery Project. Number of operational days of plant will be 350 per annum. Industry will develop greenbelt in an area of 33 % i.e., 6.89 Ha (17.0 Acres) out of total area of the project. The estimated project cost is Rs 325 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 40.5 Crores and the Recurring cost (operation and maintenance) will be about Rs. 2.025 Crores per annum. Total Employment will be 400 persons as direct & indirect. Industry proposes to allocate Rs. 5.1 Crores @ 1.5 % towards Corporate Environment Responsibility (CER).

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. River Mahanandi is flowing at a distance of 1.7 Km. in East direction.

Total water requirement is 4992 m³/day of which fresh water requirement of 2868 m³/day will be met from River Mahanandi. Effluent of 2729 m³/day quantity will be treated through MEE and Condensate Polishing Unit. The plant will be based on Zero Liquid discharge system.

The Unit's own Power cogeneration will be 12 MW generation out of which 12 MW will be used for captive power requirement. 2 Nos. 1000 KVA & 1 No. 500 KVA DG sets will be used in case of emergency. 80 TPH Rice Husk/Coal Travelling Grate Boiler will be installed. ESP with a stack of height of 77 m. will be installed for controlling the particulate emissions within the statutory limit of 50 mg/NM³ for the proposed boiler. Travelling Grate Boiler will be equipped with ESP for controlling process emission. Bag filters with dust collectors will be installed in Grain handling & milling area and DDGS Dryer section to minimize fugitive emissions. Boiler Ash (173 TPD) & ETP Sludge (190 Kg/Day) will be

generated as solid waste from the proposed distillery project. Waste lube oil from DG Sets will be generated as Hazardous Waste. Boiler ash will be sold to cement manufacturing units / fly ash brick manufacturers / ceramic industry. ETP Sludge will be reused as biocompost for green belt development.

Details of process emissions generation and its management:

- ESP with a stack height of 77 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO₂ generated (180 TPD) during the fermentation process will be collected by utilizing CO₂ scrubbers and sold to authorized vendors

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 360 KLPD will be for manufacturing of fuel ethanol only.

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

- PP shall utilize fresh water @4.5 KL/KL of ethanol production.
- Entire project shall be ZLD and no single drop of water shall be discharged outside of the plant premises.
- PP shall meet 10% of the total power requirement from solar power/wind power.
- 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.
- 33% of the total project area shall be developed with greenbelt in the plant premises having 5-10 m wide greenbelt around the periphery.
- 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.
- PP shall allocate at least Rs. 50 Lakhs for Occupational Health Safety.
- PESO certificate shall be obtained.
- The proposed budget of CER shall be Rs. 5.1 Crores and shall be used for construction/up-gradation of school building with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light etc. Further, the works under CER Plan shall be implemented in consultation with District Collector before commissioning of the project.

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 360 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). As per Ministry's OM No 22-76/2014-IA-III dated 07th October, 2014, EC shall become invalid in case the actual land for the project site

turns out to be different from the land proposed or the proposed land is not under possession of the Industry.

- (iii). PP shall meet 10% of the total power requirement from solar power/wind power.
- (iv). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (v). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (vi). Total Fresh water requirement shall not exceed 1620 KLPD which will be met from River Mahanadi. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vii). 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.
- (viii). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (ix). PP shall allocate at least Rs. 50 Lakhs for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (x). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xi). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. PESO certificate shall be obtained.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

- (xiii). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xv). PP proposed to allocate Rs. 5.1 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. Further, the works under CER Plan shall be implemented in consultation with District Collector before commissioning of the project.
- (xvi). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes.
- (xvii). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xviii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xix). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 44.3

Proposed 400 KLPD Grain based Ethanol Plant along with 6.0 MW Cogeneration Power Plant by M/s. ETH Biofuels Private Limited

**located at Village Louhka, Tehsil Patti, District Tarn Taran, Punjab
- Consideration of Environment Clearance**

[IA/PB/IND2/237750/2021, J-11011/472/2021-IA-II(I)]

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

The proposal is for environmental clearance to the project for Proposed 400 KLPD Grain based Ethanol Plant along with 6.0 MW Cogeneration Power Plant by M/s. ETH Biofuels Private Limited located at Village Louhka, Tehsil Patti, District Tarn Taran, Punjab. The same will be installed in two phases i.e., 100 KLPD Grain Based Ethanol Plant along with 2.0 MW Co-generation Power Plant in 1st phase and 300 KLPD Grain Based Ethanol Plant along with 4.0 MW Co-generation Power Plant in 2nd phase.

