

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

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**Dated: 17.11.2021**

**MINUTES OF THE 43<sup>rd</sup> MEETING OF THE EXPERT APPRAISAL  
COMMITTEE**

**(INDUSTRY-2 SECTOR PROJECTS)**

**HELD ON 08<sup>th</sup>-09<sup>th</sup> November, 2021**

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

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

**(ii) Confirmation of minutes:** The EAC, having taken note that final minutes were issued after incorporating comments received from the EAC members on the minutes of its 42<sup>nd</sup> Meeting of the EAC (Industry-2) held during 20<sup>th</sup>-22<sup>nd</sup> October, 2021 conducted through Video Conferencing (VC), confirmed the same.

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

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

**08<sup>th</sup> November, 2021 (Monday)**

**Agenda No. 43.1**

**Establishment of 60 KLPD Grain Based Distillery & Expansion of Sugar Factory from 2500 TCD to 4500 TCD by M/s. Eco Cane Sugar Energy Ltd. located at Mhalunge Khalasa, Tal-Chandgad, Dist-Kolhapur, Maharashtra - Consideration of Environment Clearance.**

**[IA/MH/IND2/233546/2021, J-11011/426/2021-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 60 KLPD Grain Based Distillery & Expansion of Sugar Factory from 2500 TCD to 4500 TCD by M/s. Eco Cane Sugar Energy Ltd. located at Mhalunge Khalasa, Tal-Chandgad, Dist-Kolhapur, Maharashtra.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> 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. Moreover, the Interstate Boundary of Maharashtra-Karnataka is located at 0.9 Km. Therefore, GC is also applicable.

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

**The details of products and capacity are as under:**

Industrial Unit	Description	Quantity (MT/D)	
		Existing	After Expansion
Distillery (Proposed 60 KLPD)	<b>Product</b>		
	Ethanol	--	60 KLPD
	<b>By-product</b>		
	Fusel Oil	--	0.3
	DDGS	--	82
	DWGS	--	200
	CO <sub>2</sub>	--	50
Sugar Factory (2500 TCD to 4500 TCD)	<b>Product</b>		
	Sugar (12%)	300	540
	<b>By-Product</b>		
	Bagasse (30%)	750	1350
	Press Mud (4%)	81	161
Molasses (4%)	84	164	
Power Generation	Electricity	7 MW	--

Total plot area is 1,66,300 M<sup>2</sup>. Proposed Distillery Built- up is 8,013.83 M<sup>2</sup>. Existing Sugar Factory Built up is 14,009.53 M<sup>2</sup>. Industry has developed greenbelt in an area of 33% i.e., 54,950 M<sup>2</sup> out of total plot area. The estimated project cost is Rs. 88 Crores for distillery and sugar expansion. The distillery will be operated for 330 days. Total capital cost

earmarked towards environmental pollution control measures under proposed project will be Rs. 24.30 Crores and the Recurring cost (operation and maintenance) will be about Rs.1.65 Crores per annum. Total Employment will be 488 persons as direct & indirect after proposed projects. Industry proposes to allocate Rs. 200 Lakh @ of 2.2% towards Corporate Environmental Responsibility.

The Project site located in village Khalsa Mhalunge. Village Khalasa Mhalunge is listed as Ecological Sensitive Area (ESA) village in Draft Notification of Western Ghats published by MoEFCC dated 10.03.2014, 04.09.2015, 27.02.2017 and 03.10.2018. The notification is still in draft phase and not finalized. Therefore, PP informed that NBWL clearance is not required. EAC stated that PP shall submit NOC from forest dept for the same. Malaprabha River is flowing at a distance 4.8 Km from West to East.

Total water requirement after Establishment of Distillery & Expansion of Sugar Factory will be 2,687 CMD. Out of which 56 CMD will be fresh water taken from Gram Panchayat for drinking purpose & Ground Water for Industrial Purpose.

### **Proposed Distillery:**

FOC lees, PRC lees, Thick Slope, RC less generated from grain based distillery operations along with other effluent @ 370 M<sup>3</sup>/Day will be treated in proposed CPU. Treated effluent from CPU will be reused for industrial operations, thereby achieving Zero Liquid Discharge (ZLD) for process effluent.

Wet Cake from decantation operation and Thin Slop from MEE to be further dried in dryer will result into loss of moisture thereby forming Distillers Dry Grains with Soluble @ 82 MT/D. This DDGS to be sold as cattle feed.

### **Sugar Factory:**

Total trade effluent generated after expansion of sugar factory will be 272 M<sup>3</sup>/D. Same will be treated in existing Effluent Treatment Plant (ETP) provided in own factory premises comprising of primary, secondary & tertiary unit operations. Treated water from sugar factory ETP is used for green belt development in own premises.

Power requirement for proposed project will be 3.5 MW which will be met from own Turbine. One DG set of 1220 KVA which will be operated only during failure. Stack 7 M ARL is provided as per CPCB norms to the D.G. set. New boilers of 20 TPH & 38 TPH will be installed under proposed distillery unit & Sugar Factory. ESP with a stack of height of 50 M & 60 M will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm<sup>3</sup> for the boiler.

### Details of process emissions generation and its management:

The CO<sub>2</sub> generation shall take place in fermenters of the distillery. CO<sub>2</sub> to the tune of 50 MT/Day shall be released from 60 KLPD distillery plant. CO<sub>2</sub> 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
			Existing	After Expansion	
1	Sugar Factory	ETP Sludge	6	9	Used as manure
		Boiler Ash (Bagasse)	605	1015	To Brick manufacturing / as manure
2	Distillery	Boiler Ash (Bagasse)	--	216	
		Yeast Sludge	--	270	
		CPU Sludge	--	12	

#### Details of Hazardous waste generated & its management

No.	Type of Waste	Cat.	Quantity	Disposal
1	Spent Oil	5.1	0.4 MT/Yr.	Forwarded to authorized re-processor
2	Contaminated Cotton Waste	33.3	0.2 MT/Yr.	
3	Empty Containers	33.1	15 Nos. / Yr.	Forwarded to authorized re-processor

As per OM dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 60 KLPD will be for manufacturing of fuel ethanol only.

During deliberations it was observed that PP has allocated budget towards CER for installing solar power in nearby schools, Gram Panchayats, PHCs etc @ Rs. 1 Lakh/kW. In this regard EAC informed the PP to revise the quote as per guidelines of Ministry of New & Renewable Energy. Accordingly, it shall not exceed Rs. 50,000/kW for installing Solar-Photo Voltaic systems. Further, EAC sought the following information/commitments from PP:

- Industry to install solar power plant of at least 1MW capacity for meeting its internal power demand.

- The proposed budget of Rs. 2.00 Crores towards CER shall be used for installation of solar power (@ <50,000/kW as per guidelines of MNRE) in schools, Gram Panchayats, PHCs and other public places in the villages nearby.
- PP shall obtain NOC from forest department.

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 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 60 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation,

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

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). Total fresh water requirement shall not exceed 56 CMD and will be met from Gram Panchayat for drinking purpose & Ground Water for Industrial Purpose. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed.
- (vi). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xi). The company shall undertake waste minimization measures as below  
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch

- reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
  - (xiii). PP proposed to allocate Rs. 2.00 Crores towards CER and shall be used for installation of solar power in schools, Gram Panchayats, PHCs and other public places in the villages nearby. All the proposed activities under CER shall be completed before commissioning of the plant.
  - (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
  - (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
  - (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
  - (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

### **Agenda No. 43.2**

**Proposed Grain based 100 KLD distillery plant for Ethanol production under EBP Programme by M/s. Karvjya Ethnoxy Private Limited located at Sr Ganganagar, Rajasthan - Consideration of Environment Clearance.**

**[IA/RJ/IND2/235120/2021, J-11011/443/2021-IA-II(I)]**

It was informed to EAC that PP has informed the Ministry that due to unavoidable circumstances, PP cannot attend the meeting to present the case and requested to defer the proposal. Therefore, EAC has decided to defer the proposal.

