BEFORE THE NATIONAL GREEN TRIBUNAL

SOUTHERN ZONE, CHENNAI

APPEAL NO. 40 OF 2022 (SZ)

IN THE MATTER OF:

Kalal Munindar Narendargoud & Others ... Applicant

Versus

Union of India & Others ...Respondents

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DRAWN AND FILED BY

CHENNAI

K.S. Viswanathan

K.S. VISWANATHAN 656/88 CHENNAI-17 ADVOCATE

DATE: 06.10.2022

ADVOCATE FOR RESPONDENT NO.4

BEFORE THE NATIONAL GREEN TRIBUNAL

SOUTHERN ZONE, CHENNAI

APPEAL No. 40 OF 2022 (SZ)

IN THE MATIER OF:

Kulal Munindar, Narendar Goud & Others ... Applicant

Versus

Union of India & Others ...Respondents

REPLY FILED ON BEHALF OF THE 4TH RESPONDENT

The Fourth Respondent respectfully submits as follows:-

1. The above Appeal has been filed by the Applicants challenging the Environmental Clearance dated 03/01/2022 issued by the Ministry of Environ1nent, Forests and Climate Change (MoEF& CC) to M/s. Jurala Organic Farms and Agro Industries LLP, who is the 4th Respondent herein in respect of the Project viz., grains based distilleries for Ethanol Blended Petrol.

2. It is submitted that the 4th Respondent viz. M/s. Jurala Organic Farms and Agro Industries LLP, (JAF) was incorporated on 8th September 2021 with registered office at Medchal, Hyderabad, Telangana. JAF is a new entity incorporated specifically for this project by promoters with significant presence in Pharmaceuticals and manufacturing industry. JAF is

M. SADA SIVA KUMAR REDDY, ADVOCATE, F-102, SRASWATHI ENCLAVE, BHAGYANAGAR COLONY, KUKATPALLY, HYDERABAD, TS, INDIA
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For Jurala Organic Farms and Agro Industries LLP

Designated Partner

promoted predominantly by founders from Hetero group of Companies who are also_designated partners in JAF. The Project is located at Chittanur Village, Marika! Mandal, Narayanpet District, Telangana. The total land allocated for the proposed project is 13.19 Hectares (32.6 acres).

3. It is submitted that the project involves establishment of 1 x 400 KLPD & 1 x_200 KLPD Grain Based Ethanol Plant under Ethanol Blending Programme in Chittanur Village, Matikal Mandal, Narayanpet District, Telangana. Ethanol Blending Programme (EBP) was launched by the Government of India in January 2003, which seeks to promote use of alternative and environmentalfriendly fuels and to reduce import _9-ependency*Jqr* energy requirements. Using fermentation process, Ethanol can be produced from grains such as Maize, Damaged (broken)Rice etc. , which can then be mixed with Gasoline for formation of different petroleum blends. Ethanol Molecule contains Oxygen, which allows for complete combustion of the fuel, resulting in reduced carbon emissions -nd th reby_r ducing Environmental Pollution. Since Ethanol is produced from plants that harness the power of the Sun, Ethanol is considered as a renewable bio-fuel.

4. In the above factual background, the 4th Respondent JAF _E-pplied for __Environmental Clearance to MoEF& CC on 04/12/2021. The 4th Respondent prepared and submitted an Environmental Management Plan (EMP) **(Annexure-1)** along with the application for Environmental Clearance under B2 Category as per MoEF and CC Notification in S.O.2339 (E) dated 16/06/2021 **(Annexure-2)** for Jurala Organic Farms and Agro Industries LL£, Unit - I (Green Field 1 x 400 & 1 x 200 KLPD Grain based

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Designated Partner

Ethanol Plant) at S.Nos. 278/P, 294/P, 295/P, 296/P, 297/P, 298/P, 307/P, 308/P & 313/P, Chittanur Village, Marikal Mandal, Narayanpet District, Telangana. Upon due appreciation of the proposal submitted by the 4th Respondent, MoEF & CC issued Environmental Clearance dated 03/01/2022 for the aforesaid project. The proposal was processed under the Notification in S.O.2399(E) dated 16/06/2021,wherein all applications made for Grain Based Distilleries producing Ethanol, solely to be used for Ethanol Blending Programme with Zero Liquid Discharge shall be considered under B2 Category and appraised at Central Level by EAC. Under the aforesaid Notification dated 16/06/2021, the Standard ToR and Public-hearing are not required as the project falls under the Category B2. After due consideration of all the issues concerned with the project, the EAC in its 46th meeting held on 13-14 December 2021, the Project of the 4th Respondent for grant of Environmental Clearance was recommended. After recommendation of the EAC and thorough appraisal, the MoEF & CC issued Environmental Clearance to the Project Proponent on 03/01/2022 **(Annexure** -:3). The Environmental Clearance also specifically stated that the Ethanol produced shall be used solely for EBP Programme. The Environmental Clearance also stipulates that the total fresh water requirement shall not exceed 2400 KLD and will be met from Koilsagar Lift Irrigation Scheme.

5. After obtaining Environmental Clearance the Industry approached the Telangana State Pollution Control Board for grant of Consent to Establish the Grain Based Distillery Plant to produce 600 KLD of Ethanol and also to establish a 15 MW Captive Power Plant at the aforesaid location. The TSPCB after thorough scrutiny of the application

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and also taking note of the Environmental Clearance granted by MoEF& CC dated 03/01/2022 issued consent order for Establishment to the -Industry on-29/01/2022 **(Annexure -4).**

6. The Industry also obtained .Technical Clearance for Establishment of the Plant from the Director of Town & Country Planning, Government of Telangana vide letter dated 21/02/2022 **(Annexure -5).** The -Industry reGeived preliminary approval from Petroleum & Explosiv s Safety Organization (PESO) on 31/12/2021 **(Annexure -6).** As regards to the water requirement of the industry, in exercise of powers delegated by the Government of Telangana, the Chief Engineer, Irrigation, Mahabubnagar accorded permission for water allocation permitting the -Project Prop0nent for drawl of water not exceeding 2400 KLD ie. 0.03093 TMC from Surgepool of Koilsagar Stage -I pumping station by letter dated 29/08/2022 (**Annexure** -7).

7. The Project Proponent also received in-principle approval of -Financial Assistance in the form of interest subvention from the Government of India for a maximum loan amount of Rs.245.62 crores for setting up a new 400 KLPD Grain-Based Distillery with ZLD by communication dated 11/05/2022 **(Annexure - 8).**

8. It is further submitted that the Project Proponent has entered into a Long Term Off-take Agreement (LTOA)for dedicated supply of Ethanol to all three Oil Marketing Companies (OMCs), i.e. M/s. Bharat Petroleum Corporation Ltd (BPCL), Indian Oil' Corporation Ltd. (IOCL) and Hindustan Petroleum Corporation Ltd., (HPCL) on 04/01/2021 under

M. SADA SIVA REDDY, ADVOCATE, SARASWATHI ENCLAVE, BHAGYANAGAR COLONY, KUKATPALLY, HYDERABAD, T.S. INDIA
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which the aforesaid OMCs who are desirous of procuring Ethanol as a part of the Ethanol Blending Programme (EBP) under the AEGIS of Ministry of Petroleum and Natural Gas, Government of India have agreed to procure the entire quantity produced in the Ethanol Plant of the 4th Respondent under the EBP Programme **(Annexure - 9)**.

9. In so far as the present application filed by the Applicants challenging the Environmental Clearance granted to the 4th Respondent on 03/01/2022, it is submitted that the same is not maintainable either in law or on facts.

10. The application proceeds on the basis as though the industry has not obtained permission for drawl of water from the competent authority. On the other hand, as stated earlier an application for water allocation was made months ago, and due permission has been accorded by the Chief Engineer, Irrigation, Mahabubnagar .on 29th August 2022 for withdrawal of 2400 KLD from the Koilsagar Lift Irrigation Scheme. As regards to .the allegation that the Project Proponent has illegally diverted two water canals into the project site, it is submitted that these natural rainwater streams are flowing through the project plant land and there is absolutely no diversion. The Project Proponent has only constructed box drains of more than adequate capacity to properly channelize the natural streams into Manne Vaagu without any obstruction or diversion to prevent flooding and Soil Erosion.

11. The factual averments made under the heading,"FACTS IN BRIEF" are twisted and do not reflect the correct picture. The allegations

M. SADA SIVA KUMAR REDDY, ADVOCATE
F-102, SARASWATHI ENCLAVE, BHAGYANAGAR COLONY, KUKATPALLY, HYDERABAD, TS, INDIA
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Designated Partner

made in paragraph 5 to 9 are denied. As stated already, the Project Proponent has obtained permission for drawl of water from Koilsagar Lift Jrrigatjon P!Qj ct and there is no diversion of any Water Canals.

12. In so far as the allegations made para 10 to 12 regarding Impacts of Water withdrawal not having been studied, it is submitted that the EAC in its meeting has considered all the aspects and has !coIDJ:nencl c,l_ that prior permission shall be obtained from the concerned Regulatory Authority. Accordingly, the Project Proponent obtained necessary permission.

13. Regarding allegations made in paragraphs 13 to 15, it has - !ready be_I.! s.Ebmitted that there is no diversion of Water Canals but these are only Natural Rain Water Streams that are flowing through the project land.

14. Regarding allegations made in paragraphs 16 to 17, the __!'equir menJ_C?J EIA Study and Public Consultation, as already stated, the project falls under Category B2 and therefore EIA and _public hearing are not required. On the other hand, the Project Proponent has prepared and submitted Environmental Management Plant (EMP) based upon which the Environmental Clearance has been granted.

15. Regarding allegations made in paragraphs 19 to 22, stating that the project does not have confirmed coal linkage, it is submitted that the Project Proponent envisages use of imported coal or domestic coal of appropriate quality procured through open market sources. The Project

M. SADASIVA KUMAR REDDY, ADVOCATE & NOTARY Regn. No. 198 SARASWATHI ENCLAVE, BHAGYANAGAR COLONY F-102 KUKATPALLY, HYDERABAD, T.S. INDIA

For Jurala Oj Farms and Agro Industries LLP

Designated Partner

.-Proponent will apply for coal linkage as and when the Govermnent notifies availability and allocation of coal.

16. Regarding allegations made in paragraphs 24-25, about impact of Ash Pond, it is submitted that there will not be any Ash Pond in this Project. Ash-generated through the Co-gen Power Plant will be used for manufacturing of Fly Ash Bricks.

17. Regarding allegations made irt paragraphs 26 to 27 concerning Waste Water Discharge, it is submitted that there will be no discharge of any Waste Water as ZLD System will be in place.

18. Regarding allegations made in paragraphs 28 to 30, on non application of mind by the EAC and MoEF& EC, the allegations are repetitive and do not carry any merit. The Applicants made general allegations without any attempt to substantiate their stand that there is non-application of mind by the authorities.

19. Regarding the "GROUNDS" raised In support of the Application, it is submitted as follows:

GROUND (A)

As already stated supra, it is submitted that the water allocation for the project has been sanctioned by the Chief Engineer Irrigation, Mahabubnagar on 29/08/2022.

M. SADA SIVA KUMAR REDDY, ADVOCATE
SARASWATHI ENCLAVE, BHAGYANAGAR COLONY
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GROUND,(B)

There is no diversion of Water Canals and only Natural Rainwater Streams are flowing through the project land. The Project Proponent has only constructed box drains to properly channelize the natural streams into the Manne Vaagu without any obstruction or diversion to prevent Flooding and Soil Erosion.

GROUND(C)

The canals are not Irrigation Canals but only Natural Rainwater Streams and there is no Irrigation or Ayacut under these streams.

GROUND (D)

Considering the fact that the project has been approved and sanctioned under B2 Category, EIA is not required and appropriate EMP has been filed at the time of applying for Environmental Clearance.

GROUND (E)

The Project Proponent envisages use of imported / domestic coal procured through Open-Market sources, and plans to apply for Coal Linkage as and when the Government notifies availability and allocation of coal.

GROUND (F)

There will not be any Ash Pond in the project.

GROUND(G)

The water requirement inclusive of power plant needs will be procured through the Koilsagar Lift Irrigation Scheme as per water allocation and sanction made by the Irrigation Department, Govt of Telangana.

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GROUND (H)

Considering that the industry will be operating as a ZLD plant, there is no question of any discharge of Wastewater.

GROUND(!)

The Judgment cited in the aforesaid ground is misquoted. It is only after comprehensive review of the EMP and the contents of the application, the EC has been granted.

GROUND.(T)

There is no violation of National Water Policy as allocation of water for Industrial purpose is driven through appropriate policy at the state level without impacting any irrigation or drinking water needs.

GROUND (K)

The Government of Telangana has formulated a comprehensive policy for allocation of water for industrial use from irrigation sourcesbased upon which the Project Proponent was accorded sanction. Even in "Mission Bagiratha", 10% allocation for industrial use has been provided for by the Government. Moreover, Project Proponent minimized water consumption through adoption of Dry Milling Process and Efficient Recycling. The sanction accorded by the irrigation department for this project will not impact irrigation or drinking water needs under Koilsagar Lift Irrigation Scheme.

GROUND (L)

As stipulated in the EC, this plant is designed with ZLD (Zero Liquid !)ischarge) t c!1nology. The industry's main process plant supplied by M/s

M. SADA SIVA KUMAR REDDY, ADVOCATE, SARASWATHI ENCLAVE, BHAGYANAGAR COLONY, KUKATPALLY, HYDERABAD
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Designated Partner

Praj Industries, is equipped with advanced Process Condensate Treatment Plant (PCTP), an Evaporation unit, & drying equipment for handling all process effluents. The cooling tower blowdown and process effluents are concentrated in evaporator through application of steam, from which the fluids are again recycled to the PCTP, and the protein-rich solids are sent to DDGS (Distillers Dry Grain Solubles) Dryer, where they are bagged for consumption as animal feed. In fact, the project proponent derives significant revenue from sale of DDGS and has an incentive to avoid any waste disposal and convert all effluents into DDGS. All Co2 generated in the fermentation process is captured and sold either as liquid Co2 or converted into dry ice. The industry tied up with M/s SICGIL, the largest Co2 handling company in India to set up a state-of-the-art Co2 capturing and dry ice manufacturing unit. This is also an additional revenue stream for the industry, which creates an incentive for capturing all Co2 produced without releasing it into the air. The above cited features clearly indicate that all necessary measures are taken to safeguard the environment, and there is no degradation caused because of this project.