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	400 KLPD (I st phase 100 KLPD & II nd phase 300 KLPD)	Product- Ethanol (Bio-fuel) By-product- DDGS &CO ₂
Co-generation Power Plant	6.0 MW (I st phase 2.0 MW & II nd phase 4.0 MW)	Power

Total project area is 8.0 hectares (80000 m²) for proposed project. Industry will develop greenbelt in an area of 33% i.e. 2.64 ha (26400 m²) out of total area of the project. The estimated project cost is Rs.140 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 13.10 Crores and the Recurring cost (operation

and maintenance) will be about Rs. 1.32 Crores / annum. No. of working days will be 350 days/annum. Total Employment will be 150 persons (Permanent 125 & temporary 25) during operation phase. Industry proposes to allocate Rs. 2.8 Crores of total project cost towards Corporate Environment Responsibility (CER).

There are no National Parks, Wildlife Sanctuaries, Reserved Forests (RF)/ Protected Forests (PF), Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km radius. Patti Nala (Adjacent in West direction), Kasur Branch lower (Upper Bari Doab Canal) (~3.5km in NW direction), Tarn Taran Distributary (~5.5 km in NW direction), Kasur Nala (~7.5 km in NW direction), Kairon Drain (~4.5 km in WSW direction), Rasulpur Distributary (~1.5 km in West direction), Sirhali Distributary (~6.5 km in SSE direction), Patti distributary (~2.5 km in ESE direction) are the water bodies found within 10 km radius.

Total fresh water requirement for proposed ethanol plant will be 1600 KLPD. Total fresh water requirement for 1st phase will be 400 KLPD (380 Process & 20 KLPD Domestic) for 100 KLPD Ethanol plant & for 2nd phase will be 1200 KLPD (1180 Process & 20 KLPD Domestic) for 300 KLPD Ethanol plant which will be sourced from groundwater. Total Effluent generation will be of 2247 m³/day. Effluent generation for 1st phase for 100 KLPD Ethanol plant will be 552 m³/day & 1695 m³/day for 2nd phase for 300 KLPD Ethanol plant which will be treated through state of art CPU/Effluent Treatment Plant of 700 m³/day & 1800 m³/day capacity respectively. The plant will be based on Zero Liquid discharge system.

The total power requirement for the plant will be 6.0 MW out of which 2.0 MW will be required for 1st phase whereas remaining 4.0 MW will be required for 2nd phase will be sourced from proposed 2.0 MW & 4.0 MW Co-generation Power plant. D.G. sets of 2 x 1000 KVA will be installed for power backup. Adequate Stack height (6.5 m) will be provided as per CPCB norms. During 1st phase of installation of 100 KLPD Ethanol plant, 15 TPH boiler of 40 m height & ESP as APCE will be proposed & in 2nd phase of installation of 300 KLPD Ethanol plant, 40 TPH Boiler with Stack of adequate height (50m) & ESP as APCE will be proposed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.

Details of process emissions generation and its management:

CO₂ (313 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 (180 TPD), which will be ideally used as Cattle, poultry & fish feed ingredients.

- Ash (50 TPD) generated from boilers will be supplied to brick manufacturers.
- Used oil & grease (1.0 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 400 KLPD will be for manufacturing of fuel ethanol only.

During deliberation EAC sought the following commitments from PP:

- 33% of total plant area will be developed as greenbelt and plantation. Development of greenbelt will be completed along with commissioning of the project.
- 15% area to be reserved for truck parking inside the plant premises.
- Electro-Static Precipitator (ESP) with stack of adequate height will be installed with proposed boilers.
- Fund for occupational health and safety will be Rs. 40 Lakhs per annum.
- Biomass to be used as fuel for proposed boilers. No coal to be used as fuel.
- Proposed budget for social developmental activities will be Rs. 2.8 Crores which will be spent within 2 years instead of 3 years for 2nd phase of project. The entire budget to be spent on Energy Conservation with implementation of energy efficient system & Solar power; providing proper educational facilities including distribution of computers to the nearby schools; Plantation in nearby villages, common land and schools & along village Roadside; and Drinking Water Facility in the nearby village schools which will be implemented while partnering with Government Agencies, NGOs and Local Panchayats.
- The company will produce solar power to the tune of 10% of total power consumption of the unit in form of solar lights/solar panels etc.
- Company will store rain water in storage tanks and reuse this water in process and plant activities.
- CO₂ plant will be installed to capture CO₂ generated during fermentation process.
- Ash to be transferred in covered vehicles to the nearby brick manufacturers.

