

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

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**Dated: 27.09.2021**

**MINUTES OF THE 40<sup>th</sup> MEETING OF THE EXPERT APPRAISAL  
COMMITTEE**

**(INDUSTRY-2 SECTOR PROJECTS)**

**HELD ON 14<sup>th</sup> - 16<sup>th</sup> September, 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 39<sup>th</sup> Meeting of the EAC (Industry-2) held during 17<sup>th</sup> - 18<sup>th</sup> August, 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: -

**14<sup>th</sup> September, 2021 (Tuesday)**

**Agenda No. 40.1**

**Proposed 660 KLPD Grain Based Distillery Plant, 10 KLPD Malt Spirit Plant and 22 MW Co-generation Power Plant at Plot No. A22, Panagarh Industrial Park, Panagarh, Block Kanksa, District Paschim Bardhaman, West Bengal by M/s. Alcograin Distillers Private Limited - Consideration of Environment Clearance.**

**[IA/WB/IND2/173288/2020, IA- J-11011/207/2020-IA-II(I)]**

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

The proposal is for environmental clearance to the project 660 KLPD Grain Based Distillery Plant, 10 KLPD Malt Spirit Plant and 22 MW Co-generation Power Plant at Plot No. A22, Panagarh Industrial Park, Panagarh, Block Kanksa, District Paschim Bardhaman, West Bengal by M/s. Alcograin Distillers Private Limited.

All Molasses based distilleries >100 KLPD & Non-Molasses based distilleries >200 KLD are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification dated 14.9.2006 and as amended on 13.6.2019 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC). It was informed that no litigation is pending against the proposal.

Standard ToR has been issued by Ministry of Environment, Forests & Climate Change vide letter IA-J-11011/207/2020-IA-II(I) dated 20<sup>th</sup> September, 2020. Public Hearing for the proposed project has been conducted by the West Bengal Pollution Control Board on 29<sup>th</sup> July, 2021 presided by Additional District Magistrate, Paschim Bardhaman district. The main issues raised during the public hearing are related to employment and environmental pollution mitigation measures.

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

<b>Unit</b>	<b>Capacity</b>	<b>Product</b>	<b>By-product</b>
Grain Based Distillery Plant	660 KLPD	Ethanol/Rectified Spirit (RS) /Extra Neutral Alcohol (ENA) /Industrial alcohol (IA)/ Denatured Spirit (DS)/ Specially Denatured Spirit (SDS)/ Udenatured Ethyl Alcohol of an alcoholic strength by volume of 80% or higher	Animal Feed Supplement (AFS) & CO2
Malt Spirit Plant	10 KLPD	Malt Spirit	
Co-generation Power Plant	22 MW	Power	-
IMFL/CL Bottling Plant	6.0 lakh Cases/month	IMFL/CL Bottled Liquor	-

The total area for the proposed distillery project is 9.27 ha (92700 m<sup>2</sup>). Industry will develop greenbelt in an area of 33% i.e. 3.06 Ha (30600 m<sup>2</sup>) out of total area of the project.

The estimated project cost is Rs. 265 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 70.0 Crores and the Recurring cost (operation and maintenance) will be about Rs. 0.80 Crores / annum. Total Employment will be 200 persons (Permanent 150 & temporary 50) during operation phase. Industry proposes to allocate Rs. 2.0 Crores @0.75 % of total project cost towards Social developmental activities.

There are No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors, lies within 10 km radius of the project site. Bilaspur PF (~0.2 km in North direction), Baradoba PF (~4.2 km in ENE direction), Khandari PF (~5.0 km in ESE direction), Premganj PF (~6.5 km in ENE direction), Ramnagar PF (~8.0 km in East direction), Kuldhiha PF (~9.0 km in ENE direction), Radhaballabpur PF (~9.0 km in ESE direction), Babuisol PF (~9.8 km in ENE direction); River/ Canal i.e. Panagarh Branch Canal (~2.0 km in South direction), Left Bank Main Canal (~3.4 km in SW direction), Kukal Nadi (~4.5 km in SSE direction), Damodar Branch Canal (~5.5 km in NW direction), Kunur River (~5.7 km in NNE direction), Damodar River (~7.0 km in SSW direction) are found within 10 km radius.

Ambient air quality monitoring was carried out at 8 locations during October to December, 2020 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (61.5 to 95.6 µg/m<sup>3</sup>), PM<sub>2.5</sub> (28.3 to 52.4 µg/m<sup>3</sup>), SO<sub>2</sub> (5.7 to 17.6 µg/m<sup>3</sup>) and NO<sub>2</sub> (13.2 to 34.5 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.30 µg/m<sup>3</sup>, 0.12 µg/m<sup>3</sup>, 1.01 µg/m<sup>3</sup> and 1.13 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total freshwater requirement will be 3000 KLPD which will be sourced from groundwater. Effluent process of 620 KLPD (Boiler blowdown, DM / RO Reject & CT blowdown) will be treated through WWTP of 1000 KLPD capacity and MEE condensate of 2332 KLD will be treated through CPU of 2800 KLPD Capacity. The plant will be based on Zero Liquid discharge system.

Total power requirement for Ethanol plant will be 12.0 MW, which will be sourced from the 22.0 MW Co-Generation Power Plant Construction power / standby power connection shall be taken from West Bengal State Power Corporation Limited. Unit will be having D.G. Sets of 4 x 1250 KVA which will be used as standby during power failure. Adequate Stack height (8 m) will be provided as per CPCB norms. Boiler of 160 TPH with ESP as Air Pollution Control Equipment and a stack height of 82 m will be installed for

controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>.

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

CO<sub>2</sub> (460 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:**

- Grain Slops (Spent Wash) and Malt Spirit Slops will be passed through centrifuge decanters for separation of suspended solids separated as Wet Cake DWGS (570 TPD) and dried to obtain Animal Feed Supplement AFS (290 TPD) to be used as cattle, poultry and fish feed ingredients.
- Ash (270 TPD) generated from the boiler will be Coal or various biomass based. Coal based ash will be supplied to brick/cement manufacturers and biomass-based ash will be used for soil amendment.
- Used oil & grease (2.0 KL/Annum) generated from plant machinery/gear boxes as hazardous waste will be sold out to the CPCB authorized recyclers.

During deliberations EAC suggested that Rs. 2.0 crores allocated for social developmental activities shall be spent on improving infrastructure facilities in nearby educational institutions. PP has agreed for the same and submitted an undertaking in compliance for the same.

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

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

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). The project proponent will treat and reuse the treated water within the integrated industry and no waste or treated water shall be discharged outside the premises.
- (iii). Total freshwater requirement will be 3000 KLPD which will be sourced from groundwater. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises.
- (iv). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed.
- (v). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vi). Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (viii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.

- (ix). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (x). The company shall undertake waste minimization measures as below  
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xii). As committed allocated fund of Rs 2.0 crores for social developmental activities shall be spent on improving infrastructure of educational institutions nearby.
- (xiii). 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.
- (xiv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xv). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

## **Agenda No. 40.2**

**Proposed 1G Grain based Bio ethanol Plant at 100 KLPD capacity with captive power plant of 50 TPH capacity at BIADA, Industrial Area, Panapur Village , Motipur Taluk, Muzaffarpur District, Bihar by M/s NATURALS DAIRY PRIVATE LIMITED - Consideration of Environment Clearance.**

**[IA/BR/IND2/228044/2021, IA-J-11011/342/2021-IA-II(I)]**

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

The proposal is for environmental clearance to the project proposed 1G Grain based Bio ethanol Plant at 100 KLPD capacity with captive power plant of 50 TPH capacity at BIADA, Industrial Area, Panapur Village , Motipur Taluk, Muzaffarpur District, Bihar by M/s Naturals Dairy Private limited.

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

The project proposal is exempted from obtaining ToR & conducting Public Hearing as per EIA notification, 2006 amendment vide S.O 2339 dated 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:**

Sl.No	Product Detail	Existing quantity	Proposed quantity	Total quantity
1	Fuel Ethanol/ Absolute Alcohol	-	100 KLPD	100 KLPD

The total area for the proposed distillery project is 8.15 ha (81500 m<sup>2</sup>). Industry will develop greenbelt in an area of 33% i.e. 2.6895 Ha (26895 m<sup>2</sup>) out of total area of the project.

The estimated project cost is Rs.140.05 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 2.8 Crores and the recurring cost (operation and maintenance) will be about Rs. 0.4 Crore per annum. Total Employment will be 103 persons during operation phase. Industry proposes to allocate Rs. 2.8 crores @2 % of total project cost towards CER.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River Burhi Gandak is flowing at a distance of 0.45 Km in North direction.

Total water requirement for the Grain based Ethanol Plant will be 620 KLPD which will be met from borewell. Effluent of 130 KLPD quantity will be treated through ETP system. The plant will be based on Zero Liquid discharge system.

The total power requirement for the proposed Ethanol Plant will be 1700 kW, which will be met from Bihar State Power Holding Company Limited (BSPHCL). additionally 1500 KVA DG sets will be used as standby during power failure. Stack (height 9m) will be provided as per CPCB norms to the proposed DG sets. A 50 TPH multifuel fired boiler will be installed. Multi cyclone separator/ bag filter with a stack of height of 40 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm<sup>3</sup> for the proposed boilers.

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

- PM from stack with gaseous pollutants (SO<sub>2</sub>, NO<sub>x</sub> and CO) are also anticipated
- Fugitive emission from proposed ethanol plant includes evaporation of wastewater, volatilization of alcohol from process & storage tanks, dust from stock piles, Spills and material handling and open vessel
- Operation of construction equipment, vehicular movement, fabrication, erection and commissioning
- Treated process condensate from PCTP will be used for Cooling Tower make up
- Generated sludge will be mixed with sewage sludge and used as a manure in the premises and if required will be sold to outside the plant in open market

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

- Biomass will be about 62680.8 TPA (Approx.) and Food waste/Biodegradable waste will be about 1 TPA (Approx.), Paper/cardboard will be 2 TPA (Approx.), Ash will be 1785.2 TPA (Approx.).
- Used / spent oil will be 7 KL/Annum (Approx.), which will be collected in metal drums kept in secured dyked area and will be disposed to CPCB/ BSPCB registered used oil preprocessor.

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 100 KLPD will be for manufacturing of fuel ethanol only.

During the appraisal EAC observed that proposed fresh water requirement is high and directed that fresh water requirement shall not exceed 4 kL per

kL production of ethanol and industry shall adhere to complete ZLD. Further, EAC suggested that proposed Rs. 2.8 crores of CER shall be spent on providing drinking facilities and solar street lighting for nearby villages. PP agreed for the same and submitted an undertaking in the compliance of the above. Accordingly, as committed by PP fresh water requirement shall not exceed 400 KLPD.

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 additional capacity of 100 KLPD shall be only for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based

on which the project has been appraised as category B2 project, the EC shall stand cancelled.

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). Total fresh water requirement shall not exceed 400 KLPD which will be met from bore well. 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. Fire fighting 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 shall allocate Rs. 2.8 crores towards CER and it shall spent on providing drinking facilities and solar street lighting for nearby villages.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

### **Agenda No. 40.3**

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

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

EAC informed 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. 40.4**

### **Expansion of Molasses based Distillery from 30 KLPD to 105 KLPD at Shahajinagar, Po: Redni, Tal.: Indapur, Dist.: Pune, Maharashtra State by M/s. NIRA BHIMA SAHAKARI SAKHAR KARKHANA LTD- Consideration of Environment Clearance.**

**[IA/MH/IND2/224726/2019, IA- J-11011/197/2008-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 Expansion of based Distillery from 30 KLPD to 105 KLPD located at Shahajinagar, Redni Post Office, Indapur taluk, Pune district, Maharashtra State by M/s. Nira Bhima Sahakari Sakhar Karkhana Ltd.

All Molasses based distilleries >100 KLPD & Non-Molasses based distilleries >200 KLD are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification dated 14.9.2006 and as amended on 13.6.2019 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC). It was informed that no litigation is pending against the proposal.

Standard ToR has been issued by Ministry of Environment, Forests & Climate Change vide letter IA- J-11011/197/2008-IA II (I) dated 31<sup>st</sup> October, 2019. Initially, Public Hearing was proposed to be conducted on 09.04.2021 for newspapers advertisement has been given on 09.03.2021. But it was postponed to 02.07.2021 for which advertisement has been given on 30.05.2021. However, due to Covid-19 pandemic situation it was decided to conduct public hearing online/virtual. Regarding the same, prior public notice has been published on 26.06.2021 for information and citizens were requested to participate in the public hearing through their mobile phone (By installing Zoom app) or computer (by visiting the web site <https://zoom.us/join>) by using given meeting ID and password. Subsequently, Public hearing for expansion project was conducted on 02.07.2021 through Video Conferencing at Collector Office Pune, Maharashtra presided by Additional District Magistrate, Pune. The main issues raised during the public hearing are related to employment generation, green belt, usage of raw material, CSR activities. etc.

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

<b>Industrial Unit</b>	<b>Product</b>	<b>Unit</b>	<b>Quantity</b>		
			<b>Existing</b>	<b>Expansion</b>	<b>Total</b>
<b>Distillery</b>	RS/ Extra Neutra Alcohol (ENA)/ Ethanol	KLPD	30	75	105
	<b>By-products</b>				

(45-105 KLPD)	CO <sub>2</sub>	MT/D	23	56	79
	Fusel Oil	MT/D	0.06	0.15	0.21

Total plot land area is 5, 34,060 m<sup>2</sup>. Existing built-up area 23,316.98 m<sup>2</sup>; additional built up for distillery expansion is 20,000 m<sup>2</sup>. Industry has already developed Green Belt in an area of 1, 22,833.63 m<sup>2</sup> (23 % out of total plot area). Moreover, additional Green Belt area of 58,746.60 m<sup>2</sup> (11 % out of total plot area) will be developed. After expansion of distillery, the total Green Belt area would be 1,81,580.4 m<sup>2</sup> which accounts for 34 % of total plot area.

The estimated project cost is Rs. 333.79 Crores including existing investment of Rs. 254.04 Crores. Total capital cost earmarked towards environmental pollution control measures under distillery is Rs. 52.75 Crores and the Recurring cost (operation and maintenance) will be about Rs. 8 Crores per annum. Total Employment under proposed expansion project would be 50 persons as direct as well as indirect after expansion of project. Industry proposes to allocate Rs. 188 Lakh towards Corporate Environmental Responsibility.

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 Km Study Area. Bhima River is flowing at 8.38 Km from North to South direction. Nira River is flowing at 5.60 Km from west to East direction.

Ambient air quality monitoring was carried out at 8 locations during Oct 2019 to 31 Dec 2019 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (55.50 –60.78), PM<sub>2.5</sub> (16.45 – 22.41), SO<sub>2</sub> (16.10-21.55), NO<sub>x</sub> (18.85-30.31), CO (0.075-0.85) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 0.564 µg/m<sup>3</sup> for PM<sub>10</sub> (towards West side), 0.141 µg/m<sup>3</sup> for PM<sub>2.5</sub> (towards West side), 1.23 for SO<sub>2</sub> µg/m<sup>3</sup> (towards West side) and 1.05 µg/m<sup>3</sup> NO<sub>x</sub> (towards West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement after expansion of Distillery project will be 2007 CMD of which fresh water requirement will be 262 CMD which will be met from Bhima River.

The process effluent generated after expansion from 105 KLPD distillery would be in the form of raw spentwash to the tune of 840 M3/Day. Here, raw spentwash from proposed 75 KLPD distillery operations @ 600 M3/Day will be concentrated in Multi Effect Evaporator (MEE) and will be incinerated in proposed 38 TPH incineration boiler thereby achieving ZLD. Further, raw spentwash from existing 30 KLPD distillery operations @ 240 M3/Day will be primarily treated in bio-methanation plant followed by concentration in MEE and shall also be incinerated in incineration boiler thereby discontinuing existing composting operations.

Power requirement after expansion of Distillery will be 2.14 MW which will be met from own co-gen plant in premises. Existing unit has two DG sets having 500 KVA each capacity. No additional DG set will be installed under expansion activity. DG sets to be used as standby during power failure. Stack (height 14 M ARL) is provided as per CPCB norms to the existing DG Set.

A new 38 TPH Spentwash & Bagasse/Coal fired Incineration Boiler would be installed. ESP with a stack of height of 62 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 79 MT/Day shall be released from 105 KLPD distillery plant. CO<sub>2</sub> shall be compressed, bottled and supplied to manufacturers of beverages.

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

No.	Industrial Unit	Type	Quantity (MT/M)		Disposal
			Existing	After Expansion	
1	Distillery	Yeast Sludge	150	540	Burnt in Incineration Boiler
		CPU Sludge	--	30	
		Boiler Ash	360	1350	Brick/cement manufacturing / Palatalization
2	Sugar & Co-gen	Boiler	451	-	Used as Manure
		Ash(Bagasse)			
		ETP Sludge	150	-	

Certified Compliance Report has been issued by IRO, Nagpur vide letter No. 5-169/2009(ENV)/7871 dated 02.03.2021 made wherein 16 non compliances/partial compliances observed. PP informed that action taken on non-compliances and partial compliances has been sent to Regional Officer, Nagpur vide letter NIRA-BHIMA/ENVIR/410/2021-22 dated 14.07.2021.

During the deliberations EAC made the following suggestions:

- A brick manufacturing plant shall be constructed which shall utilize spent wash and coal ash after combustion for making bricks. The bagasse ash from Cogeneration Boilers **shall be** collected in separate silos and **will be supplied to farmers for use as manure being the same is of biomass ash.**

- **Imported coal** with low ash content & low sulfur content shall be used as fuel for the proposed **incineration boiler only in case of** non-availability of bagasse.
- Proposed Rs. 188 Lakhs towards CER shall be spent on providing drinking water facilities and upgrading infrastructure in educational/public places in nearby villages.

PP has agreed to all the suggestions made by EAC and submitted an undertaking in compliance of the same.

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

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

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iii). Total fresh water requirement shall not exceed 262 CMD which will be met from Bhima River. Prior permission shall be obtained from the concerned regulatory authority in this regard, and renewed from time to time.
- (iv). The spent wash/other concentrates shall be concentrated in MEE followed by incinerated in incineration boiler. PP shall install brick manufacturing plant within factory for utilization of ash obtained from combustion for manufacturing bricks.
- (v). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vi). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (viii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (ix). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (x). The company shall undertake waste minimization measures as below  
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch

reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

- (xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xii). PP shall allocate Rs. 188 Lakhs towards CER for providing drinking water facilities and upgrading infrastructure in educational institutions/public places in nearby villages.
- (xiii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places. Out of the total project area, 20% shall be allotted solely for parking purposes.
- (xiv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xv). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

#### **Agenda No. 40.5**

**Proposed 215 KLPD Grain based Ethanol plant along with 6.0 MW Co-generation Power Plant at Village Firozpur, Tehsil Raipur Rani, District Panchkula, Haryana by M/s MG Petrochem Private Limited - Consideration of Environment Clearance.**

**[IA/HR/IND2/227212/2021, IA-J-11011/160/2021-IA-II(I)]**

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

The proposal is for environmental clearance to the proposal for establishment of 215 KLPD Grain based Ethanol plant along with 6.0 MW Co-generation Power Plant at Village Firozpur, Tehsil Raipur Rani, District Panchkula, Haryana by M/s MG Petrochem Private Limited.