Accordingly, proposal was deferred for the needful.

### **Agenda No. 43.3**

**Proposed Fuel Ethanol plant having proposed production capacity of 300 KLPD of grain-based Fuel Ethanol and 7 MW of power cogeneration, to be installed by M/s. E20 Greenfuels Pvt. Ltd. located at Village Panniwala Ruldu, Dabwali- Kalianwali Road, Tehsil Dabwali, District Sirsa, Haryana - Consideration of Environment Clearance.**

**[IA/HR/IND2/232488/2021, J-11011/414/2021-IA-II(I)]**

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

The proposal is for environmental clearance to the project for Proposed Fuel Ethanol plant having proposed production capacity of 300 KLPD of grain-based Fuel Ethanol and 7 MW of power cogeneration, to be installed by M/s. E20 Greenfuels Pvt. Ltd. located at Village Panniwala Ruldu, Dabwali- Kalianwali Road, Tehsil Dabwali, District Sirsa, Haryana.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> 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 16<sup>th</sup> June, 2021. It was informed that no litigation is pending against the project.

**The details of products and capacity are as under:**

<b>S. No.</b>	<b>Item</b>	<b>Unit</b>	<b>Total</b>
1.	Fuel Ethanol	KL	300
2.	By-products		
	CO2	MT	230
	Fusel Oil	MT	2.0
	DDGS	MT	158



The industry has already purchased land area of 6.94 hectares (69400 sq. meters). Further, the land falls under uncontrolled area as per policy of Govt. of Haryana and CLU is not required for the setting up of industry. NOC from the same has been received from DTP, Sirsa. Industry will develop green belt in an area of 23300 sq. meters which is more than 33 % of total land area. The estimated project cost is Rs. 200.00 crores for the proposed project. Total capital cost earmarked towards environmental pollution control measures is Rs. 20.00 crores and recurring cost (operation and maintenance) will be about Rs. 3.05 crores. Total employment generation will be 400 persons as direct and indirect employment due to the proposed expansion. Industry proposes to allocate Rs. 1.50 crores towards Corporate Environment Responsibility.

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

Total water requirements for the proposed project will be 1105 m<sup>3</sup>/day. All the fresh water requirements for the existing as well as proposed project will be met from canal water supply. The industry has already applied for the approval from Irrigation Department, Haryana for the supply of canal water @ 1350 m<sup>3</sup>/day. The industry will generate a total of 1483 m<sup>3</sup>/day of condensates including spent lees from the proposed expansion. Out of this, 800 m<sup>3</sup>/day will be directly used in the process for slurry preparation. Remaining condensates @ 683 m<sup>3</sup>/day will be treated in condensate polishing unit and reused for cooling tower makeup water. Effluent from misc. streams will be 143 m<sup>3</sup>/day which will be treated in ETP and reused for water of green belt within the industrial premises.

Power requirements for the proposed expansion will be 6000 KVA and will be met from inhouse cogeneration power plant. The industry will purchase 1 x 1000 KVA D G set to be used as standby during power failure. Stack height to the D G sets has been provided as per norms. The industry will install a biomass/coal fired boiler of 55 TPH capacity. Electrostatic precipitator will be installed as pollution control system to achieve the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler.

#### **Details of process emissions generation and its management:**

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

As per OM dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 300 KLPD will be for manufacturing of fuel ethanol only.

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

- Total fresh water requirement shall not exceed 3.7 kL fresh water consumed/kL production of Ethanol
- Industry shall meet 10% of the total power requirement from solar power.
- Biomass shall be used in the boiler.
- 15% of the total plant area will be reserved for parking.
- 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.
- The proposed budget towards CER shall be increased to Rs. 2.00 Crores and shall be used for installation of solar power in schools, Gram Panchayats, PHCs and other public places in the villages nearby.
- PP shall not commence the operation of the project without prior permission from concerned authority for meeting fresh water requirement from Bargarh canal. No ground water shall be extracted for industrial purpose.

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 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 300 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). Total fresh water requirement shall not exceed 1105 m<sup>3</sup>/day and it will be met from canal water supply. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. 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.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed.
- (vi). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xi). The company shall undertake waste minimization measures as below  
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiii). PP proposed to allocate Rs. 2.00 Crores towards CER and it shall be used for installation of solar power in schools, Gram Panchayats, PHCs and other public places in the villages nearby.
- (xiv). There shall 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.
- (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. 43.4**

**Expansion of existing grain-based distillery with 200 KLPD of ENA/Ethanol capacity and a cogeneration power plant of 9 MW capacity with the proposed installation of additional 200 KLPD grain based Fuel Ethanol Plant (Additional Biofuel production) at the existing premises by M/s. Pioneer Industries Ltd. located at plot no. A-2, A-3 and A-4, Industrial Growth Center, Village Ranipur, Defense Road, Tehsil and District Pathankot, Punjab - Consideration of Environment Clearance**

**[IA/PB/IND2/226190/2016, J-11011/38/2010-IA II(I)]**

Ministry has issued the Environmental Clearance earlier vide letter no. No. J-11011/38/2010-IA II (I) dated 22<sup>nd</sup> March, 2021 to the existing project of 200 KLPD grain based distillery and 9 MW of cogeneration of power in favour of M/s. Pioneer Industries Ltd.

In this regard, EAC noted that the project has been not yet initiated operations of the previous EC. Thus, EAC is of the opinion that it takes considerable amount of time for construction of the plant and to achieve the capacity granted for earlier EC. Further, as per S.O 2339(E) dated 16<sup>th</sup> June 2021 the Ministry has provided the special dispensations grain based distilleries till 31<sup>st</sup> March, 2024 to contribute to EBP programme. Further, as the Ministry is conducting EAC meetings fortnightly; PP can obtain EC quickly as the projects are considered in B2 category. In the view of the above, EAC didn't found any justification to give advance grant of EC and informed that PP may resubmit the proposal only after fully achieving the production capacity of the existing EC.

Also EAC mentioned that Ministry may not consider expansion for proposals wherein Industry doesn't achieve any substantial progress of the existing EC. Therefore, EAC has decided to return the proposal in present form.

**Accordingly, proposal was returned in present form.**

#### **Agenda No. 43.5**

**Proposed 500 KLPD Grain Based Distillery and 15 MW co-generation Plant by M/s. Eden Smart Agrotech Private Limited**

**located at Barauni in Begusarai District, Bihar - Consideration of Environment Clearance.**

**[IA/BR/IND2/231184/2021, J-11011/400/2021-IA-II (I)]**

The Project Proponent and the accredited Consultant M/s. Paramarsh Servicing Environment & Development, Lucknow, 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 500 KLPD Grain Based Distillery and 15 MW co-generation Plant by M/s. Eden Smart Agrotech Private Limited located at Barauni in Begusarai District, Bihar.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> 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 16<sup>th</sup> 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	Existing Quantity	Proposed Quantity	Total Quantity
1	Ethanol	0	500 KLD	500 KLD
2	Power Cogeneration	0	15.0 MW	15.0 MW
3	DDGS	0	310 TPD	310 TPD

Total land area is 20.23 Ha. (50 Acres / 2178000 Sqft.) allocated by Bihar Industrial Area Development Authority) which will be used for proposed Grain Based Distillery Project. Industry will develop greenbelt in an area of 33 % i.e., 6.7 Ha. (67000 m<sup>2</sup>) out of total area of the project. The estimated project cost is Rs 478.31 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 1080 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 270 Lakhs per annum. Total Employment will be 74 persons as direct & 250 persons indirect. Industry proposes to allocate Rs. 7.17 Crores @ 1.5 % towards Corporate Environment Responsibility.