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 400 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 will produce solar power to the tune of 10% of total power consumption of the unit in the form of solar lights/solar panels etc.
- (iii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the

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

- (iv). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (v). Total fresh water requirement for proposed ethanol plant will be 1600 KLPD. Total fresh water requirement for 1st phase will be 400 KLPD (380 Process & 20 KLPD Domestic) for 100 KLPD Ethanol plant & for 2nd phase will be 1200 KLPD (1180 Process & 20 KLPD Domestic) for 300 KLPD Ethanol plant 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. Company will store rain water in storage tanks and reuse this water in process and plant activities.
- (vi). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Ash to be transferred in covered vehicles to the nearby brick manufacturers. Electro-Static Precipitator (ESP) with stack of adequate height will be installed with proposed boilers. Biomass to be used as fuel for proposed boilers. No coal to be used as fuel.
- (vii). CO₂ plant will be installed to capture CO₂ generated during fermentation process.
- (viii). 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. Fund for occupational health and safety will be Rs. 40 Lakhs per annum.
- (ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (x). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (xi). 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.
- (xii). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or

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

- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiv). Proposed budget for CER will be Rs. 2.8 Crores which will be spent within 2 years instead of 3 years for 2nd phase of project. The entire budget to be spent on Energy Conservation with implementation of energy efficient system & Solar power; providing proper educational facilities including distribution of computers to the nearby schools; Plantation in nearby villages, common land and schools & along village Roadside; and Drinking Water Facility in the nearby village schools which will be implemented while partnering with Government Agencies, NGOs and Local Panchayats.
- (xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. 15% area to be reserved for truck parking inside the plant premises.
- (xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xviii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 44.4

Expansion of Distillery unit 50 KLPD to 150 KLPD (By addition of 100 KLPD Ethanol) Located at S. No 90, 92, Krishnanagar, Hosur post, Vijayapur Taluk & district, Karnataka State by M/s Nandi Sahakari Sakkare Karkhane Niyamit- Consideration of Environment Clearance.

[IA/KA/IND2/234114/2021, IA-J-11011/110/2017-IA-II(I)]

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

The proposal is for environmental clearance to the project proposed expansion of Distillery unit 50 KLPD to 150 KLPD (By addition of 100 KLPD Ethanol) Located at S. No 90, 92, Krishnanagar, Hosur post, Vijayapur Taluk & district, Karnataka State by M/s Nandi Sahakari Sakkare Karkhane Niyamit.

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.

Ministry had issued EC for Existing sugar 3500 TCD to 6500 TCD & 50 KLPD distillery EC letter F. No J-11011/644/2007-IA II (I) dated 2nd September 2008) and EC amended in 18th November 2014 for the treatment of spent wash. Expansion sugar unit from 6500 TCD to 14000 TCD and 18.14 MW to 62.14 MW from MOEF & CC dated 12th April, 2018.

Certified compliance report has been issued by submitted by IRO, MoEF&CC, Bangalore vide File EP/12.1/573/KAR/261 dated 14.07.2021. IRO report mentioned the status of compliance of the project as SATISFACTORY. Further, EAC noted Industry has complied to all the conditions and accordingly found the compliance of the Industry to be satisfactory.

The details of products and capacity are as under:

Product Details	Existing Quantity (ENA/Ethanol/RS)	Proposed Quantity (Ethanol)	Total Quantity
Distillery	50 KLPD	100KLPD	150 KLPD

Existing land area is 960000 m². No additional and will be used for proposed expansion. Industry has already developed greenbelt in an area of 33 % i.e., 336000m² out of total area of the project.

The estimated project cost is Rs 108 Cr including existing investment of Rs 60 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs 16.40 Cr and the Recurring cost (operation and maintenance) will be about Rs 1.12 Cr per annum. Total Employment will be 826 persons as direct & 1500-2000 persons indirect after expansion. Industry proposes to allocate Rs 0.48 crores @ of 1 % 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. Krishan River is flowing at a distance of 1.5 Km in south direction.

Total water requirement is 1324 m³/day of which fresh water requirement of 450 m³/day will be met from Galagali Barrage on Krishna River. Effluent of quantity 825 m³/3day spent wash will be treated by Evaporation in MEE and CSW sent to incineration Boiler. Condensate from MEE and other effluent will be treated in CPU. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 2.2 MW including existing 1.43 MW and will be met from existing 2.5 MW Co-generation unit. Existing unit has 1 No. of DG sets of 500 kVA, capacity. DG sets are used as standby during power failure. Stack 30M provided as per CPCB norms to the DG sets. Existing unit has 24 TPH Boiler (concentrated spent wash & coal fired boiler). Existing 24 TPH boiler will be upgraded to 28TPH. No additional boiler will be installed. Electrostatic precipitator (ESP) with a stack of height of 70 m is provided to 24 TPH Boiler for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

Details of process emissions generation and its management:

- Gaseous emissions from process are mainly PM₁₀, PM_{2.5}, SO_x, NO_x, from Boiler & DG set & CO₂ from fermentation process.