All grain based fuel ethanol plants are listed at S.N. 5(ga) of Schedule of Environmental Impact Assessment (EIA) Notification and amendment vide no SO- 2339 dated 16<sup>th</sup> June 2021 under category 'B-2' and appraised at Central Level by Expert Appraisal Committee (EAC).

The project proposal is exempted from obtaining ToR & conducting Public Hearing as per EIA notification, 2006 amendment vide S.O 2339 dated 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:**

Unit	Capacity	Product
Grain Based Ethanol Plant	215 KLPD	Product- Ethanol (Bio-fuel) By-product- DDGS &CO <sub>2</sub>
Co-generation Power Plant	6.0 MW	Power

Total land required for the project is 7.76 hectares (77600 m<sup>2</sup>). Industry will develop greenbelt in an area of 33% i.e. 2.56 ha (25600 m<sup>2</sup>) out of total area of the project.

The estimated project cost is Rs. 205 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 24.0 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.5 Crores / annum. Total Employment will be 120 persons (Permanent 72 & temporary 48) during operation phase. Industry proposes to allocate Rs. 1.0 Crores of total project cost towards Social developmental activities.

There are No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors, lies within 10 km radius of the project site. PF like Rajpura PF (~4.5 km in NE direction), Gumti Sambhalwa RF (~7.5 km in East direction) & Kadana PF (~8.5 km in NNE direction), River/Nala i.e. Balrali Nadi (~1.0 km in SSE direction), Thathar ki Nadi (~3.5 km in North direction), Baliali Nala (~4.5 km in South direction), Dangri Nadi (~4.5 km in NW direction), Sangrel Nadi (~5.5 km in NE direction), Begna Nadi (~5.5 km in ESE direction), Ujjal ki Nadi (~7.5 km in SE direction) and Dudhgarh ki Nadi (~8.5 km in NW direction); Baliali Nala (4.5 km in South direction), Dhandiyon ka Nala (~7.0 km in ENE direction) and Naura Nala (~7.0 km in ENE direction) are found within 10 km radius.

Total water requirement for the Grain based Ethanol Plant will be 3439 KLPD out of which 2372 KLPD will be recycled in plant operations. Hence,

the fresh water requirement for the project will be 1097 KLPD (Ethanol Plant & Co-generation Power Plant and Utilities 1067 m<sup>3</sup>/day + Domestic: 30 m<sup>3</sup>/day) which will be sourced from groundwater. Effluent of 1212 m<sup>3</sup>/day will be treated through state of art CPU/Effluent Treatment Plant (Reverse Osmosis technology) of 1500 KLPD capacity. The plant will be based on Zero Liquid discharge system.

Power requirement for Ethanol plant will be 4.0 MW, which will be sourced from the 6.0 MW Co-generation Power Plant. Construction power / standby power connection shall be taken from Haryana Bijli Vitran Nigam Limited. Unit will be having D.G. Sets of 2 x 1500 KVA which will be used as standby during power failure. Adequate Stack height (8 m) will be provided as per CPCB norms. Boiler of 50 TPH capacity with ESP as Air Pollution Control Equipment will be installed. ESP with a stack height of 60 m for 50 TPH boiler will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>.

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

CO<sub>2</sub> (164 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:**

- Solid waste from the Grain based operations generally comprises of fibres and proteins in the form of DDGS (94 TPD), which will be ideally used as Cattle, poultry & fish feed ingredients.
- Used oil & grease (0.5 KL/Annum) generated from plant machinery/gear boxes as hazardous waste will be sold out to the CPCB authorized recyclers.

As per OM dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 215 KLPD will be for manufacturing of fuel ethanol only.

During the appraisal EAC noted that proposed parking area of 10 % shall be increased to 15% of the total project area and PP obliged to it.

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

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

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

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

- (i). As per OM dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed additional capacity of 215 KLPD shall be only for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). Total fresh water requirement shall be 1097 KLPD which will be met ground water. Extraction of ground water shall not be done without obtaining prior permission of CGWA/concerned authority. No ground water recharge shall be permitted within the premises.

- (v). 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 5 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiii). As committed PP shall allocate Rs. 1.0 Crore for CER and shall be used for implementing energy conservation measures and skill development for women/girls in nearby villages.
- (xiv). There shall be 15% space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

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

### **Agenda No. 40.6**

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

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

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

The proposal is for Environmental Clearance to the project for setting up of additional 450 KTA of Polypropylene Production Plant in the Existing Naphtha Cracker Complex Panipat, Haryana by M/s. Indian Oil Corporation Limited, Panipat Refinery & Naphtha Cracker Complex - Consideration of Environment Clearance.

The project/activities are covered under category A item 5 (c) "Petro-chemical complexes (industries based on processing of petroleum fractions & natural gas and/or reforming to aromatics" of Schedule to the EIA, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC).

Standard Terms of references has been issued by MoEFCC for the proposed project vide F.No. J-11011/177/2016- IA II(I) on 03.11.2018. Public Hearing for the proposed project has been conducted by Haryana State Pollution Control Board on 06.04.2021 chaired by Deputy Commissioner, Panipat. The main issues raised during the public hearing are related to discharge of effluent from existing refinery, air pollution caused by the refinery, deterioration of ground water and nuance caused due to release of water from tanks of the refinery to the crop fields. It was informed that no litigation is pending against the proposal.

Ministry had issued EC earlier vide letter no. J-110011/106/2012-IA-II (I) dated 16.08.2018 to the existing project in favour of M/s. Indian Oil Corporation Limited, Panipat Refinery & Naphtha Cracker Complex.

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

**Existing & Proposed Products**

S. No	Plant / Equipment / Facility	Units	Existing Configuration	Proposed Configuration	Final configuration after expansion	Remark
1	C4 Hydrogenation Unit (C4HU)	KTA	480	0	480	In terms of product
2	Butadiene Extraction Unit (BDEU)	KTA	138	0	138	In terms of product
3	Pyrolysis Gasoline Hydrogenation Unit (PGHU)	KTA	720	0	720	In terms of product
4	Benzene Extraction Unit (BEU)	KTA	130	0	130	In terms of product
5	Polypropylene Unit (PPU)	KTA	780	450	1230	In terms of product Actual is 600KTA. After Revamp- 780KTA
6	HDPE Unit	KTA	351	0	351	In terms of product Actual is 300KTA. After Revamp- 351KTA
7	Swing Unit (LLDPE/HDPE)	KTA	350	0	350	In terms of product
8	Butene-1 UNIT	KTA	20	0	20	In terms of product
9	Naphtha Cracker Unit (NCU)	KTA	947	0	947	In terms of product Actual is 800KTA. After Revamp- 947KTA
10	MEG	KTA	425	0	425	In terms of product Actual is 300KTA. After Revamp- 425KTA
11	Catalyst Manufacturing	KTA	1500	0	1500	(new Unit)

## Proposed Utilities Capacity

S. No	UTILITY	UNITS	Requirement
1	Steam	kg/hr	21000
2	Plant Air & Instrument Air	Nm3/hr	2600
3	Cooling Water	m3/hr	8800
4	Nitrogen	Nm3/hr	1100
5	DM Water	m3/hr	20
6	Electric Power	MW	31.7
S. No	RECOVERY	UNITS	Requirement
1	Steam Condensate	kg/hr	16000

Existing land area is 2108000 m<sup>2</sup> (521Acres). No additional land will be used for proposed expansion. Industry has already developed greenbelt in an area of 35%(183 Acres) and 5% (26 Acres) will be developed, taking the total to 40% (since it is located in Panipat which is coming under CEPI index)i.e. 845793 m<sup>2</sup> (209Acres) out of total area of the project.

The estimated project cost is Rs.2597Crores. Total capital cost earmarked towards environmental pollution control measures is Nil and the Recurring cost (operation and maintenance) will be about Rs. 5.356Crores per annum. Total Employment will be 91persons as direct and 3 persons as indirect after expansion. Industry proposes to allocate Rs.100 Lakhs towards Corporate Social Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km radius from the project site. Water bodies: Khandra Drain(Inside the Site), Thirana Minor ~0.06km(W), Gohana Distributary ~0.07km(E), Untala Minor ~0.08km(E), New Delhi Parallel Branch (Western Yamuna Canal) ~0.59km(N), New Delhi Branch (Western Yamuna Canal) ~0.65km(N), Tributary Drain No 1 ~0.79km(W), Madlauda Minor ~1.06km(NW), Munak Drain ~2.09km(N), Joshi Drain ~2.25km(NW), Main Drain No 2/Indri Drain ~2.41km(E), Nahar Kuna Hansi/Hanal Nadi ~2.60km(N), Rer Kalan Minor ~3.79km(WNW), Kabir Branch/Bazida Distributary ~3.95km(E), Begampur Minor ~4.25km(N), Untala Drain~4.69km(S), Nohra/Nauhra Drain ~5.13km(SE), Binjhaul Minor ~5.26km(ESE), Bhalsi Minor ~5.41km(SW), Phurlak Drain ~5.47km(N), Gagsina East Drain ~5.51km(N), Munak Minor ~5.59km(N), Joshi Distributary ~5.61km(W), Khukrana Branch Canal ~5.83km(SSE), Hansi Branch(Western Yamuna Canal) ~6.22km(NW), Ganda Nala/Panipat Main Drain ~6.50(E), Mor Majra Drain ~6.93km(WNW), Pabana/Pawana Drain ~6.95km(NW), Munak Canal ~7.03km(NNW), Goli Distributary ~7.45km(NNW), Jind Distributary ~7.46km(WNW), Lohari Minor ~7.73km(S), Left Branch

Gohana Distributary ~7.73km(S), Gudah Minor ~7.76km(ENE), Kurian Minor ~7.87km(NNW), Bhadaur Drain ~8.12km(S) and Ganda Nala ~8.57km(E).

Ambient air quality monitoring was carried out at 8 locations during March 2019 to May 2019 and average baseline data indicates the ranges of concentrations as: PM10 (83.59 to 128 µg/m<sup>3</sup>), PM2.5(42.77 to 64.98µg/m<sup>3</sup>), SO<sub>2</sub> (14.92 to 22.83µg/m<sup>3</sup>) and NO<sub>2</sub> (27.89 to 43.71µg/m<sup>3</sup>). AAQ modeling study for point source emissions is Nil as there is no proposed stack while the modeling study for line source emission indicates that the maximum incremental GLCs after the proposed project would be 0.056µg/m<sup>3</sup>, 1.576µg/m<sup>3</sup> and 78.275µg/m<sup>3</sup> with respect to PM10, NO<sub>x</sub>, and CO. SO<sub>x</sub> emission is negligible (no stacks are proposed and BS-VI vehicles are considered). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 70,080 m<sup>3</sup>/day of which fresh water requirement of 47040 m<sup>3</sup>/day will be met from Western Yamuna Canal. Effluent of 200 m<sup>3</sup>/hr quantities will be treated through existing ETP of capacity 200 m<sup>3</sup>/hr. The plant will be based on 100% reuse within the plant.

**Wastewater treatment and Disposal Management as follows:**

Unit	Liquid waste (m <sup>3</sup> /hr)			Disposal Method	Facility Details (m <sup>3</sup> /hr)
	Existing	Proposed	After expansion		
Effluent	158	0	158	<b>Existing:</b> Reused in the plant <b>Proposed:</b> Reused in the plant	ETP of capacity 200m <sup>3</sup> /hr
Sewage	42	0	42	<b>Existing:</b> Reused in the plant <b>Proposed:</b> Reused in the plant	Combined with ETP for treatment

Power requirement after expansion will be 60000 KVA including existing 28300 KVA where the existing is being met from Existing Captive Power Plant of IOCL Panipat Naphtha Cracker Complex while the proposed power of 31700KVA will be met from Uttar Haryana Bijili Vitran Nigam Limited's. No DG set available in IOCL Panipat Naphtha Cracker Complex. Existing unit has 2nos of Boiler of 406.5TPH capacity of each. Both are Low sulphur liquid Fuel+Gas fired Boiler. Additionally, no boiler will be installed.

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

### Existing Process Emission in PNC

Sr.No.	Equipment	Stack Height( m)	Design FG/FO	Units
1	NCU_Heater_01	58	FG :4570	Kg/hr
2	NCU_Heater_02	58	FG :9580	Kg/hr
3	NCU_Heater_03	58	FG :9580	Kg/hr
4	NCU_Heater_04	58	FG :9580	Kg/hr
5	NCU_Heater_05	58	FG :9580	Kg/hr
6	NCU_Heater_06	58	FG :9580	Kg/hr
7	NCU_Heater_07	58	FG :9580	Kg/hr
8	CPP_HRSG_01	70	FG :3140	Kg/hr
9	CPP_HRSG_02	70	FG :3140	Kg/hr
10	CPP_HRSG_03	70	FG :3140	Kg/hr
11	CPP_HRSG_04	70	FG :3140	Kg/hr
12	CPP_HRSG_05	70	FG : 3140	Kg/hr
13	CPP_UB_01	100	31390	m kCal/hr
14	CPP_UB_02	100	31390	m kCal/hr
15	SWING_VAP_01	67	1310 FG / FO 2140	Kg/hr
16	SWING_VAP_02	67	1310 FG / FO 2140	Kg/hr
17	MEG_WHB	45	FG :194	Kg/hr

There is no stack in the existing polypropylene unit and there will be no stacks for the proposed Polypropylene unit. Therefore no point source emission.

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

**Solid Waste (Operation Phase):**

**Municipal solid waste:**

S. No	Waste	Quantity (kg/day)			Collection method	Treatment / disposal method
		Existing	Proposed	After expansion		
1	Organic waste	14.04	11.34	25.38	Bins	Organic wastes will be processed in organic waste convertor which produces the biogas reduces the usage of LPG in Canteen
2	Inorganic waste	9.36	7.56	16.92	Bins	Disposed through authorised vendors

**Existing & Proposed Hazardous Waste Management:**

S. No	List of Items	Quantity			Disposal Methods
		Existing	Proposed	After expansion	
1	ETP Sludge (ton/day)	2	0	2	TSDF.
2	Spent Oil (MT/month)	3	2	5	Authorized Recycler

Certified compliance report has been issued by RO, Chandigarh to PP vide letter dated 28.04.2021 seeking necessary action within two weeks for 11 partial /non compliances. ATR has been submitted to RO, MoEF&CC vide letter dated 07.05.2021 depicting compliance.

During deliberations EAC directed that PP should submit an undertaking that:

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

Further, EAC directed that PP shall submit time bound action plan for resolving the issues raised in the Public Hearing.

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

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

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

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to

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

- (ii). Total fresh water requirement shall not exceed 47040 m<sup>3</sup>/day and it will be met from Western Yamuna Canal. Necessary permission in this regard shall be obtained from the concerned regulatory authority. The fresh water requirement shall be reduced after installation of rainwater harvesting system in the unit/project area.
- (iii). Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme.
- (iv). Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- (v). Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.
- (vi). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
- (vii). Regular VOC monitoring shall be done at vulnerable points.
- (viii). The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system.
- (ix). Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.
- (x). The company shall undertake waste minimization measures as below:
  - a) Metering and control of quantities of active ingredients to minimize waste.
  - b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - c) Use of automated filling to minimize spillage.
  - d) Use of Close Feed system into batch reactors.
  - e) Venting equipment through vapour recovery system.
  - f) Use of high pressure hoses for equipment cleaning etc. to reduce wastewater generation.
- (xi). The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project

proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.

- (xiii). The project proponent shall ensure 70% of the employment to the local people, as per the applicable law. The project proponent shall set up a skill development center/provide skill development training to village people.
- (xiv). 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.
- (xv). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- (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. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.
- (xvii). PP to set up occupational health Centre for surveillance of the worker's health within and outside the plant on a regular basis. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xviii). The National Emission Standards for Petrochemical (Basic & Intermediates) issued by the Ministry vide G.S.R. 820 (E) dated 9<sup>th</sup> November, 2012 as amended time to time shall be followed.
- (xix). Recommendations of mitigation measures from possible accident shall be implemented based on Risk Assessment studies conducted for worst case scenarios using latest techniques.
- (xx). The project proponent shall develop R& D facilities to develop their own technologies for propylene and polypropylene processing.

## **Agenda No. 40.7**

### **Expansion of Sugar Factory from 6,000 to 7,500 TCD and Molasses based Distillery from 90 to 120 KLPD at Gat No.99, Alegaon, Tal.: Daund, Dist.: Pune, Maharashtra by M/s by Daund Sugar Private Limited (DSPL)- Consideration of Environment Clearance.**

#### **[IA/MH/IND2/223258/2017, IA- J-11011/467/2017-IA II (I)]**

The Project Proponent and the Accredited Consultant M/s. Equinox Environments (I) Pvt. Ltd made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project proposed expansion of Sugar Factory from 6,000 to 7,500 TCD and Molasses based Distillery from 90 to 120 KLPD at Gat No.99, Alegaon, Daund taluk, Pune district, Maharashtra by M/s by Daund Sugar Private Limited (DSPL).

As per the provisions of "EIA Notification No. S.O. 1533 (E)" dated 14.09.2006; as amended vide Notification No. "S.O. 1960 (E)" dated 13.06.2019; the proposed expansion of Sugar Factory is listed at activity 5(j) under 'Category B' while Molasses based Distillery activity at 5(g) under Category 'A' respectively. As the Sugar Factory & Distillery projects are located in same premises as an integrated project complex, the entire proposal of expansion of Sugar Factory & Distillery is being appraised at Center Level by EAC of MoEFCC. No litigation is pending against the proposal.

Standard ToR has been issued by Ministry of Environment, Forests & Climate Change vide letter IA- J-11011/467/2017-IA II (I) dated 16th November,2017 for Expansion of Sugar Factory from 6,000 to 7,500 TCD and Molasses based Distillery from 90 to 120 KLPD. Public hearing for expansion of Sugar Factory & Distillery was conducted on 19.06.2021 by Maharashtra Pollution Control Board presided by Additional District Magistrate, Pune. The main issues raised during the public hearing are air pollution, fire accidents and for providing free electricity, establishment of educational institutes in the locality.

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

Industrial unit	Product& By-product	Quantity(MT/M)		
		Existing	Expansion	Total
Sugar Factory (Expansion 6000-7500 TCD)	<b>Capacity</b>	<b>(6000 TCD)</b>	<b>(1500 TCD)</b>	<b>(7500 TCD)</b>
	<b>Products</b>			
	Sugar (11.5%)	20,754	5,196	25,950
	<b>By-products</b>			
	Molasses (4%)	7,200	1,800	9,000
Bagasse (30%)	54,000	13,500	67,500	

	Press Mud (4%)	7,200	1,800	9,000
<b>Co-Gen</b> (Existing 18)	<b>Electricity (MW)</b>	18MW	-	18MW
<b>Distillery</b> (Expansion 90- 120 KLPD)	<b>Products</b>			
	Ethanol/ ENA/ RS	2700 KLPM	900 KLPM	3600KLPM
	<b>By-Products</b>			
	Fusel Oil	5.1	1.5	6.6
	Carbon Di-oxide	2,250	750	3,000

Total plot land area is 10,19,900 M<sup>2</sup> with Existing built-up area 4,17,683 M<sup>2</sup>. Industry has already developed green belt 3,37,086 M<sup>2</sup> (33% out of total plot area). Densification of trees will be done under Expansion activity.