GROUND(M)

There is no violation of Public Trust Doch·ir.e in as much as EC has been granted after thorough scrutiny and based on relevant documents.

GROUND (N)

There is no violation of any Environmental norms.

20. It is submitted that the project is intended for production of -Ethanol to be-supplied to oil marketing con1pany's viz. BPCL, IOCL &

M. SADA SIVA KUMAR REDDY, ADVOCATE & NOTARY Regn. No. 198 F102, SARASWATHI ENCLAVE, BHAGYANAGAR COLONY, KUKATPALLY, HYDERABAD, T.S. INDIA

For Jura/a Organic Farms and Agro Industries LLP

J), Designated Partner

HPCL under the Government of India EBP Programme whereby the entire quantity of production will be supplied to the aforesaid Oil Marketing Corporations only. The EBP Programme itself is intended to meet the energy de1nand of the country by blending Ethanol which is one of the principal bin- fuels with Gasoline in order to achieve better emission norms that will only held the cause of Environment. The Applicants are busy bodies, who, in the guise of farmers, are attempting to stall the project by challenging the Environmental Clearance on wholly untenable grounds. The Application is therefore totally devoid of n1erits and liable to be dismissed.

Under these circumstances, this Respondent prays that this Hon'ble Tribunal may be pleased to dismiss Appeal No.40of 2022 with costs and thus render justice.

Dated -9- _Hyderabad on this the 29th day of September 2022

For Jurala Organic Farms and Agro Industries LLP

RESPONDENT NO.4
Designated Partner

VERIFICATION

t Dr Mohan Rao Dodda, S/o Sri Lingaiah Dodda aged about 64 years Designated Partner of the 4th Respondent herein do hereby verify that what are all stated above are true and correct to the best of my knowledge, information and belief.

Verified at Hyderabad on this the 29th day of September 2022

For Jurala Organic Farms and Agro Industries LLP
RESPONDENT NO.4
Designated Partner

M. SADA SIVA KUMAR REDDY ADVOCATE ★ F.No.2, SARASWATHI ENCLAVE, BHAGYANAGAR COLONY ★ KUKATPALLY, HYDERABAD, T.S.
NOTARY
Regn. No. 198.
NOTARIES

ATTESTED

M. SADA SIVA KUMAR REDDY, B.Com., B.L
ADVOCATE & NOTARY
Appointed by Govt., India
G.O. Ms. No. 198, Rev (Regn-II), dt. 11.04.2000
102, Saraswathi Enclave, Bhagyanagar Colony, Kukatpally, Hyderabad, T.S. India. (Ph: 9848♦

Environmental Management Plan

Request for issue of E.C.

[Under B-2 category as per MOEF&CC Notification vide S.O. 2399 (E) dated 16-06- 2021]

Prepared for

Jurala Organic Farm and Agro Industries LLP Unit-1

(Greenfield 1 X 400 & 1 X 200 KLPD Grain based Ethanol Plant)

at

Survey Nos.
278/P,294/P,295/P,296/P,297/P,298/P,307/P,308/P&313/P
Chittanur Village, Marikal Mandal,
Narayanpet District, Telangana.

Prepared by

PIONEER ENVIRO
LABORATORIES & CONSULTANTS PVT. LTD.

ISO 9001: 2008 Certified

Accredited by NABET

Plot No. 197,| A-Z Elite| 2nd Floor| Kavuri Hills | Guttala Begumpet Village | Madhapur | Hyderabad- 81 |
E mail: pelcpl@yahoo.co.in, info@pioneerenvirolabs.com|www.pioneerenvirolabs.com

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1.0.INTRODUCTION

Need for Ethanol Blending Program:

1.1 The energy demand in our country is rising due to an expanding economy, growing population, increasing urbanization, evolving lifestyles and rising spending power. About 98% of the fuel requirement in the road transportation sector is currently met by fossil fuels and the remaining 2% by biofuels. Today, India imports 85% of its oil requirement. The Indian economy is expected to grow steadily despite temporary setbacks due to the COVID pandemic. This would result in a further increase of vehicular population which in turn will increase the demand for transportation fuels. Domestic biofuels provide a strategic opportunity to the country, as they reduce the nation's dependence on imported fossil fuels. In addition, when utilized with appropriate care, biofuels can be environment friendly, sustainable energy sources. They can also help generate employment, promote Make in India, Swachh Bharat, doubling of farmers' incomes and promote Waste to Wealth generation.

1.2 Ethanol is one of the principal biofuels, which is naturally produced by the fermentation of sugars by yeasts or via petrochemical processes such as ethylene hydration. It has medical applications as an antiseptic and disinfectant. It is used as a chemical solvent and in the synthesis of organic compounds, apart from being an alternative fuel source.

1.3 The National Policy on Biofuels – 2018, provides an indicative target of 20% ethanol blending under the Ethanol Blended Petrol (EBP) Programme by 2030. Currently petrol with 10% ethanol blend (E10) is being retailed by various Oil Marketing Companies (OMCs) in India, wherever it is available. However, as sufficient quantity of ethanol is not available, therefore, only around 50% of petrol sold is E10 blended, while remaining is unblended petrol (E0). The current level of average ethanol blending in the country is 5% (Ethanol Supply Year 2019-20). Due to several interventions in the supply side of ethanol, the Ministry of Petroleum aims to achieve 10% ethanol blending levels in the Ethanol Supply Year (ESY) – 2021-22. This step along with achieving E20 targets will require emission norms for nationwide standardization and adoption. The Ministry of Road Transport & Highways (MoRT&H) has notified BS-VI emission norms in Central Motor Vehicle Rules 1989 which are applicable to all vehicles post 1st April 2020. Newer vehicles on E-20 will have to meet BS-VI norms. MoRT&H has notified GSR 156(E) on 8th March 2021 for adoption of E20 fuel as automotive fuel and issued mass emission standards for it. MoRT&H has also notified Safety standards for ethanol blended fuels vide GSR 343(E) dated 25th May, 2021 on the basis of Automotive Industry

Standard3 (AIS 171). It lays down safety requirements for type approval of pure ethanol, flex-fuel & ethanol-gasoline blended vehicles in India.

1.4 Currently the gasoline vehicles (2 wheelers & 4 wheelers) in the country are designed for running on pure gasoline and can be tuned to suit ethanol blended fuels ranging from E0 to E10 depending on the vehicle type. On the material compatibility front, the rubber and plastic components are compatible with E10. However, with the proposed target of E20, the vehicles are now required to become both material compatible and tuned for use of E20 fuel.

1.5 By taking into consideration the limitation of ethanol production from traditional C-Heavy molasses route and its competitive usage in potable and chemical sectors, the Central Government has allowed other sugarcane and food grain-based raw materials for ethanol production in line with the National Policy on Biofuels, 2018. However, the existing combined alcohol/ethanol distillation capacity of 684 crore litres will have to be augmented for which this report attempts to provide a roadmap.

1.6 The task force on sugarcane and sugar industry constituted under the Chairmanship of Professor Ramesh Chand, Member (Agriculture), NITI Aayog estimated that sugarcane and paddy combined are using 70% of the country's irrigation water, depleting water availability for other crops. Hence there is a need for change in crop pattern, to reduce dependence on one particular crop and to move to more environmentally sustainable crops for ethanol production. Cereals, particularly maize, and Second Generation (2G) biofuels with suitable technological innovations offer promise of a more environmentally benign alternative feedstock for production of ethanol.

1.7 Besides, the entire supply chain and logistics of OMCs needs to be augmented to store, handle and dispense E20 blends.

1.8 As per the decision of the CCEA in its meeting of 21.12.2020, the Government aims to advance adoption of 20% blending in gasoline in the country by 2025. Accordingly, Ministry of Petroleum & Natural Gas (MoP&NG), Department of Food & Public Distribution (DFPD) and Ministry of Road Transport & Highways (MoRT&H) have worked out a plan to achieve this target.

Demand -Supply Gap :

1. As you are aware that with the vision to boost agricultural economy, to reduce dependence on imported fossil fuel, to save foreign exchange on account of crude oil import bill & to reduce the air pollution, Government has fixed target of 10% blending of fuel grade ethanol with petrol by 2022 & 20% blending by 2030. It is expected that in current ethanol supply year 2020-21, about 325 cr Itrs

ethanol is likely to be supplied to OMCs to achieve 8.5 % blending levels. It is likely that we will be achieving 10% blending target by 2022 with supply of 400 cr Itrs of ethanol.

2. With a view to support sugar sector and in the interest of sugarcane farmers, the Government has also allowed production of ethanol from B-Heavy Molasses, sugarcane juice, sugar syrup and sugar; and has been fixing the remunerative ex-mill price of ethanol derived from C-heavy molasses, B-heavy molasses and ethanol derived from sugarcane juice/ sugar/ sugar syrup for ethanol season. To increase production of fuel grade ethanol, Govt. is also encouraging distilleries to produce ethanol from maize; & rice available with FCI. Government has fixed remunerative price of ethanol from maize & rice for ethanol supply year 2020-21.

3. Now it has been proposed to prepone the 20% blending of ethanol with petrol by 2025. To achieve 20 % blending by 2025 & to meet the requirement of chemical & other sectors, about 1200 cr Itrs of alcohol/ethanol would be required; out of which 900 cr Itrs would be required to achieve 20% blending & 300 cr Itrs would be the requirement of chemical & other sectors. Out of total requirement of 1200 cr ltrs, 700 cr Itrs is required to be supplied by sugar industry & another 500 cr Itrs need to be supplied by grain based distilleries. To produce 700 cr Itrs of ethanol by sugar industry, about 60 Lakh Metric Tonne (LMT) of surplus sugar would be diverted to ethanol which would solve the problem of excess sugar, relieve sugar industry from the problem of storage of surplus sugar, & improve the revenue realization of sugar mills which will facilitate them in making timely payment of cane dues of sugarcane farmers. About 5 crore sugarcane farmers & their families & 5 lakh workers associated with sugar mills & other ancillary activities would be benefitted with this intervention. To produce 500 cr Itrs of ethanol/alcohol from food grains, about 125 LMT of food grains would be utilized. This extra consumption of surplus food grains would ultimately benefit the farmers as they will get better price for their produce and assured buyers; and thus will also increase the income of farmers across the country.

4. However, the ethanol production capacity in the country is not sufficient at present to achieve 20% blending by 2025. Accordingly, to meet out the above mentioned requirement of ethanol, Government has modified earlier scheme & notified a modified scheme for extending financial assistance to project proponents for enhancement of their ethanol distillation capacity or to set up distilleries for producing Ist Generation (1G) ethanol from feed stocks such as cereals (rice, wheat, barley, com & sorghum), sugarcane, sugar beet etc. vide notification dated 14-01-2021.

5. Under the scheme, Government would bear interest subvention for five years including one year moratorium against the loan availed by project proponents from banks @ 6% per annum or 50% of

the rate of interest charged by banks whichever is lower for setting up of new distilleries or expansion of existing distilleries or converting molasses based distilleries to dual feedstock. This will bring an investment of about Rs. 40,000 crore . Due to upcoming investment in capacity addition / new distilleries. various new employment opportunities will be created in rural areas.

6 Sugarcane and ethanol is produced mainly in three states viz Uttar Pradesh, Maharashtra and Karnataka. Transporting ethanol to far flung States from these three states involves huge transportation cost. By bringing new grain based distilleries in the entire country would result in distributed production of ethanol and would save a lot of transportation cost and thus prevent delays in meeting the blending target & would benefit the farmers across the country.

7. The said scheme would not only facilitate diversion of excess sugar to ethanol but would also encourage farmers to diversify their crops to cultivate particularly maize/corn which needs lesser water compared to sugarcane and rice. It would enhance production of ethanol from various feed stocks thereby, facilitate in achieving blending targets of ethanol with petrol and would reduce import dependency on crude oil , thereby, realizing the goal of Atmanirbhar Bharat. It will also enhance income of farmers as setting up of new distilleries would not only increase demand of their crops but would assure farmers of getting better price for their crops.

8. For production of ethanol, there is sufficient availability of feed stocks; & Govt. has also fixed remunerative prices of ethanol derived from various feed stocks. Moreover, OMCs being the assured buyer for ethanol has given comfort for purchase of ethanol from distilleries for next 10-15 years. As such the upcoming ethanol projects are viable.

9. In view of above, Chief Secretaries of all State Governments/ UTs have been requested to promote the scheme to the entrepreneurs of their state and encourage them to participate in the scheme so that the target set by the Government could be achieved well within the time line. State Governments have also been requested to facilitate entrepreneurs in arranging land for the project, to get environment clearance at the earliest & in setting up of distilleries; for which State Government! UTs have been requested to nominate a nodal department and a nodal officer.

1.1. DETAILS OF PRESENT PROPOSAL

The present proposal is for establishment of 1 X 400 KLPD & 1 X 200 KLPD grain based Ethanol plant under Ethanol Blending program in Chittanur Village, Marikal Mandal, Narayanpet District, Telangana.

Advantages of present proposal

Ethanol, an anhydrous ethyl alcohol having chemical formula of C_2H_5OH, can be produced from sugarcane, maize, wheat, etc. which are having high starch content. Ethanol can be produced from grains such as maize, Surplus rice from FCI by fermentation process. Ethanol can be mixed with gasoline to form different blends. As the ethanol molecule contains oxygen, it allows the engine to more completely combust the fuel, resulting in fewer emissions and thereby reducing the occurrence of environmental pollution. Since ethanol is produced from plants that harness the power of the sun, ethanol is also considered as renewable fuel.

Ethanol Blended Petrol (EBP) programme was launched in January, 2003. The programme sought to promote the use of alternative and environment friendly fuels and to reduce import dependency for energy requirements. Now Govt. of India is aiming for E20 (blending of Ethanol in 20% with Petrol) by 2024-25.