Air pollution control measures

Sl. No.	Source of air pollution	Fuel	Chimney height (M)	APC equipment provided	Remarks
1	Incineration Boiler – 24 TPH upgradation to 28 TPH	Concentrated spent wash Slope & Coal / Bagasse	70 m	ESP	<ul style="list-style-type: none"> Existing 24 TPH incineration boiler will be upgraded to 28 TPH. Existing 70 m stack height and ESP will be sufficient even after upgradation of boiler.
2	Fermentation	-	-	-	60 TPD CO ₂ Bottling Plant

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

Sl. No.	Details of the solid waste	Existing Quantity in TPD	Expansion Quantity in TPD	Total Quantity in TPD	Treatment
1	Conc. Spent wash	100	100	200	Used as fuel in Boiler
2	CPU sludge	0.5	0.8	1.3	Used as manure
3	Yeast Sludge	02	03	05	Used as manure
4	Fly Ash	18	20	38	Sale to brick manufacturer
5	Bottom Ash	28	20	48	Sale to brick manufacturer

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion 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:

- No form of composting shall be done in both sugar factory and distillery.
- PP shall allocate at least Rs. 50 Lakhs Fund for occupational health and safety.
- Proposed parking area shall be increased to 15 % of the total project area and Industry shall make the parking paved to mitigate air pollution.
- Industry shall construct rain water storage facility of capacity which can store at least 60 days fresh water requirement.
- The proposed budget to be spent on CER shall be increased to Rs 1.00 crores and it shall be spent on up-gradation of infrastructure in public schools in the nearby villages. It was also suggested that the proposed activities under CER shall be completed before the commissioning of the plant.

However, PP has not submitted undertaking as desired by EAC. In this regard, all the commitments have been imposed as specific conditions.

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

The Committee 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 be 450 KLPD which will be met from Galagali Barrage on Krishna River. 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). Spent wash will be treated by evaporation in MEE followed by incineration Boiler. Condensate from MEE and other effluent will be treated in CPU. No form of composting shall be done in both sugar factory and distillery.
- (vi). CO₂ generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). PP proposed to allocate at least Rs. 50 Lakhs Fund for occupational health and safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xi). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xii). The green belt of 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. 1.00 Crores for CER and it shall be spent on upgradation of infrastructure in public schools in the nearby villages. All the proposed activities under CER shall be completed before the commissioning of the plant.
- (xiv). There shall be 15% of the total project area 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. Industry shall make the parking paved to mitigate air pollution.
- (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. 44.5

Setting up of additional 450 KTA of Polypropylene Production Plant in the Existing Naphtha Cracker Complex Panipat, Haryana by M/s. Indian Oil Corporation Limited, Panipat Refinery & Naphtha Cracker Complex - Consideration of Environment Clearance

[IA/HR/IND2/223205/2018, J-11011/177/2016-IA II(I)]

The proposal was considered in 40th EAC meeting held during 14th -16th September, 2021 wherein EAC recommended the proposal subject to submission of undertaking:

- Integrated complex i.e refinery and the naphtha cracker complex shall adhere to complete ZLD by 2023.

Subsequently, PP has submitted undertaking stating that there shall be no liquid effluent discharge in proposed Polypropylene production plant. Further, PP has informed that Panipat Refinery and Naphtha Cracker is not an integrated complex but two separate complexes. Competent authority has referred the proposal back to EAC as there was a discrepancy in the commitment sought by EAC and the undertaking submitted by PP.

In this regard PP made detailed presentation stating that M/s. Indian Oil Corporation Limited, Panipat has two different sites i.e. (i) Naphtha Cracker and (ii) Panipat Refinery. These two sites are separate and physically situated at a distance of about 1.5 KM. Both these sites are having distinct demarcated boundary walls and in between there are 2 Western Yamuna Canals and green belt. Further, these two sites are having separate Environment Clearance (Naphtha Cracker: No. IA/HR/IND2/73327 /2016 under schedule 5(c) and Panipat Refinery: IA/HR/IND2/56442/2016 under schedule 4(a) as per EIA act 2006), Separate Consent to Operate (CTO), Separate Hazardous Waste authorization, Separate layout plan approved by PESO, separate facilities for utilities (Power, Steam, Boiler, Fresh water etc) and separate ETP (Effluent Treatment Plants) for treating process waste water.