The estimated project cost is Rs. 137.74 Crores including existing investment of Rs. 117.82 Crores. The distillery will be operated for 330 days. Total capital cost earmarked towards environmental pollution control measures under proposed project will be Rs. 1.70 Crores and the Recurring cost (operation and maintenance) will be about Rs. 0.25 Crores per annum. Total Employment will be 42 persons as direct & indirect after expansion project. Industry proposes to allocate Rs.61.50 Lakh towards Corporate Social Responsibility.

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 Km Study Area. Bhima River is flowing at a distance of 2.0 Km from West to East direction.

Ambient air quality monitoring was carried out at 8 locations during January 2021 – February 2021- March 2021 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (55.30 – 64.60 µg/M<sup>3</sup>), PM<sub>2.5</sub> (17.50 – 25.50 µg/M<sup>3</sup>), SO<sub>2</sub> (12.70 – 21.90 µg/M<sup>3</sup>) and NO<sub>x</sub> (10.70 – 25.30 µg/M<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 0.167 µg/M<sup>3</sup> for PM<sub>10</sub> (towards East side), 0.049 µg/m<sup>3</sup> for PM<sub>2.5</sub> (towards East side), 2.22 for SO<sub>2</sub> µg/m<sup>3</sup> (towards East side) and 0.175 µg/m<sup>3</sup> NO<sub>x</sub>(towards East side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement after expansion of Sugar Factory & Distillery will be 5546 CMD. Out of which 374 CMD will be fresh water taken from New Mutha Right Bank Canal & Bhima River. Total trade effluent generated from expansion activity of Sugar Factory @450 M<sup>3</sup>/Day will be treated through existing Effluent Treatment Plant (ETP) comprising of Primary, Secondary & Tertiary Treatment units. Treated effluent will be reused for green belt development in own factory premises.

Power requirement after expansion will be 10.5 MW which will be met from own co-gen plant in premises. Existing unit has two DG sets having 1010 KVA each capacity. No additional DG set will be installed under expansion

activity. DG sets to be used as standby during power failure. Stack (height 6 M) is provided as per CPCB norms to the existing DG Set.

Existing Sugar Factory & Co-gen Plant has 100 TPH (Bagasse & Bio-gas Fired Boiler) & 15 TPH (bagasse fired boiler). ESP with a stack of height of 70 M is installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm<sup>3</sup> for the boiler. Existing Distillery has one 40 TPH Spentwash & Bagasse/Coal fired Incineration Boiler which is already installed. ESP with a stack of height of 82 M is 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 100 MT/Day shall be released from 120 KLPD distillery plant. CO<sub>2</sub> shall be compressed, bottled and supplied to manufacturers of beverages.

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

**Details of Solid waste generated & its management**

No.	Industrial Unit	Type	Quantity (MT/M)		Disposal
			Existing	Proposed	
1	Distillery	Boiler Ash	1,260	1,770	Sale to Brick manufacture
		Yeast Sludge	570	780	Burnt in Incineration Boiler
		CPU Sludge	24	30	
2	Sugar Factory	ETP Sludge	11.4	13.5	Used as Manure
		Boiler Ash (Bagasse)	480	720	Sale to Brick manufacture

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

No.	Category	Quantity		Disposal
		Existing	After Expansion	
1	(5.1) Used / Spent Oil	857 Lits/A	1071Lits/A	Reuse in own boiler as
2	(34.4) Chemical Sludge, Oil & grease skimming	21.5 MT/A	27 MT/A	Used as manure

No any hazardous waste will be generated from distillery unit.

Certified compliance report submitted by IRO, MoEFCC, Nagpur vide letter EC-21/RON/2016-NGP/7352 dated 16.10.2021 wherein 5 non/partial compliances were reported. ATR towards the non-compliances were sent to RO vide letter dated 05.11.2020.

During deliberations EAC suggested that PP shall construct a brick making plant within the industry which shall utilize Spent wash and coal ash after

combustion in incineration boiler for making bricks. Further, EAC desired commitment from the PP for the following:

- After distillery expansion, only in case of non-availability of bagasse, industry may use imported coal of low ash content and low sulphur content for incineration boiler.
- CO2 bottling plat shall be installed.
- PP shall utilize funds allocated for CER for providing drinking water facilities and for installing solar street lights within nearby villages.

PP agreed for the same and submitted an undertaking in the compliance of the above.

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

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

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). The project proponent will treat and reuse the treated water within the integrated industry and no waste or treated water shall be discharged outside the premises.
- (iii). Total freshwater requirement shall not exceed 374 CMD which will be sourced from New Mutha Right Bank Canal & Bhima River. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises.
- (iv). Raw spent wash will be concentrated in MEE. Concentrated spentwash will burnt in incineration boiler. PP shall install brick manufacturing plant within factory for utilization of ash obtained from combustion for manufacturing bricks.
- (v). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vi). Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (viii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (ix). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (x). The company shall undertake waste minimization measures as below
  - (a) Metering and control of quantities of active ingredients to minimize waste;
  - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - (c) Use of automated filling to minimize spillage.
  - (d) Use of Close Feed system into batch reactors.
  - (e) Venting equipment through vapour recovery system.
  - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

- (xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xii). As committed, PP shall spend Rs. 64.5 Lakhs towards CER for providing drinking water facilities and for installing solar street lights within nearby villages.
- (xiii). 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.
- (xiv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xv). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

### **Agenda No. 40.8**

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

**[IA/MH/IND2/223246/2021, IA-J-11011/35/2021-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 of 60 KLPD Molasses Based Distillery to 150 KLPD B & C Molasses/Cane Syrup based distillery located at Sainagar, Village Ranjani, Tal. Kallam, Dist. Osmanabad, Maharashtra. by M/s Natural Sugar and Allied Industries Ltd. (NSAIL).

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.

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

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

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

Total plot land area is 5,16,006 M<sup>2</sup>. Existing built-up area 92,960 M<sup>2</sup>; additional built-up for proposed project will be 5400 M<sup>2</sup>. Industry has already developed green belt 2,67,093 M<sup>2</sup> (51.7% out of total plot area). Deification of existing Green belt will be done under expansion activity.

The estimated project cost is Rs.117.23 Crores including existing investment of Rs.57.23 Crores. The distillery will be operated for 330 days. Total capital cost earmarked towards environmental pollution control measures under proposed project will be Rs.5.3 Crores and the Recurring cost (operation and maintenance) will be about Rs.0.65 Crores per annum. Total Employment will be 170 persons as direct & indirect after proposed project. Industry proposes to allocate Rs.60 Lakh towards Corporate Social Responsibility.

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

Total water requirement after proposed project will be 2400 CMD. Out of which 442 CMD will be fresh water taken from Manjara river. The process effluent generated after expansion of 150 KLPD Molasses/Cane Syrup

based Distillery would be in the form of raw spentwash to the tune of 1200 M<sup>3</sup>/D. The same would be forwarded for Bio-methanation and concentrate in MEE, conc. spentwash to the tune of 160 M<sup>3</sup>/D (1.06 KL/KL of alcohol) would be blended with coal/bagasse and burnt in existing 20 TPH incineration boiler. Other effluents viz. spent lees @ 202 M<sup>3</sup>/D, MEE condensate @ 1040 M<sup>3</sup>/D and allied effluents @ 75 M<sup>3</sup>/D will be treated in CPU under Distillery. Treated effluent from CPU will be reused in process and boiler makeup, thereby achieving Zero Liquid Discharge (ZLD) for Distillery.

Power requirement for proposed project will be 2200 KW which will be met from own Co-Gen Plant. Existing 285 KVA DG Set, which will be operated only during failure. No additional DG set will be installed under expansion activity. Existing distillery has 20 TPH Incineration boiler. ESP with a stack of height of 60 M is installed for controlling the particulate emissions within the statutory limit of 115 mg/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 124 MT/Day shall be released from 150 KLPD distillery plant. CO<sub>2</sub> under existing unit is being compressed, bottled and supplied to manufacturers of beverages. The same practice shall be followed after distillery expansion.

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

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

IRO, Nagpur has submitted has issued certified compliance report for the project vide File No. 5-40/2013(Env)/8198 dated 29.06.2021.

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 90 KLPD will be for manufacturing of fuel ethanol only.

During the deliberations it was informed to EAC that the CCR issued by IRO, Nagpur dated 29.06.2021 mentioned that there is no court case

against the project whereas PP has submitted (Form-2) that there is an ongoing court case against the project since 2015. Further, EAC has also noted that PP/consultant have concealed the fact in the documents and in presentation. EAC directed PP to resubmit the case furnishing the details of court case.

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

**Agenda No. 40.9**

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

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

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

The proposal is for environmental clearance to the project proposed expansion of Bio-Ethanol Refinery of 100 KLPD at Plot no. 610 and plot no. 598 (Part-I), Baulsingha Village, Bhatli Tehsil, Bargarh District, Odisha by M/s Bharat Petroleum Corporation Limited.

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

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

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

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

Sr. No	Product / By-product	Unit	Quantity (Capacity)			Remark
			Existing (2G)	Proposed (1G)	Total	
1	Ethanol	KLPD	100	100	200	Product

2	Fusel oil	L/d	200	200	400	By Product
3	DDGS	TPD	0	51	51	Co-Product

Existing land area is 227150 m<sup>2</sup> and no additional land will be required for proposed expansion. Industry will develop greenbelt in an area of 33% i.e. 2.6895 Ha (26895 m<sup>2</sup>) out of total area of the project. To meet the 33% Green Belt requirement, Green belt of 5.04 acres (20424 sq.m) in being developed inside the plot while remaining Green belt of 15.28 acres (61835 sq.m) is being developed in additional Land allotted outside the plot area through Department of Forest.

The estimated project cost is Rs. 170 Cr. including existing investment of Rs.747.46 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs. 3.4 Cr. and the Recurring cost (operation and maintenance) will be about Rs. 0.34 Cr per annum. Total additional employment will be 25 persons per shift (Skilled: 10 nos. per shift + Unskilled: 15 nos. per shift) after expansion. Industry already allocated/spent more than Rs. 4.25Cr (more than @ of 2.5 %) towards Corporate Social Responsibility in the state of Odisha in current financial year.

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

Total water requirement is 215 m<sup>3</sup>/hr (Fresh – 133 m<sup>3</sup>/hr & Recycled 82 m<sup>3</sup>/hr) will be met from canal ~ 7 km (Bargarh canal) for 2G ethanol plant. Same source shall be utilized for proposed expansion. Industrial Effluent of 46.978 m<sup>3</sup>/Hr quantity will be treated through ETP of capacity: 67 m<sup>3</sup>/hr i.e. 1608 KLD, RO, PCTP for treatment, complying with MoEF&CC/CPCB norms. RO permeate shall be recycled. The plant will be based on Zero Liquid discharge system.

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

boiler will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup> for the proposed boilers.

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

CO<sub>2</sub> shall be emitted and adequate measures shall be taken. Biogas shall be generated which shall be flared/burned in boiler

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

**Non- Hazardous Waste**

Sr. No	Type of Waste	Quantity (TPD)			Source of Generation	Disposal
		Existing	Proposed	Total		
1.	Dewatered Sludge	12 TPD	3 TPD	15 TPD	Process Condensate Treatment Plant	as manure for agricultural fields
2.	Boiler Ash	120 TPD	35 TPD	155 TPD	From Boiler	Sale to Brick Manufacturer Industry
3.	Mud	21 TPD	0	21 TPD	-	Landfilling

**Hazardous Waste:** There is no Hazardous Waste from site

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

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

During the appraisal EAC observed that proposed fresh water requirement is high. Therefore, EAC directed PP to revise water balance reducing requirement of fresh water. Further, EAC desired that PP shall incorporate details of rainwater harvesting while calculating fresh water requirement. Further, the consultant was unable to respond to basic questions and the presentation was very poor.

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

### **Agenda No. 40.10**

**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)]**

The PP/consultant were absent for the appraisal and requested EAC to provide an opportunity to present the case following day. EAC agreed to it but the PP/consultant were absent the following day i.e 16.06.2021 also.

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

**15<sup>th</sup> September, 2021 (Wednesday)**

### **Agenda No. 40.11**

**Expansion of Grain based Distillery from 165 KLPD to 465 KLPD by installation of new 300 KLPD Ethanol Plant & Co-Generation Power Plant from 3.3 to 13.5 MW at Village Jundla, Tehsil Karnal, District Karnal, Haryana by M/s Haryana Liquors Pvt. Ltd.- Consideration of Environment Clearance.**

**[IA/HR/IND2/218929/2021, J-11011/130/2011-IA.II(I)]**

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

The proposal is for environmental clearance to the proposed expansion of Grain based Distillery from 165 KLPD to 465 KLPD by installation of new 300 KLPD Ethanol Plant & Co-Generation Power Plant from 3.3 to 13.5 MW at Village Jundla, Tehsil Karnal, District Karnal, Haryana by M/s Haryana Liquors Pvt. Ltd.

All grain based fuel ethanol plants are listed at S.N. 5(ga) of Schedule of Environmental Impact Assessment (EIA) Notification and amendment vide no SO- 2339 dated 16<sup>th</sup> June 2021 under category 'B-2' and appraised at Central Level by Expert Appraisal Committee (EAC).

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

M/s. Haryana Liquors Pvt. Ltd. is presently operating 165 KLPD Grain Based Distillery Plant & 3.3 MW Cogeneration Power Plant at Village Jundla, Tehsil Karnal, District Karnal, Haryana. Environmental Clearance was obtained from MoEFCC, New Delhi vide letter no. J-11011/130/2011- 1A II (I) dated 17th October, 2012

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

Units		Existing installed Capacity	Additional Capacity	Total Capacity after Proposed Expansion	Remark
Grain based Distillery	Capacity	165 KLPD	300 KLPD	465 KLPD	Additional increased 300 KLPD capacity will be Ethanol only
	Product	Ethanol / Rectified Spirit/ Extra Neutral Alcohol	Ethanol		
	By Product	Animal Feed Supplement (AFS) and CO2	Animal Feed Supplement (AFS) and CO2		
Co-generation Power Plant		3.3 MW	10.2 MW	13.5 MW	-
IMFL/CL Bottling Plant		48 lakhs cases per annum	-	48 lakhs cases per annum	-

Existing land area is 14.04 ha (140400 m<sup>2</sup>), No additional land is required for the expansion, as the same will be done within the existing plant premises. Industry has already developed greenbelt in an area of 35% i.e. 4.9 ha (49000 m<sup>2</sup>) out of total area of the project

The estimated expansion project cost is Rs. 150 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 43.10 Crores and the Recurring cost (operation and maintenance) will be about Rs. 0.98 Crores / annum. Total Employment will be 275 persons during operational phase after expansion & 150 persons during operation phase. Industry proposes to allocate Rs. 1 Crore of the total project cost towards Social developmental activities.

There are No National Park, Reserved / Protected Forests, Wildlife Sanctuary, Biosphere Reserve, Tiger / Elephant Reserve, Wildlife Corridor within 10 km radius. Drain/Canal i.e. Indri Drain (Adjacent in West direction), Jundla Drain (3.5 km in SE direction), Nisang Drain (4.0 km in WSW direction), Nardak Major Distributary (5.0 km in NW direction), Western Yamuna Canal (8.5 km in SE direction), Chautang Nadi (8.5 km

in WNW direction) Augmentation Canal (9.0 km in SSE direction) & many agricultural minors are present in 10 km radius.

Existing fresh water requirement is 840 KLPD which is being / will be sourced from ground water. After expansion, total fresh water requirement will be 1484 KLPD will be sourced from groundwater. After expansion, Effluent (MEE Condensate, Fermentation Cleaning & others) of 1200 m<sup>3</sup>/day will be treated through state of art CPU of 1600 KLPD capacity and other Effluent (Boiler blow down, DM/RO Reject, Cooling Tower Blow down) of 400 m<sup>3</sup>/day will be treated through existing WWTP of 840 KLPD capacity. The plant will be based on Zero Liquid discharge system.

Existing power requirement is 3.3 MW and additional 10.2 MW of power will be required for expansion. Thus, the total power requirement after expansion will be 13.5 MW which will be sourced from 13.5 MW Co-generation Power Plant and D.G Sets Existing (2 x 1000 KVA) & proposed (2 x 1500 KVA) for back-up. Adequate Stack height (7 m and 8 m respectively) will be provided as per CPCB norms. Existing boiler of capacity 32 TPH and stack height of 50 m with Bag filter as Air Pollution Control Equipment is present. As a part of the expansion, a new 90 TPH boiler is proposed within the existing plant premises. ESP with a stack height of 60m for proposed boiler will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>.

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

CO<sub>2</sub> generated during the fermentation process is being/will be recovered by CO<sub>2</sub> Scrubbers and sold to authorized vendors.

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

- Solid waste from the Grain based operations generally comprises of fibres and proteins in the form of Animal Feed Supplement AFS (185 TPD), which will be ideally used as Animal Feed.
- Ash (108 TPD) from the boiler is being /will be given to nearby brick manufacturers and nearby Farmland Villagers.
- Used oil & grease (1 KL/annum) generated from plant machinery/gear boxes as hazardous waste is being/ will be sold out to the CPCB authorized recyclers.

Certified Compliance report of Existing EC was obtained from Regional Office, MoEFCC Chandigarh vide F. No: 4-1109/2012-RO(NZ)/529-530 dated 26.08.2021 wherein 4 non compliances/partial compliances mentioned.

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 300 KLPD will be for manufacturing of fuel ethanol only.

During the deliberations EAC suggested that PP shall spend proposed Rs. 1.0 Crore for social developmental activities for installation of solar plants in educational institutions and village panchayats in nearby villages. PP has agreed and submitted an undertaking in the compliance of the same.

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

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

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

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

- (i). As per OM dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed additional capacity of 300 KLPD shall be only for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). Total fresh water requirement shall be 840 KLPD which will be met ground water. Extraction of ground water shall not be done without obtaining prior permission of CGWA/concerned authority. No ground water recharge shall be permitted within the premises.
- (v). 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 5 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant

species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

- (xiii). As committed PP shall allocate Rs. 1.0 Crores for CER and shall be used for implementing energy conservation measures and skill development for women/girls in nearby villages.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

### **Agenda No. 40.12**

#### **Proposed 200 KLPD Molasses/Cane Juice/Sugar Syrup Based Distillery at Village Rani Nagal, Tehsil & District Moradabad (UP) by M/s. Karimganj Biofuels Private Limited – Consideration of Environment Clearance.**

#### **[IA/UP/IND2/224892/2021, IA- J-11011/127/2021-IA-II(I)]**

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

The proposal is for environmental clearance to the project establishment of 200 KLPD Molasses/Cane Juice/Sugar Syrup Based Distillery at Village Rani Nagal, Tehsil & District Moradabad (UP) by M/s. Karimganj Biofuels Private Limited.