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

from the project site. River Ganga is flowing at a distance of 7 Km. in South East direction.

Total water requirement is 6671 m<sup>3</sup>/day of which fresh water requirement of 1960 m<sup>3</sup>/day will be met from proposed 2 nos. Borewells. Effluent of 3964 m<sup>3</sup>/day quantity will be treated through MEE and Condensate Polishing Unit followed by ACF & PSF. The plant will be based on Zero Liquid discharge system.

The Unit's own Power cogeneration will be 15 MW generation out of which 10.2 MW will be used for captive power requirement and balance power will be outsourced to govt. grids. 2 Nos. 1000 KVA & 1 No. 500 KVA DG sets will be used in case of emergency. 120 TPH Rice Husk/Coal 120 TPH Travelling Grate Boiler will be installed. ESP with a stack of height of 72 m. will be installed for controlling the particulate emissions within the statutory limit of 50 mg/NM<sup>3</sup> 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 (150 TPD) & ETP Sludge (250 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.

As per OM dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 500 KLPD will be for manufacturing of fuel ethanol only.

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

- Proposed fresh water requirement shall not exceed 4kL fresh water consumed /kL production of Ethanol.
- Industry shall meet 10% of the total power requirement from solar power.
- Brick manufacturing unit will be installed within the plant premises for utilization of fly ash or as shall be transported through closed trucks to nearby cement industries to be reused as raw materials.
- At least 15% of the total plant area will be reserved for parking.
- 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.
- Biomass shall be used in the boiler.
- Industry shall adhere to ZLD.
- ESP shall be installed to control air pollution
- The proposed budget of Rs. 7.17 Crores towards CER shall be increased to Rs. 7.2 crores and it shall be utilised on:

- Installation of solar power (@ <50,000/kW as per guidelines of MNRE) in schools, gram panchayats, PHCs and other public places in the villages nearby.
- For improving infrastructure in schools and educational institutions within villages nearby.

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 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 500 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation,



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

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). Total fresh water requirement shall not exceed 1960 KLPD and will be met from proposed bore wells. 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.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Brick manufacturing unit will be installed within the plant premises for utilization of fly ash or as shall be transported through closed trucks to nearby cement industries to be reused as raw materials
- (vi). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

- (xi). The company shall undertake waste minimization measures as below  
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiii). PP proposed to allocate Rs. 7.20 Crores towards CER and it shall be utilised on:
  - Installation of solar power (@ <50,000/kW as per guidelines of MNRE) in schools, Gram Panchayats, PHCs and other public places in the villages nearby.
  - For improving infrastructure in schools and educational institutions within villages nearby.
- (xiv). There shall at least 15% space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

### **Agenda No. 43.6**

**Proposed Establishment of Grain Based Ethanol Dstillery of Capacity 60 KLD Along With Co Gen Power Plant 2.0 MW by M/s. Maa Sheetla Ventures Limited located at Plot No 26 KA and 27**

**KA, Village - Surpur, Tehsil – Kaladhungi, Distt – Nainital, Uttarakhand - Consideration of Environment Clearance.**

**[IA/UK/IND2/234907/2021, J-11011/447/2021-IA-II(I)]**

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

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

**Agenda No. 43.7**

**Proposed 65 KLPD Grain Based Distillery Unit by M/s. Shivom Dayal Energies Pvt. Ltd. located at village Sherpur Khadar, NH-334-A, District- Muzaffar Nagar, Uttar Pradesh - Consideration of Environment Clearance.**

**[IA/UP/IND2/234282/2021, J-11011/437/2021-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Environmental and Technical Research Centre, Lucknow, 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 65 KLPD Grain Based Distillery Unit by M/s. Shivom Dayal Energies Pvt. Ltd. located at village Sherpur Khadar, NH-334-A, District- Muzaffar Nagar, Uttar Pradesh.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> 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 16<sup>th</sup> June, 2021. It was informed that no litigation is pending against the project.

**The details of products and capacity are as under:**

<b>Sr. No.</b>	<b>Product Details</b>	<b>Quantity</b>
1	Ethanol	65 KLD
2	Co-Gen Power	2.0 MW

Proposed land area is 3.0372 hectares, which is already under the possession of M/s. Shivom Dayal Energies Pvt. Ltd. Industry will develop greenbelt in an area of 1.002 hectares i.e., 33 % out of total area of the project. Number of operational days of plant will be 360 per annum. The estimated project cost is Rs. 90 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 1880 Lakh and the Recurring cost (operation and maintenance) will be about Rs. 120 Lakh per annum. Total Employment will be 100 persons as direct & indirect. Industry proposes to allocate Rs. 100 lakhs towards Corporate Environmental Responsibility.

There are No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors, lies within 10 km radius of the project site, Idrishpur Reserved Forest (~6.97 km in East direction), Solani River (~0.51 km in East direction), Ganga Canal (~6.11 km in W direction), Purkalan Minor (~8.48 km in W direction), are found within 10 km radius.

Total water requirement for the Grain based Ethanol Plant will be 660 KLD out of which 290 KLPD will be recycled in plant operations. Hence, the fresh water requirement for the project will be 370 KLD which will be met from ground water. Spent Wash (Slops) generation from Distillation, will be sent through separation of suspended solids in Decanter Centrifuge, part Thin Slops are concentrated in multi-effect evaporators to form a Thick (Protein) Syrup, which is mixed with the Wet Cake DWG separated earlier from Decanters. This interim product called DWGS has 30-32% w/w Solids is subject to drying in a rotating steam tube bundle dryer to deliver a value-added by-product – DDGS – Distillers Dried Grains with soluble and which has min. 90% Solids and max 10% moisture. This DDGS sells as Cattle Feed / Poultry Feed / Fish Feed based on its Protein Content. Hence, entire spent wash is decanted, concentrated into syrup in a Multi-Effect Evaporation followed by Drying, in order to achieve Zero Effluent Discharge. Effluent of 300 KLD quantity will be treated through state of art CPU/Effluent Treatment Plant of 400 KLD capacity (Anaerobic, aerobic, Filters, & RO system). The plant will be based on Zero Liquid discharge system.

Power requirement for proposed project will be 1.6 MW (maximum) will be met from own Co-generation power plant of 2.0 MW. Unit has proposed 1 boiler of capacity 20 TPH. Electro Static Precipitator (ESP) with a stack of height of 65 metres will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boilers.

#### **Details of Process emissions generation and its management:**

- ESP with a stack height of 65 meters will be installed for controlling the particulate emissions. Online Continuous Emission Monitoring

System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.

- CO<sub>2</sub> generated (35 TPD) during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and sold to authorized vendors.

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

<b>Waste</b>	<b>Quantity</b>	<b>Uses / Disposal</b>
Total Ash	6 MT/Day	Will be used as soil conditioner.
Yeast Sludge	10 MT/Day	
Condensate polishing unit sludge	2 KLD	
Cattle Feed DDGS	48 MT/Day	Will be sold as cattle feed.

As per OM dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 65 KLD will be for manufacturing of fuel ethanol only.