Thus, concluded that (a) Naphtha Cracker and (b) Panipat Refinery is not a single complex but two separate complexes. In the view of the above; PP requested EAC that commitment of ZLD on Panipat refinery may be removed in the instant proposal.

After detailed deliberations, EAC found the justification valid and agreed to remove the same. Accordingly, the modified condition shall be read as:

“Existing naptha cracker complex shall adhere to complete ZLD.”

Further, EAC sought an undertaking for the modified condition and PP agreed to submit the same.

Agenda No. 44.6

Proposed Expansion of molasses based distillery unit from 60 KLPD to 240 KLPD by M/s. Padmashree Dr. Vitthalrao Vikhe Patil Sahakari Sakhar Karkhana Ltd. Located at Gat No. 196/1, Pravara Nagar Loni, Rahata, Ahmednagar, Maharashtra - Consideration of ToR.

[IA/MH/IND2/215302/2021, IA-J-11011/251/2021-IA-II(I)]

Earlier proposal was considered by the EAC in its 40th meeting held on 14th -16th September, 2021 wherein EAC recommended the project for grant of Terms of References under violation.

Accordingly, file was processed for grant of ToR. Competent Authority decided to reconsider the proposal in EAC as there was no clarity to explain why the project has been considered as violation.

The proposal was re-considered by the EAC in its 44th meeting held on 22nd November, 2021 in the Ministry wherein the project proponent and their consultant M/s. Amplenviron Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for ToR to the project Proposed Expansion of molasses based distillery unit from 60 KLPD to 240 KLPD by M/s. Padmashree Dr. Vitthalrao Vikhe Patil Sahakari Sakhar Karkhana Ltd. Located at Gat No. 196/1, Pravara Nagar Loni, Rahata, Ahmednagar, Maharashtra.

All the project proposals are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC). It was informed that no litigation is pending against the project.

The details of products and capacity are as under:

Sr. No.	Existing Product details	Existing	Proposed Product Details	Proposed
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1.	Molasses Based Distillery	60 KLPD	Molasses Based (B Heavy Molasses and C), Juice to Ethanol	240 KLPD
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Existing land area is 40468.60 Sq.mt. Industry will develop greenbelt in an area of 33 % i.e 13356.09 Sq. m out of total area of the project. The estimated project cost is Rs.313.38 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 116 Lakhs and the recurring cost (operation and maintenance) will be about Rs 31.5 Lakh per annum. Total Employment will be 37 persons as direct & 20 person as indirect. . Industry proposes to allocate Rs 1.2 Cr. (0.75 %) towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. No any River is flowing in the core area of project site.

Total water requirement is 1200 m³/day, out of which fresh water requirement of 720 m³/day will be met from MIDC water supply.

Effluent of 1875 m³/day will be treated. The plant will be based on Zero Liquid Discharge system. Spent wash generation from the process will be 1875 m³/day, the effluent/ spent wash will be concentrated in evaporators. The concentrated spent wash generated after entire process of evaporation is then sprayed in a furnace with auxiliary support fuel bagasse and is then burnt in a boiler. To achieve ZLD, PDVVPSSKL proposes to go for spent wash concentration and incineration technology simultaneously generating steam and power for the distillery. Unit is adopting 4 stage ZLD treatment process to take care of spent wash.

- a. Multi pressure distillation along with stand-alone evaporation
- b. Multi effect evaporation
- c. Incineration Boiler
- d. Condensate Polishing unit

Power requirement will be approx. 2.4 KVA and will be met from Turbine Generator of 8 MW capacity. It is proposed to install 2*500 KVA DG Set, Stack height of 6 m above roof level is provided as per CPCB norms for the DG sets. It is proposed to use 65 TPH Briquette fired steam boiler. ESP with a stack of height of 30 m shall be provided

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

Boiler ash generated will be around 29.3 MT/D which shall be send to brick manufacturing unit. CPU sludge and Yeast Sludge will be 32 MT/D and 10 KL/D respectively which shall be Burnt in Incinerator Boiler.

During deliberations following observations were made:

- MPCB made clarification vide letter dated 21st June, 2021 that the proponent has set up unit of 15 KLPD in 1970 which was expanded to 32 KLPD in 1975 prior to EIA Notification, 2006. Again, PP had set up 60 KLPD unit and for which Board has issued consent on 15th May, 2002. In 2008, Board has issued a combined /amalgamated consent for above said two units (32 KLPD+60 KLPD) quantifying to 92 KLPD.
- PP has informed that Industry obtained Consent to Operate for two Plants existing in same plot with different capacities, which had amalgamated.