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

Appraisal Committee (EAC). It was informed that no litigation is pending against the proposal.

Standard ToR has been issued by Ministry of Environment, Forests & Climate Change vide letter No.IA-J-11011/127/2021-IA-II(I) dated 02<sup>nd</sup> April, 2021. Public Hearing for the proposed project has been conducted by the Uttar Pradesh Pollution Control Board on 24<sup>th</sup> June, 2021 chaired by Additional District Magistrate, Moradabad. The main issues raised during the public hearing are related to employment and environmental pollution mitigation measures.

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

<b>Units</b>	<b>Capacity</b>	<b>Product</b>
Molasses/Cane Juice/Sugar Syrup Based Distillery	200 KLPD	Ethanol (Biofuel)/ Rectified Spirit/ ENA/Denatured Spirit

The total area for the proposed distillery project is 4.05 hectares (40500 m<sup>2</sup>). The land is owned by Rana Sugars Limited and it has been leased to its sister concern Karimganj Biofuels Private Limited for installation of new 200 KLPD Distillery Plant. The land for proposed Distillery plant by Karimganj Biofuels Private Limited is already industrial as it is part of sugar mill of Rana Sugars Limited who has leased their land for installation of plant. Industry will develop greenbelt in an area of 33% i.e. 1.34 ha (13400 m<sup>2</sup>) out of total area of the project.

The estimated project cost is Rs. 49 Crores. Total capital cost earmarked towards environmental Protection measures is Rs. 5.0 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.0 Crore per annum. Total Employment will be 150 persons (125 Permanent & 25 temporary) during operation phase. Industry has allocated Rs. 1 Crore @2 % of total project cost towards Social developmental activities.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors, Reserved Forests (RF)/ Protected Forests (PF) lies within 10 km radius of the project site. The study area is drained by many small distributaries and tributaries. Rivers - Bahalla river (~ 5.0 km in East direction) and Dhela river (~ 5.0 km in WNW direction), Distributaries- Pipalsana (~ 4.5 km in WNW direction), Godhi (~2.0 km in NW direction) and Roshanpur (~ 1.5 km in NE direction), Nala- Rajhera Nala (~ 0.5 km in NNE direction), Ghagra Nala (~ 2.0 km in ENE direction), Kachhua Nala (~ 2.5 km in NW direction), Nachna Nala (~ 4.0 km in ESE direction), Damdama Nala (~ 8.0 km in West direction), Nechiya Nala (~ 8.0 km in SSE direction) are flowing within 10 km radius.

Ambient air quality monitoring was carried out at 8 locations during December to February, 2021 and the baseline data indicates the ranges of

concentrations as: PM10 (58.2 to 92.5 µg/m<sup>3</sup>), PM2.5 (27.2 to 50.7 µg/m<sup>3</sup>), SO<sub>2</sub> (5.9 to 17.6 µg/m<sup>3</sup>) and NO<sub>2</sub> (13.4 to 35.2 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.369 µg/m<sup>3</sup>, 0.148 µg/m<sup>3</sup>, 1.82 µg/m<sup>3</sup> and 2.19 µg/m<sup>3</sup> with respect to PM10, PM2.5, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The total water requirement for the project would be 2320 KLPD of which 1520 KLPD will be recycled and reutilised in the process. Hence, fresh water requirement is 800 KLPD which will be sourced from adjacent Sugar Mill of Rana Sugars Limited (Sugar Division). Effluent of 1610 KLPD (Process condensate 1290 KLPD + Spent lees 195 KLPD + CT Blow down 50 KLPD + Sealing water 75 KLPD) will be treated through state of art CPU/Effluent Treatment Plant (Membrane based Process Plant) of 1800 KLPD capacity. The plant will be based on Zero Liquid discharge system.

Total power requirement will be 3.0 MW, which will be sourced from adjacent 6.0 MW Co-generation Power Plant of Rana Sugar Limited (Distillery Division). The D.G. Sets (2 x 1000 KVA) will be used for emergency backup purpose only. Adequate Stack height (6.5 m) will be provided as per CPCB norms. The proposed distillery is interlinked with Rana Sugars Limited (Distillery Division & Sugar Division). Power and steam will be procured from Rana Sugars Limited (Distillery Division) for proposed distillery operations. Rana Sugar Limited (Distillery Division) is installing an incineration boiler (52 TPH). ESP will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>.

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

CO<sub>2</sub> (155 TPD) generated 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:**

- Spent wash will be concentrated in Multi-effect evaporator and then burnt in adjacent distillery. Hence, the complete concentrated spent wash will be incinerated in the slop fired boiler (52 TPH) of adjacent Group Company's Distillery named Rana Sugar Limited (Distillery Division).
- Fly ash (120 TPD) generated from the adjacent 52 TPH boiler of Rana Sugars Limited (Distillery Division) will be used for brick manufacturing/soil amendment/converted to ash granules to be used as potash fertilizer.
- Used oil & grease (0.5 KL/Annum) generated from plant machinery/gear boxes as hazardous waste will be sold out to the CPCB authorized recyclers.

During the deliberations EAC observed that the industry made an agreement for obtaining 800 KLPD treated water throughout the year from adjacent sugar mill. In this regard EAC asked for the source of water when

sugar cane crushing season is off for which consultant responded that it shall be met by harvesting rain water and from storage tanks in adjacent sugar unit. In this regard, EAC is of the opinion that source of water for entire 6 months of such huge volume is neither technically nor practically feasible. In this regard PP/consultant was not able to give the layout details of the reservoirs proposed/storage tanks in the adjacent sugar mill. Therefore, EAC asked to submit the following additional details:

- Revised water balance sheet incorporating details of rain water harvested.
- Details of capacity of such storage tanks/ponds/reservoirs proposed along with layout.
- An affidavit to be submitted stating the below mentioned points: -
  - Sugar Complex plant will be completely based on ZLD.
  - No bio composting will be done in the plant.
  - Fire safety to be ensured in the plant in terms of conducting fire audits, provision of fire extinguishers etc.
  - Proposed fund of Rs. 1 crore shall be spent for providing pure drinking water facilities and for providing solar energy to nearby villages.

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

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

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

Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iii). Total fresh water requirement shall not exceed 800 KLPD which will be sourced from adjacent Sugar Mill of Rana Sugars Limited (Sugar Division). Prior permission shall be obtained from the concerned regulatory authority in this regard, and renewed from time to time.
- (iv). Effluent will be treated through state of art CPU/Effluent Treatment Plant (Membrane based Process Plant). No bio composting will be done in the plant.
- (v). CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
- (vi). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

- (viii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (ix). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (x). The company shall undertake waste minimization measures as below  
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xii). PP shall allocate Rs. 1.0 crore towards CER and it shall be spent for providing pure drinking water facilities and for providing solar energy to nearby villages.
- (xiii). 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.
- (xiv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xv). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

### **Agenda No. 40.13**

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

The proposal is for environmental clearance to the project 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.

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. F. No. J-11011/137/2018-IA-II(I) dated 12.02.2019 for 225 KLPD Molasses based distillery along with 12 MW Co-generation power plant at Village Ajbapur, Tehsil Mohammadi, District LakhimpurKheri, Uttar Pradesh. The company applied for expansion and obtained Certificate of "No Increase in Pollution Load" from Uttar Pradesh Pollution Control Board vide letter no. H-62123/C-5/NOC-123 dated 05.06.2021 for distillery capacity expansion from 225 KLPD to 300 KLPD for use of alternative feedstock and raw material mix (B-Heavy Molasses/Sugar Syrup).

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

<b>Units</b>	<b>Existing Capacity</b>	<b>Additional Capacity</b>	<b>Total Capacity after expansion</b>
Distillery	300 KLPD  (Molasses/Sugar Syrup Based)	200 KLPD  (Molasses/Sugar Syrup/Grain Based)	500 KLPD
<b>Product</b>	Absolute Alcohol- Ethanol /Extra Neutral Alcohol/Rectified Spirit	Ethanol (Bio-fuel) Only	
Co-generation power plant	12.0 MW	10.0 MW	22.0 MW

Existing land area is 10.52 ha (26 acres). Additional adjacent company's own land of 4.46 Ha (11 acres) is required for proposed expansion. Total plant area after expansion will be 14.98 ha (37 acres). Industry has already developed greenbelt in an area of 33% i.e. 3.47 hectares (8.58 acres) out of total existing area of the project and the additional 1.48 ha will be developed under greenbelt. Thus, total greenbelt area will be 4.95 ha (12.23 acre) after adding additional area.

The estimated expansion project cost is Rs. 225 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 50.0 Crores and the Recurring cost (operation and maintenance) will be about Rs. 4.0 Crores / annum. Total Employment will be 150 persons (100 permanent & 50 temporary) during operational phase after expansion. Industry proposes to allocate Rs. 4.49 Crores for 5 years from 2019-20 onwards as a part of the existing EC obtained from MoEFCC vide F. No. J-11011/137/2018-IA-II(I) dated 12.02.2019 for 225 KLPD Molasses based distillery along with 12 MW Co-generation power plant.

There are no National Park, Wildlife Sanctuary, Biosphere Reserve etc. exists within 10 km radius study area. Reserve Forest (8.5 km in ENE direction) & Bari Reserved Forest (9.0 km in SW direction). Water body i.e. Chhuha Nala (0.5 km in ENE Direction), Sarda Canal (1.5 Km in WSW direction), Rabha Distributary (2.5 km in SSW direction), Bhainsta Nala (4.0 km in SW direction), Sadatanagar Distributary (6.0 km in SW direction) & Gomati River (6.0 km in East direction) are found within 10 km radius.

Existing freshwater requirement for the distillery is 1800 KLPD. Additional requirement of freshwater for proposed Ethanol Plant will be 1400 KLPD for Molasses based operations or 1338 KLPD for Grain based operations which will be sourced from Groundwater. Hence, the total water requirement will be 3200 KLPD. After expansion, Effluent of 4803 m<sup>3</sup>/day will be treated through state of art CPU/Effluent Treatment Plant (Aerobic, Anaerobic ICX Reactor) of 5000 KLPD capacity. The plant will be based on Zero Liquid discharge system.

The existing power requirement for the existing plant is 6.0 MW. Additional power requirement for expansion project will be 6.0 MW. Total requirement after expansion will be 12.0 MW which will be sourced from existing 12 MW & proposed 10.0 MW Co-Generation Power Plant. Unit will be having D.G. Sets of 2x1500 KVA which will be used as standby during power failure. Adequate Stack height (12 m) will be provided as per CPCB norms. The unit has existing boiler of capacity 80 TPH with Bag filter as Air Pollution Control Equipment. As a part of the expansion, a new 80 TPH boiler is proposed within the existing plant premises. Bag filter with a stack height of 89 m for both 80 TPH boilers has been/will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>.

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

CO<sub>2</sub> generated (136 TPD) 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:**

- Concentrated spent wash (1165 TPD) during molasses/sugar syrup based operation of Multi-feed based Ethanol Plant is being/will be burnt in boiler along with bagasse.
- Solid waste from the Grain based operations of Multi-feed Ethanol Plant generally comprises of fibres and proteins in the form of DDGS (45 TPD), which will be ideally used as Cattle, poultry and fish feed ingredients.
- Total Ash (250 TPD) from proposed boiler will be used for soil amelioration due to rich potash content.
- Used oil & grease (1.5 KL/Annum) generated from plant machinery/gear boxes as hazardous waste is being/ will be sold out to the CPCB authorized recyclers.

IRO, Lucknow has submitted has issued certified compliance report for the project vide File No. IV/ENV/Ind-162/523/2019/164 dated 02.08.2021. The report states that PA have complied or are in the process of complying the EC conditions stipulated for the project EC letter No. F. No. J-11011/137/2018-IA-II(I) dated 12.02.2019.

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 200 KLPD will be for manufacturing of fuel ethanol only.

During deliberations EAC sought the ratio of fresh water used for ethanol produced. In this regard PP informed that ratio of fresh water used per kL Ethanol produced is 3.5 kL/kL and total fresh water requirement is 3200 KLPD. In this regard EAC pointed that the consultant has been considering only water utilized in fermentation only and left out the details of water utilized in boiler, domestic usage and others for determining the calculation of the same. A detailed deliberation was done and it was decided that

utilities and miscellaneous usage of whatsoever nature shall be included for determining ratio of fresh water used per kL Ethanol produced and it should be in the range of 3-4 kL fresh water/ kL ethanol used irrespective of raw material used. In this regard EAC asked PP to resubmit water balance reducing requirement of fresh water. Further EAC noted that Rs. 4.49 Crores has already been earmarked for 5 years as a part of the EC obtained from MoEFCC vide. No. J-11011/137/2018-IA-II(I) dated 12.02.2019 for women empowerment and for providing solar energy to nearby villages. In this regard, EAC desired that PP shall increase the amount by one more crore apart from the funds ear marked in the previous EC. Further, EAC sought the details of fly ash management. Accordingly, EAC directed PP to submit:

- Break up of water balance reducing fresh water requirement.
- 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.

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

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

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

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

- (i). As per OM dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed additional capacity of 200 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the integrated industry and no waste or treated water shall be discharged outside the premises.
- (iv). Total fresh water requirement for the integrated industry shall not exceed be 2000 KLD which shall be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/Irrigation division in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Rainwater shall be collected in storage ponds and utilized for plant activities. Ground water monitoring shall be done regularly and report is to be submitted to concerned authorities regularly.
- (v). Effluent shall be treated through CPU/Effluent Treatment Plant (Aerobic, Anaerobic ICX Reactor).
- (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). As committed PP shall spend Rs. 1.0 crore towards CER for initiatives of women empowerment and for providing solar energy to nearby villages.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

## **Agenda No. 40.14**

### **Grain Based distilleries plant for capacity of 200 KLPD alongwith Cogeneration power plant of 6 MW located at Biada, Nawanagar Industrial Area, Distt-Buxar, Bihar by M/s SGS Boifuels Pvt Ltd - Consideration of Environment Clearance.**

#### **[IA/BR/IND2/224789/2021, IA-J-11011/326/2021-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s Grass Roots Research & Creation India (P) Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the proposal for establishment of Grain Based distilleries plant for capacity of 200 KLPD alongwith Cogeneration power plant of 6 MW located at Biada, Nawanagar Industrial Area, Distt-Buxar, Bihar by M/s SGS Boifuels Pvt Ltd.

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

The project proposal is exempted from obtaining ToR & conducting Public Hearing as per EIA notification, 2006 amendment vide S.O 2339 dated 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>SL.No</b>	<b>Units</b>	<b>Proposed Capacity</b>
1	Installed Capacity	Grain Base Distillery of 200 KLPD
2	Major Raw Material	Damaged Grain Feed Stock, Broken Rice, Maize, Bajra & Sorghum, Starchy Materials etc.
3	Final Product & By-Product	Ethanol (200 KLPD) DDGS- 93 TPD CO <sub>2</sub> - 151 TPD
4	Power Plant	6 MW

Total land required for the project is 30.0 Acres (12.14 ha). Industry will develop greenbelt in an area of 40.19% of total project area i.e., 12.06 acre out of total area of the project.

The estimated project cost is Rs. 212 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 659.0 lacs and the Recurring cost (operation and maintenance) will be about Rs. 131.0 lacs per annum. Total Employment will be 158 persons as direct & indirect due to the project. Industry proposes to allocate 1 % of Company Profit towards Corporate Social Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Kao Nadi is at approx. 4.0 km towards North, Thora Nadi is at Approx. 4.3 km towards West, Chher Nadi is at approx. 9.0 km towards East.

Ambient air quality monitoring was carried out at Project Site during 01.04.2021 to 30.04.2021 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (83.9 – 98.5 µg/m<sup>3</sup>), PM<sub>2.5</sub> (44.7–56.7µg/m<sup>3</sup>), SO<sub>2</sub> (8.7–9.9 µg/m<sup>3</sup>) and NO<sub>2</sub> (16.4–20.7 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.46 µg/m<sup>3</sup>, 0.35 µg/m<sup>3</sup> and 0.365 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

One Time Total water requirement for the project will be 3375 KLD which will be further reduced through recycling & reuse of 2189 KLD. 801 KLD fresh water demand @4.0 KL of water/KL of Ethanol which will be sourced from ground water. The applications for permission of withdrawal of ground water has been submitted to CGWA vide application no. 21-4/882/BR/IND/2021 dated 09.08.2021. Effluent of 877 KLD quantity will be treated through 1,200 KLPD ETP. The plant will be based on Zero Liquid discharge system.

Power requirement will be 5.8 MW and will be met from in-house captive power plant. 2 DG sets of 500 kVA capacity are used as standby during power failure. Stack (Height 30 m) will be provided as per CPCB norms to the proposed DG sets. Project will have 50 TPH AFBC boiler will be installed. ESP and bag filter with a stack of height of 70 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/nm<sup>3</sup> for the proposed boilers. Regular monitoring will be done to ensure that ambient air quality standards to met all the time. All the internal roads will be asphalted.

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

CO<sub>2</sub> generated during fermentation process will be collected, purified, liquefied and sold to vendors.

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

Type of Waste	Quantity (TPA)	Storage	Utilization/ Disposal
DDGS - (by product) (Dried distillers' grains with soluble)	30,690	Covered shed	Sold as Cattle Feed, Poultry & Fisheries
Waste papers/Boxes	5	Covered shed	Sell out to local Market
Used Oil	2.0 KL	HDPE drums in covered shed	Used for oiling the machine in house and balance will be given to authorized re-cycler
ETP Sludge	290	Lined Containers	ETP sludge will be sold to vendors approved from CPCB.
Ash	26,136	Silo & Godown	Through suppliers By road
Spent Resin	1.2	Containers	It will be sold to vendors approved from CPCB

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 200 KLPD will be for manufacturing of fuel ethanol only.

During the appraisal EAC noted that Rs. 2.12 Crores shall have been allocated for CER. In this regard EAC directed that PP shall spend the proposed amount for establishment of solar plant within factory premises and electricity will be provided for villagers free of cost. PP has agreed for the same.

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

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

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

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

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

environmental management, and risk mitigation measures relating to the project shall be implemented.