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

- Proposed fresh water requirement shall not exceed 4kL fresh water consumed /kL production of Ethanol.
- PP shall not commence the operation of the project without prior permission from CGWA/concerned authority for meeting fresh water requirement from ground water.
- 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
- Industry shall meet 10% of the total power requirement from solar power.
- At least 15% of the total plant area will be reserved for parking.
- Biomass shall be used in the boiler.
- ESP shall be installed to control air pollution.
- Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
- The proposed budget of Rs. 1.00 Crores towards CER shall be increased to Rs. 1.50 crores and it shall be utilised for development of infrastructure in schools nearby.

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 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 65 KLD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.

- (iv). Total Fresh water requirement shall not exceed 4kL fresh water consumed /kL production of Ethanol which will be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. 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.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
- (vi). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xi). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

- (xiii). PP proposed to allocate Rs. 1.50 Crores towards CER and it shall be utilised for development of infrastructure in schools nearby.
- (xiv). There shall be at least 15 % space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

### **Agenda No. 43.8**

**Proposed 500 KLPD Grain Based Distillery alongwith 15 MW cogeneration Plant by M/s. Aaditri Agrotech Private Limited located at Plot No. 1(F3), Industrial Area, Lohat-I, Block Pandaul, Dist. Madhubani, Bihar - Consideration of Environment Clearance.**

**[IA/BR/IND2/233554/2021, J-11011/425/2021-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Paramarsh Servicing Environment & Development, Lucknow, 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 500 KLPD Grain Based Distillery alongwith 15 MW cogeneration Plant by M/s. Aaditri Agrotech Private Limited located at Plot No. 1(F3), Industrial Area, Lohat-I, Block Pandaul, Dist. Madhubani, Bihar.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> 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 16<sup>th</sup> 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	Existing Quantity	Proposed Quantity	Total Quantity
1	Ethanol	0	500 KLD	500 KLD
2	Power Cogeneration	0	15 MW	15 MW
3	DDGS	0	310 TPD	310 TPD

Total land area is 20.23 Ha. (50 Acres / 2178000 Sqft. allocated by Bihar Industrial Area Development Authority) which will be used for proposed Grain Based Distillery Project. Industry will develop greenbelt in an area of 33 % i.e., 6.7 Ha. (67000 m<sup>2</sup>) out of total area of the project. The estimated project cost is Rs 478.31 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 10.8 Crores and the Recurring cost (operation and maintenance) will be about Rs 2.7 Crores per annum. Total Employment will be 250 persons as direct & 74 persons indirect. Industry proposes to allocate Rs. 7.17 Crores @ 1.5 % towards Corporate Environmental Responsibility.

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

Total water requirement is 6671 m<sup>3</sup>/day of which fresh water requirement of 1960 m<sup>3</sup>/day will be met from proposed 2 nos. Borewells. Effluent of 3964 m<sup>3</sup>/day quantity will be treated through MEE and Condensate Polishing Unit followed by ACF & PSF. The plant will be based on Zero Liquid discharge system.

Power requirement will be 10200 KVA and will be met from Captive Power Plant. 2 Nos. 1000 KVA DG sets & 1 No. 500 KVA DG Set will be used as standby during power failure. Stack (height 15 m.) will be provided as per CPCB norms to the proposed DG sets. 120 TPH Rice Husk / Biomass Briquette / Coal fired (for startup only) boiler will be installed. ESP with a stack of height of 72 m. will be installed for controlling the particulate emissions within the statutory limit of 30 mg/NM<sup>3</sup> for the proposed boiler. 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 (150 TPD) & ETP Sludge (250 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.

As per OM dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 500 KLD will be for manufacturing of fuel ethanol only.

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

- Proposed fresh water requirement shall not exceed 4kL fresh water consumed /kL production of Ethanol.
- Industry shall meet 10% of the total power requirement from solar power.
- 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.
- The proposed budget of Rs. 7.17 Crores towards CER shall be increased to Rs. 7.2 crores and it shall be utilised on:
  - Installation of solar power (@ <50,000/kW as per guidelines of MNRE) in schools, Gram Panchayats, PHCs and other public places in the villages nearby.
  - For improving infrastructure in schools and educational institutions within villages nearby.

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 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 500 KLD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). Total fresh water requirement shall not exceed 1960 KLPD and will be met from proposed borewells. 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.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed.

- (vi). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vii). Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (x). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xi). The company shall undertake waste minimization measures as below
  - (a) Metering and control of quantities of active ingredients to minimize waste;
  - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - (c) Use of automated filling to minimize spillage.
  - (d) Use of Close Feed system into batch reactors.
  - (e) Venting equipment through vapour recovery system.
  - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiii). PP proposed to allocate Rs. 7.20 Crores towards CER and it shall be utilised on:
  - Installation of solar power (@ <50,000/kW as per guidelines of MNRE) in schools, Gram Panchayats, PHCs and other public places in the villages nearby.
  - For improving infrastructure in schools and educational institutions within villages nearby.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

### **Agenda No. 43.9**

**Expansion of Molasses based distillery from 30 KLPD to multi feed (Cane Juice, B heavy molasses & C molasses) based 110 KLPD distillery unit at village Nivruttinagar (Dhalewadi), Post Shirol, Taluka District Pune by M/s SHRI VIGHNAHAR SAHAKARI SAKHAR KARKHANA LIMITED- Reconsideration of Environment Clearance.**

#### **[IA/MH/IND2/229251/2003, J-11011/1/2004-IA II]**

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

The proposal is for environmental clearance to the project proposed expansion of Molasses based distillery from 30 KLPD to multi feed (Cane Juice, B heavy molasses & C molasses) based 110 KLPD distillery unit at village Nivruttinagar (Dhalewadi), Post Shirol, Taluka District Pune by M/s Shri Vighnahar Sahakari Sakhar Karkhana Limited.

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 17<sup>th</sup> January 2019 & extension of notification S.O. 750(E) dated 17<sup>th</sup> February 2020, S.O. 980(E) dated 2<sup>nd</sup> 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 2<sup>nd</sup> March, 2021. It was informed that no litigation is pending against the project.

Ministry had issued EC earlier vide letter No. J-11011/1/2004-IA-II (I) dated 27.12.2004 from MoEF&CC, New Delhi for 30 KLPD distillery and obtained Environment Clearance for 18 MW cogeneration unit vide letter No. ENV(NOC)2005/564/CR.78/D.I dated 20.10.2005 from Government of Maharashtra.

**The details of products and capacity are as under:**

Sr. no.	Description	Unit	Quantity		
			Existing Capacity	Proposed Capacity	Total
<b>1.</b>	<b>Sugar Unit</b>	TCD	<b>5000</b>	<b>--</b>	<b>5000</b>
<b>2</b>	<b>Co-generation Power</b>	MW	<b>18</b>	<b>--</b>	<b>18</b>
<b>3.</b>	<b>Distillery Unit</b>	KLPD	<b>30</b>	<b>80</b>	<b>110</b>
	Rectified Spirit	KLPD	28.5	00	28.5
	Impure Spirit	KLPD	1.5	00	1.5
	OR				
	Extra Neutral Alcohol	KLPD	28.2	00	28.2
	Impure Spirit	KLPD	1.8	00	1.8
	OR				
	Ethanol	KLPD	28.5	76	104.5
	Impure Spirit	KLPD	1.5	4.0	5.5

Existing land area is 501400.00 m<sup>2</sup> (123.54 acre) & proposed expansion is in existing plot area no additional land will be used for proposed expansion. Industry has already developed / will develop greenbelt in an area of 33 % i.e., 162201.00 m<sup>2</sup> (40.06 acre) out of net plot area of the project.