1.2.. DETAILS OF THE PROJECT PROPONENT

1.2.1. Background of company :

Jurala Organic Farms and Agro Industries LLP (JAF) was incorporated on 8th September, 2021, with registered office at H.No: 13_195/1 Kistapur Road, Medchal, Hyderabad, Telangana. JAF is a new entity incorporated specifically for this project, by promoters who are accomplished entrepreneurs with significant presence in Pharmaceuticals and Manufacturing Industry in Telangana and other states across India. Over the past 30 years, they have created enormous wealth for our stakeholders, employment for tens of thousands and produced goods and services that contributed substantially to the national wealth. JAF is promoted by the following founders, who are all designated partners of the company:

1. Dr B Parthasaradhi Reddy, Founder & Chairman of Hetero Group of Companies
2. Dr B Vamsi Krishna, Director, Hetero Group of Companies
3. Dr D Mohan Rao, Founder & CEO of Symed Labs
4. Sri Anuroop Kichnnagari, Director of KLR Group of Companies
5. Sri Abishek Kichannagari, Director of KLR Group of Companies

1.2.2. Background of partners :

The Partners

The promoters and designated partners of JAF are highly successful entrepreneurs who have founded and scaled up reputed businesses across Pharmaceuticals, Chemicals, and Manufacturing Industries. Brief profiles of the promoters are given below:

TABLE 1.1 – PROMOTERS PROFILE

Name	Brief Profile
Dr. B Parthasaradhi Reddy	Dr BPS Reddy Is the founder and Chairman of Hetero Group of companies, which is one of the largest privately-owned Pharmaceutical companies in India with a global footprint. Dr Reddy is a technocrat entrepreneur of global repute who has built up one of the largest API manufacturing companies in the world.
Dr. B Vamsi Krishna	Dr Vamsi Krishna is the Managing Director of Hetero group of companies and is actively involved in both strategic planning and operational management of various group businesses across the world.
Dr. D Mohan Rao	Dr Mohan Rao, a chemist by training is a very successful entrepreneur in the Pharma industry and is the founder and Managing Director of Symed Labs, a leading API manufacturer.
Sri Anuroop Kichnnagari	Anuroop is a second-generation entrepreneur and is part of the executive management team of KLR Industries, KLR Developers and other related group companies, with significant interests in manufacturing, and real estate development.
Sri Abishek Kichannagari	Abishek is a second-generation entrepreneur and is part of the executive management team of KLR Industries, KLR Developers and other related group companies, with significant interests in manufacturing, and real estate development.

TABLE 1.2 – LIST OF PARTNERS OF THE COMPANY

Name	Designation
Dr. B Parthasaradhi Reddy	Promoter / Designated Partner
Dr. B Vamsi Krishna	Promoter / Designated Partner
Dr. D Mohan Rao	Promoter / Designated Partner
Sri Anuroop Kichnnagari	Promoter / Designated Partner

Sri Abishek Kichannagari	Promoter / Designated Partner

1.3.LOCATION OF THE PROJECT SITE

General Location:

- Project is located at Chittanur Village, Marikal Mandal, Narayanpet District, Telangana.
- Total land proposed project is 13.19 Ha. (32.6 acres).
- The entire project area is falling in the Survey of India topo sheet no.56H/10.

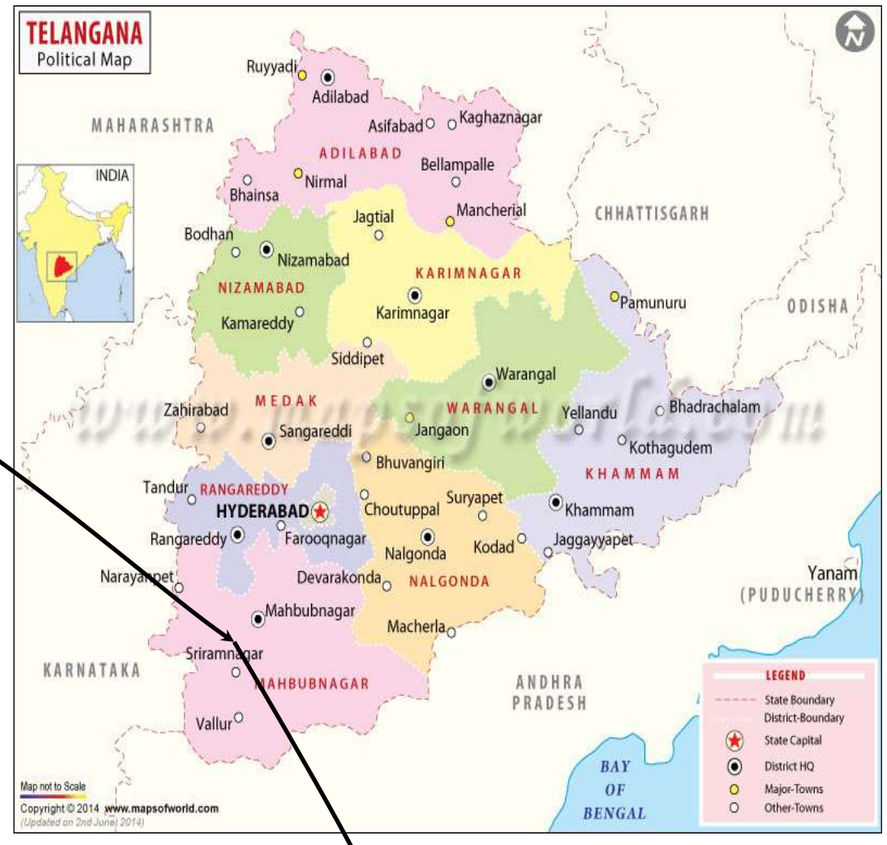
The following area the coordinates of the proposed project site.

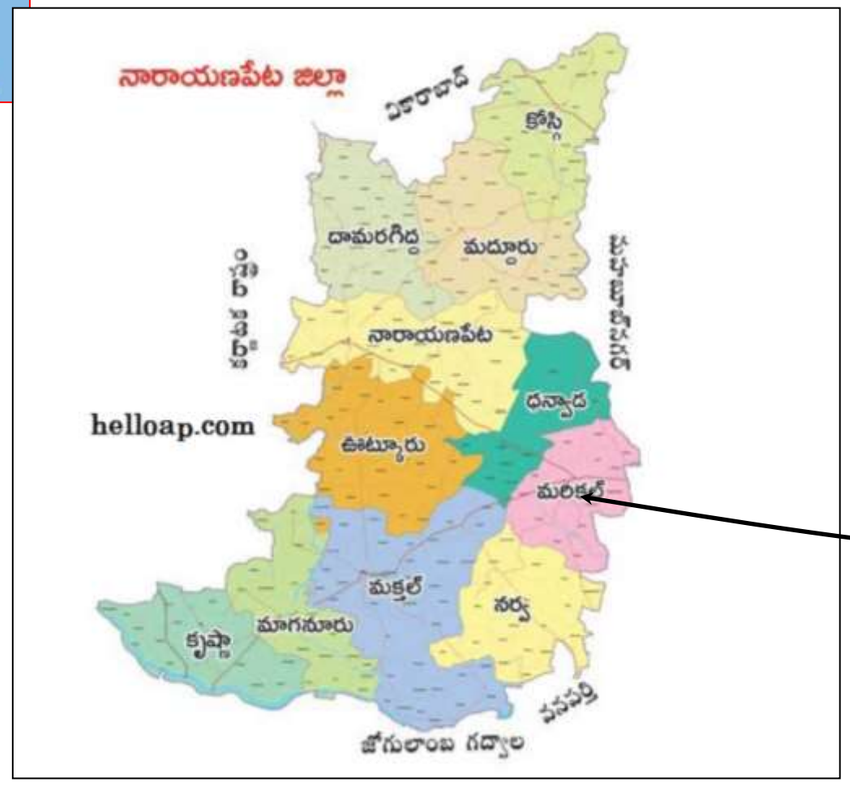
TABLE ; 1.3 – COORDINATES OF THE PROJECT SITE

S.NO	LATITUDE (N)	LONGITUDE (E)
1	16°31'48.89"N	77°43'49.66"E
2	16°31'48.99"N	77°43'57.19"
3	16°31'53.02"N	77°43'57.12"E
4	16°31'53.19"N	77°44'7.82"E
5	16°31'57.67"N	77°44'7.74"E
6	16°31'57.91"N	77°44'3.39"E
7	16°31'53.38"N	77°44'3.41"E
8	16°31'53.41"N	77°43'57.12"E
9	16°32'0.70"N	77°43'56.99"E
10	16°32'0.61"N	77°43'49.85"E
11	16°32'8.31"N	77°43'49.72"E
12	16°32'8.26"N	77°43'46.94"E
13	16°32'4.70"N	77°43'45.01"E
14	16°32'2.54"N	77°43'47.56"E
15	16°32'1.59"N	77°43'49.34"E
16	16°31'57.07"N	77°43'48.00"E
17	16°31'53.56"N	77°43'46.93"E
18	16°31'53.58"N	77°43'49.58"E

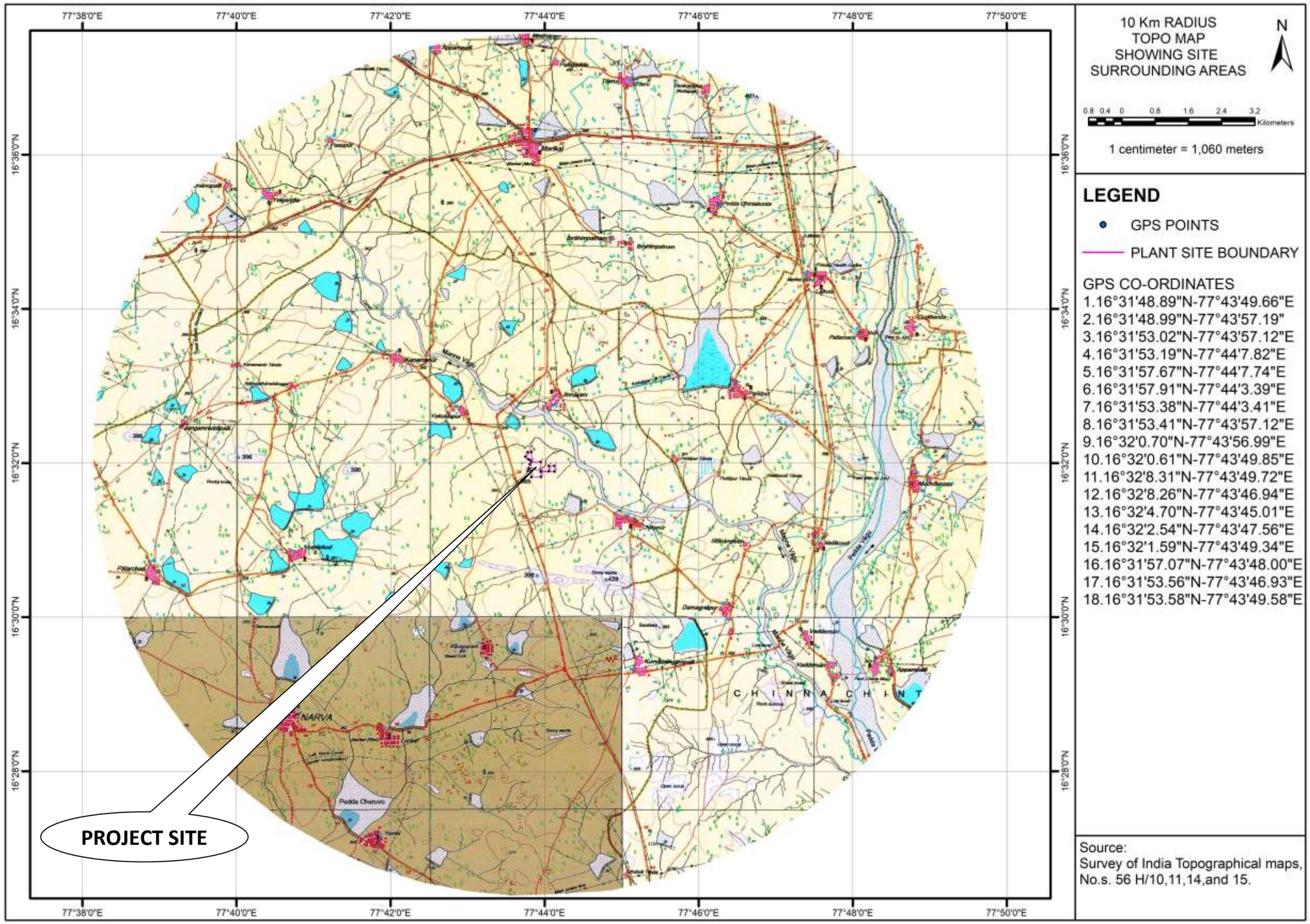
Map showing general location, topographical map showing 10 km radius and google map and photographs of the proposed project site & plant layout are shown as figure no. 1.1, 1.2, 1.3, 1.4 & 1.5.