- (iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iv). Total fresh water requirement shall not exceed 801 KLPD which will be met ground water. Extraction of ground water shall not be done without obtaining prior permission of CGWA/concerned authority. No ground water recharge shall be permitted within the premises.
- (v). Effluent shall be treated through ETP.
- (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 5 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

- (xiii). As committed PP shall allocate Rs. 2.12 Crores for CER and it shall be used for establishment of solar plant within factory premises. Electricity shall be provided to villagers from the solar plant free of cost.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

#### **Agenda No. 40.15**

**Establishment of 150 KLD Grain Based Distillery for Ethanol Blended Petrol alongwith 3.2 MW Cogeneration Plant by M/S. Bharat Oorja Distilleries Private Limited Located at Motipur Industrial Area, Damodarpur, Block, Baruraj, District Muzaffarpur, Bihar - Consideration of Environment Clearance.**

**[IA/BR/IND2/225877/2021, IA-J-11011/328/2021-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.

The proposal is for environmental clearance to the project for Establishment of 150 KLD Grain Based Distillery for Ethanol Blended Petrol alongwith 3.2 MW Cogeneration Plant by M/S. Bharat Oorja Distilleries Private Limited Located at Motipur Industrial Area, Damodarpur, Block, Baruraj, District Muzaffarpur, 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:**

<b>S. No.</b>	<b>Product Details</b>	<b>Existing Quantity</b>	<b>Proposed Quantity</b>	<b>Total Quantity</b>
1	Ethanol	0	150 KLD	150 KLD
2	Power Cogeneration	0	3.2 MW	3.2 MW
3	DDGS	0	62 TPD	62 TPD

Total land area is 8.09 Ha. (20 Acres / 80900 m<sup>2</sup>) which will be used for proposed Grain Based Distillery Project. Industry will develop greenbelt in an area of 33 % i.e., 2.67 Ha. (26700 m<sup>2</sup>) out of total area of the project. The estimated project cost is Rs 176 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 9.75 Crores and the Recurring cost (operation and maintenance) will be about Rs 2.25 Crores per annum. Total Employment will be 215 persons as direct & 15 persons indirect. Industry proposes to allocate Rs. 2.64 Crores @ of 1.5 % towards Corporate Social Responsibility as per OM vide F. No. 22-65/2017-IA.III Dt: 01.05.2018.

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 2448 m<sup>3</sup>/day of which fresh water requirement of 987 m<sup>3</sup>/day will be met from proposed 2 nos. Borewells.

Effluent of 1460 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 3000 KVA and will be met from Captive Power Plant. 500 KVA DG sets will be used as standby during power failure. Stack

(height 15 m.) will be provided as per CPCB norms to the proposed DG sets.

32 TPH Rice Husk/Coal fired boiler will be installed. ESP with a stack of height of 60 m. will be installed for controlling the particulate emissions within the statutory limit of 50 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 (55 TPD) & ETP Sludge (75 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 and brick manufacturers. ETP Sludge will be reused as bio compost 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 of 150 KLD will be for manufacturing of fuel ethanol only.

During deliberations, EAC directed the PP to use fresh water at 3 to 4 KL/KL of alcohol produced irrespective of raw material used. Further, EAC suggested that the CER funds (1.5%) shall be used for establishment of solar plant and electricity shall be provided for villagers free of cost. Ash shall be packed in 25-30 kg bags and transported via covered trolleys. PP agreed for the above. Accordingly, fresh water requirement shall not exceed 587 m<sup>3</sup>/day (3.9 KL/KL).

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

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

EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

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

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

- (i). As per OM dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 150 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 587 m<sup>3</sup>/day (3.9 KL/KL) for any kind of row material use will be met from proposed 2 nos. of 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.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Ash shall be packed in 25-30 kg bags and transported via covered trolleys.
- (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 shall allocate Rs. 2.64 crores towards CER and it shall be used for establishment of solar plant and electricity shall be provided for villagers free of cost.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

**Agenda No. 40.16**

**Establishment of 110 KLD Grain Based Distillery and 3 MW Cogeneration Plant (as per EBP) by M/s. Muzaffarpur Bio Fuels Pvt. Ltd. Located at Plot No. 26(P), Industrial Park Motipur, Part A, Block Baruraj, Dist. Muzaffarpur, Bihar - Consideration of Environment Clearance.**

**[IA/BR/IND2/223832/2021, IA-J-11011/315/2021-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.

The proposal is for environmental clearance to the project for Establishment of 110 KLD Grain Based Distillery and 3 MW Cogeneration Plant (as per EBP) by M/s. Muzaffarpur Bio Fuels Pvt. Ltd. Located at Plot No. 26(P), Industrial Park Motipur, Part A, Block Baruraj, Dist. Muzaffarpur, 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:**

<b>S. No.</b>	<b>Product Details</b>	<b>Existing Quantity</b>	<b>Proposed Quantity</b>	<b>Total Quantity</b>
1	Ethanol	0	110 KLD	110 KLD
2	Power Cogeneration	0	3 MW	3 MW
3	DDGS	0	46 TPD	46 TPD

Total land area is 8.09 Ha. (20 Acres / 80900 m<sup>2</sup>) which will be used for proposed Grain Based Distillery Project. Industry will develop greenbelt in an area of 33 % i.e., 2.67 Ha. (26700 m<sup>2</sup>) out of total area of the project. The estimated project cost is Rs 129.59 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 7.75 Crores and the Recurring cost (operation and maintenance) will be about Rs 1.75 Crores per annum. Total Employment will be 109 persons as direct & 5 persons indirect. Industry proposes to allocate Rs. 1.94 Crores @ of 1.5 % towards Corporate Social Responsibility as per OM vide F. No. 22-65/2017-IA.III Dt: 01.05.2018.

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 1795 m<sup>3</sup>/day of which fresh water requirement of 725 m<sup>3</sup>/day will be met from proposed 2 nos. Borewells.

Effluent of 1070 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 3000 KVA and will be met from Captive Power Plant. 500 KVA DG sets will be used as standby during power failure. Stack (height 15 m.) will be provided as per CPCB norms to the proposed DG sets.

30 TPH Rice Husk/Coal fired boiler will be installed. ESP with a stack of height of 60 m. will be installed for controlling the particulate emissions within the statutory limit of 50 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 (40 TPD) & ETP Sludge (55 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 and brick manufacturers. ETP Sludge will be reused as bio compost 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 of 110 KLD will be for manufacturing of fuel ethanol only.

During deliberations, EAC directed the PP to use fresh water at 3.4 KL/KL of alcohol produced irrespective of raw material used. Further, EAC suggested that the CER funds (1.5%) shall be used for establishment of

solar plant and electricity shall be provided for villagers free of cost and establishment of 15 to 20 toilets in primary schools. Ash generated shall be used for brick manufacturing within industrial premises. PP agreed for the above. Accordingly, fresh water requirement shall not exceed 375 m<sup>3</sup>/day (3.4 KL/KL).

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

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

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

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

- (i). As per OM dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 110 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 375 m<sup>3</sup>/day (3.4 KL/KL) for any kind of raw material use will be met from proposed 2 nos. of 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.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Ash generated shall be used for brick manufacturing within industrial premises.
- (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 shall allocate Rs. 1.94 Crs towards CER and it shall be used for establishment of solar plant and electricity shall be provided for villagers free of cost and establishment of 15 to 20 toilets in primary schools.
- (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. 40.17**

**Establishment of 125 KLD Grain Based Distillery and 3 MW Cogeneration Plant (as per EBP) by M/s. Venusbidhan Agrotech Pvt. Ltd. Located at Plot No. 6(F2), Industrial Area, Lohat, Block Pandaul, Dist. Madhubani, Bihar - Consideration of Environment Clearance.**

**[IA/BR/IND2/223798/2021, IA-J-11011/314/2021-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.

The proposal is for environmental clearance to the project for Establishment of 125 KLD Grain Based Distillery and 3 MW Cogeneration Plant (as per EBP) by M/s. Venusbidhan Agrotech Pvt. Ltd. Located at Plot No. 6(F2), Industrial Area, Lohat, 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:**

<b>S. No.</b>	<b>Product Details</b>	<b>Existing Quantity</b>	<b>Proposed Quantity</b>	<b>Total Quantity</b>
1	Ethanol	0	125 KLD	125 KLD
2	Power Cogeneration	0	3 MW	3 MW
3	DDGS	0	52 TPD	52 TPD

Total land area is 12.14 Ha. (30 Acres / 121400 m<sup>2</sup>) which will be used for proposed Grain Based Distillery Project. Industry will develop greenbelt in an area of 33 % i.e., 4.1 Ha. (41000 m<sup>2</sup>) out of total area of the project. The estimated project cost is Rs 175 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 8.70 Crores and the Recurring cost (operation and maintenance) will be about Rs 1.9 Crores per annum. Total Employment will be 120 persons as direct & 5 persons indirect. Industry proposes to allocate Rs. 2.6 Crores @ 1.5 % towards Corporate Social Responsibility as per OM vide F. No. 22-65/2017-IA.III Dt: 01.05.2018.

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 2028 m<sup>3</sup>/day of which fresh water requirement of 815 m<sup>3</sup>/day will be met from proposed 2 nos. Borewells.

Effluent of 1209 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 2800 KVA and will be met from Captive Power Plant. 500 KVA DG sets will be used as standby during power failure. Stack (height 15 m.) will be provided as per CPCB norms to the proposed DG sets.

30 TPH Rice Husk/Coal fired boiler will be installed. ESP with a stack of height of 60 m. will be installed for controlling the particulate emissions within the statutory limit of 50 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 (45 TPD) & ETP Sludge (62 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 and brick manufacturers. ETP Sludge will be reused as bio compost 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 of 125 KLD will be for manufacturing of fuel ethanol only.

During deliberations, EAC directed the PP to use fresh water at 3.3 KL/KL of alcohol produced irrespective of raw material used. Further, EAC suggested that the CER funds (1.5%) shall be used for establishment of solar plant and electricity shall be provided for villagers free of cost and establishment of 15 to 20 toilets in primary schools. Ash generated shall be used for brick manufacturing within industrial premises. PP agreed for the above. Accordingly, fresh water requirement shall not exceed 415 m<sup>3</sup>/day (3.3 KL/KL).

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

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

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

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

- (i). As per OM dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 125 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 415 m<sup>3</sup>/day (3.3 KL/KL) for any kind of row material use will be met from proposed 2 nos. of 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.

- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. Ash generated shall be used for brick manufacturing within industrial premises.
- (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 shall allocate Rs.2.6 crores towards CER and it shall be used for establishment of solar plant and electricity shall be provided for villagers free of cost and establishment of 15 to 20 toilets in primary schools.
- (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. 40.18**

**Expansion of the Existing Distillery from 90 KLPD to dual feed 300 KLPD under EBP Scheme by M/s. Satish Sugars Limited (SSL) located at Sangankeri Yadwad Road, Hunshyal P.G., Gokak Taluk, Belgaum District, Karnataka - Consideration of Environment Clearance.**

**[IA/KA/IND2/220067/2012, J-11011/341/2012-IA.II(I)]**

The Project Proponent and the accredited Consultant M/s. Environmental Health and Safety Consultants Private Limited, made a detailed presentation on the salient features of the project.

The proposal is for environmental clearance to the project for Expansion of the Existing Distillery from 90 KLPD to dual feed 300 KLPD under EBP Scheme by M/s. Satish Sugars Limited (SSL) located at Sangankeri Yadwad Road, Hunshyal P.G., Gokak Taluk, Belgaum District, Karnataka.

All Distillery projects are listed at S. No. 5 (g) of Schedule of Environment Impact Assessment (EIA) and as per as per the EIA Notification 2006 and amendment vide Notification S.O 2339(E) dated 16.06.2021 the proposal is to be appraised as B2 category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

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

Ministry had issued EC earlier vide letter no F. No. J-11011/341/2012-IA II(I) dated 07.07.2021 to the existing Molasses based distillery unit capacity from 60 to 120 KLPD, the industry is proposed to expand the

Distillery from 90 KLPD (though EC obtained for 120 KLPD, installed capacity is 90 KLPD) to 300 KLPD under EBP programme of MOEF&CC as B2 Category Project in favour of M/s. Satish Sugars Limited (SSL).

**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	Production details existing and proposed	90 KLD from "B" Heavy Molasses	210 KLD 210 KLD for 120 days from Cane Syrup. 210 KLD for 210 days from Grains Total 330 Days	300 KLD

Existing land area is 159.30 Acres, out of which 7 acres 6 guntas is earmarked for Distillery for expansion activity. Industry has already developed / will develop greenbelt in an area of 33 % i.e., 52 acres out of total area of the project. The total investment for the existing project is Rs 691. 96 Crores which is inclusive of Rs 83.70 Crores estimated cost for expansion. Total capital cost earmarked towards environmental pollution control measures is Rs 35.68 lakhs and the Recurring cost (operation and maintenance) will be about Rs 27.05 lakhs per annum. Total Employment will be 200 persons as direct & 35 persons indirect after expansion. Industry proposes to allocate Rs 40,00,000/- @ of 2.5% towards Corporate Social Responsibility.

There is Ghataprabha bird sanctuary located at a distance of 8.42 Km from Eco Sensitive Zone boundary and 8.83 Km from Sanctuary boundary. Ghataprabha River is flowing from West to East with respect to Project Site & is at a distance of 3.45 kms in south direction to the project site & Hire Halla is located at 0.81 kms in East.

Ambient air quality monitoring was carried out at 5 locations during November, 2020 to March, 2021 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (72- 76.7µg/m<sup>3</sup>), PM<sub>2.5</sub> (20-28.3 µg/m<sup>3</sup>), SO<sub>2</sub> (3.87-5.01µg/m<sup>3</sup>) and NO<sub>2</sub> (14.21-17.79 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.38 µg/m<sup>3</sup>, 0.11µg/m<sup>3</sup> and 0.17 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 2245 m<sup>3</sup>/day of which fresh water requirement of 1288 m<sup>3</sup>/day will be met from Ghataprabha River.

Effluent quantity of 1700 m<sup>3</sup>/day will be treated through (02 Nos. of ETP having 850 KLD capacity each) and Condensate polishing unit of 1250 KLD will be implemented to treat the spent lees, cooling tower and boiler blow down. Achieve Zero Liquid Discharge (ZLD) at distillery unit by adopting evaporation, concentration and incineration.

Power requirement after expansion will be met from 110 TPD bagasse fired boilers of capacities 60 TPH, 90 TPH & 130 TPH. Along with this existing DG Sets of 650 kVA & 1000 kVA at Sugar & Co-gen unit & 250 kVA DG set at Distillery unit will be used as backup power only during power failure. Stack (height 30m AGL) has been provided as per CPCB norms to all DG sets.

ESP and wet scrubbers with a stack of height of 80m AGL will be used for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup> for the proposed boilers.

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

SI. No.	Parameter	Unit	Boiler 130 TPH	Boiler 60 TPH + 90 TPH
1	Stack Height	m	80	32 m + 80 m
2	Stack Diameter	m	4.2	3.5
3	Stack gas temperature	°C	137	139
4	Stack exit gas velocity	m/s	7.82	7.55
5	Fuel Type	-	Bagasse	Bagasse
6	Concentration	g/sec		
	PM	g/sec	4.1	2.25
	SO <sub>2</sub>	g/sec	0.87	0.71
	NO <sub>2</sub>	g/sec	1.33	0.98
7	APCE	-	ESP	Wet scrubber + ESP

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

Sl. No.	Solid waste	Quantity TPD	Method of collection	Mitigation measures	
				Method of Storage	Mode of disposal
<b>Solid waste</b>					
1	Bagasse	4500	Mechanical conveyor	Bagasse storage yard	Sent to cogeneration unit to use as fuel as boiler
2	Boiler-Ash from	28	Mechanical conveyor into	Storage yard	Disposed to farmers to use

Sl. No.	Solid waste	Quantity TPD	Method of collection	Mitigation measures	
				Method of Storage	Mode of disposal
	co-gen unit		common silo for further disposal		as soil conditioning
3	Press mud	600	Mechanical conveyor into common silo for further disposal	Storage yard	
4	ETP Sludge	3.0	Sludge drying beds	Storage yard	Used as manure for greenbelt development
5	Domestic solid waste	0.065	Collection bins	Handed over to nearby Gram Panchayat.	Nearby municipal agencies & recyclers.
<b>Distillery</b>					
1	Yeast Sludge	12	Mechanical conveyor	Storage yard	Dried and sold as cattle feed
<b>Hazardous waste</b>					
1	Used oil from DG sets	200lts	Stored in leak proof sealed barrels	Hazardous waste storage area	Used as lubricants within the industry and excess disposed to KSPCB approved recyclers

Certified compliance report submitted by Deputy Director of MoEF&CC, Regional Office, Bangalore with respect to the earlier EC conditions indicate that the Status of compliance is 'Satisfactory' vide letter No. EP/12.1/505/KER & EP/12.1/2019-2020/7/KAR /437 dated 18<sup>th</sup> August, 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 from 90 KLPD to 300 KLPD will be for manufacturing of fuel ethanol only.

During presentation PP has stated that Ghataprabha Bird Sanctuary notified S.O. 2029(E) vide dated 27<sup>th</sup> June, 2017. The Eco-sensitive Zone lies between the North Latitudes N 16° 10'29.22 to 16° 10'26.62 and East longitudes between E 74° 48'49.32' E to 74° 48'44.62 and North Latitudes N 16° 11'11.36 N to 16° 11'06.88 and East longitudes between E 74° 41'28.08 to 74° 41'33.15 and spread over an geographical area of 22.66

square kilometers with an extent of 300 meters all around the boundary of Ghataprabha Bird Sanctuary. Accordingly, EAC noted that the proposed project shall not attract NBWL clearance.

Further, EAC found the CER proposed is low. Therefore, EAC directed that PP shall allocate Rs. 2.0 crores for CER and it shall solely be used for installation and maintenance of solar lights for the villagers. PP agreed for the above.

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

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

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

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

- (i). As per OM dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity from 90 KLPD to 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 1288 m<sup>3</sup>/day and will be sourced from Ghataprabha River. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time.
- (v). The spent wash/other concentrates shall be treated by concentration followed by incineration. Bio-composting of any form shall not be allowed.
- (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 shall allocate Rs. 2.0 crores for CER and it shall solely be used for installation and maintenance of solar lights for the villagers.
- (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. 40.19**

**Greenfield Project of Grain Based Distillery Plant (200 KLPD) along with Co-Generation Power Plant of 9 MW by M/s. Bhagalpur Biorefinery Private Limited located at Village-Kakwara Tola Paharidih, Tehsil/Block-Banka, Distt.-Banka, Bihar- Consideration of Environment Clearance.**

**[IA/BR/IND2/226738/2021, IA-J-11011/337/2021-IA-II(I)]**

EAC informed 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. 40.20**

### **Arab Mix Crude Oil Pipeline from Crude Oil Terminal at Mundra, Gujarat to HPCL Rajasthan Refinery (HRRL) at Pachpadra, Barmer district, Rajasthan by M/s. HPCL Rajasthan Refinery Limited - Consideration of Environment Clearance.**

#### **[IA/GJ/IND2/137870/2020, J-11011/87/2013-IA-II(I)]**

The project proponent and their consultant M/s. Engineers India Limited, made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal is for Environmental Clearance to the proposed Arab mix crude oil pipeline from Crude Oil Terminal at Mundra, Gujarat to HPCL Rajasthan Refinery at Pachpadra, District-Barmer, Rajasthan by HRRL.

All Oil & gas transportation pipe line (crude and refinery/ petrochemical products), passing through national parks /sanctuaries/coral reefs /ecologically sensitive areas including LNG Terminal are listed at S.N. 6(a) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

The ToR has been issued by Ministry vide letter No. Vide Letter No. J-11011/87/2013-IA-II(I) dated 26<sup>th</sup> May, 2020. Gujarat Pollution Control Board (GPCB) conducted the public hearing for the proposed pipeline project at Open Ground, Near Ramapir Temple, Near High School, Village Piparala, Santalpur, and District – Patan on 07/04/2021 and was presided over by District Magistrate and District Collector, Patan. GPCB conducted the public hearing at Danani Mirani Party Plot, Near Essar Petrol Pump, Rapar Road, Village Adesar, Taluka Rapar, and District – Kutch on 20/07/2021 and was presided over by Resident Additional Collector and Additional District Magistrate, Kutch. The main issues raised during the public hearing were related to farmer's compensation, employment, socio-economic development and environment. It was informed that no litigation is pending against the proposal.