The estimated project cost is Rs 63.10 Crore including existing investment of Rs 11.4821 crores. Total capital cost earmarked towards

environmental pollution control measures for existing & proposed unit is Rs 30.405 Crores and the Recurring cost (operation and maintenance) will be about Rs 0.68 Crores per annum. Total Employment for proposed expansion unit will be 50 persons as direct & 500-1000 persons indirect after expansion. Industry proposes to allocate Rs 0.5161 crores @ 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. River/ water body Kukadi is flowing at a distance of 1.62 Km in North direction & yedgaon dam at a distance of 3.89 Km in ENE direction.

Ambient air quality monitoring was carried out at eight locations during December 2020 to February 2021 and the baseline data indicates the ranges of concentrations as: PM10 60.12 to 86.27  $\mu\text{g}/\text{m}^3$ ), PM2.5 (26.85 to 46.08  $\mu\text{g}/\text{m}^3$ ), SO2 (8.16 to 12.86  $\mu\text{g}/\text{m}^3$ ) and NO2 (16.37 to 23.89  $\mu\text{g}/\text{m}^3$ ). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.234  $\mu\text{g}/\text{m}^3$ , 5.134  $\mu\text{g}/\text{m}^3$  and 3.748  $\mu\text{g}/\text{m}^3$  with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards.

Total water requirement is max 2242  $\text{m}^3/\text{day}$  of which fresh water requirement of max 244.5  $\text{m}^3/\text{day}$  will be met from (Yedgaon reservoir) Kukadi Irrigation Divison No.1, Naryangaon. Effluent of quantity 1699  $\text{m}^3/\text{d}$  (Raw Spent wash – max 880 + Process Condensate – max 819) spent wash will be concentration in MEE followed by incineration boiler and Process condensate will be treated in Condensate Polishing Unit. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 2.25 MW including existing 0.5 MW and will be met from power generation from existing 18 MW Cogeneration unit connected to existing sugar unit boiler & proposed 2.25 MW TG Set connected to proposed 30 TPH Incinerator boiler. Existing unit has not DG set, additionally 1 No of 380 kVA DG sets are used as standby during power failure. Stack (height 5m.) will be provided as per CPCB norms to the proposed DG sets. Existing distillery unit not has boiler as steam requirement is met from 2 No of 35 TPH boiler of sugar unit 5000TCD. Additionally for 30 TPH Concentrated spent wash & bagasse fired incineration boiler will be installed. Electrostatic precipitator (ESP) with a stack of height of 72 m will be installed proposed 30 TPH incineration boiler for controlling the particulate emissions within the statutory limit of 150  $\text{mg}/\text{Nm}^3$  for the proposed boilers

**Details of process emissions generation and its management:**

Sr. No	Source	Fuel	Pollutant	Control Equipment
<b>Existing</b>				
1	2 No of 35 TPH boiler	Bagasse	PM, SO <sub>2</sub> , NO <sub>x</sub>	60 m stack height and wet scrubber as APC Equipment is provided
2	1 No of 70 TPH boiler	Bagasse & Coal	PM, SO <sub>2</sub> , NO <sub>x</sub>	76 m stack height and ESP as APC Equipment is provided
2	Fermentation Unit	--	CO <sub>2</sub>	CO <sub>2</sub> Recovery Unit
<b>Proposed</b>				
1	30 TPH Incineration Boiler	CSW & Bagasse (Coal)	PM, SO <sub>2</sub> & NO <sub>x</sub>	72 m stack height and ESP as APC Equipment shall be provided
2	D. G. Sets 1 Nos of 380 kVA	HSD	PM & SO <sub>2</sub>	5m Stack Height is provided
3	Fermentation Unit	--	CO <sub>2</sub>	CO <sub>2</sub> Recovery Unit

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

**Solid Waste Management**

Sr. No.	Waste		Quantity MT/Day			Mode of collection & Treatment	Mode of Disposal
			Existing (30 KLPD)	Proposed (80 KLPD)	Total (110 KLPD)		
1	Yeast sludge	C	0.4	0.3	0.7	Sludge	After mixing with press mud given
		B heavy	-	0.3	0.3	Drying	
	(Optional) Cane	-	0.15	0.15	Beds		



3	CPU sludge (MT/D)	0.04	0.8	0.84	Sludge Drying	After mixing with press
4	Incinerator Boiler Ash (MT/D)	19	36.96	55.96	Will be sold to farmers as manure	Will be sold to farmers as potash rich manure
<b>Other Solid Wastes</b>						
1.	Paper waste	0.2 MT/M		Manually collected and stored in a designated		
2.	Plastic waste	0.2 MT/M				
Municipal Solid waste						
3.	Non-	8.6 Kg/D		Manually collected and		
	Bio-degradable	12.9 kg/D				

### Hazardous Waste Management

Sr. No.	Category	Description of waste	Quantity			Mode of Collection and Disposal
			Existing	Proposed	Total	
1.	5.1	Used Oil (kg/M)	0.75	--	0.75	Shall be collected in Leak Proof Containers and utilized as lubricant for bullock carts.
2.	20.3	Distillation residue (MT/M)	2	5	7	Mixed with press mud & convert to manure

Certified Compliance report has been issued by IRO, vide File No. File No:5-3/2005(ENV)/8420 dated 09.08.2020 Site visit of RO was carried out on 06.07.2021. Action plan against RO MoEF&CC certified EC compliance report is submitted vide letter No. VGN/DIST/609/2021-22 on 18.08.2021.

As per OM dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 80 KLPD will be for manufacturing of fuel ethanol only.

During the deliberations EAC noted that following non/partial compliances found for the existing EC vide letter No. J-11011/1/2004-IA-II (I) dated 27.12.2004:

- PP did not take measures for the implementation of the rain water harvesting system.
- PP did not submit the six monthly compliance reports regularly since the grant of EC.
- PP did not provide any information pertaining to the advertisement made after obtaining environmental clearance.
- PP did not provide the information pertaining to financial closure and final approval to Regional Office.
- Ground water is being monitored through piezometers at 2 locations (near the compost yard and spent wash lagoon). PP did not submit the monitoring report to Regional Office as per the stipulation.
- Ambient air quality is being monitored only at 2 locations. PP shall increase the monitoring locations covering Sugar and Co-Gen area. Monitoring of fugitive emissions needs to be carried out covering locations such as bagasse yard, cane yard, etc.
- The ambient noise levels are being monitored at 2 locations through MoEF&CC recognised laboratory. Work zone noise levels are not being monitored. PP shall increase the ambient noise monitoring locations. Work zone noise levels shall be monitored regularly.

In this regard EAC opined that PP lacks any intent to comply with conditions imposed in EC since Rain Water Harvesting system hasn't been implemented even though EC was obtained 15 years ago. Further, EAC was of the opinion that this shouldn't be dealt as non-compliance but as a violation since PP hasn't taken any efforts towards compliance since long then. After detailed deliberations, EAC desired the following additional information from PP:

- PP shall provide justification for the non/partial compliances observed and do the necessary action required for the rectification of the same.
- 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. Detail of dimensions of the storage tank shall be provided.
- Proposed CER amount shall be doubled as a punitive measure for negligence of PP of not complying with the conditions imposed in the existing ECs since 15 years.