MAP SHOWING GENERAL LOCATION OF THE PROJECT SITE **FIGURE: 1.1**

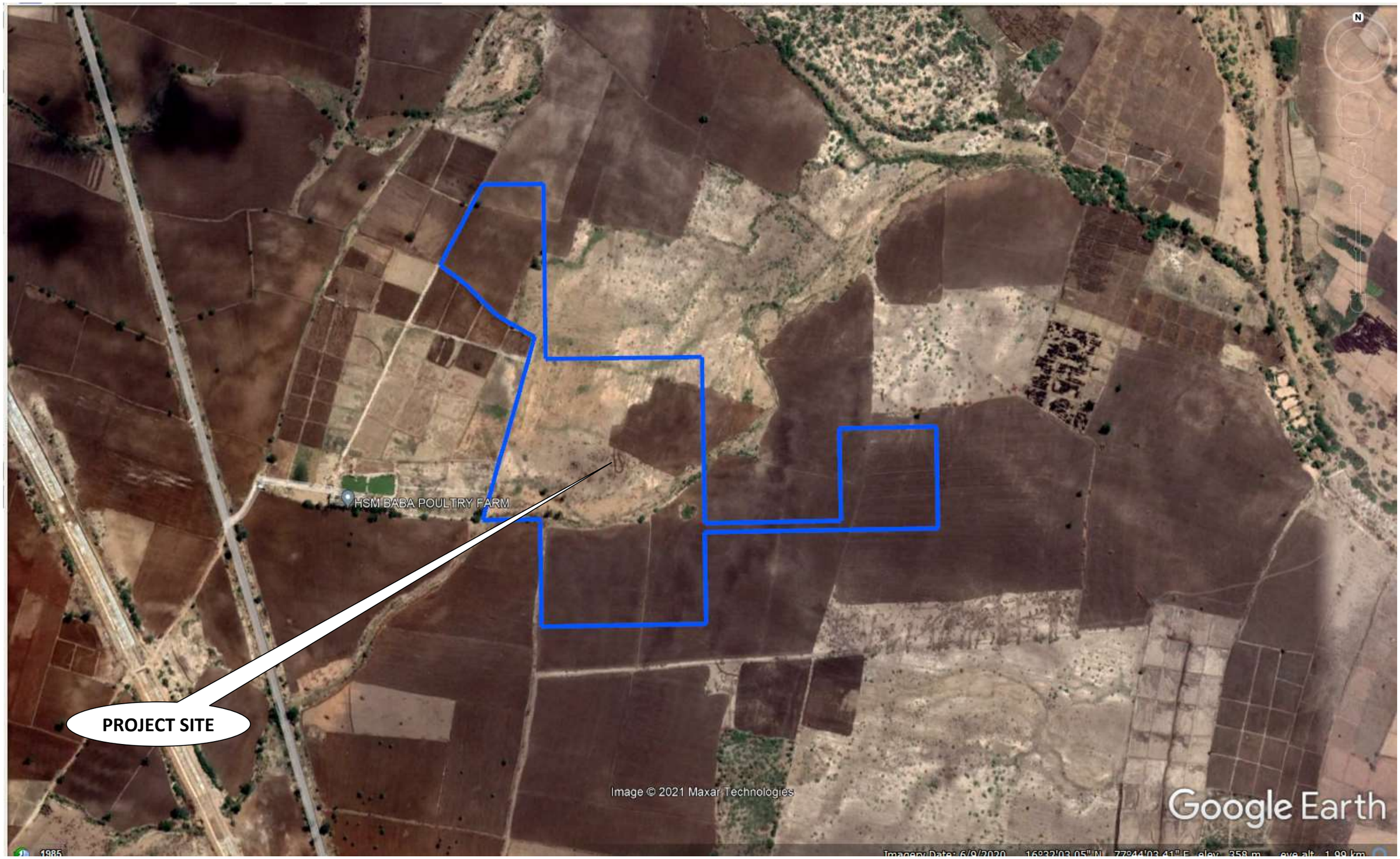




TOPOGRAPHICAL MAP SHOWING PROJECT SITE AND 10KM SURROUNDING AREA **FIGURE: 1.2**

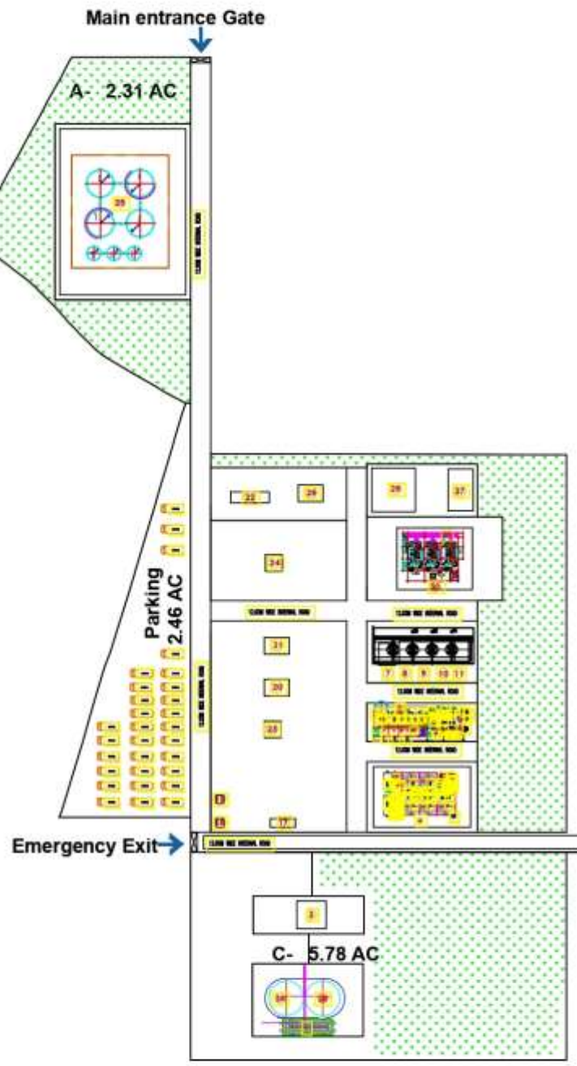


GOOGLE MAP SHOWING LOCATION OF THE PROJECT SITE **FIGURE: 1.3**



PHOTOGRAPHS SHOWING PROJECT SITE **FIGURE: 1.4**

PLANT LAYOUT **FIGURE: 1.5**



SITE LAYOUT SHOWING
600 KLPD GRAIN BASED AA PLANT
TELANGANA. (Unit-1)

scale:1:2400

LEGEND

SR. NO.	DESCRIPTION	SIZE	REMARKS
1	GRAIN UNLOADING PIT/GRAIN HANDING SECTION	19.50 x 11.50	
2A/B	GRAIN SILO (5000MT)	Ø24.00	
3	CLEANING & MILLING	16.50 x 17.50	
4	LIQUEFACTION & FERMENTATION SECTION	58.00 x 36.00	
5	DISTILLATION+MSDH	27.00 x 17.00	
6	INTEGRATED EVAPORATION	28.00 x 12.50	
7	COOLING TOWER FOR MSDH	10.0 x 13.0	
8	COOLING TOWER FOR DISTILLATION SECTION	33.00 x 13.00	
9	COOLING TOWER FOR EVAPORATION		
10	COOLING TOWER FOR LIQUEFACTION		
11	COOLING TOWER FOR FERMENTATION	8.50 x 13.00	
12	BOILER HOUSE + AUXILIARIES	120.0 x 60.0	
13	CHIMNEY FOR BOILER		
14	PCC ROOM+D.G ROOM	22.0 x 25.0	
15	COAL/FUEL YARD.	66.0 x 126.0	
16	TURBINE ROOM,POWER HOUSE, PRDS PLATFORM	66.0 x 126.0	
17	WEIGH BRIDGE	15.0 x 5.00	
18	SECURITY CABIN	5.0 x 5.0	
19	TIME OFFICE	5.0 x 5.0	
20	ADMINISTRATION BUILDING	15.0 x 10.0	
21	CANTEEN	15.0 x 10.0	
22	BULK CHEMICAL STORAGE	23.0 x 6.50	
23	EXCISE OFFICE	5.0 x 5.0	
24	MECHANICAL ROOM	10.0 x 10.0	
25	AA BULK STORAGE SECTION (PESO)	99.0 x 75.0	
26	PCTP	26.0 x 26.0	
27	WTP & RAW WATER STORAGE TANK	15.0 x 25.0	
28	PARKING AREA	2.46 Ac	
29	CHEMICAL STORE	15.0 x 10.0	
30	DECANTATION DRYER AND DDGS STORE	45.0 x 37.0	

PROJECT NAME: JURALA ORGANIC FARM AGRO INDUSTRIES LLP

PROJECT LOCATION:CHITTANUR VILLAGE,MARIKAL MANDAL
NARAYANPET DISTRICT

Sy no's 278/P,294/P,295/P,296/P,297/P,298/P,307/P,308/P,313/P

GREEN FIELD 1X400 & 1X200 KLPD GRAIN BASED ETHONAL PLANT

1.4.ENVIRONMENTAL SETTING WITHIN THE STUDY AREA OF 10 KM. RADIUS OF THE PROJECT SITE

The following is the environmental setting within the 10 Km. radius of the project site:

TABLE : 1.4 – ENVIRONMENTAL SETTING WITHIN THE 10 KM. RADIUS OF THE PROJECT SITE

Salient Features / Environmental features with in 10 km. radius	Distance w.r.t. site / Remarks
Type of Land	Agriculture land and has been converetd for Non – agriculture land
National Park/ Wild life sanctuary / Biosphere reserve / Tiger Reserve / Elephant Corridor / migratory routes for Birds	There are no notified National Park/ Wild life sanctuary / Biosphere reserve / Tiger Reserve/ Elephant corridor / migratory route for Birds with in 10 Km. radius of the project site.
Historical places / Places of Tourist importance / Archeological sites	Nil
Critically polluted area as per MoEF&CC Office Memorandum dated 13th January 2010 & Hon'ble NGT order dated 10th July 2019	Nil
Defence Installations	Nil
Nearest Village	Jinnaram – 1.0 Kms.(N)
Forests	Nil
Water body	Pedda Vagu– 6.5 Kms (SEE) Manne Vagu – 0.5 Kms (E) Canal – 0.5 Kms (W) Stream is passing through the site and same will be diverted as per Govt. rules & few ponds exists within 10 Km radius
Highway	SH # 167 – 7.3 Kms. (NW)
Railway Station	Nil
Port facility	Nil
Airport	Nil
Interstate Boundary	Nil
Seismic zone as per IS-1893	Seismic zone – II

1.5.LIST OF INDUSTRIES WITHIN 10 KM. RADIUS

There are no major industries situated within 10 Km. radius of the proposed project site.

1.6. LAND REQUIREMENT AVAILABILITY

The total land availble with M/s. Jurala Organic Farm and Agro Industires LLP is 200 acres and part of land purchased and part of land taken lease and both are registered. Out of this 13.19 Ha. (32.6acres) is allocated for ethanol plant of M/s. Jurala Organic Farm and Agro Industires LLP (Unit –I) compirsing of Survey Nos. 278/P, 294/P, 295/P, 296/P, 297/P, 298/P, 307/P, 308/P & 313/P. The remaing land of 167.4 acres is allocated for M/s. Jurala Organic Farm and Agro Industires LLP (Unit

–II) , which is not under the present proposal. Total Land has been registered in the company name and entire land use has been changed to Non- Agriculture.

1.7. PROPOSED PRODUCTS & PRODUCTION CAPACITIES

The following is the plant configuration and proposed products of the proposed project.

TABLE: 1.5 – LIST OF PRODUCTS

S. NO.	NAME OF UNIT	NAME OF THE PRODUCT	PRODUCTION CAPACITY
1	Distillery plant	Ethanol	**1 X 400 KLPD & 1 X 200 KLPD (600 KLPD)**
2	Power plant	Electricity	**15 MW**
BY-PRODUCTS			
1	Distillery plant	DDGS	**330 TPD**
2	Distillery plant	CO_2 recovery	**340 TPD**

1.8. RAW MATERIAL REQUIREMENT

The Industry will use wide range of Agro based raw materials available in different seasons. The Government of India and State Government is encouraging Agro based Industries in production of Ethanol and other related products to benefit farmers, create rural employment for agricultural labourers. The following will be the raw material requirement.

TABLE: 1.6 – RAW MATERIALS

S.No	Raw Material	Source	Quantity (TPD)	Method of Transport
Grain Based Distillery plant:				
1	Multi Grains Rice, maize, bajra, jowar, corn, Sorghum grain Waste/damaged broken rice and other starch based grains, etc.)	Telangana	1500	Through covered trucks by Road
	Enzymes	Telangana	1.2	trucks by Road

	Sodium Hydroxide	Telangana	0.6	trucks by Road
	Urea	Telangana	3.0	trucks by Road
	Anti-foam agent	Telangana	0.3	trucks by Road
	Yeast	Telangana	1.2	trucks by Road
Fuel (1 x 100 TPH Boiler)				
1.	Biomass/ Indian coal/ Briquettes	Local	552	Through road by covered trucks

RAW MATERIAL AVAILABILITY & FUEL

Grain:

The major raw materials required are damaged grains which are available in plenty. The main grains that can be used in the manufacture of Ethanol are broken rice, maize and Jowar. Telangana is also one of the largest producers of rice and maize in the country. 5,25,000 tonnes /annum of damaged grains will be sourced from local rice millers, through authorized agents of Food Corporation of India (Especially for damaged grains). The damaged grains will be procured around 300 Kms. radius from the proposed project site.

Fuel:

Indian coal will be sourced from Singareni, Telangana and will be transported by road in trucks covered with tarpaulin.

Biomass will be sourced from local area will be transported upto the project site in covered trucks with tarpaulin.

Briquettes will be sourced from Telangana and will be transported by road in trucks covered with tarpaulin. Biomass

RAW MATERIAL STORAGE & HANDLING

A) Grain based Distillery;

The proposed capacity of the silos will be 2 X 10000 MT & 1 X 5000 MT in which grains such as rice, maize, bajra, jowar & broken rice, damaged grains etc., will be stored after pre-cleaning.

FUEL STORAGE & HANDLING

Coal/Biomass/ Briquettes will be stored in covered sheds which will be covered with GI sheets of 20 feet height with cladding arrangement. Water sprinkling will be done to prevent fugitive dust emission. Covered conveyers will be used for transportation to Boiler.