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

<b>S. No.</b>	<b>Product Details</b>	<b>Existing Quantity (MMTPA)</b>	<b>Proposed Quantity (MMTPA)</b>	<b>Total Quantity (MMTPA)</b>
1.	Crude Oil Pipeline	-	9	9

Proposed Crude Oil Pipeline Project is for transporting crude oil from Crude Oil Terminal (COT) at Mundra -Gujarat to Rajasthan Refinery through 30" Diameter, 487.3 Kms long Pipeline. Total land area to be acquired for proposed pipeline is 974.6 Sq. M (as per 20 m width of ROU). The industry will develop greenbelt in an area of 33% around Intermediate Pigging Stations, Despatch Terminal & Receipt Terminal will be developed with suitable width along the periphery of area. The estimated project cost is Rs. 2500 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 0.55 crores and the recurring cost (operation and maintenance) will be about Rs. 0.3 crores per annum. Direct employment will be 86 persons & indirect employment will be 14 persons during operation phase. During construction phase approximately 300 persons will be required to execute the work of laying of pipeline. HRRL proposes to allocate Rs. 3 crores towards Corporate Environment Responsibility (CER).

The proposed pipeline stretch is passing through Wild Ass Sanctuary (WLS) area of 10.84 ha. in Kutch and Patan District of Gujarat. The proposed pipeline stretch passing through 9.0487 ha. of forest land (Kachchh East 4.3848 ha, Kachchh SF 0.2052 ha, Patan Forest 4.1964 ha & Banaskantha SF 0.2622 ha). The proposed pipeline will cross 18 rivers including minor rivers Bhukhi, Babia, Ruparel, Songa, Thapper, Adhoi, Khari, Sukri and Luni. The project does not pass through any eco sensitive zones.

Wildlife Clearance from National Board for Wild Life has been received on 10.05.2021; vide letter no. F. No. 6-8/2021WL for diversion of 10.84 ha of forest land from Wild Ass Sanctuary. In-principle (Stage-I) forest approval from MoEFCC (Integrated Regional Office, Gandhinagar) has been received vide letter no. F.No. 6-GJC 039/2021-BHO/387 I/4850/2021 dated 25.06.2021 for diversion of 9.0487 ha forest land.

Ambient air quality monitoring was carried out at 18 locations during October to December 2020 and the baseline data indicates the ranges of concentrations as PM10 (48-94 µg/m<sup>3</sup>), PM2.5 (21.8-55.4 µg/m<sup>3</sup>), SO<sub>2</sub> (5.10-16.1 µg/m<sup>3</sup>) and NO<sub>2</sub> (10.4-34.8 µg/m<sup>3</sup>) respectively. Air quality modeling was not required as there is no stack/process emission envisaged for the proposed project. The ambient air quality concentrations are within the National Ambient Air Quality Standards (NAAQS).

Fresh water requirement for proposed project will be 7 KLD. Water demand will be met from bore well/local source for IP and SV stations. Effluent of 5.6 KLD will be generated in both IP stations. Septic Tanks are envisaged at both IP Stations (IPS1 & IPS-2).

Power requirement for the proposed project will be 5.6 MW (DT=4.5 MW, RT=150 KW, 150 KW in each IP Station and 50 KW in each SV station and will be sourced from State Electricity Grid. DG set of capacity 150 KVA each for IPS 1 & IPS 2 and 50 KVA each for SV station. Adequate Stack

height will be provided as per CPCB norms to the proposed DG set. No boiler/stacks are envisaged for the proposed project.

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

Dust generation from transportation of construction material by road, grading, excavating activities, civil works and movement of vehicle cause reversible impact as these activities are short term. PM, CO, NO<sub>x</sub> & SO<sub>x</sub> generation due to operation of DG sets, Diesel engines of machineries and vehicles. All equipment will be operated within specified design parameters.

Pigging waste of 1 tons per annum from Intermediate Pigging Stations will be generated and disposed off to nearest TSDF site.

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

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

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

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

from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

- (i). Environmental Clearance is subject to Forest Clearance (as per Forest Conservation Act, 1980), NBWL clearance (The Wildlife Protection Act, 1972) & CRZ Clearance (as per CRZ Notification 2011/2019). Project proponent shall comply with all the conditions stipulated in all the above clearances/NOC issued and commencement of operations shall be done after issuance of all clearances as applicable.
- (ii). Project proponent shall implement Conservation Plan for Schedule – I species and all other plans related to various clearances within the stipulated time frame.
- (iii). The project authority shall ensure restoration of the Right of Way to preconstruction level as soon as construction activity completed. To ensure prevention of soil erosion, backfilled areas should be properly compacted.
- (iv). Fresh water requirement for proposed project will be 7 KLD. Water demand will be met from bore well/local source for IP and SV stations. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time.
- (v). SCADA system shall be installed with dedicated optical fiber based telecommunication link for safe operation of pipeline and leak detection system.
- (vi). Intelligent pigging facilities shall be provided for the entire pipeline system for internal corrosion monitoring. Coating and impressed current cathodic protection system shall be provided to prevent external corrosion.
- (vii). All the recommendations mentioned in the risk assessment report shall be implemented and Emergency response plan shall be based on guideline prepared by OISD.
- (viii). Requisite Onsite and Offsite Disaster Management Plans shall be prepared and implemented.
- (ix). The company shall obtain all requisite clearances for fire safety and shall comply with the stipulation made by the respective authorities.

- (x). The construction of pipelines through the water bodies shall be avoided during the rainy season/ breeding seasons of aquatic animals.
- (xi). The riverbed, embankments and dykes shall be restored adequately after installation of crossings.
- (xii). For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xiii). Annual safety audit shall be carried out for the initial three years by an independent agency (OISD/PNGRB/DGMS etc.) and report submitted to this Ministry for ensuring the strict compliance of safety regulations on operation and maintenance.
- (xiv). The construction of pipeline particularly at the river and stream crossing shall be done during dry seasons to avoid disturbance of breeding seasons and soil erosion. The riverbed, embankments and / dykes shall be restored adequately after installation of crossings.
- (xv). Pipeline wall thickness and minimum depth of burial at river crossings and casings at rails, major road crossings shall be in conformity with ANSI/ASME requirements.
- (xvi). The PP shall follow horizontal drilling technique for laying of pipeline while passing through major rivers.
- (xvii). The project authorities shall install SCADA/GPS system with dedicated optical fiber based telecommunication link for safe operation of pipeline and Leak Detection System. Additional sectionalizing valves in the residential areas and sensitive location shall be provided to prevent the leaking of gas going to the atmosphere in the event of pipeline failure.
- (xviii). The project authorities shall patrol and inspect the pipeline regularly for detection of faults as per OISD/ PNGRB guidelines and continuous monitoring of pipeline operation by adopting non-destructive method(s) of testing as envisaged in the EMP. Pearson survey and continuous potential survey shall be carried out at regular intervals to ensure the adequacy of cathodic protection system.
- (xix). Necessary approvals from Chief Controller of Explosives must be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented.
- (xx). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental

Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.

- (xxi). The acoustic chambers/barriers should be provided for individual units wherever feasible in the compressor stations.
- (xxii). The workers camp should have arrangement for safe drinking water, hygienic kitchen and sanitation facilities.

**16<sup>th</sup> September, 2021 (Thursday)**

### **Agenda No. 40.21**

**Expansion of distillery from 60 KLPD to 200 KLPD and captive power plant from 2 to 7.5 MW under Ethanol blended with Petrol (EBP) program by M/s. Mellbro Sugars Pvt. Ltd., located at Sy. No.s 1054/1, 1054/2, 1054/3, 1055/1, 1055/2, 1061/1A, 1061/1B, 1061/2+3A, 1061/2+3B, 1061/2+3/K/1, 1061/2+3/K/2, 1062/3, 1062/2/A, 1062/2/B, 1063/1, 1063/2, 1064/1, 1064/2, 1064/3, 1065/1, 1065/3, 1065/4, 1065/2A, 1072/1, 1070/3, 1080/1, 1079/1A+1B/1, 1123/1, 1123/2, Shirur Village, Bagalkot Taluk and District, Karnataka - Consideration of Environment Clearance.**

**[IA/KA/IND2/222151/2021, J-11011/380/2017-IA II (I)]**

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

The proposal is for environmental clearance to the project for Expansion of distillery from 60 KLPD to 200 KLPD and captive power plant from 2 to 7.5 MW under Ethanol blended with Petrol (EBP) program by M/s. Mellbro Sugars Pvt. Ltd., located at Sy. No.s 1054/1, 1054/2, 1054/3, 1055/1, 1055/2, 1061/1A, 1061/1B, 1061/2+3A, 1061/2+3B, 1061/2+3/K/1, 1061/2+3/K/2, 1062/3, 1062/2/A, 1062/2/B, 1063/1, 1063/2, 1064/1, 1064/2, 1064/3, 1065/1, 1065/3, 1065/4, 1065/2A, 1072/1, 1070/3, 1080/1, 1079/1A+1B/1, 1123/1, 1123/2, Shirur Village, Bagalkot Taluk and District, Karnataka.

All Distillery projects are listed at S. No. 5 (g) of Schedule of Environment Impact Assessment (EIA) and as per as per the EIA Notification 2006 and amendment vide Notification S.O 2339(E) dated 16.06.2021 the proposal

is to be appraised as B2 category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

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

Ministry had issued EC earlier vide letter No. F. No. J-11011/380/2017-IA-II (I) dated 3<sup>rd</sup> September 2019 to the project for setting up of integrated industry with Sugar unit of 5000 TCD, Co-generation Power Plant of 30 MW and Distillery unit of 60 KLPD capacity in favour of M/s. Mellbro Sugars Pvt. Ltd. Construction and erection of machineries are in progress in respect of sugar plant. Industry is planned to commission the sugar plant in the ensuing sugarcane crushing season.

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

<b>Particular</b>	<b>EC obtained – construction in progress Capacity</b>	<b>Proposed expansion capacity</b>	<b>Scenario after expansion, Total capacity</b>
Sugar plant	5000 TCD	-	5000 TCD
Co-generation	30 MW	-	30 MW
Distillery capacity (raw material B heavy molasses and sugarcane syrup)	60 KLPD	140 KLPD	200 KLPD
Captive power	2 MW	7.5 MW	7.5 MW

Existing land area is 4,08,700 m<sup>2</sup> (100 Acres 34 Guntas) converted for industrial use. Proposed expansion shall be within the existing land available and no additional land is required. Industry will develop greenbelt in an area of 33% i.e. 1,34,736.46 m<sup>2</sup> (33 Acres 11 Guntas) out of total area of the project. The estimated project cost is Rs. 494.62 crores including existing investment of Rs. 251.85 crores for sugar & co-gen and proposed distillery cost of Rs. 242.77 crores. Total capital cost earmarked towards environmental pollution control measures after expansion is Rs. 61.47 crores and the recurring cost (operation and maintenance) shall be Rs. 1.79 crores per annum. Total employment will be 70 persons as permanent & 270 persons temporary after expansion. Industry proposes to allocate Rs. 3 Crores towards Corporate Environmental Responsibility.

There are no national parks, wild life sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild life Corridors etc. within 10 km distance from the project site. River Malaprabha is flowing at a distance of 6.7 km in East direction.

Baseline ambient air quality monitoring is not carried out since the project is to be appraised as B2 category as per the Notification of MoEF & CC no. S.O. 2339(E) dated 16.06.2021. However, ambient air quality monitoring is carried out by the industry within the premises. The monitoring data during July 2021 indicate PM<sub>10</sub> (64.3 µg/m<sup>3</sup>), PM<sub>2.5</sub> (33.8 µg/m<sup>3</sup>), SO<sub>2</sub> (15.2 µg/m<sup>3</sup>) and NO<sub>x</sub> (17.6 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.38 µg/m<sup>3</sup>, 0.64 µg/m<sup>3</sup> and 0.7 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> respectively. The resultant concentrations will be within the National Ambient Air Quality Standards (NAAQS).

Water requirement for distillery unit is given in the Table below and fresh water shall be met from Malaprabha River.

Scenario	Combination of production in 200 KLPD Distillery	Fresh Water		Recycled Water in KLD	Total Water Requirement in KLD
		in KLD	kL/kL of Ethanol		
1	Using sugar syrup	855	2.8	1547	<b>2402</b>
2	Using B-Heavy Molasses	787	3.7	1113.5	<b>1900.5</b>

**In Distillery Unit & Captive Power Plant:** Out of the total raw spent wash generated, part of it will be directly recirculated to fermenter for dilution of syrup/B heavy molasses and the rest is concentrated in MEE. Concentrated spent wash generated from distillery will be used as fuel in the incineration boiler.

Feedstock	Raw spent wash, KLD	Concentrated spent wash incinerated in incineration boiler, KLD
Using sugar syrup	1200 (6 kL/kL of alcohol)	240 (1.2 kL/kL of alcohol)
Using B-Heavy Molasses	840 (6 kL/kL of alcohol)	248 (1.8 kL/kL of alcohol)

Spent lees, condensate from MEE, cooling tower bleed-off, incineration boiler blow-down, CO<sub>2</sub> scrubber wastewater, lab wastewater, DM rejects are treated in CPU of 2000 KLD capacity. The treated water from CPU is partially recycled for syrup/molasses dilution and rest is used for cooling tower makeup. ZLD concept shall be followed in distillery unit. Details of

Spent lees, Condensate from MEE and utility effluent generation when different feedstock is used is given in Table below.

<b>Feedstock</b>	<b>Spent lees, KLD</b>	<b>Condensate from MEE, KLD</b>	<b>Other Lean effluents, KLD</b>	<b>Total, KLD</b>
Using sugar syrup	337	840	250	<b>1,427</b>
Using B-Heavy Molasses	250	554	224	<b>1,028</b>

Power requirement after expansion will be 2.5 MW for distillery unit and shall be met from Captive power plant. Existing unit has one 1000 kVA DG set and additional 800 kVA DG set is proposed in expansion as standby during power failure. Stack height of 30 m for 1000 kVA DG set and 9 m ARL for 800 kVA DG set are proposed.

In the sugar plant, there is one 125 TPH Co-Gen Boiler using Bagasse as fuel with ESP and a stack of height 85 m AGL as APC measure. Additionally, for the distillery, one 45 TPH incinerator boiler will be installed, using concentrated spent wash supported with coal as fuel, attached to ESP and a stack of height 80 m AGL. APC measures are sufficient for controlling the particulate emissions within the statutory limit of 115 mg/Nm<sup>3</sup>.

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

CO<sub>2</sub> from fermentation shall be recovered in a dedicated CO<sub>2</sub> bottling plant.

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

<b>Sl. No.</b>	<b>Solid waste</b>	<b>Total proposed after expansion</b>	<b>Mode of disposal</b>
1	Yeast sludge	50 KLPD for cane juice OR 36 KLPD for B-heavy molasses	Given to farmers along with pressmud to compost and reuse.
2	Ash from incineration boiler	155 TPD	Given to fertilizer blending units or to brick manufacturers.

Status of compliance report to Consent to Establish (CTE) is issued by Karnataka State Pollution Control Board (KSPCB), Bagalkot vide letter No. KSPCB/RO(BGK)/2021-22/454 dated 09.08.2021. It is reported that the

work of establishment of sugar plant is in progress, distillery plant area levelling and plantation at the boundary are completed.

During deliberations, EAC accepted the Certified Compliance Report (CCR) to the Consent to Establish (CTE) as issued by Karnataka State Pollution Control Board (KSPCB), Bagalkot vide letter No. KSPCB/RO(BGK)/2021-22/454 dated 09.01.2021.

Further, EAC suggested that the CER funds of Rs. 3.0 Crore shall be equally utilized for establishment of solar plant and electricity shall be provided for villagers free of cost and for infrastructure and skill development programs in Govt. schools located in nearby villages. Ash generated shall be used for brick manufacturing within industrial premises. Out of the total project area, 20% shall be allotted solely for parking purposes. PP agreed for the above.

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 from 60 KLPD to 200 KLPD will be for manufacturing of fuel ethanol only.

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

The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. The 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 additional capacity from 60 KLPD to 200 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the integrated industry and no waste or treated water shall be discharged outside the premises.
- (iv). Total fresh water requirement for the integrated industry shall not exceed 855 KLPD which shall be met from Malaprabha river. Prior permission shall be obtained from the concerned regulatory authority/Irrigation division in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises.
- (v). The spent wash/other concentrates shall be treated by concentration followed by incineration. Ash generated shall be used for brick manufacturing within industrial premises.
- (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). The CER funds of Rs. 3.0 Crore shall be equally utilized for establishment of solar plant and electricity shall be provided for villagers free of cost and for infrastructure and skill development programs in Govt. schools located in nearby villages.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 20% shall be allotted solely for parking purposes.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

## **Agenda No. 40.22**

### **Expansion of integrated Sugar and Distillery unit under EBP Scheme by M/s. Shree Renuka Sugars Limited located at survey No. 377, Burlatti Village, Athani Taluk, Belagavi District, Karnataka - Consideration of Environment Clearance.**

**[IA/KA/IND2/212441/2021, J-11011/980/2007-IA II (I)]**

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

The proposal is for environmental clearance to the project for Expansion of integrated Sugar and Distillery unit under EBP Scheme by M/s. Shree Renuka Sugars Limited located at survey No. 377, Burlatti Village, Athani Taluk, Belagavi District, Karnataka.

- a. It is a proposed expansion of Sugar and Distillery for production of Ethanol using sugarcane syrup/ B-Heavy molasses/C-Heavy molasses as raw material.
- b. The sugar and distillery configuration will be as under:

<b>Particular</b>	<b>Existing Capacity</b>	<b>Proposed expansion capacity</b>	<b>After expansion Total capacity</b>
<b>Sugar plant expansion</b>			
Sugar plant crushing capacity in TCD	10000	5000	15000
Co-generation in MW	68	-	68
<b>Distillery expansion</b>			
<b>Particular</b>	<b>Existing Capacity in KLPD</b>	<b>Proposed expansion capacity in KLPD</b>	<b>After expansion Total capacity in KLPD</b>
Distillery plant capacity	300 KLPD	300 KLPD	600 KLPD
Ethanol production configuration	300 KLPD using C Heavy molasses Or 450 KLPD using B heavy/sugar syrup		<ul style="list-style-type: none"><li>• 450 KLPD using C-heavy</li><li>Or</li><li>• 675 KLPD using B-Heavy molasses</li><li>Or</li></ul>

			<ul style="list-style-type: none"> <li>• 900 KLPD using Cane Juice/syrup</li> </ul>
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All Sugar industries and Distillery projects are listed at S. Nos. 5 (g) & (j) of Schedule of Environment Impact Assessment (EIA) and as per as per the EIA Notification 2006 and amendment vide Notification S.O 2339(E) dated 16.06.2021 the proposal is to be appraised as B2 category 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 2<sup>nd</sup> March, 2021 & 16<sup>th</sup> June, 2021. It was informed that no litigation is pending against the project.