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

### **Agenda No. 43.10**

**Establishment of non-molasses based Distillery of 120 KLPD capacity at Sy. Nos. Igl/1,18112" 18113, 181/4, I8I/5, 185/1, 18512 of M Chandargi Village, Ramdurg Taluk, Belagavi District, Karnataka by M/s Yaragatti sugars pvt. Ltd.- Reconsideration - Amendment of Environmental Clearance.**

**[IA/KA/IND2/225451/2021, J - 11011/325/2016 – IA II (I)]**

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter F.No.J-11011/325/2016-IA-II(I) dt 08.01.2018 for the project Establishment of non-molasses based Distillery of 120 KLPD capacity at Sy. Nos. 181/1, 181/2, 181/3, 181/4, 181/5, 185/1, 185/2 of M.Chandargi Village, Ramdurg Taluk, Belagavi District, Karnataka by M/s Yaragatti Sugars Pvt Ltd (YSPL).

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

<b>S. No</b>	<b>Para of EC issued by MoEF&amp;C</b>	<b>Details as per the EC</b>	<b>To be revised/ Read as</b>	<b>Justification / reasons</b>
1.	Para 2 & 9	120 KLPD Molasses based Distillery Category 'A' To produce RS, ENA, AA	120 KLPD Non-molasses based Distillery (Grain & Cane juice) Category 'B' To produce Ethanol	Green field project- As per existing EC Distillery not yet installed. The proposal involves establishment of distillery with change in raw materials of the same capacity. On receipt of Amendment to EC YSPL will go for installation of Distillery & will be producing Ethanol under Ethanol Blended with Petrol (EBP) Programme
2		5MW of power from spent wash incineration boiler	3.0 MW of power from Co-gen unit	
3	Para 3	Project area: 13.51 Ha	13.75 Ha	0.24 Ha increased
4		Green belt area: 4.65 Ha	4.88 Ha	0.23 Ha increased
5		Project cost: Rs. 110.01 Cr	Rs. 110.01 Cr	No change
6		EMP Capital Cost:	Rs. 6.3 Cr.	+10 Lakhs

<b>S. No</b>	<b>Para of EC issued by MoEF&amp;C</b>	<b>Details as per the EC</b>	<b>To be revised/ Read as</b>	<b>Justification / reasons</b>
		Rs. 6.2 Cr		
7		EMP Recurring Cost: Rs. 42 Lakhs p.a.	Rs. 45 Lakhs p.a.	+3 Lakhs
8		Manpower: 340	120	--
9		CSR: Rs. 55 Lakhs /yr	Rs. 55 Lakhs /yr - CER as per MoEF&CC OM Dt: 30.09.2020 (2.5 % of the total project cost)	No change
10	Para 5 and 9 (vi)	Water requirement: 1878 Cum / day and fresh water 960 Cum / day (Malaprabha River)	649 KLD (Malaprabha River)	649 KLD - Cane Juice/Grain based
11		Effluent to be treated: 940 Cum/day	Condensate Polishing Unit (CPU) for treating spent lees /washings, Condensate etc.:700 KLD max	--
12	Para 5	CPU Capacity: 1000 Cum/day	700 KLD	--
13		Power requirement - Construction phase: 500 kwh from HESCOM	500 kwh from HESCOM	No change
14		Power requirement - Operation phase: 2.455 MW from Distillery Power	2.5 MW Co-gen Unit	Cane syrup mode: 2000 KWH for 120 days Grain mode:

<b>S. No</b>	<b>Para of EC issued by MoEF&amp;C</b>	<b>Details as per the EC</b>	<b>To be revised/ Read as</b>	<b>Justification / reasons</b>
		generation unit		2500 KWH for 210 days
15		DG Set: 1500 kVA	1250 kVA	--
16		Boiler capacity: 40TPH Boiler installed with ESP	30TPH Boiler installed with ESP	--
174		Stack height: 70 m AGL	60 m AGL	--
18	Para 6	Category: A Schedule: 5(g)	Category: B Schedule: 5(g) and 5(ga)	The proposed project is a grain based distillery producing Ethanol (120 KLD) with Zero Liquid Discharge which will solely be utilized for Ethanol Blended Petrol (EBP) Programme of the Government of India.
19	Para 9(vii)	Industrial / trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (Agitated Thin Film Drier). Low TDS effluent stream shall be treated in ETP and	Raw spent wash shall be forwarded for bio-methanation followed by concentration in MEE & concentrated spent wash shall be dried to form powder in Dryer	The management has decided to adopt drying technology for spent wash Treatment instead of spent wash incineration. The spent wash powder fetches good revenue and offers value addition along

S. No	Para of EC issued by MoEF&C	Details as per the EC	To be revised/ Read as	Justification / reasons
		then passed through RO System.		with 100% Bio-organics recycling. Thus, spent wash drying is proven & successful technology giving good results.

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

**09<sup>th</sup> November, 2021 (Tuesday)**

**Agenda No. 43.11**

**Expansion of Distillery Capacity from 110 KLPD to 250 KLPD to Produce Ethanol Based on Sugarcane Juice/ Syrup/"C" Molasses/"B" Heavy Molasses/Grains/ Raw Sugar as a Raw Material at Nagewadi, Tal. Khan, Sangli, Maharashtra by M/s YASHWANT SUGAR AND POWER PRIVATE LIMITED- Consideration of Environment Clearance.**

**[IA/MH/IND2/225571/2020, IA-J-11011/305/2020-IA-II(I)]**

Ministry issued EC for the unit Vide F.NO. IA-J-11011/305/2020-IA-II(I) dated 4<sup>th</sup> August 2021 for the project Expansion of Sugarcane crushing capacity from 2500 TCD to 8000 TCD, establishment of 40 MW Co-generation Power plant and 110 KLPD distillery to produce 110 KLPD Rectified Spirit/110 KLPD Extra Neutral Alcohol/105 KLPD Ethanol based on "C"/"B" Heavy molasses/Sugarcane Juice/Syrup/grains in favour of M/s Yashwant Sugar and Power Private Limited, Nagewadi, Taluka ; Kahanpur, District Sangli, Maharashtra.

In this regard, EAC noted that the project has been not yet initiated operations of the previous EC. Thus, EAC is of the opinion that it takes considerable amount of time for construction of the plant and to achieve the capacity granted for earlier EC. Further, as per S.O 980(E) dated 02<sup>nd</sup> March, 2021 the Ministry has extended the special dispensations provided to molasses based distilleries indefinitely to contribute to EBP programme. Further, as the Ministry is convening EAC meetings fortnightly; PP can obtain EC quickly as the projects are considered in B2 category. In the view of the above, EAC didn't found any justification to give advance grant of EC and informed that PP may resubmit the proposal only after fully achieving the production capacity of the existing EC.

Also EAC mentioned that Ministry may not consider expansion for proposals wherein Industry doesn't achieve any substantial progress of the existing EC. Therefore, EAC has decided to return the proposal in present form.

**Accordingly, proposal was returned in present form.**

#### **Agenda No. 43.12**

**Greenfield project for manufacturing of Grain Based Bio Ethanol alongwith Co-Generation power plant by Hayati Beverages Private Limited at Village- Bhainsa, Tehsil and District Bemetara of Chhattisgarh State by M/s HAYATI BEVERAGES PRIVATE LIMITED- Re-Consideration of Environment Clearance.**

**[IA/CG/IND2/222490/2021, J-11011/319/2021-IA-II(I)]**

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

Accordingly, the proposal was deferred for the needful.

#### **Agenda No. 43.13**

**Up-gradation of Facilities of Numaligarh-Siliguri Product Pipeline (NSPL) for transportation of additional products from existing 1.72 MMTPA to 5.5 MMTPA Assam by M/s OIL INDIA LIMITED , PIPELINE-- Amendment in Environment Clearance regarding.**

**[IA/AS/IND2/233759/2021, J-11011/219/2004-IA. II(I)]**

The proposal is for amendment in the Environmental Clearance granted by the Ministry of Environment, Forest and Climate Change (MOEF&CC),

New Delhi vide letter no. **J-11011/219/2004-IA. II(I)** dated **09.02.2005** & **letter No. J-11011/108/2005-IA II(I)** dated **21.06.2005** for the Pipeline expansion project from Numaligarh to Siliguri (Phase-I) of located at Numaligarh Refinery in Assam to Rangapani (Siliguri) in West Bengal in favour of M/s. Oil India Limited.