1.9. STEAM REQUIREMENT & STEAM BALANCE

The steam requirement for the proposed distillery will be met from the 1 x 100 TPH Boiler with Coal/Biomass/ Briquettes as fuels**.** The steam generated from the boiler will be used in as follows:

TABLE: 1.7 – STEAM DETAILS

Steam Requirement @ 3.50 Bar(g)	Duty	Ext Pr	UoM	Boiler
Liquifaction /Cooking	C	3.5	TPH	8.4
Wash to Ethanol	C	3.5	TPH	43.1
DDGS Dryer	C	3.5	TPH	28.1
Evaporator for Wet DDGS (RS Vapour Integration)	C	3.5	TPH	0.0
Steam for CIP	I	3.5	TPH	1.2
Steam for CO2	C	3.5	TPH	1.1
Steam for D-aeration @ 150 Deg C	C	10	TPH	10.97
Steam for SCAPH	C	3.5	TPH	8.24
Steam for STG	C	10	TPH	1.1
Less Extra Steam for De-superheating	C			2.5
Steam F&A 150 Deg C			TPH	100

1.10. WATER REQUIREMENT

The total fresh water requirement for the proposed project will be 2700 KLD (@4.5 lits/lit of ethanol). This includes process water, CT make up, DM water for boiler & DM plant regeneration waste water and water for domestic requirement. Water requirement for the proposed project will be sourced from Koila sagar lift Irrigation Scheme. Prior permission from the I &CAD, Govt. of Telangana will be obtained before drawing water. We have submitted application to I & CAD, Govt. of Telangana. The following is the water requirement break up for is shown in Table below:

TABLE 1.8 - WATER REQUIREMENT

S.NO.	SECTION	WATER CONSUMPTION IN KLPD
1	Process water	1,020
2	Soft water for distillation, CT makeup	820
3	DM water for Boiler Makeup &	835

	distillation dilution	
4	Domestic	25
	Total	**2,700**

1.11.WASTE WATER GENERATION

The total wastewater generation from the proposed project will be 4710 KLD. This includes spent wash, Boiler Blowdown, Cooling Tower Blowdown, DM plant regeneration and Sanitary wastewater. The following is the wastewater generation break up of the project is shown in Table below:

TABLE 1.9 - WASTEWATER GENERATION

S. NO.	SECTION	WASTEWATER GENERATION IN KLPD
1	Spentwash	3,540
2.	Spent lees	700
3.	CT & Boiler blowdown	450
4.	Sanitary wastewater	20
5.	**TOTAL**	**4,710**

Condensate Polishing unit capacity: 3,550 KLD

Item	Quantity (KLD)
Process Condensate	2,400
Spent Lees	700
CT & Boiler blowdown	450
TOTAL	**3,550**

Recycle & Reutilisation of CPU treated water:

Reuse of Treated water from CPU to Liquefaction: 1,310 KLD

Reuse of Treated CPU water for CT makeup : 1,700 KLD

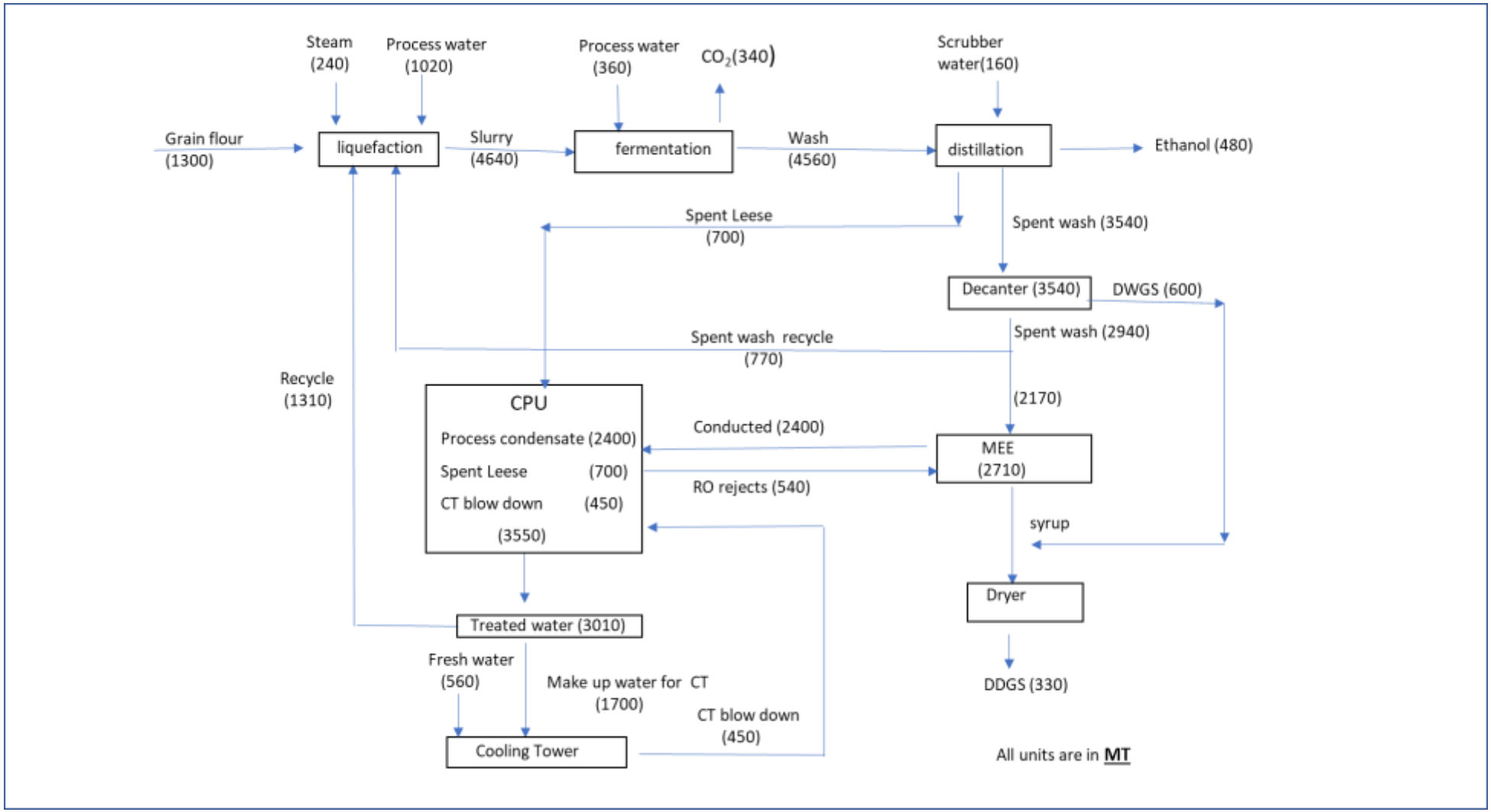
Rejects (to MEE) : 540 KLD

Spent wash from distillation	:	3,540 KLD (@5.9 lit/lit)
Input to Decanter	:	3,540 KLD
DWGS	:	600 TPD
Output of decanter	:	3,540 – 600 : 2,940 KLD

Recycle of spent wash (after decanter & before MEE) to Liquefaction	:	770 KLD
Spent wash to MEE	:	2,940 – 770 : 2,170 KLD
RO rejects	:	540 TPD
Input to MEE	:	2170 + 540 : 2,710 TPD
Condensate from MEE	:	2,400 MT
Concentrated Syrup to Dryer	:	310 TPD
Input to dryer : DWGS + conc. Syrup from MEE	:	600 TPD + 310 TPD 910 TPD
DDGS	:	330 TPD

WATER BALANCE - GRAIN BASED DISTILLERY (600 KLPD)

TABLE : 1.10 -WATER BALANCE



2.0. PROCESS DESCRIPTION

2.1. PROCESS DESCRIPTION FOR GRAIN BASED DISTILLERY:

Grain handling & storage:

Adequate grain storage is required to ensure continuous stable plant operation. Grain storage capacity is decided based upon seasonal availability of grains and the site logistics. Normally, capacities of grain storage silos are designed for about 15 days of plant operation.

Milling:

Grains from silos is passed through grain cleaning system for the removal of foreign matter and taken into a surge Bin. A good grain cleaning system is must for removing the impurities/foreign matter from grain before it goes for milling. Magnetic separators are also installed at critical points for the removal of metallic particles.

Surge bin provides the buffer capacity between milling and grain storage systems. Surge bin is provided with high- and low - level alarms with logical interlocks to ensure smooth operation without any damage to upstream and downstream equipment.

Grain from surge bin is fed to a hammer mills for milling. Hammer mill sieves are designed to ensure proper milling of grain to give an optimum particle size distribution. Particular size distribution in the milled flour has significant influence on the process performance. Feed grain is therefore milled to a uniform size to accelerate processing time and improve yields.

Liquefaction:

Milled grain and hot water are mixed in a paddle cum ribbon mixer to prepare mash, which flows to mash tank. Mash tank is equipped with agitator to keep grain solids in suspension. Small quantity of liquefying enzyme is also added to the mash tank to reduce viscosity and improve pump-ability of the mash.

Mash cooking process is continuous and online. A high-pressure jet cooker is used for heating the mash through direct steam injection and heated mash is held at high temperature for some time to achieve proper cooking of grain starch. The cooked mash is then flashed to reduce its temperature before liquefaction. Liquefaction enzyme is added to liquefaction tank for converting starch to short chain dextrin. The contents of liquefaction tank are continuously agitated to ensure proper mixing of enzyme and mash. The liquefied mash is cooled in mash coolers and then sent to the fermentation area for conversion to ethanol.

As saccharifying enzyme and fermentation process requires a lower pH value than liquefaction process, thin stillage from distillation section is added to mash to dilute it and to reduce the pH value of the mash. In absence of the thin stillage process water can be used for dilution and some acid might be required to adjust the mash pH.

CIP connections are provided at required points to ensure proper cleaning of equipment and pipelines, to maintain sanitary conditions and control the contamination during liquefaction process.

The offered plant will operate on SSF (Simultaneous Saccharification & Fermentation) Concept during grain-based operation. SSF does away with separate saccharificatoion step before fermentation. This minimizes contamination, reduces capital cost and simplifies the system to ensure better control and efficiency.

Yeast culturing:

Yeast cell mass is grown in this section. It comprises of a yeast activation vessel, used for activation of dry yeast. The vessel is provided with heating, cooling and steam sterilization arrangements. Once yeast has been activated and grown to proper concentration, the mixture is transferred to a pre- fermenter. Heat generated in the pre-fermenter is removed by circulating contents of fermenters through pre-fermenter cooler.

Sterile air, necessary for yeast growth, is supplied to the yeast activation and pre-fermenter vessels. Finally, cell-mass from the pre-fermenter is transferred to fermentation tanks.

Fermentation:

Offered fermentation process operates on the highly successful SSF (Simultaneous Saccharification and Fermentation) Concept, which minimizes chances of contamination and ensures better fermentation efficiencies resulting in higher yields while cutting down on process hardware. The fermentation system consists of four fermentation tanks operating in Fed-batch Mode. The fermenters serves as bioreactor vessels in which sugar, (converted from starch), is converted to ethanol by the yeast (Saccharomyces cerevisiae). Fermenters are designed for efficient heat removal and good mixing, to facilitate maintenance of uniform temperature and sanitary environment for efficient fermentation process. This ensures good startup with rapid fermentation and high ethanol content in fermenters.

Fermenter is filled with grain mash and yeast cell mass from the pre-fermenter is transferred to it during the filling. Fermentation process is exothermic, i.e. heat is generated during the process. To maintain an optimum temperature of around 32^0C in fermenters, the heat generated during

fermentation process is removed by circulating the fermenter contents through external heat exchanges cooled by cooling water. Gases generated during the fermentation process are collected and scrubbed in CO_2 scrubber, to recover the ethanol carried over with vent gases.

After completion of the fermentation process, fermented beer is transferred to the beer well and the fermentation tank is thoroughly cleaned for next fermentation cycle. Beer well provides surge capacity between fermentation and distillation system. Efficient CIP system is provided for the cleaning of fermentation tanks, heat exchangers and associated piping to ensure sanitary conditions during fermentation. To ensure proper cleaning, each fermenter is fitted with high pressure jet type rotating tank cleaner, connected to the system.

Salient features:

- Rugged Process and ease of operation,
- Better sanitation and low contamination result in faster fermentation and lower residence time,
- Proper sanitary conditions maintained by effective CIP system ensure low bacterial activity and contamination levels in fermenters,
- Consistently high-performance plant operation,
- Higher Alcohol Concentration in fermenters leads to reduced steam consumption in Distillation and lower effluent volume,

Clean -In-Place (CIP) system:

Efficient CIP System is provided to ensure proper cleaning of process equipment with inter-connecting piping and minimize microbial contamination in the process. The system consists of hot water tank, caustic solution tank, a high-pressure pump, tank cleaning nozzles and associated piping. A good quality sterilant is used during the CIP cycle to disinfect the system, as and when required.

Distillation:

Offered Multi-pressure Distillation System comprises of seven distillation columns operating at different internal pressures, so that overhead vapors from the distillation columns operating under higher pressure can be used to heat columns operating under lower pressure. This thermal integration of distillation columns leads to a system where high-grade neutral alcohol can be produced with very low energy consumption.

Fermented beer containing alcohol is preheated and fed to the degasifying column for removal of entrained carbon dioxide and low boiling impurities. The degassed fermented beer is then fed to beer stripper column, where alcohol is stripped from the fermented beer.

Raw alcohol recovered in beer stripper column is fed to pre-concentrator column, which concentrates the raw alcohol and provides for first stage removal of low boiling impurities and fusel oils. The impure spirit draws are taken to recovery column for further concentration and recovery of ethanol.

Overhead vapors from pre-concentrator column are taken to integrated four effect evaporator and provide the heat required for concentrating the spent wash. The shell side condensate from evaporator is pumped back to pre-concentrator column as reflux.

Integrated Evaporator utilizes waste heat from distillation to concentrate the thin stillage (decanted spent wash) without using any steam.

Concentrated alcohol from pre-concentrator column is diluted with soft water and recycled spent lees and then fed to ED column where it undergoes extractive distillation under high dilution. Extractive distillation process under high dilution conditions changes the volatile behavior of the impurities and ensures high efficiency removal of all high and low boiling impurities from the top of ED column.

Purified dilute alcohol from the base of ED column is fed to rectification column where it is concentrated to about 96%v/v ethanol content. Side draws are taken from the rectification column to remove fusel oils/heavier impurities, while light impurities are removed from the top of rectification column. Impure spirit draws are taken to recovery column for further concentration.

Neutral Alcohol draw from the top section of rectification column is taken to polishing column for slow stripping and removal of any remaining light impurities, mainly methanol and diacetyl. Purified premium quality neutral alcohol product is drawn from the bottom of polishing column and transferred to receivers after cooling in the product cooler.

Impure draws from all columns consisting of heads, esters and fusel oils are taken to recovery column for the concentration of the impurities and to recover excess ethanol. Ethanol stream recovered from the top of recovery column is recycled back to the system. This ensures lower overall impure cuts during the distillation process.

A highly concentrated draw of impure spirit is taken from the vent condenser of recovery column and transferred to impure spirit receiver. Fusel oil draws from the recovery column are taken to

fusel oil decanter where fusel oil is separated and transferred to fusel oil tank. The fusel oil washings from the bottom of the decanter are taken back to the recovery column feed tank.

Salient features:

- Simple Distillation Scheme with optimum number of distillation columns and easy plant operation,
- Energy Efficient thermally integrated Multi-pressure Column Operation leads to lower steam consumption,
- Thermal Integration with Spent Wash Evaporator helps substantially reduce spent wash volume without using any steam, thus resulting in substantially energy savings over the plant life,
- Vacuum operation combined with the high turbulence tray design for Beer Stripper column almost eliminates the scale formation, hence plant down time is substantially reduced,
- Indirect heating of Analyzer column to prevent undesired dilution of spent wash with steam condensate
- Mutli-pass design of condensers with higher tube velocities to minimize scaling inside tubes and ensure higher heat transfer coefficients,
- Highly efficient Fusel Oil Decanter with proper mixing, calming and separation zones ensures proper separation of fusel oils.
- Better quality product with effective separation of impurities,
- Higher Distillation efficiency,
- Fully automated plant with advanced control system eliminates chances of human error and ensures consistent high distillation efficiencies and excellent product quality.