Ministry had issued Environment Clearances earlier vide letter No. J-11011/980/2007-IA II (I) dated 23.10.2008 for expansion of Sugarcane crushing capacity from 5000 TCD to 10000 TCD, Co-generation power plant from 38 MW to 58 MW & Molasses based Distillery from 120 KLPD to 300 KLPD; and

Prior EC from MoEF&CC for enhancement of Co-gen plant from 58 MW to 68 MW vide EC Letter No. J-13012/92/2011-IA II (T) dated 20.08.2014.

Further, KSPCB has issued addendum to existing CFO for enhancement of production of ethanol capacity from 300 KLPD to 450 KLPD in existing 300 KLPD Distillery plant by changing the raw material by using B-Heavy Molasses, Sugar cane juice/syrup under no increase in pollution load as per the MoEF&CC notification S.O. No. 804 (E) dated 23.11.2016 and S.O. No. 236 (E) dated 16.01.2020 in favour of M/s. Shree Renuka Sugars Limited., (unit -IV).

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

<b>Particular</b>	<b>Existing Capacity</b>	<b>Proposed expansion capacity</b>	<b>After expansion Total capacity</b>
<b>Sugar plant expansion</b>			
Sugar plant crushing capacity in TCD	10000	5000	15000
Co-generation in MW	68	-	68
<b>Distillery expansion</b>			

Particular	Existing Capacity in KLPD	Proposed expansion capacity in KLPD	After expansion Total capacity in KLPD
Distillery plant capacity	300 KLPD	300 KLPD	600 KLPD
Ethanol production configuration	300 KLPD using C Heavy molasses  Or  450 KLPD using B heavy/sugar syrup		<ul style="list-style-type: none"> <li>• 450 KLPD using C-heavy</li> <li style="text-align: center;">Or</li> <li>• 675 KLPD using B-Heavy molasses</li> <li style="text-align: center;">Or</li> <li>• 900 KLPD using sugarcane Juice/syrup</li> </ul>

Existing land area of Sugar, Co-gen and distillery unit is 942918 m<sup>2</sup>., the proposed expansion will be within the existing industry premises. Industry has already developed greenbelt in an area of 33 % i.e., 311608 m<sup>2</sup> out of total area of the project 942918 m<sup>2</sup>. The estimated project cost is Rs. 1191.1 Crores including existing investment of Rs. 892.9 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 240.57 Crores and the Recurring cost (operation and maintenance) will be about Rs. 4.35 Crores per annum. Total Employment will be 706 persons, out of this the direct employment is 386 persons & indirect is 320 persons after expansion. Industry proposes to allocate Rs. 1.0 Crores towards CER.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River Krishna is flowing at a distance of 11 km in South of the industry.

Baseline ambient air quality monitoring is not carried out since the project is to be appraised as B2 category as per the Notification of MoEF & CC S.O 2339(E) dated 16.06.2021. However, ambient air quality monitoring is carried out by the industry as per the conditions of the Consent issued by KSPCB. The monitoring data during February 2021 indicate PM<sub>10</sub> is 84.71 µg/m<sup>3</sup>, PM<sub>2.5</sub> is 45.63 µg/m<sup>3</sup>, SO<sub>2</sub> is 5.99 µg/m<sup>3</sup> and NO<sub>x</sub> is 0.64 µg/m<sup>3</sup>.

Total water requirement is as under;

Freshwater is met from Krishna River located at about 11 km in southern direction from project site. (Permission to draw 46.6 mcft or 5500 KLD, is

obtained from Karnataka Neeravari Nigam Limited, Government of Karnataka).

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

Particulars	Freshwater		Recycled Water in KLD	Total Water Requirement in KLD
	in KLD	KL/KL of Sugarcane Crushed		
Water requirement by Sugar Plant:				
Existing - 10000 TCD	0	0	720	720
After expansion - 15000 TCD	0	0	920	920
Water requirement by 68 MW Co-Gen Plant	480	0.03	1920	2400
Domestic				80

B. Total water requirements for Distillery unit

Particulars	Freshwater		Recycled Water in KLD	Total Water Requirement in KLD
	in KLD	KL/KL of Ethanol		
Water requirement for Distillery Unit:				
300 KLPD Ethanol with C-Heavy Molasses (Existing)	1776	5.92	2961	4737
450 KLPD Ethanol with C-Heavy Molasses (Proposed)	1978	4.39	5017	6993
675 KLPD Ethanol with B-Heavy Molasses (Proposed)	1761	2.60	4971	6732
900 KLPD Ethanol with Cane syrup (Proposed)	1670	1.65	5229	6802
Incineration Boiler -75 TPH	245	-	-	245

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

Sl. No.	Wastewater generation	Quantity, KLD			Treatment and Disposal
		Existing	Proposed	Total (After expansion)	
A	Trade effluent				
1	Sugar Plant				Treated in existing ETP capacity 1200 KLD and disposal for on land irrigation
i	Washing, cleaning and leakages from machineries	400	100	500	
ii	Sugar cooling tower bleed	320	75	395	
2	Co-gen plant				
	WTP reject	100	-	100	
	Boiler and cooling tower bleed	170	-	170	
	Total	990	175	1165	
B	Surplus condensate	2640	750	3390	Treated in existing sugar CPU of capacity 3600 KLD and reused in cooling tower and sugarcane syrup/molasses dilution.
3	Domestic sewage	45	27	72.0	Treated in Septic tank, disposed through soak pit at present. Proposed to install 100 KLD capacity STP.

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

Sl. No	Process route	Wastewater generation in KLD				Treatment and Disposal
		300 KLPD	450 KLPD	675 KLPD	900 KLPD	
		C-Heavy molasses		B-Heavy molasses	Sugarcan e Juice	
A	Spent wash					
1	Total spent wash generation	3000	3992	2632	2723	<p>The spent wash is treated in two streams:</p> <p>The first stream of raw spent wash 76.4% is concentrated in FEE and MEE and concentrated spent wash / slop is incinerated in incineration boiler.</p> <p>In the second stream raw spent wash 23.6% is treated in bio-digester, concentrated in MEE and composted.</p>

2	Treatment & Disposal					
	After concentration in FFE & MEE and incinerate in Incineration Boiler (@ 60 Brix)	502	675	470	208	
	Bio-digester followed by evaporation in MEE and Bio-composting	208	282	182	184	
B	Other process effluents					<p>The spent lees and condensate from FEE and MEE is treated in CPU. The treated water from CPU is partially recycled for molasses dilution and rest is used for cooling tower makeup.</p> <p>The cooling tower bleed and blow down from incineration boiler and water treatment plant reject are treated in RO plant. The treated permeate is recycled to cooling tower. The</p>

						RO reject is taken back to MEE.
1	Spent lees	336	504	756	1008	
2	Condensate from FEE & MEE	2455	3235	2155	2551	
	Grand Total	2791	3739	2911	3559	
C	Other lean effluents					
1	Cooling tower bleed	215	300	300	300	
2	CPU reject	350	400	300	367	
3	WTP reject & Boiler blowdown	120	120	120	120	
	Total	685	820	720	787	

The spent wash from the distillery with respect to per KL of ethanol produced is as in the table below;

Sl. No.	Raw Material	Spent wash generation & disposal per KL/KL of Ethanol			
		C-molasses 300 KLPD	C-molasses 450 KLPD	B-heavy molasses 675 KLPD	Sugarcane syrup 900 KLPD
1	Raw spent wash generation KL/KL	10.0	8.87	3.89	3.02
2	After treatment spent wash disposal	2.36	2.12	0.96	0.43

Power requirement after expansion will be 23.5 MW to the Sugar, Co-gen and Distillery unit and will be met from co-generation power plant. Existing industry has 1 No. 1165 kVA, 2 Nos. 1010 kVA and 250 kVA capacity DG sets. Stack of 30 m AGL and 6 m ARL height is provided as per CPCB norms to the DG sets.

Existing Air Pollution sources and control measure details are as under;

Sl. No.	Stack attached to	Fuel	APC equipment
1	130 TPH (Sugar plant)	Bagasse	ESP and chimney of height - 85 m AGL
2	140 TPH Boiler (co-gen)	Bagasse + Bio gas	ESP and chimney of height - 75 m AGL
3	75 TPH incineration boiler	Slop and bagasse or coal	Bag filter and chimney of height 85 m above GL
4	1165 kVA DG	HSD	Acoustic enclosure & 30 m AGL (Each)
5	2*1010 kVA DG	HSD	
6	250 kVA DG	HSD	Stack of height 6 m above roof and acoustics.

Particulate emissions from boilers are within the statutory limit of 115 mg/Nm<sup>3</sup>

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

During fermentation 864 TPD of CO<sub>2</sub> is estimated to be released from 900 KLPD ethanol production. CO<sub>2</sub> will be collected and use for dry ice making by leasing out the facility.

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

Solid waste and its management

Sl. No.	Plant	Solid waste	Existing MT/Day	Proposed MT/Day	Total MT/Day	Utilization existing and after proposed modification
1	Sugar plant	Bagasse	3000	1500	4500	Utilized as Fuel in Boilers
		Press mud	400	200	600	Utilized as raw material for composting
		ETP sludge	0.5	0.2	0.7	Mixed with Press mud and used in compost
2	Co-gen Plant	Ash	26.7	-	26.7	Mixed with Press mud and

						used in compost
3	Distillery Plant	Yeast sludge	0.6	0.3	0.9	Mixed with Press mud and used in compost
		Incinerated Ash	102	30	132	Mixed with Press mud and used in compost as well as supply to farmers as potash rich source for land application/ brick mfg.

#### Hazardous waste generation and its management

Waste category	Hazardous waste Generated	Quantity	Method of handling
Sugar Unit			
5.1	Used Oil	1.0 KL/A	Stored in leak proof containers in secure manner and handed over to KSPCB authorized re-processors/incinerator
5.2	Wastes Residues Containing Oil	0.1 MT	Stored in leak proof containers in secure manner and handed over to KSPCB authorized re-processors/incinerator
Distillery unit			
5.1	Used Oil	0.5 KL/A	Stored in leak proof containers in secure manner and handed over to KSPCB authorized re-processors/incinerator
5.2	Wastes Residues Containing Oil	0.01 MT/A	Stored in leak proof containers in secure manner and handed over to KSPCB authorized re-processors/incinerator

Joint Director of MoEF & CC, Regional Office, Bangalore has visited the project site on 25.06.2021. CCR is issued. Bangalore RO, MoEF&CC has issued certified compliance report for the project vide File No. EP/12.1/554/KAR/341 dated 03.08.2021 and Status of compliance is 'Satisfactory'.

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 300 KLPD will be for manufacturing of fuel ethanol only.

During deliberation, EAC suggested that the CER fund is too low and desired that it shall be increased to Rs. 3.0 Crores. It shall be used for harvest solar energy and supply it to villages, infrastructure and skill development programs in Govt. schools located in nearby villages and medical facility for villagers in the nearby villages. Rain water harvesting capacity shall be increased and it shall meet 90 days of fresh water requirement of the industry. PP agreed for the above and affidavit submitted to the Ministry.

Further, EAC directed fresh water requirement shall not exceed 4kL water/kL ethanol produced and bio composting shall not be allowed.

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

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

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

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

- (i). As per OM dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed expansion of 300 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the integrated industry and no waste or treated water shall be discharged outside the premises.
- (iv). Total fresh water requirement for the industry shall not exceed 4kL water/kL ethanol which shall be met from Karnataka Neeravari Nigam Limited. Industry shall meet 90 days of fresh water requirement by utilizing rain water harvested. Prior permission shall be obtained from the concerned regulatory authority/Irrigation division in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises.
- (v). The spent wash/other concentrates shall be treated by concentration followed by incineration. No bio-composting shall be allowed for existing and proposed/expansion project
- (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). The CER fund of Rs. 3.0 Crore shall be used for harvesting solar energy and supply it to villages, infrastructure and skill development programs in Govt. schools located in nearby villages and medical facility for villagers in the nearby villages.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

## **Agenda No. 40.23**

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

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

The Project Proponent and the Accredited Consultant M/s. Dr. Subbarao Environment Center 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 Increase in Distillery capacity from 135 KLPD to 350 KLPD to produce Ethanol Based on Sugarcane juice/ Syrup/"C"/"B" Heavy Molasses/ Grains/ Raw Sugar by M/s. SGZ & SGA Sugars (JV) Limited located at Turchi, Taluka Tasgaon, District Sangli, Maharashtra.

All Distillery projects are listed at S. No. 5 (g) of Schedule of Environment Impact Assessment (EIA) and as per as per the EIA Notification 2006 and amendment vide Notification S.O 2339(E) dated 16.06.2021 the proposal is to be appraised as B2 category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

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

Ministry issued EC for the unit Vide F.NO. IA-J-11011/226/2020-IA-II(I) dated 26<sup>th</sup> February 2021 for the project Expansion of Sugarcane crushing capacity from 3500 TCD to 8000 TCD, establishment of 40 MW Co-generation Power plant and 135 KLPD distillery to produce 135 KLPD Rectified Spirit/125 KLPD Extra Neutral Alcohol/125 KLPD Ethanol based on "C"/"B" Heavy molasses/Sugarcane Juice/Syrup/grains in favour of M/s SGZ and SGA Sugars (JV) Limited, Turchi, Taluka Tasgaon, District Sangli, Maharashtra.

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

Sr. No.	Unit	Capacity			
		Existing	Proposed	Total	
1.	Sugarcane crushing capacity (TCD)	8000	00	8000	
2.	Cogeneration Power Plant (MW)	40	00	40	
3.	Distillery (KLPD)	135	215	350	
	Rectified Spirit or	135	00	135	Only one product at a time
	Extra Neutral Alcohol or	125	00	125	
	Ethanol	125	225	350	
4.	Ethanol	125	225	350	Utilized for EBP program

Existing land area is 476900 m<sup>2</sup>;no additional land is required for proposed expansion. Industry will develop greenbelt in an area of 33.17 %i.e. 158200 m<sup>2</sup> out of total area of the project. The estimated project cost is Rs. 80 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 5.6 Crore and the recurring cost (operation and maintenance) will be about Rs 1.1 Crores per annum. Total Employment will be 40 persons as direct & indirect persons after expansion. Industry proposes to allocate Rs 0.8 Crore (1 %) towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Yerala River is flowing at a distance of 2 km in North-East direction.

Ambient air quality monitoring was carried out at 8 locations during March 2021 to May 2021and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (39.1-71.2 µg/m<sup>3</sup>), PM<sub>2.5</sub> (24.9-48.1µg/m<sup>3</sup>), SO<sub>2</sub> (7.9-23.4 µg/m<sup>3</sup>) and NO<sub>x</sub> (12.4-28.9 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.34 µg/m<sup>3</sup>, 0.22 µg/m<sup>3</sup>, 7.65 µg/m<sup>3</sup> and 1.63 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The net water requirement will be 1572 m<sup>3</sup>/day for distillery unit and domestic water requirement of 100 m<sup>3</sup>/day, hence total water requirement shall be 1672 m<sup>3</sup>/day which will be sourced from Krishna River.

Effluent of 1258 m<sup>3</sup>/day (Sugar & Co-generation effluents 458 m<sup>3</sup>/day, Spray pond Overflow 800 m<sup>3</sup>/day) quantity is generated from the sugar unit. This effluent shall be treated in upgraded sugar ETP. Distillery effluent 713 m<sup>3</sup>/day shall be treated using concentration and drying to form potash rich manure. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 18000 KVA and will be met from its own 40 MW co-generation power plant. It is proposed to install 2\*500 KVA DG Set, Stack height of 6 m above roof level is provided as per CPCB norms for the DG sets. Existing unit has two bagasse fired boilers, 1\*200 TPH and 1\*50 TPH.ESP with a stack of height of 82 m shall be provided for both the boiler.

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

SO<sub>2</sub> and CO<sub>2</sub> gases shall be scrubbed. CO<sub>2</sub> gas shall be recovered.

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

Pressmud generated will be around 320 MT/D which shall be sold as manure. Fly ash generated will be 3762 MT/A. Ash generated shall be used for brick manufacturing in factory premises. The total quantity of ETP sludge generated shall be 300 MT/A, which shall be sold as manure. Hazardous waste i.e. spent oil of 1.01 MT/Annum shall be utilized in-house for the lubrication of bullock carts.

Details of certified compliance report submitted by RO, MoEFCC.: F. No. EC-1299/RON/2021-NGP/8462 dated 12<sup>th</sup> August 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 from 125 KLPD to 350 KLPD will be for manufacturing of fuel ethanol only.

During deliberations, EAC suggested that the CER funds of Rs. 1.5 Crore shall be used for establishment of solar plant and electricity shall be provided for villagers free of cost. PP agreed for the same.

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

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

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

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

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

- (i). As per OM dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed additional capacity from 125 KLPD to 350 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). The project proponent will treat and reuse the treated water within the integrated industry and no waste or treated water shall be discharged outside the premises.
- (iv). The net water requirement will be 1572 m<sup>3</sup>/day for distillery unit and domestic water requirement of 100 m<sup>3</sup>/day, hence total water requirement shall be 1672 m<sup>3</sup>/day which will be sourced from Krishna

River. Prior permission shall be obtained from the concerned regulatory authority/Irrigation division in this regard, and renewed from time to time.

- (v). The spent wash/other concentrates shall be treated by concentration followed by incineration.
- (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). The CER funds of Rs. 1.5 Crore shall be used for establishment of solar plant and electricity shall be provided for villagers free of cost.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.

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

#### **Agenda No. 40.24**

**Proposed Fuel Ethanol plant having proposed production capacity of 220 KLPD of grain-based Fuel Ethanol and 8 MW of power cogeneration, to be installed by M/s. Indus Biofuels and Spirits Pvt. Ltd located at village Bherpura and Sultanpur, Tehsil and District Patiala, Punjab - Consideration of Environment Clearance.**

**[IA/PB/IND2/225540/2021, IA-J-11011/327/2021-IA-II(I)]**

EAC informed 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. 40.25**

**Green Field Grain Base Distillery Project of 195 KLD Fuel Ethanol Plant along with Cogen Plant of 6 MW (By Product: 145 TPD of CO2 Generation & 96-98 TPD of DDGS) by M/s Visag Biofuels Pvt Limited located at village Khapa, Tehsil Waraseoni, Dist Balaghat, Madhya Pradesh - Consideration of Environment Clearance.**

**[IA/MP/IND2/228614/2021, IA-J-11011/352/2021-IA-II(I)]**

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

The proposal is for environmental clearance to the project for Green Field Grain Base Distillery Project of 195 KLD Fuel Ethanol Plant along with Cogen Plant of 6 MW ( By Product : 145 TPD of CO2 Generation & 96-98 TPD of DDGS) by M/s Visag Biofuels Pvt Limited located at village Khapa, Tehsil Waraseoni, Dist Balaghat, Madhya 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>Existing Quantity</b>	<b>Proposed Quantity</b>	<b>Total Quantity</b>
1.	Fuek Ethanol	Nil	195 KLD of fuel ethanol unit	195 KLD fuel Ethanol Unit
2	Co generation of Power	Nil	6 MW	6 MW
3	DDGS	Nil	96-98 TPD	96-98 TPD

The acquired land area is 11.351 ha with proposed built-up area of 24379 sq mtrs. Green belt will be developed in area of 33 % i.e. 4 ha of area with 8000 number of trees within 03 years of time. The estimated project cost is Rs 155.07 crore. Total capital cost for environmental measures is proposed as Rs 2752 Lacs. The recurring cost (operation and maintenance) will be about Rs 92.18 lacs per annum. Total Employment will be 185 persons after expansion as direct & 80-100 persons as indirect after the commissioning of project. Industry proposes to allocate Rs. 310.14 Lacs (2.5% of project cost) towards Corporate Social Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. One protected forest are reported in the study area. Major River Chandan is flowing at a distance of 1.25 km in NNE direction whereas local pond is located at a distance of 500 mtrs in E direction.