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

Sl. No.	Para of EC issued by MoEF & CC	Details as per the EC	To be revised/ read as	Justification/reasons
1	<p><b>Assam State-</b></p> <p>J-11011/219/2004-IA. II(I) dated 9th February, 2005 &amp; <b>West Bengal State</b> J-11011/108/2005-IA II (I) Dated 21st June, 2005</p>	<p>1. Length: 654 Km, including existing 259 Km loop segments</p> <p>Assam: 197 Km new construction+259 km old pipeline in Assam.</p> <p>West Bengal: 201 Km.</p> <p>2. The Pipeline will be 1.721 MMTPA for transport of High-speed diesel (1.367 MMTPA), Motor Spirit (0.135 MMTPA) and superior kerosene oil (0.219 MMTPA). The pipeline passes through Buxa</p>	<p>1. Length: 654 Km, including existing 259 Km loop segments</p> <p>Assam: 197 Km new construction+259 km old pipeline in Assam.</p> <p>West Bengal: 201 Km</p> <p>2. The Pipeline facilities will be upgraded for transportation of Products from 1.72 MMTPA to 5.5 MMTPA for transport of High-speed diesel, Motor Spirit and superior</p>	<p>There will be up-gradation of facilities of one number of Dispatch Terminal, four number existing IP(intermediate Piggings) to Pumping stations and one Receipt Terminal.</p> <p>Oil India Limited (OIL) owns and operates a 406 mm (16-Inch) diameter cross country multi-product pipeline of 654 km in length from Numaligarh Refinery in Assam to Rangapani (Siliguri) in West Bengal since 2008-09 for transporting products of</p>



		<p>tiger reserve, Jaldapara Wildlife Sanctuary.</p> <p><b>3. Pumping Stations: Dispatch Terminal-</b>One at Numaligarh(As sam)</p> <p><b>Receipt Terminal:</b> One at Siliguri(Rangapani- West Bengal)</p> <p>Intermediate Pigging Station: 4 nos. located within existing pump stations at at Sekoni(PS4), Noonmati(PS5), Bongaigaon (PS6) in Assam &amp; Madarihat(PS7) in West Bengal.</p>	<p>kerosene oil.</p> <p><b>3. Pumping Stations:</b></p> <p><b>(i) Dispatch Terminal:</b> One at Numaligarh(As sam) comprising of booster Pump, Mainline pumps, filter, meters and control valves.</p> <p><b>Receipt Terminal:</b> One at Siliguri(Rangapani- West Bengal) comprising of Filter, meters &amp; control valves</p> <p><b>Intermediate Pumping Station:</b></p> <p>4 nos. existing pigging stations will have converted to Pumping Stations. i.e PS-04 ( Sekoni ) Ch. 80 Km, PS-02(Noonmati)</p>	<p>Numaligarh Refinery Limited (NRL). The pipeline is presently pumping a total throughput of 1.72 MMTPA with pipeline design pressure of 84.5 kg/cm<sup>2</sup> and maximum operating pressure of 76 kg/cm<sup>2</sup>. Product is pumped through the pipeline by boosting pressure at only pump station i.e. at Numaligarh Despatch Terminal (NDT) and received at Rangapani Receipt Terminal. Presently, NSPL pipeline system consist of one (01) Dispatch Station, one (01) Receipt Terminal and four (04) Intermediate Pigging Stations(IPS) - there is no intermediate pumping station.</p> <p>As a part of Government's Hydrocarbon Vision 2030 for</p>
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			<p>Ch. 221.6 km, PS-03 (Bongaigaon )</p> <p>Ch. 377.5 km, PS-04 (Madarihat)</p> <p>Ch. 524.8 Km comprising of mainline pumps, filters and meter and control valves etc.</p>	<p>North East, NRL has planned to expand its refining capacity from current 3 MMTPA to 9 MMTPA. For pumping the additional volume of products of NRL, the present pumping of 1.72 MMTPA to be increased to 5.5 MMTPA for which upgradation of facilities are required in the Intermediate Pigging Stations (IPS) of NSPL.</p> <p>EC amendment is applied for up-gradation of Facilities of Numaligarh-Siliguri Product Pipeline (NSPL) for transportation of additional volume of products post NRL expansion by incorporating intermediate pump stations in between Numaligarh and Siliguri Terminals within the same limit of pipeline design pressure i.e. 84.5 kg/cm<sup>2</sup></p>
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				and maximum operating pressure i.e. 76 kg/cm <sup>2</sup> .
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During deliberations, EAC suggested that PP shall allocate Rs. 5.00 crores towards CER and it shall be donated to Centres of Excellence for setting up H2 research and development facility to boost R&D in alternative fuels. After detailed deliberations EAC **recommended** the amendments in EC, as proposed by the project proponent, with all other terms and conditions remain unchanged.

Accordingly, an extra specific condition (xii) shall be added in page No. 3 to the EC letter No. J-11011/108/2005-IA II(I) dated 21.06.2005 and it shall be read as:

“(xii) PP proposed to allocate Rs. 5.00 crores towards CER and it shall be donated to Centres of Excellence for setting up H2 research and development facility to boost R&D in alternative fuels”

#### **Agenda No. 40.14**

**Expansion of Distillery from 300 KLPD to 500 KLPD & Co-Generation Power Plant from 12 MW to 22.0 MW by installation of new 200 KLPD Multi-feed-based Ethanol Plant along with 10.0 MW Co-Generation Power Plant at Village Ajbapur, Tehsil Mohammadi, District Lakhimpur Kheri, Uttar Pradesh by M/s DCM Shriram Limited Distillery Unit: Ajbapur –Consideration of Environment Clearance.**

#### **[IA/UP/IND2/225320/2021, IA- J-11011/137/2018-IA II (I)]**

The proposal was considered in 40<sup>th</sup> EAC meeting held during 14<sup>th</sup> -16<sup>th</sup> September, 2021 wherein the proposal got recommended subject to submission of additional information related to:

- Plan for fly ash management.
- Undertaking that PP shall spend 1 crore for initiatives for women empowerment and for providing solar energy to nearby villages.
- Break up of water balance reducing fresh water requirement.

Subsequently, a request was made by PP to rectify the fresh water requirement from 2000 KLPD to 3200 KLPD stating that was a typographical error. In this regard, the proposal was referred back to EAC as there was discrepancy observed in the technical information. During the deliberation, EAC reiterated that fresh water requirement shall not be more than 2000 KLPD for a distillery of 500 KLPD.

Subsequently, PP requested that it's not feasible for the Industry to reduce the fresh water consumption. In this regard EAC informed that water is a scarce resource and the proposed source is ground water which should be used judiciously. After detailed deliberations; EAC decided that total fresh water requirement for the integrated industry shall not exceed 2500 KLD.