Integrated Evaporator:

Evaporation is a thermal operation used to remove a liquid from a solution by boiling off the solution. The evaporation process starts with a liquid product and ends with a concentrate as the main product from the process.

Offered Spent Wash Concentration System comprises of a Seven-effect evaporator unit thermally integrated with the distillation plant. The integrated evaporator will use only waste heat from the distillation plant for the concentration of thin stillage, without using any steam.

Vapors from the top of pre-concentrator and recovery columns will be used to heat the evaporators of integrated four-effect evaporator and provide thermal energy required for concentrating the

thin stillage. The condensate from respective evaporators will be collected and pumped back to the pre-concentrator and recovery columns as reflux.

Offered Integrated Evaporator System is a combination of falling film and forced circulation evaporators, to optimize heat transfer requirements and electric power consumption of the system. It is a four-effect evaporation system with three effects based on falling film concept and one final effect based on forced circulation concept. The falling film evaporators having extremely high thermal efficiency with low power consumption are used for the effects handling liquid with lower solids content. For final effect, where solids content is high, forced circulation evaporator has been used.

In forced circulation evaporator the liquid is circulated at very high flow rates through the heating tubes. Forced circulation evaporators consume higher amount of electric energy but substantially minimize the fouling rates and resulting down time for the Spent Wash Concentration Plant.

Salient features:

- Energy efficient system running on waste heat from distillation section and requiring no Steam for operation,
- Lower fouling rates i.e. lower deposition of solids on tube surfaces results lower operating costs with no chances of choking or system breakdown during operation.
- Simplified Easy Plant Operation by full automation.
- Process Condensate generated in process can be reused, minimizing the plant water consumption.

Distillers Dry Grain & Solubles (DDGS):

After recovery of the alcohol, spent wash leaves distillation plant from the base of Beer Stripper Column. The spent wash from grain-based distillery contains suspended and soluble grain solids comprising of fibers, proteins, fat, etc. which remain unconverted during the fermentation process and pass through as such, plus valuable yeast nutrients are added during the fermentation process. The resulting product has high nutrient content and has great value as cattle –feed.

Operation of DDGS Section can be divided broadly in three sub-sections, i.e. Decantation, Evaporation and Drying.

a. Decantation:

Spent wash from the distillation section will pass through horizontal high-speed Decanters, which separates suspended solids from the spent wash and split the spent wash feed stream into two streams, as below:

- Wet Cake: it is the solids stream from decanter consisting of majority of suspended solids. It has approximately 30% solids and 70% water.
- Thin stillage: Liquid stream consisting of mainly water with all dissolved solids and remaining suspended solids.
- A part of thin stillage is recycled back to the liquefaction section, thus reducing the requirement of process water. Balance quantity of thin stillage is pumped to Evaporators for concentration.

b. Evaporation:

In offered system thin stillage will be concentrated to a solids content of about 30-35% w/w, in an Evaporator thermally integrated with distillation section. The concentrated thin stillage syrup from evaporator will be mixed with wet cake from spent wash decanter. The mixture is known as DWGS (Distillers Wet Grain and Soluble). It contains all required nutrients and has high value as very good cattle feed. But due to its higher moisture content, it can't be stored as such for a longer time period and needs same day disposal form the plant.

c. Drying:

The thick slop from the multiple effect evaporator system will be mixed with wet cake from the decanter in a specially designed paddle mixer.

A portion of the dried DDGS product is recycled back to paddle mixer by a suitable conveyor system. The mixed and conditioned wet feed is then fed at a constant rate via a screw feeder. Back mixing of the product lowers the moisture content thus improving the physical form and handling characteristics of the feed material.

In dryer the wet mass is indirectly heated by using dry & saturated steam. The steam tubes are arranged concentrically with tube sheet & baffles. The steam enters the tube and heats the tube walls. A rotary joint and circulate header is used to feed steam inside the tubes with proper distribution of steam and condensate removal arrangement.

Wet mixed material comes in contact with the hot tubes, as it moves forward in the dryer drum. The moisture in wet, material vaporizes and it gets dried. The dried fiber product is discharged from the dryer drum through outlet port of the discharge manifold.

The vapors generated from the drying of mixture are removed from the dryer enclosure by an ID Fan. The fine particles escaping with the purge air are trapped and collected by a cyclone separator and discharged continuously via rotary valve. The humid air is exhausted into atmosphere via cyclone outlet port.

The hot and dried product is cooled in an online cooler. The product cooler system is indirect and water cooled. Tubular cooler with fixed shell and rotating tube bundle is considered.

Control system:

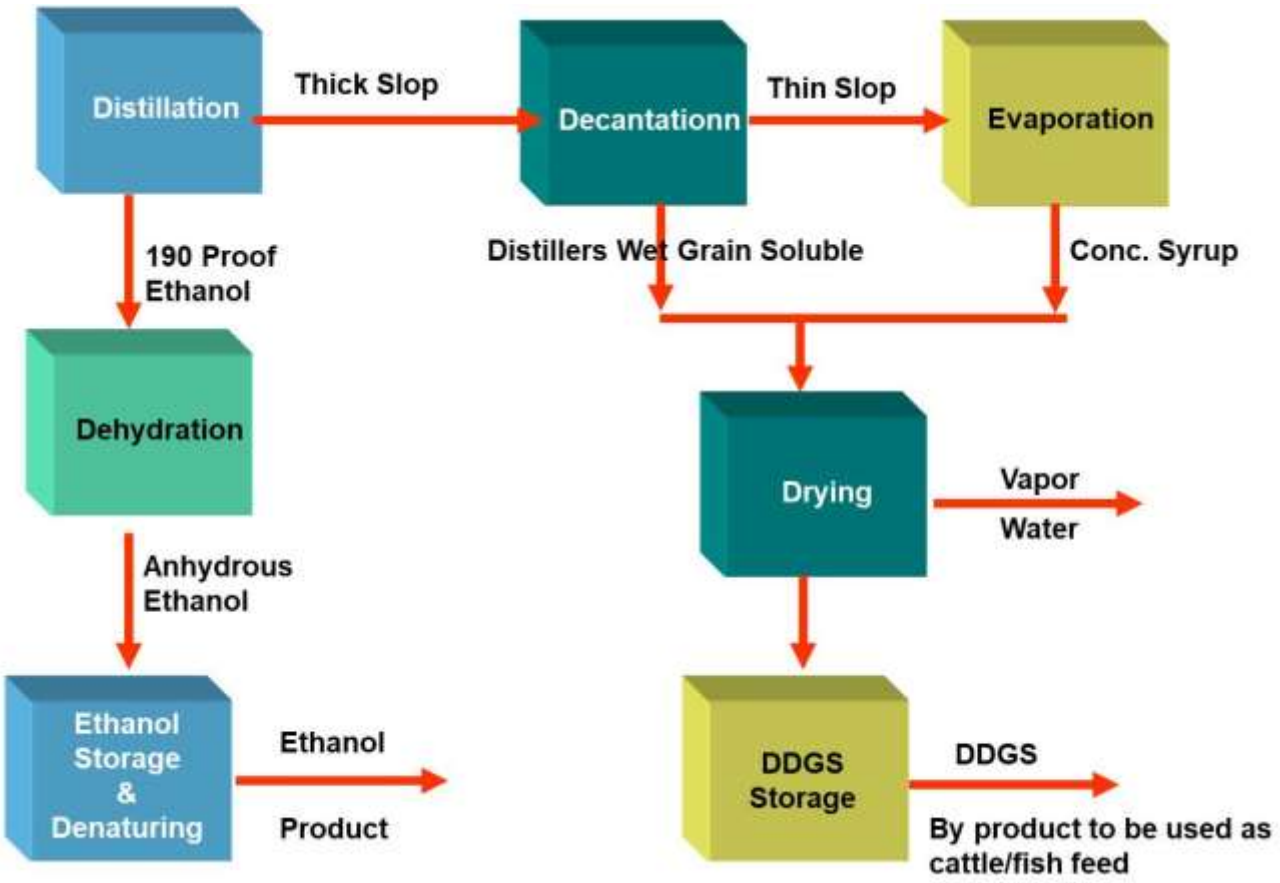
A PLC based control system will be provided to ensure continuous, stable and efficient plant operation. Electronic field instruments linked to the PLC control panel will be used for measuring the value of various process parameters.

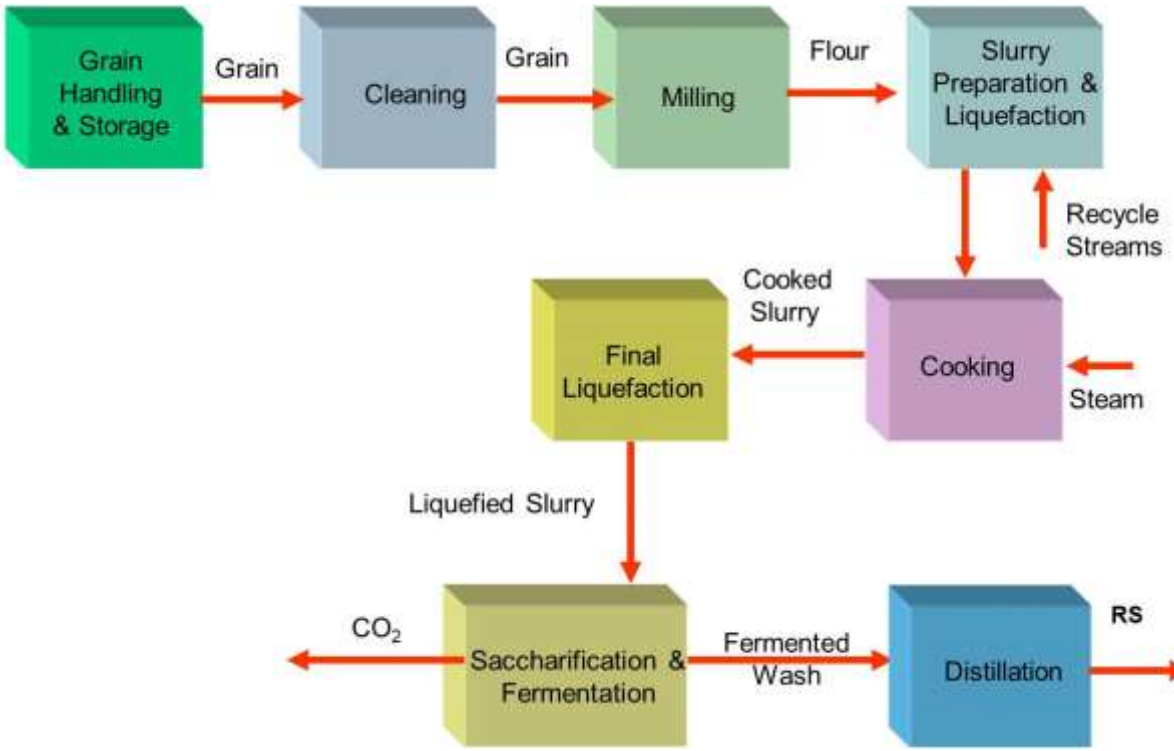
All measured single such as temperature, differential/absolute pressures, flows and levels will be continuously monitored and compared with set point values in PLC system. If any deviation is observed form set point values for any particular process parameter, a suitable control action based on programmed algorithms will be generated by PLC system. Desired control action will be provided through control value or viable frequency drive.

Man machine interface will be provided through SCADA (Supervisory Control and Data Acquisition) software running on a desktop computer. The operating panel will be located in the control room and consists of operator work station with 20^{th} color monitor and operator keyboard. Features such as trends, graphics, process parameter indication, etc. well be incorporated.

Control system will store all operating data and provide historical trending and real time analysis for evaluating the anticipated and achieved plant performance. The panels for PLC hardware installation and motor control switch gear will be installed in a control room, to be provided by client, in ex-free area. The process flow diagram of grain based distillery plant is shown below figure 1.6:

PROCESS FLOW DIAGRAM OF GRAIN BASED DISTILLERY **Figure : 1.6**





2.2. CO_2 RECOVERY PLANT:

During the biochemical reaction in fermentation section, CO_2 is generated as by product along with ethyl alcohol. This raw CO_2 gas having 99% v/v purity (DB) is taken for purification followed liquefaction.

Initially gas is taken to Foam trap to eliminate liquid particle carried over from fermentation section. Here process water is used to rinse down the foam. Clean gas from Foam trap is then fed to Low pressure organic removal system with the use of booster blower. Organic impurities associated with carbon dioxide gas are scrubbed using high efficiency packing. Main impurities like ethanol, aldehyde, ethyl acetate, are extracted in the scrubbing water through counter current operation of the scrubber. This purified gas is then fed liquid knock out drum for removal of water traces. Purified gas is compressed in two stages reciprocating non lubricated water cooled compressor. This high pressure gas is cooled down to desired temperature in water cooled after cooler. Additional impurity separation step is used to enhance CO_2 gas purity by scrubbing impurities present in traces by use of potable water.

Odour producing hydrocarbons and other sulphur based compounds will be removed in adsorption tower by using activated carbon as a media. De odorized high pressure carbon dioxide gas will be cooled down to remove significant portion of moisture using ammonia as coolant. It will be further dried in molecular sieve dehydration unit. This step is essentially required to avoid ice formation during liquefaction of carbon dioxide. This purified is carbon dioxide gas will be then liquefied by using refrigeration system. Refrigeration system consists of screw compressor, pre cooler, refrigerant condenser and accessories. Liquid CO_2 still contains non condensable gases like nitrogen, oxygen which are removed through venting. Liquid CO_2 stripper is used to avoid high vent CO_2 losses which uses packed tower with reboiler and reflux condenser. Oxygenates of nitrogen are removed through molecular sieve NOx tower. Purified liquid CO_2 of desired quality will be then sent to liquid CO_2 storage tank. Liquid storage tank will be equipped with all necessary accessories like pressure safety valves, insulation.

After the scrubber, the pressurized CO_2 will be liquefied and stored in the storage container which will be disposed through tankers to the soft drink manufacturing units. The CO2 produced may also be The Total CO_2 production from proposed distillery project is 340 TPD.

2.3. POWER GENERATION PROCESS (CO-GENERATION POWER PLANT)

The power plant consists of the following.

- 1 x 100 TPH boiler with ESP
- 1 x 15MW Triple extraction cum condensing back pressure type steam turbines
- Mechanical auxiliaries like fuel handling system.
- Water cooled condenser system.
- Electrical auxiliaries
- The boiler will be designed to operate with biomass/Coal/Briquetes.