In this regard, PP has informed that as per explanation provided SPCB, it is clear that there was only amalgamation of two distillery units and no expansion has taken place after 2006. Further, PP informed that there was no violation and they have wrongly applied in violation category. EAC found the justification valid and opined that the proposal does not pertain to violation category as no expansion has taken place post EIA Notification, 2006. In the view of the above, EAC **recommended** ToR for proposed expansion of molasses based distillery from 60 KLPD to 240 KLPD.

After deliberations, the Committee **recommended** the project proposal for prescribing ToRs for undertaking detailed EIA / EMP study which include generic Standard ToR enclosed at Annexure-1 and specific ToRs of Distillery industry at Annexure-2.

Agenda No. 44.7

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)]

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

The proposal is for environmental clearance to the project proposed 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.

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

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

The details of products and capacity are as under:

Unit	Capacity	Product
Grain Based Ethanol Plant	200 KLPD	Product- Ethanol (Bio-fuel) By-product- DDGS &CO ₂
Co-generation Power Plant	6.0 MW	Power

Total project area is 10.0 Ha (24.71 Acre) for proposed project. Industry will develop greenbelt in an area of 33% i.e. 3.30 ha out of total area of the project.

The estimated project cost is Rs. 240 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 18.0 Crores and the Recurring cost (operation and maintenance) will be about Rs. 2.0 Crores / annum. No. of working days will be 350 days/annum. Total Employment will be 110 persons (Permanent 80 & temporary 30) during operation phase. Industry proposes to allocate Rs. 2.0 Crores of total project cost towards Corporate Environment Responsibility.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors, Reserved Forests (RF)/ Protected Forests (PF) etc. lies within 10 km radius of the project site. Talboi Degan RF (Adjacent in East) & Labdera Bulbunga RF (~8.0 Km in NNE direction) are present in 10 km radius. Mahanadi River (~2.0 Km in WNW direction), Jhaun Jhor (~3.5 Km in West direction), Jhul Jhor (~6.0 Km in NNE direction), Salesingha Nala (~6.0 Km in SSE direction), Panbar Jhor (~8.0 Km in SW direction) and Indraghosh Nala (~9.5 Km in SW direction) are present in 10 km radius.

Total fresh water requirement will be 1363 KLPD which will be sourced from Surface water (River Mahanadi). Effluent of 925 m³/day will be treated through state of art CPU/ETP of 1200 KLPD capacity and recycled within process & for CT Makeup. The plant will be based on Zero Liquid discharge system.

Power requirement for Ethanol plant will be 5.52 MW, which will be sourced from the 6.0 MW Co-generation Power Plant. Unit will be having D.G. Sets of 2 x 1500 KVA which will be used as standby during power failure. D.G. Set stack height (9 m) will be provided as per CPCB norms. Proposed Boiler of 55 TPH capacity with ESP as Air Pollution Control Equipment will be installed with a stack height of 56 m for controlling the particulate emissions within the statutory limit of 50 mg/Nm³.

Details of process emissions generation and its management:

Company will install CO₂ Plant for collecting generated CO₂ (152 TPD) during Fermentation Process and sell 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 (93 TPD), which will be ideally used as Cattle, poultry & fish feed ingredients.
- Ash (55 TPD) generated from the 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 expansion of 200 KLPD will be for manufacturing of fuel ethanol only.

During the deliberations it was informed to EAC that Ministry is in receipt of a complaint that two legal cases are pending against the proposed project land. In this regard, PP informed the committee that the allegations in the cases are not true and the land is already under the possession of the company and the same has been converted to industrial land. EAC informed that PP shall abide to Ministry's OM 07th October, 2014 and EC shall become invalid if the actual land turns out to be different than the proposed one or the proposed land is not under possession of the Industry.

After deliberations EAC sought the following commitments from PP:

- PP shall abide by Ministry's OM No 22-76/2014-IA-III dated 07th October, 2014 and EC shall become invalid in case the actual land for the project site turns out to be different from the land proposed or the proposed land is not under possession of the Industry.