Total water requirement is estimated to be 3400 KLD and after recycling & reuse of 2185 KLD of water, net fresh water requirement is estimated to be 1215 KLD, which will be met from River Chandan.

Spent wash of 1170 TPD will be treated through Multi Effect Evaporator with thermal recompression for thin slops evaporation and CPU is proposed. The plant will be based on zero liquid discharge condition.

Power requirement for the project will 5325 KWH and will be met from Co generation unit of 6 MW and MPSEB. DG sets of 1010 KVA is proposed having Stack height of 30 mt as per CPCB norms and will be used as standby during power failure.

Unit will have 01 boilers of 35 TPH, which will be coal fired. ESP with a stack of height of 46 mt will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm<sup>3</sup>) for proposed boiler.

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

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

PM, SO<sub>2</sub>, NO<sub>x</sub> will be generated from the fuel combustion. Following measures are proposed for implementation:

- ESP shall be provided at stack of boiler to control the emission below 50 mg per cubic meter
- Adequate stack height of 46 mt for boiler shall be provided for better dispersion.
- Dust collectors system shall be provided at various material transfer points.
- Online continuous monitoring system shall be provided for stack of boiler
- Development of green belt is in process and shall be continue in consultation with forest department
- Dense phase conveying system for ash handling shall be provided to prevent the fugitive emission.
- Provision of cover over coal conveyors belt along with dust suppression system
- Provision of dust mask for workers and instruction of compulsory use.
- It is proposed to use low sulphur coal in the boiler.
- CO<sub>2</sub> generated during the fermentation process will be collected by utilizing CO<sub>2</sub> Scrubbers.

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

<b>Detail Of By Products / Solid/Hazardous Waste And Management</b>			
<b>Type Of Waste</b>	<b>Quantity</b>	<b>Storage</b>	<b>Utilization/ Disposal</b>
DDGS - (by product)	96-98 TPD	Covered shed	Sold as Cattle Feed, Poultry & Fisheries
Boiler ash	58 TPD	Silo	Brick making or land filling
Waste papers/Boxes	0.1 TPD	Covered shed	to recyclers
Used Oil	<150Lt/Yr	HDPE drums in covered shed	Given to re-cycler authorized by MPPCB/MoEF
Spent Resin from DM Plant	<30Kg/Yr	HDPE drums in covered shed	Given to re-cycler authorized by MPPCB/MoEF

As per OM dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed of 195 KLD will be for manufacturing of fuel ethanol only.

During deliberations, EAC directed the PP to use fresh water at 3 to 4 KL/KL of alcohol produced irrespective of raw material used. Further, EAC directed that PP shall install a brick manufacturing unit within industry and shall utilize ash obtained from combustion of spent wash. Also, EAC suggested that PP shall utilize funds allocated to CER for improving infrastructure in educational institutions and improving sanitation facilities in the locality. Further, EAC permitted industry to use imported coal of low Sulphur content during non-availability of bagasse. Accordingly, PP has submitted an undertaking in compliance of above and also submitted that fresh water requirement shall not exceed 691 m<sup>3</sup>/day.

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

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

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

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

- (i). As per OM dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 195 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 691 kLPD and shall be sourced from river Chandan. 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. Ash generated shall be used for brick manufacturing within industrial premises
- (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 shall allocate Rs. 3.1 crore towards CER for improving infrastructure in educational institutions and improving sanitation facilities in the locality.
- (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. 40.26**

**Expansion of existing 200 KLPD grain-based distillery unit and cogeneration power plant of 10 MW capacity by installing 200 KLPD grain-based Ethanol Plant (Additional Biofuel production) and additional 10 MW of power cogeneration at the existing location by M/s. BCL Industries Ltd. located at village Machhana and Sangat Kalan, Tehsil and District Bathinda, Punjab - Consideration of Environment Clearance.**

**[IA/PB/IND2/27543/2014, J-11011/378/2013-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.

The proposal is for environmental clearance to the project for Expansion of existing 200 KLPD grain-based distillery unit and cogeneration power plant of 10 MW capacity by installing 200 KLPD grain-based Ethanol Plant (Additional Biofuel production) and additional 10 MW of power cogeneration at the existing location by M/s. BCL Industries Ltd. Located at village Machhana and Sangat Kalan, Tehsil and District Bathinda, Punjab.

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 2<sup>nd</sup> March, 2021 & 16<sup>th</sup>

June, 2021. It was informed that no litigation is pending against the project.

Ministry has issued the Environmental Clearance earlier vide letter no. F. No. J-11011/348/2014-IA II (I) dated 8<sup>th</sup> April, 2014 to the existing project of 200 KLPD grain based distillery and 10 MW of cogeneration of power in favour of M/s BCL Industries Ltd.

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

S. No.	Item	Unit	Existing Capacity	Proposed Additional Capacity	Total
1.	ENA/RS/ Impure spirit/ Country spirit/ Denatured spirit/ Fuel Ethanol (Absolute ethanol)	KL	200	200 (Fuel Ethanol Only)	400
2.	By-products				
	CO2	MT	160	160	320
	Fusel Oil	MT	2.0	2.0	4.0
	DDGS	MT	100	100	200

Existing land area is 236000 sq. meters and no additional land area will be used for the proposed expansion. Industry has already developed green belt in an area of 95000 sq. meters which is more than 33 % of total land area. The estimated project cost is Rs. 140 crores for the proposed project. Total capital cost earmarked towards environmental pollution control measures is Rs. 18.50 crores and recurring cost (operation and maintenance) will be about Rs. 2.75 crores. Total employment generation will be 500 persons as direct and indirect employment due to the proposed expansion. Industry proposes to allocate Rs. 1.05 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.

Overall water requirement: Total average fresh water consumption for the existing as well as proposed expansion of the industry can be summarized as under;

S. No.	Purpose	Existing (m3/day)	Proposed (m3/day)	Total (m3/day)
1.	Process & dilution water	200	345	545
2.	Cooling water (max.)	1000	340	1340

3.	Boiler water requirements	450	175	625
4.	Water treatment plant	80	20	100
5.	Domestic	20	10	30
6.	Water requirement for bottling plant	50	0	50
	Total	1800	890	2690

Water requirements for the proposed expansion project will be 890 m<sup>3</sup>/day or 4.45 KL/KL of alcohol production

Total water requirements after the proposed expansion will be 3125 m<sup>3</sup>/day. All the fresh water requirements for the existing as well as proposed project will be met from canal water. The industry has already got the permission from Irrigation Department, Punjab for the supply of canal water @ 3500 m<sup>3</sup>/day.

The industry will generate a total of 1450 m<sup>3</sup>/day of condensates including spent lees from the proposed expansion. Out of this, 840 m<sup>3</sup>/day will be directly used in the process for slurry preparation. Remaining condensates @ 610 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 214 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 15000 KVA and will be met from in house cogeneration power plant. Existing unit has 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 PB norms.

Existing unit has 2 x 35 TPH biomass/coal fired boilers. Additional 75 TPH biomass/coal fired boiler will be installed. 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 odours from the factory.

Details of certified compliance report submitted by RO; MoEF&CC vide letter no. 5-297/2011-RO(NZ)/ 557-558 dated 06.09.2021.

As per OM dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed from 200 KLPD to 400 KLPD will be for manufacturing of fuel ethanol only.

During deliberations, EAC observed that fresh water requirement is too high. In this regard EAC directed to revise water balance. PP has submitted the revised water balance reducing fresh water consumption for the proposed expansion to 890 KLPD.

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

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

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

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

- (i). As per OM dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity from 200 KLPD to 400 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the

requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

- (ii). The company 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 890 KLPD for the proposed expansion and it will be met from canal water. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises.
- (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). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall be completed within time as proposed.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

### **Agenda No. 40.27**

**Proposed Fuel Ethanol plant having proposed production capacity of 350 KLPD of grain-based Fuel Ethanol and 12 MW of power cogeneration, to be installed by M/s. AVJ Agrico Pvt. Ltd. at Plot no. J22 to J28, Industrial Growth Center, Borgaon, Tehsil Sausar, District Chhindwara, Madhya Pradesh - Consideration of Environment Clearance.**

**[IA/MP/IND2/227852/2021, IA-J-11011/332/2021-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.

The proposal is for environmental clearance to the project for Proposed Fuel Ethanol plant having proposed production capacity of 350 KLPD of grain-based Fuel Ethanol and 12 MW of power cogeneration, to be installed by M/s. AVJ Agrico Pvt. Ltd. at Plot no. J22 to J28, Industrial Growth Center, Borgaon, Tehsil Sausar, District Chhindwara, Madhya 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>S. No.</b>	<b>Item</b>	<b>Unit</b>	<b>Total</b>
1.	Fuel Ethanol	KL	350
2.	By-products		
	CO2	MT	250
	Fusel Oil	MT	3.0
	DDGS	MT	185

The industry has already purchased land area of 67300 sq. meters. Industry will develop green belt in an area of 22500 sq. meters which is more than 33 % of total land area. The estimated project cost is Rs. 235.00 crores for the proposed project. Total capital cost earmarked towards environmental pollution control measures is Rs. 23.50 crores and recurring cost (operation and maintenance) will be about Rs. 3.80 crores. Total employment generation will be 500 persons as direct and indirect employment due to the proposed expansion. Industry proposes to allocate Rs. 1.76 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 1750 m<sup>3</sup>/day. All the fresh water requirements for the existing as well as proposed project will be met from MPIDC water supply. The industry has already got the in-principal approval from MPIDC for the supply of water @ 3000 m<sup>3</sup>/day.

The industry will generate a total of 2089 m<sup>3</sup>/day of condensates including spent lees from the proposed expansion. Out of this, 1200 m<sup>3</sup>/day will be directly used in the process for slurry preparation. Remaining condensates @ 889 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 233 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 12000 KVA and will be met from in house 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 80 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 of 350 KLPD will be for manufacturing of fuel ethanol only.

During the deliberation, EAC recommended the project subject to conversion of land use certificate. PP submitted the same to the Ministry.

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

The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the

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

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

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

- (i). As per OM dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 350 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 1790 and it will be met from MPIDC 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.
- (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). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall be completed within time as proposed.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.

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

### **Agenda No. 40.28**

**Green Field Grain Base Distillery Project of 200 KLD Fuel Ethanol Plant along with Cogen Plant of 6 MW ( By Product : 152 TPD of CO2 Generation & 102 TPD of DDGS) by M/s. Dollex Agrotech Pvt. Ltd. Located at village Erai, Tehsil Badoni, Dist Datia, Madhya Pradesh - Consideration of Environment Clearance.**

**[IA/MP/IND2/228411/2021, IA-J-11011/349/2021-IA-II(I)]**

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

The proposal is for environmental clearance to the project for Green Field Grain Base Distillery Project of 200 KLD Fuel Ethanol Plant along with Cogen Plant of 6 MW ( By Product : 152 TPD of CO2 Generation & 102 TPD of DDGS) by M/s. Dollex Agrotech Pvt. Ltd. Located at village Erai, Tehsil Badoni, Dist Datia, Madhya 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>Existing Quantity</b>	<b>Proposed Quantity</b>	<b>Total Quantity</b>
1	Fuel Ethanol	Nil	200 KLD of fuel ethanol unit	200 KLD fuel Ethanol Unit
2	Co generation of Power	Nil	6 MW	6 MW
3	DDGS	Nil	102 TPD	102 TPD

The acquired land area is 6 ha with proposed built-up area of 27000 sq mtrs. Green belt will be developed in area of 33 % i.e. 2 ha of area with 4000 number of trees within 02 years of time. The estimated project cost is Rs 18928.36 Lacs. Total capital cost for environmental measures is proposed as Rs 1832 Lacs. The recurring cost (operation and maintenance) will be about Rs 92 lacs per annum. Total Employment will be 192 persons after expansion as direct & 80 persons as indirect after the commissioning of project. Industry proposes to allocate Rs. 378 Lacs (2.5% of project cost) towards Corporate Social Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Five Reserve forest are reported in the 10 km radius. Major River Sindh is flowing at a distance of 5.75 km in NW direction whereas local nalla is located at a distance of 50 mtrs in E direction.

Total water requirement is estimated to be 4390 KLD and after recycling & reuse of 3375 KLD of water, net fresh water requirement is estimated to be 1055 KLD which will be met from Ground water resources.

Spent wash of 1538 TPD will be treated through Multi Effect Evaporator with thermal recompression for thin slops evaporation and CPU is proposed. The plant will be based on zero liquid discharge condition.

Power requirement for the project will 4855 KWH and will be met from Co generation unit of 6 MW. DG sets of 2X1010 KVA is proposed having Stack height of 30 mt as per CPCB norms and will be used as standby during power failure.

Unit will have 01 boilers of 50 TPH, which will be coal or rice husk fired. ESP with a stack of height of 46 mt will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm<sup>3</sup>) for proposed boiler.

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

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

PM, SO<sub>2</sub>, NO<sub>X</sub> will be generated from the fuel combustion. Following measures are proposed for implementation:

- ESP shall be provided at stack of boiler to control the emission below 50 mg per cubic meter.
- Adequate stack height of 46 mt for boiler shall be provided for better dispersion.
- Dust collectors system shall be provided at various material transfer points.
- Online continuous monitoring system shall be provided for stack of boiler.
- Development of green belt is in process and shall be continue in consultation with forest department.
- Dense phase conveying system for ash handling shall be provided to prevent the fugitive emission.
- Provision of cover over coal conveyors belt along with dust suppression system.
- Provision of dust mask for workers and instruction of compulsory use.
- It is proposed to use low sulphur coal in the boiler.
- CO<sub>2</sub> generated during the fermentation process will be collected by utilizing CO<sub>2</sub> Scrubbers.

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

Type Of Waste	Quantity	Storage	Utilization/ Disposal
DDGS - ( by product)	102 TPD	Covered shed	Sold as Cattle Feed, Poultry & Fisheries
Boiler ash	10 TPD	Silo	Brick making or land filling
Waste papers/Boxes	1.5-2 TPD	Covered shed	to recyclers
Used Oil	< 500 lit per year	HDPE drums in covered shed	Given to re-cycler authorized by MPPCB/MoEF

Spent Resin from DM Plant	<50Kg/Yr	HDPE drums in covered shed	Given to re-cycler authorized by MPPCB/MoEF
ETP sludge	55 MT/DAY	Covered shed	As Manure

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

During the deliberation, EAC desired the following information /commitment from PP:

- Revised water balance @3.9 kL water /kL ethanol produced
- Revised layout plan
- Copy of conversion of land document for usage for industrial purposes.
- Commitment for installation of brick manufacturing unit for utilization of ash obtained from combustion.
- Commitment to allocate Rs. 3.78 crore towards CER for construction a new school and for providing solar street lighting etc. in nearby villages

PP submitted the above requisite information desired by EAC and submitted an undertaking for installation of brick manufacturing plant

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

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

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

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

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

- (i). As per OM dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 200 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 780 KLPD and it 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.
- (v). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed. PP shall install brick manufacturing plant within factory for utilization of ash obtained from combustion for manufacturing bricks.
- (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 shall allocate Rs. 3.78 crore towards CER for construction of a new school and for providing solar street lighting etc. in nearby villages.
- (xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
- (xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xvi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

## **Agenda No. 40.29**

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

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

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

All the project proposals are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

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

<b>Sr. No.</b>	<b>Existing Product details</b>	<b>Existing</b>	<b>Proposed Product Details</b>	<b>Proposed</b>
1.	Molasses Based Distillery	60 KLPD	Molasses Based (B Heavy Molasses and C), Juice to Ethanol	240 KLPD

Existing land area is 40468.60 Sq.mt. Industry will develop greenbelt in an area of 33 % i.e 13356.09 Sq. m out of total area of the project. The estimated project cost is Rs.313.38 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 116 Lakhs and the recurring cost (operation and maintenance) will be about Rs 31.5 Lakh per annum. Total Employment will be 37 persons as direct & 20 person as indirect. . Industry proposes to allocate Rs 1.2 Cr. (0.75 %) towards Corporate Environment Responsibility.

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

Total water requirement is 1200 m<sup>3</sup>/day, out of which fresh water requirement of 720 m<sup>3</sup>/day will be met from MIDC water supply.

Effluent of 1875 m<sup>3</sup>/day will be treated. The plant will be based on Zero Liquid Discharge system. Spent wash generation from the process will be 1875 m<sup>3</sup>/day, the effluent/ spent wash will be concentrated in evaporators. The concentrated spent wash generated after entire process of evaporation is then sprayed in a furnace with auxiliary support fuel bagasse and is then burnt in a boiler. To achieve ZLD, PDVVPSSKL proposes to go for spent wash concentration and incineration technology simultaneously generating steam and power for the distillery. Unit is adopting 4 stage ZLD treatment process to take care of spent wash.

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

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

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

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

After deliberations, EAC decided that the instant proposal pertains to violation and recommended for specific ToR incorporating following conditions for undertaking detailed EIA and EMP study in addition to the generic Standard ToR and Specific ToRs of Distillery industry:

- i. The State Government/SPCB to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986, and further no consent to operate or occupancy certificate to be issued till the project is granted EC.
- ii. The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the

grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.

- iii. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.
- iv. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
- v. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.
- vi. The PP is required to conduct public hearing as per EIA notification, 2006.
- vii. Transport impact assessment study to be carried out by reputed Government agencies/institute with respect to present status and after expansion of the project and report to be submitted.
- viii. Traffic management plan with pollution control measures.

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**GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE**

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

conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

- (viii) The environmental statement for each financial year ending 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.	Sh. Ashok Agarwal	Member
4.	Ms. Saloni Goel	Member
5.	Dr. Y.V. Rami Reddy	Member
6.	Dr. T. Indrasena Reddy	Member
7.	Sh. S. C. Mann	Member
8.	Dr. T. K. Joshi	Member
9.	Dr. J. S. Sharma	Member
10.	Sh. Dinabandhu Gouda, CPCB	Member
11.	Sh. Sanjay Bist, IMD	Member
12.	Sh. Ashok Kr. Pateshwary, Director, MoEFCC	Member Secretary
<b>MoEFCC</b>		
13.	Dr. Mahendra Phulwaria	Scientist 'C'
14.	Sh. Kanaka Teja	Research Assistant

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