The whole process comprises of generating heat energy in a boiler and then converting this heat energy into mechanical energy in a turbine. This mechanical energy generated is further converted into electrical energy in the alternator.

The fuel will be fed into the boiler and combustion of this fuel will generate heat energy. This heat energy is transferred to the heat transfer area provided in different areas like (water wall, steam drum/mud drum, bank tubes, economizer, super heater, air pre- heater). This heat is transferred to the air which is passing through and steam is generated and this steam is further superheated in the super heater so that dry super heated steam is generated.

This steam will be fed into the turbine where it expands and generates mechanical energy i.e. it starts rotating the rotor at high speed and further this mechanical energy is converted into electrical energy in the alternator. The power generated at the alternator terminal**.**

The feed water from the de-aerator is pumped to the steam drum through HP heater and economizer by means of feed water pump (two in number out of which normally one is working and the other one is on standby). The feed water gets preheated in the HP heater by recovery of heat from MP steam extraction from turbine initially and in economizer by way of recovery of heat from flue gases before it enters the steam drum, where it mixes with boiler water. A minimum re-circulation flow line is provided in the feed water line to pump the water back to de-aerator and safeguard the pump from overheating in very low or no flow (to boiler) condition.

Boiler water circulation system:

The boiler water circulation system consists of two sections in boiler bank tubes and water wall tubes. The boiler bank tubes have a self adjusting circulation pattern, with a few tubes connected to the water space, serving as down comer tubes and the remaining serving as riser tubes. A portion of the water circulated is evaporated and the steam water mixture rises up into the steam

drum where steam is separated from water. Dry steam leaves the steam drum, while the separated water mixes with the incoming feed water for further circulation. The water wall tubes receive water from the water drum through down comer/connecting pipes. The steam water mixture, rising through water wall tubes, enters the steam drum and the dry saturated steam leaves the drum.

Super heater system:

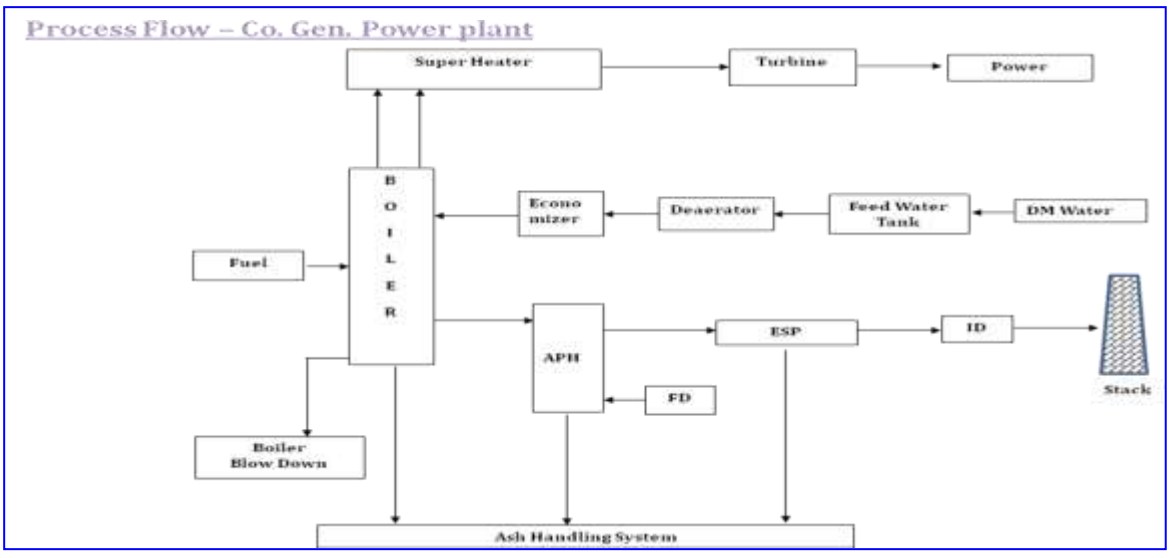
The saturated steam from the steam drum enters the super heater. This is located at the outlet of the furnace and is of pendant type, arranged for counter flow configuration. The heat from the flue gases is transferred to the steam and the super heater is suitably sized to achieve the rated steam temperature. The inter stage attemperator provided enables to maintain the super heat steam temperature within allowable limits. The superheated steam flows through the main steam piping to the end use equipment. The main steam stop valve isolates the boiler form the process/turbine, as the case may be. Boiler start up vent and superheater safety valve are located in this line.

Firing system:

The spreader stoker with traveling grate is most widely used combustion process for burning fuels for generation of steam. The primary purpose of this grate is to provide a platform for the fuel to be distributed over and for the forced draft air to pass through, providing oxygen for combustion. The travelling grate moves forward and towards the fuel feed end. The design is such that it releases equal amounts of energy over each square meter of the grate.

The process flow diagram of power generation is shown in figure 1.7.

PROCESS FLOW DIAGARAM OF POWER GENERATION **Figure : 1.7**



3.0 STACK HEIGHT CALCULATION & STACK EMISSION DETAILS

3.1 STACK HEIGHT CALCULATION :

A) FOR 1X100 TPH BOILER

(a) With 100% Indian Coal

Coal consumption	:	552 TPD
Sulphur content in Coal	:	0.8% (Max, by mass)
SO2 emission (Q)	:	[(552 x 1000)/24] x (0.8/100) x 2
		= 368 kg/hr
Stack height (H)	:	$14(Q)^{0.3}$
		$14(368)^{0.3}$
		82.3 m say 83 m

Stack height of 83 m will be provided to boiler stack for effective dispersion of sulphurdioxide emission into the atmosphere.

3.2. STACK EMISSION DETAILS

The following are the stack emission details.

TABLE : 3.1-STACK EMISSION DETAILS

ITEM	UNITS	1X100 TPH BOILER
Number of stacks		1
Height of the stack	m	83
Internal stack dia at top	m	3.0
Volumetric flow rate	m^3/sec	67.7
Exit velocity of flue gas	m/sec	15.0
Temperature of flue gas	^0C	170
PM emission quantity	g/s	2.5
SO_2 emission quantity	g/s	102.2
NOx emission quantity	g/s	10.0

4.0.ENVIRONMENTAL MANAGEMENT PLAN

4.1. DURING CONSTRUCTION PHASE:

4.1.1. AIR QUALITY MITIGATION MEASURES:

Major sources of air emission during construction will be site leveling, excavation, foundation work, vehicular emissions due to movement of construction equipment such as concrete mixers,

vehicular emissions, etc. The following mitigation measures will be adopted for control of air emissions during construction.

a) Water sprinkling on construction site, roads to prevent fugitive dust emanation.
b) Construction area to be provided with sheets all round to prevent escape of fugitive dust likely to be emanated during construction.
c) During transportation of construction materials, they will be covered with tarpaulin.
d) Storage of construction materials in a specified area
e) All vehicles used will have PUC certification to ensure compliance with norms.
f) Periodic maintenance of vehicles & other machinery.

4.1.2.WATER QUALITY MITIGATION MEASURES:

The likely impact on water environment are sanitary wastewater, escape of run-off water to outside from the project site, etc. The following mitigation measures will be adopted

a) Storm water drains will be constructed.
b) Run-off water will be taken to a water storage tank and the stored rainwater will be utilized for construction.
c) Septic tank followed by soak pit will be provided for treatment of sanitary wastewater during construction. Subsequently STP will be provided by the time of commissioning of the plant.

4.1.3. NOISE MITIGATION MEASURES:

Noise pollution will be anticipated during the construction phase due to the usage of various construction equipment such as Concrete Mixers, Pumps, Generators, Earth Movers, other construction equipment. The following mitigation measures will be adopted during construction.

a) Generators will have acoustic enclosure.
b) Workers working in high noise generating areas will be provided with Earplugs.
c) Speed of vehicles to be restricted to 25 kmph to reduce the impact of noise.
d) Use of properly maintained vehicles with timely servicing.

4.1.4. IMPACT ON LAND ENVIRONMENT & MITIGATION MEASURES:

Major impact on land environment will be piling up of backfill material due to excavation , storage of construction materials for longer period will effect the underneath soil quality. The following mitigation measures will be adopted.

a) The disturbed slopes will be well stabilized before the onset of the monsoon.
b) Used drums, paper, plastic, wood, glass will be given to recyclers
c) Waste oil during construction period will be collected in HDPE drums in a designated area and will be given to authorized recyclers/reprocessors of SPCB.
d) Construction waste will be segregated at site and will be given to recyclers.

4.2. DURING OPERATIONAL PHASE:

4.2.1. AIR EMISSION MANAGEMENT:

The steam requirement for the proposed grain based distillery of 1X400 KLPD & 1 X 200 KLPD will be sourced from the 1 X 100 TPH boiler, which will be operated with coal/Biomass/Briquettes as fuel**.** Electro Static Precipitator will be provided to treat the flue gases from the boiler to bring down the particulate matter in the exhaust gas to less than 50 mg/Nm^3. A Stacks of 83 m height will be provided to 100 TPH boiler for effective dispersion of emissions into the atmosphere. An interlocking system will be provided to the boiler in such a way that whenever ESP fails, the fuel feed to the boiler will stop. The technical specifications of electrostatic precipitator is shown in table 5.1.

TABLE -4.1
TECHNICAL SPECIFICATIONS FOR ESP OF 100 TPH BOILER

S.NO.	DESCRIPTION	UNIT	100 TPH BOILER
			VALUE
Electro-Static Precipitator (ESP)			
1	Design gas flow rate	Nm^3/s	46.3
2	Temperature	^oC	170-180
3	Maximum inlet dust load	gm/Nm^3	16.2
4	Outlet emission dust load	mg/Nm^3	< 50
5	Velocity through ESP	m/s	0.4
6	Migration velocity	m/sec	0.35

7	Number of Working fields	Nos.	6
8	Efficiency	%	99.69
9	No. of Hoppers	--	6

4.2.1.1 MONITORING OF SECONDARY FUGITIVE EMISSIONS

Fugitive emissions will be monitored as per CPCB guidelines and the norms of the Ministry of Environment & Forests.

Secondary fugitive emissions generated at fuel unloading points, fuel transfer points, etc.. These emissions will be monitored regularly as per CPCB guidelines & the reports will be submitted to the Regional office of MOEF&CC & SPCB.

The following measures will be taken up to prevent the fugitive dust emissions

- Raw material/fuel unloading areas provided with dust suppression system.
- All material transfer points provided with dust extraction system with bagfilters.
- All the conveyers covered with sheets to prevent the fly-off of fugitive dust.
- All internal roads are made pucca to prevent the fugitive dust to vehicular movement.
- There is no open storage of ash and the ash is being stored in silo only.

The emission level will be maintained below the stipulated standards. In the event of failure of any pollution control system adopted by the unit, the respective unit will not be restarted until the control measures are rectified to achieve the desired efficiency.

Recommendations

a) Boiler stack emissions will be monitored for PM, SO_2 and NOx regularly to meet the statutory requirements.
b) All the internal roads will be asphalted to reduce the fugitive dust due to truck movement.

4.2.2. WASTEWATER MANAGEMENT:

A) GRAIN BASED DISTILLERY:

i) PROCESS EFFLUENT TREATMENT AND DISPOSAL

As per CPCB recommendations the spent wash quantity will be restricted to less than 6 KL/KL of R.S. for Grain based distillery by adopting fermentation technology. The Maximum Spent wash from the 1x400 KLPD & 1 x 200 KLPD Distillery plant will be **3540 KL/day (@5.9 lit/lit).**

DECANTATION OF SPENT WASH

Spent wash from mash column bottom will be fed to decanter centrifuge after cooling in fermented mash pre-heater. The decanter separates the solids present in the spent mash to desired level.

The wet cake is separated in decanter at 35% - 40% solids. This wet cake will be mixed with concentrated thin slop for further concentrating in Dryer.

EVAPORATION PROCESS

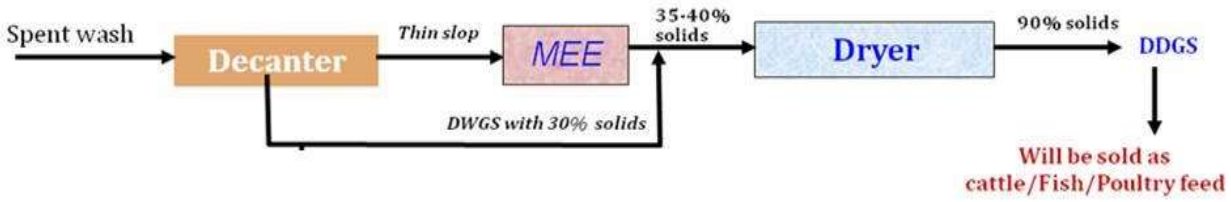
The objective of Evaporation is to concentrate a solution consisting of a volatile solute and a volatile solvent. Evaporation is conducted by vaporizing a portion of the solvent to produce a concentrated solution of thick slop with 35-40% solids and 60-65% moisture content.

The evaporation system consists of 5 evaporators, which are connected, in series. The thin slop separated from decanter will be pumped to evaporator by using feed pump. Gas Liquid separator (5 Nos.) will be used to separate the vapor and liquid. Both Vapor & Spent wash will be fed to the next evaporation effect. Hence it is called as Feed Forward Effect Evaporation. The vapor from last evaporator will be condensed in condenser. While vacuum pump maintains vacuum in the entire system. Product final thick slop with 35-40% solids will be transferred to the drying system where it is further concentrated to 90 % solids. The condensate from evaporation is being recycled.

DRYING PROCESS

The wet cake from the Decanter and the concentrated syrup with 35-40% solids from the Evaporator is dried in a steam tube bundle dryer to produce a dry powder called Distillers Dried Grain Soluble (DDGS) with 10% moisture and 90% solids, which is being sold as cattle/fish/poultry feed. It is totally a zero spent wash discharge process, which is in accordance with the CPCB recommendations. It is hereby confirmed that Dryer will be installed in the plant.

Zero liquid discharge will be implemented as per CPCB recommendations. Spentwash treatment process flow diagram is shown as fig-1.8.