### **Agenda No. 43.15**

**EXPANSION OF EXISTING DISTILLERY FROM 100 KLPD TO 150 KLPD (MOLASSES BASED DISTILLERY) ALONG WITH 5 MW CO GENERATION POWER AT VILLAGE: SAFIYABAD (SEOHARA), TEHSIL: DHAMPUR, DISTRICT: BIJNOR, STATE: UTTAR PRADESH of M/s AVADH SUGAR & ENERGY LIMITED, UNIT – SEOHARA (DISTILLERY DIVISION)- Consideration of Environment Clearance.**

#### **[IA/UP/IND2/231910/2021, J-11011/397/2005-IA II (I)]**

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

The proposal is for environmental clearance to the project proposed expansion of existing distillery from 100 KLPD to 150 KLD Molasses based Distillery (Ethanol) along with 5 MW co-generation power plant at village Safiyabad, Tehsil - Dhampur, District - Bijnor (Uttar Pradesh) by M/s Avadh Sugar and Energy Limited, Unit: Seohara, Distillery Division.

The project/activities are covered under category A of item 5 (g) 'Distilleries' of the Schedule to the EIA, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC). The proposal has been submitted under the Ministry's EIA Notification, 2006 amendments vide Notification no. S.O. 345(E) dated 17<sup>th</sup> January 2019 & extension of notification S.O. 750(E) dated 17<sup>th</sup> February 2020, S.O 980(E) dated 2<sup>nd</sup> 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 2<sup>nd</sup> March, 2021. It was informed that no litigation is pending against the project.

Ministry had issued EC earlier vide letter no. J - 11011/397/2005-IA II(I); dated 03<sup>rd</sup> April 2006 to the existing project Distillery Unit - 100 KLD Molasses based Distillery in favour of M/s Avadh Sugar and Energy Limited, Unit: Seohara, Distillery Division.

**The details of products and capacity are as under:**

<b>S. No</b>	<b>Product Details</b>	<b>Existing Quantity</b>	<b>Proposed Quantity</b>	<b>Total Quantity</b>
1	RS /Ethanol	100 KLD	50 KLD	150 KLPD
2	Co-Gen Power	5.0 MW		5.0 MW

Existing land area is 138000 m<sup>2</sup>, no additional land will be used for proposed expansion. Industry has already developed greenbelt in an area of 33 % i.e., 45500 m<sup>2</sup> out of total area of the project.

The estimated project cost is Rs 1347 Lakhs for proposed expansion including existing investment of Rs 84.22 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs 800 Lakh including proposed modernisation and the Recurring cost (operation and maintenance) will be about Rs 450 Lakh per annum after expansion. Total Employment after expansion will be 160 persons as direct & 200 persons indirect after expansion. Industry proposes to allocate Rs 50 Lakhs towards Corporate Environmental Responsibility against the proposed expansion.

There is no national park, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc. within 10 km distance from the project site. River: Ram Ganga River (7.18 km in East direction) is flowing at a distance of 7.18 Km in the east direction.

Existing total water requirement is 2902 KLD. Total water requirement after expansion will be 3364 KLD of which fresh water requirement – 1000 KLD. Fresh water is being / will be met from ground water. There minor increase in fresh water requirement of the project from 900 KLD to 1000 KLD. Permission for 1000 KLD has been obtained from Ground Water Department of Uttar Pradesh. Effluent of Spent wash generation after expansion 1200 KLD (@ 8.0 KL/KL of product) quantity is being / will be treated through Multi effect evaporators. Concentrated spent wash is being / will be used as fuel in incineration boiler of capacity – 45 TPH. The plant is being / will be based on Zero Liquid discharge system.

Power requirement after expansion will be 3575 KW will be met from Co-generation power plant of 5.0 MW & State power distribution corporation Limited. Existing unit has 45 TPH Slop fired boiler. ESP (Electrostatic Precipitator) with a stack of height of 74 m has been installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the existing boilers.

**Details of process emissions generation and its management:**

CO<sub>2</sub> (111 TPD) generated during the fermentation process will be recovered by CO<sub>2</sub> Scrubbers and sold to authorized vendors.

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

<b>Particulars</b>	<b>Existing Distillery</b>	<b>After proposed Expansion</b>	<b>Remarks</b>
Fly ash	53.25 tonnes/day	72.48 tonnes/day	Fly ash generated will be converted to granule and utilized as manure.
Fermenter Sludge	12 MT/Day	14 MT/Day	Utilized as manure
Used Oil & Grease	Approx. 1100 Liters /Annum	Approx. 1100 Liters /Annum (No Change)	Hazardous waste will be disposed as per the Hazardous Waste Management Rules 2016.

Certified Compliance obtained through letter no - IV/ENV/UP/IND-76/193/2006 dated 28.07.2021.

As per OM dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 50 KLPD will be for manufacturing of fuel ethanol only.

During the deliberations EAC noted that following non/partial compliances found for the existing EC vide letter No. J - 11011/397/2005-IA II(I); dated 03<sup>rd</sup> April 2006:

- It is required to strengthen green belt by planting more native species especially on the boundary line of the project.
- It is required to improve the housekeeping of the project.

In this regard EAC opined PP lacks any intent to comply with conditions imposed in EC since green belt hasn't been wholly implemented even though EC was obtained 15 years ago. Further, it was of the opinion that this shouldn't be dealt as non-compliance but as a violation since PP hasn't taken efforts towards compliance since long then. After detailed deliberations, EAC desired that PP resubmit the proposal only after submitting following information:

- PP shall provide justification for the non/partial compliances observed and do the necessary action required for the rectification of the same.
- PP shall submit an affidavit that 3000 plants shall be planted before the completion of the expansion of the project.
- Managing director of the company should be present and shall explain the steps that need to be taken by the Industry to improve the house keeping.

Accordingly, the proposal was deferred for the needful

### **Agenda No. 43.16.1**

#### **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**

PP has communicated to the Ministry stating that they can't be able to present the case for personal reasons and requested to schedule it in the next agenda. The request was accepted by the Ministry and it was informed to the EAC.

Accordingly, the proposal was deferred for the needful.

### **Agenda No. 43.16.2**

#### **Condition in EC to convert carbon dioxide into dry ice in ethanol distilleries- Representation by Indian sugar Mills Association (ISMA)**

Ministry is in receipt of the representation given by Indian Sugar Mills Association (ISMA) vide letter ISMA/45/2021 regarding the Condition in EC to convert carbon dioxide into dry ice in ethanol distilleries.

It was informed to EAC the matter relates to the following specific condition:

"CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors"

Further, it was informed to EAC that ISMA representation mentioned the following things:

- Ministry as well as some state governments is imposing a condition that distilleries should capture CO<sub>2</sub> generated from the process and it shall be converted into dry ice.
- The only product that can be made from carbon dioxide currently is dry ice, and the market for it is extremely limited. Considering the aggressive target of achieving 20% ethanol blending by 2025 an assessment may be made to see whether there will be enough demand for dry ice, if all the distilleries, being set up, capture the carbon dioxide and produce dry ice.
- The condition will not only increase the capital cost of the distillery, but may become huge burden for all the distilleries when the distilleries cannot find a market for the dry ice produced.

- In the view of the above, ISMA has requested Ministry to remove the condition in EC, and such a condition may kindly be deliberated after a review carried out by the Government, to confirm that there is adequate demand for such dry ice produced for all the carbon dioxide that could be produced from the new distilleries or from the expansion of the current distilleries.

After detailed deliberations, EAC has decided that making dry ice is not a compulsion that is being imposed on distilleries. Installation of CO<sub>2</sub> bottling plant is an effective and economically viable technique wherein captured CO<sub>2</sub> can have wide range of applications such as Carbonic acid and in beverages. Further, it wouldn't be good step to remove the condition altogether when Govt. of India is thriving towards decarbonizing the economy and to reduce the carbon foot print.



## **ANNEXURE**

### **GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE**

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

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

- (vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- (viii) The environmental statement for each financial year ending 31<sup>st</sup> 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**

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

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