- Proposed green belt 33% of the total project area shall be completed along with the commissioning of the project.
- At least 15% of the total plant area will be reserved for parking and the parking shall be paved to mitigate air pollution.
- PP shall allocate Rs. 45 Lakhs/annum for occupational health safety.
- Electro-Static Precipitator (ESP) with Stack of adequate height will be installed with the proposed boiler. Biomass and rice husk shall be as fuel for the proposed boiler.
- Company will store rain water in storage tanks and reuse this water in process and plant activities.
- CO2 plant will be installed to capture CO2 generated during fermentation process.
- Ash shall be transferred in closed trucks to nearby brick manufacturers.
- Proposed funds towards CER shall be Rs. 2.00 Crores for improving infrastructure and sanitation facilities in the public schools nearby. All the activities towards CER shall be completed within 2 years.
- Industry shall 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.

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

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

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

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

other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

- (i). As per OM dated 16th June, 2021, project falls in category B2 and the proposed capacity of 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). As per Ministry's OM No 22-76/2014-IA-III dated 07th October, 2014 and EC shall become invalid in case the actual land for the project site turns out to be different from the land proposed or the proposed land is not under possession of the Industry.
- (iii). Electro-Static Precipitator (ESP) with Stack of adequate height will be installed with the proposed boiler. Biomass and rice husk shall be as fuel for the proposed boiler.
- (iv). Industry shall 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.
- (v). 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.
- (vi). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (vii). Total fresh water requirement be 1363 KLPD which will be sourced from Surface water (River Mahanadi). 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 will store rain water in storage tanks and reuse this water in process and plant activities.

- (viii). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Ash shall be transferred in closed trucks to nearby brick manufacturers.
- (ix). CO₂ plant will be installed to capture CO₂ generated during fermentation process.
- (x). PP proposed to allocate Rs. 45 Lakhs/annum for occupational health safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiv). The company shall undertake waste minimization measures as below
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery and it shall be completed along with the commissioning of the project. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Development of greenbelt shall be completed along with commissioning of the project.
- (xvi). PP proposed to allocate Rs. 2.00 Crores for improving infrastructure and sanitation facilities in the public schools nearby. All the activities towards CER shall be completed within 2 years.
- (xvii). There shall be at least 15% space of total project area 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.

- (xviii). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xix). 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.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda 44.8

Proposed Distillery, Sugar and Co-Gen Unit at Sy. No. 40/1, 40/2, 40/3, 40/4, 40/5, 40/6, 41/ 41/3, 41/4, 41/5, 41/6, 42, 47(P), 50/1(P), 41/1, 47/2, 49/1, 49/2, 53/5a/1, 62/2 of Chatnahalli Village, District Haveri, Karnataka by M/s GM SUGARS AND ENERGY LTD- Consideration of Environment Clearance.

[IA/KA/IND2/200952/2017, IA- J-11011/77/2017-IA-II (I)]

The proposal was considered by the EAC in its 41st meeting held during 28th- 30th September, 2021 in the Ministry wherein the proposal got recommended with subject to submission of the following information/commitment from PP:

- No form of bio composting shall be done in the industry.
- PP shall submit revised water balance @3-3.5 kL fresh water used/ kL alcohol produced. Further PP shall meet 20% of the fresh water requirement from rain water harvesting.
- Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
- Installation of solar power plant of 500 kW capacity within factory.
- Development of greenbelt to be completed along with commissioning of the project.
- PP shall allocate Rs. 6.00 crores towards CER and it shall be spent on villages nearby with the breakup as follows:
 - Rs 2.00 crore – Improving infrastructure in schools
 - Rs 2.00 crore – Providing drinking water facilities
 - Rs. 1.00 crore – Improving infrastructure in hospitals
 - Rs. 1.00 crore- Installation of solar power

Subsequently, PP submitted revised water balance stating that the fresh water requirement is 1923 KLD @3.5 kL water consumption/kL alcohol produced for the proposed project. PP has submitted the rest desired commitments sought by EAC. During processing competent authority made following observations in the instant proposal:

- (i) Baseline data has been carried during Oct-Dec 2017 which is older than 3 years at the time of submission of proposal. This should have been clearly brought out by the consultant before EAC as it is against the extant rule position.
- (ii) The revised water balance and other technical details, which have been submitted post EAC should be examined by EAC.

Therefore, the proposal has been referred back to EAC for the deliberation on the observations made above.

During deliberations, PP informed that the proposal has been delayed after conducting baseline study due to Covid-19 and project has been long due for unavoidable circumstances. In this regard, EAC directed that a fresh base line data for a period of 15 days shall be submitted. Further, EAC noted that proposed fresh water requirement 1923 KLPD for the proposed project very high and suggested to submit revised water balance @3.5 kL water consumption/kL alcohol produced.

After detailed deliberations, EAC desired the following additional information from PP:

- A fresh base line data for a period of 15 days shall be submitted.
- PP shall submit revised water balance reducing the fresh water requirement @3.5 kL water consumption/kL alcohol produced.

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

44.9 Any other items with the permission of the Chair.

Agenda No. 44.9.1

Clarification regarding applicability of EC for production of Bitumen Emulsion, Modified Bitumen and Road Bond from Bitumen - M/s. Hindustan Colas Pvt Ltd.-Re-consideration reg.

The proposal was deliberated in 36th EAC meeting on 16th -17th June, 2021. Based on the information furnished by the PP and due deliberation, EAC recommended the need for the EC to safeguard the environmental and related issues with specific conditions.

Subsequently, M/s. Hindustan Colas Pvt. Ltd. had requested to reconsider their case in the Ministry. The request was accepted by the

Competent Authority and decided that the matter should be placed before the EAC Industry- 2 for reconsideration of their recommendations with reference to clarification regarding applicability of the EC for the production of Bitumen Emulsion, Modified Bitumen and Road bond from bitumen.

After detailed deliberations with the committee members, it was decided to request project proponent to make a detailed presentation particularly with regard to environmental issues such as generation of effluents, emissions, VOCL, hazardous waste, process safety etc., so that the project could be re-examined particularly with regard to the applicability of the EC.

GENERIC TERMS OF REFERENCE (ToR) IN RESPECT OF INDUSTRY SECTOR

1. **Executive Summary**
2. **Introduction**
 - i. Details of the EIA Consultant including NABET accreditation
 - ii. Information about the project proponent
 - iii. Importance and benefits of the project
3. **Project Description**
 - i. Cost of project and time of completion.
 - ii. Products with capacities for the proposed project.
 - iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
 - iv. List of raw materials required and their source along with mode of transportation.
 - v. Other chemicals and materials required with quantities and storage capacities
 - vi. Details of Emission, effluents, hazardous waste generation and their management.
 - vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
 - viii. The project proponent shall furnish the requisite documents from the competent authority in support of drawl of ground water and surface water and supply of electricity.
 - ix. Process description along with major equipment and machineries, process flow sheet (Quantitative) from raw material to products to be provided
 - x. Hazard identification and details of proposed safety systems.
 - xi. Expansion/modernization proposals:
 - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB/PCC shall be attached with the EIA-EMP report.
 - b. In case the existing project has not obtained environmental

clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Co-ordinates (lat-long) of all four corners of the site.
- iv. Google map-Earth downloaded of the project site.
- v. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vi. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- vii. Land use break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- viii. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- ix. Geological features and Geo-hydrological status of the study area shall be included.
- x. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xii. R&R details in respect of land in line with state Government policy.

5. Forest and wildlife related issues (if applicable):

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable).
- ii. Land use map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha*).
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon.
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM₁₀, PM_{2.5}, SO₂, NO_x, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQPM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic)

existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

- xi. Socio-economic status of the study area.

7. Impact Assessment and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling – in case, if the effluent is proposed to be discharged in to the local drain, then Water Quality Modelling study should be conducted for the drain water taking into consideration the upstream and downstream quality of water of the drain.
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and disposal. Copies of MOU regarding utilization of solid and hazardous waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary

and a scheme for greening of the roads used for the project shall also be incorporated.

- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

- i. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre-designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analysed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
- iii. Annual report of health status of workers with special reference to Occupational Health and Safety.
- iv. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.

9. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
- iv. Does the company have system of reporting of non-

compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
11. To address the Public Hearing issues, provisions contained under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 30/09/2020 shall be complied.
12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
13. A tabular chart with index for point wise compliance of above ToRs.
14. The ToRs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages shall be provided.
- iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
- viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
- ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the

'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarized in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

ANNEXURE-2

ADDITIONAL ToRs FOR DISTILLERY

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses/grains, their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device)

GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

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

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

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

S. No.	Name and Address	Designation
1.	Dr. J. P. Gupta	Chairman
2.	Dr. Y.V. Rami Reddy	Member
3.	Dr. T. Indrasena Reddy	Member
4.	Sh. S.C. Mann	Member
5.	Dr. T. K. Joshi	Member
6.	Dr. J. S. Sharma	Member
7.	Sh. Ashok Agarwal	Member
8.	Sh. Dinabandhu Gouda, CPCB	Member
9.	Sh. Sanjay Bist, IMD	Member
10.	Sh. Ashok Kr. Pateshwary, Director, MoEFCC	Member Secretary
MoEFCC		
11.	Dr. Mahendra Phulwaria	Scientist 'C'
12.	Sh. Kanaka Teja	Research Assistant