STORAGE OF SPENTWASH

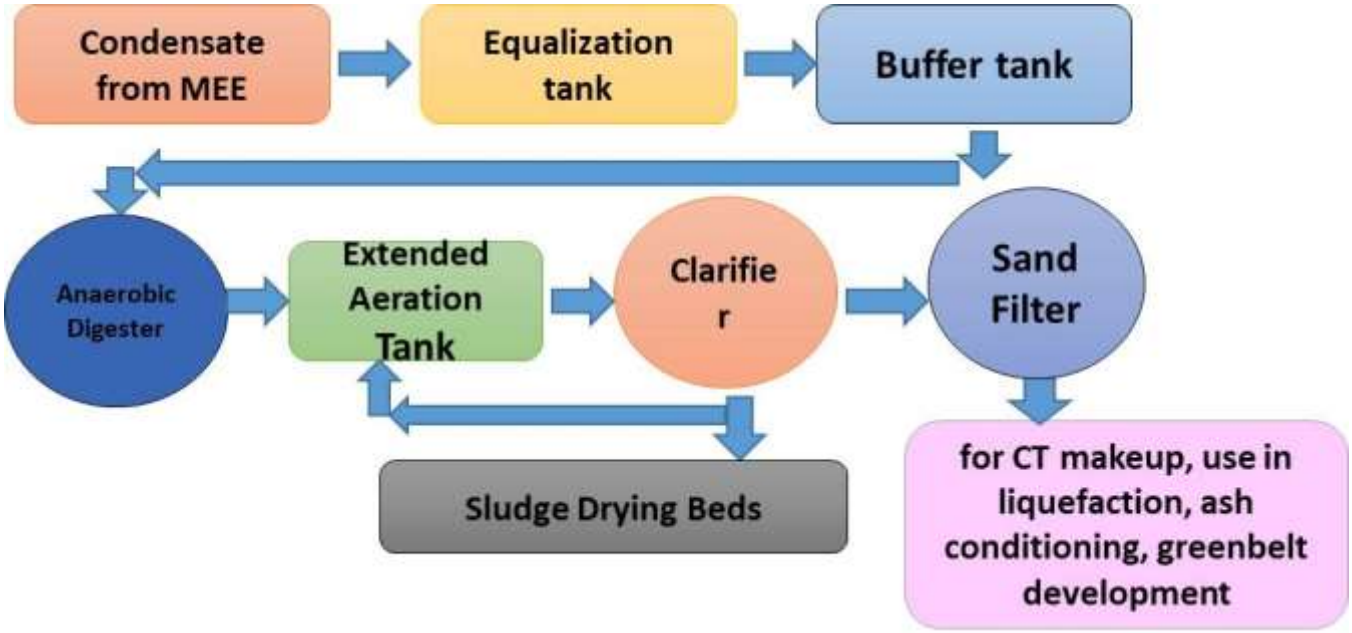
Spent wash will be stored in MS tanks with a storage capacity in accordance with CPCB norms. 2 nos. of Peizometers will be provided around the spent wash storage tank. This will help in detecting any contamination of ground water.

ii) MEE PROCESS CONDENSATE TREATMENT

The spent lees and condensates from stage I and stage II of multiple effect evaporation and other streams will be collected in a collection tank. The condensates will be treated in a condensate polishing unit consisting of aeration, clarification, sand filtration and activated charcoal filtration before its final reuse in cooling water makeup. The treatment will be as under:

1. Collection of MEE Condensate + CIP + Misc wastewater
2. Equalisation + Cooling & pH Adjustment + Nutrient dosing.
3. Anaerobic Treatment.
4. Degasification + Addition of Spent Leese and Dilute WW
5. Extended Aeration with diffused aeration.
6. Secondary Clarifier.
7. Pressure Sand Filter
8. Ozonation
9. Activated Carbon Filter
10. UV Treatment for Fermentation stream

ETP process flow diagram is shown as fig-1.9.



III) <u>NON-PROCESS EFFLUENT TREATMENT AND DISPOSAL</u>

Back wash from DM plant and Softener, Boiler blowdown will be neutralized in a neutralization tank and will be mixed with cooling tower blow down in the CMB and will be utilized for greenbelt development, dust suppression and ash conditioning after ensuring compliance with treated effluent quality as per MoEF&CC / SPCB Standards. The scrubbed water from CO_2 recovery Plant is utilized in the Fermentation section.

<u>IV) SANITARY WASTEWATER AND DISPOSAL :</u>

The sanitary wastewater generated from project will be 20 KLD, which will be treated in Sewage treatment plant capacity of 20 KLD.

DESCRIPTION:

<u>BAR SCREEN</u>: the influent passes through an in-line screen for removal of coarse suspended solids. These screens would be manual.

<u>OIL AND GREASE TRAP</u>: Complete oil and grease trap with siphon arrangement to arrest all oil contents in the trap will be provided. This trap will have specific RCC partition with underflow arrangement to trap oil contents in each chamber. In last chamber there will be a siphon arrangement as outlet for sewage. The tarp oil contents can be cleaned manually. There can be a provision of oil skimmer application on higher volume of oil contents.

COLLECTION CUM EQUALIZATION: The oil free water is then collected in a collection cum equalization tank to meet the peak hour's requirement and to get a homogenous mixture. Equalization tank helps in sedimentation of grit in the absence of grit chamber. An aeration grid can be provided to keep the suspended matter in suspension and to avoid septic conditions.

AERATION REACTORS: The influent from the equalization tank(s) is pumped to our packaged system. The treatment occurs in various aerobic chambers provided in the system. The system will have the flexibility of varying the sequence of aerobic chambers depending upon flow rates.

CLARIFIER: The wastewater from bioreactors will be pumped to a secondary clarifier so as to settle out the solids. A chemical dosing system will be provided before clarifier to aid in solid settling. The supernatant from the clarifier will be fed to surge tank whereas the sludge will be sent to sludge drying bed. A part of sludge is re-circulated as MLSS to aeration tank.

CHLORINATION CUM DISINFECTION: Clarified water is fed to the chlorine contact tank or surge tank. A chlorination system will dose chlorine on a continuous basis. This tank will also act as housing tank for filter feed pumps.

PSF & ACF: The disinfected water will then be passed through Multimedia filter(s) to reduce suspended load and turbidity, BOD, colours, odour and fine particles. It finally polishes the treated water and also reduces the residual chlorine. The wastewater so treated can be utilized for gardening or for flushing and recycling.

The backwash from the MMF unit will be fed back into the collection tank.

The treated sanitary wastewater will used for on land for irrigation

The scrubbed water from CO_2 recovery Plant will be utilized in the Fermentation section. Sanitary waste water will be treated in STP will be used for onland for irrigation.

WASTEWATER CHARACTERSTICS

TABLE 4.2		
CHARACTERISTICS OF SPENT WASH (UNTREATED)		
S.N.	**PARAMETER**	**SPENT WASH (GRAINS)**
1.	pH	3.8 – 4.1
2.	Total Dissolved Solids(mg/l)	40,000 – 45,000
3.	COD(mg/l)	50,000 - 60,000
4.	BOD(mg/l)	24,000 -30,000

TABLE 4.3					
CHARACTERISTICS OF NON PROCESS EFFLUENT WASH(UNTREATED)					
S.NO.	**CHARACTERISTICS**	**SANITARY WASTE WATER**	**COOLING TOWER BLOW DOWN**	**BOILER BLOW DOWN**	**DM PLANT & SOFTNER REGENERATION WATER**
1.	pH	7.0 – 8.5	7.0 – 8.0	9.5 – 10.5	4.0-10.0
2.	T.D.S. (mg/l)	800 – 900	800-1000	800-1000	5000-6000
3.	B.O.D. (mg/l)	200 – 250	---	---	---
4.	C.O.D. (mg/l)	300 – 400	---	---	---

Recycle / Reuse / Recovery Measures

- MEE condensate used for slurry preparation in liquification section.
- Distillation plant spent lees used for slurry preparation in liquification section.
- ETP outlet water is used for plantation
- Thin slope recycle for slurry preparation in liquification section.
- Vacuum pump's sealing water, total recycling after cooling.
- Steam condensate recycled to boiler.

Implemented following Recommendations

- Minimize the quantity of effluent through reuse to the maximum possible extent.
- The ETP units taken up for maintenance, when ever for main plant is taken for maintenance.
- Inlet and outlet effluent samples are collected monthly and analyzed to ascertain the compliance with the statutory requirements.

4.2.3. SOLID WASTE MANAGEMENT

The solid waste generation & proposed method of disposal from proposed project is shown in table 4.4.

TABLE: 4.4

S.NO.	SOLID WASTE	TOTAL QUANTITY (TPD)	DISPOSAL
1.	DDGS	330	Will be sold as cattle feed / fish feed / prawn feed
2.	Boiler ash		
	when 100% Indian coal is used	220	Ash generated will be given to brick manufacturing units for utilisation of fly ash for making bricks.
			(or)
	when 100% biomass	99.3	Will be given to farmers to use in the agriculture filed.

Hazardous Waste Generation, Storage and Disposal:

Waste oil generation: 0.5 KL/Annum

Waste oil will be stored in covered HDPE drums in designated area within the project site and will be given to Authorised recyclers/reprocessers by SPCB

4.2.4. NOISE MANAGEMENT

The major sources of noise generation will be the STGs, boiler & compressors. STG will be of internationally reputed make which will be manufactured as per MOEF/OSHA/other international guidelines on noise levels. Noise enclosures will be provided to steam turbines. The major noise levels will be confined to the working zones of the proposed activities. The Leq of eight hours will be within the prescribed standards. Community noise levels are not likely to be affected due to the proposed thick green belt which will act as a physical barrier and further attenuate the noise levels.

Recommendations:

a) Noise enclosures will be provided to STGs.
b) By adopting shock-absorbing techniques noise impact can be reduced.
c) Earplugs shall be provided to the workers and this shall be enforced strictly.
d) Distance between source and receiver will be increased, by altering the relative orientation of the receiver and the source.
e) Rotation of workers working in the noise prone areas.
f) Thick greenbelt will be developed to further mitigate the noise levels.

4.2.5.ODOUR CONTROL

The following measures help in minimizing the odour.

- Covered Fermentation process adopted along with CO_2 recovery
- Spent wash transported through pipes only.
- The spent wash storage in accordance with CPCB norm of less than 30 days.
- Spent wash treated in decanter initially, then thin slop is concentrated, dried and the dry powder (DDGS) obtained will be used as cattle feed.
- Wet cake will not be stored for more than 36 hours to prevent odour generation
- 5-10 m wide greenbelt will developed covering more than 1/3rd of the total area.

4.2.6. GREEN BELT DEVELOPMENT

The afforestation will be undertaken only after securing the project site, preparation of land and construction of buildings, sheds and other infrastructure facilities. In the meantime, the will grow or give supply contract for saplings for afforestation. The spacing between rows and columns shall be 2m x 2m. Such high density is not suitable for trees with large / spreading canopy. It is suitable only for trees which grow erect without much of lateral growth. In order to make optimum use of space, it is proposed to grown tree with spreading canopy along the periphery and trees that grow straight will be grown in the inner rows and columns. Once the marking will be over and area for greenbelt will be demarcated, pits of 30 cm depth and will be prepared at a spacing of 2m x 2m. The first-row plants will alternate with the next row so that the saplings / trees will be placed diagonally in a zig zag fashion. There will be 3 to 6 rows of trees along the boundary. About 6600 plants will be grown as greenbelt during first 5 years in 11.0 Acres of land. Subsequently, the PP undertakes to grow avenue trees along the sides of the internal roads at a distance of 5 m. With one row of avenue trees at 5 m intervals on either side of the road, 400 avenue trees shall be grown for every kilometre. A list of plants suggested for greenbelt, avenue and block plantations is given in Table 4.5.

Table 4.5
List of Trees, shrubs and herbs including grasses identified for greenbelt and afforestation. A 3-tier system with trees, shrubs and herbs is planned.

Scientific name	Common name	Main purpose	Spacing (in meters)
Trees -Top layer			
Aegle marmelos	Bel / Bael	Fruit	3 x 4
Ailanthus excelsa	Mahanimbu	Multipurpose	3 x 4
Albizia lebbeck	Kala siris	Multipurpose	3 x 4
Albizia procera	Safed Siris	Multipurpose	3 x 4
Anthocephalus indica	Kadamb	Timber	3 x 4
Artocarpus integrifolia	Jack fruit	Fruit	4 x 4

Azadirachta indica	Neem	Multipurpose	3 x 4
Dalbergia sissoo	Sheshum / Sissoo	Timber	3 x 4
Dendrocalamus strictus	Bamboo	Construction material	3 x 3
Ficus benghalensis	Banyan	Shelter for birds	4 x 5
Ficus religiosa	Peepal	Sacred tree	3 x 4
Gliricida sepium	Mexican Lilac	Nitrogen fixation	3 x 3
Gmelina arborea	Gamhar	Timber	3 x 3
Leucaena leucocephala	Subabul	Fodder legume	2 x 3
Madhuca longifolia	Mahuva	Multipurpose	4 x 4
Mangifera indica	Mango	Fruit tree	4 x 4
Melia dubia	Malabar Neem	Timber	3 x 3
Mimusops elengi	Ponna / Khirani	Multipurpose	3 x 4
Muntingia calabura	Singapore Cherry	Multipurpose	3 x 4
Pongammia pinnata	Karanj	Biodiesel	3 x 4
Samanea saman	Rain Tree	Multipurpose	4 x 4
Shorea robusta	Sal	Timber	3x 3
Swietenia macrophylla	Mahogany	Timber	3 x 3
Syzygium cumini	Jamun	Fruit	4 x 4
Tarindus indica	Tamarind / Imli	Tamarind	3 x 4
Terminalia arjuna	Arjun	Timber & Biodrain	3 x 4
Terminalia catappa	Almond	Nuts	3 x 4
Shrubs -Middle layer			
Bougainvillea spectabilis	Bougainvillea	Ornamental	3 x 4
Ficus benjamina	Weeping fig	Ornamental	3 x 3
Punica granatum	Pomegranate	Fruit	2 x 3
Murraya koenigi	Curry leaf	Curry leaf	2 x 3
Phoenix acaulis	Dwarf date	Soil binder	3 x3
Bottom or ground layer			
Cymbopogon martini	Lemon grass / Palmarosa	Citronella oil	1 x 1
Macroptilium atropurpureum	Purple bush bean	Perennial Legume	1 x 1
Ocimum sanctum	Tulsi	Aromatic herb	1 x 1
Sesbania rostrata	Jantar	Nitrogen fixation	1 x 1
Stylosanthes hamata	Hamata grass	Fodder legume	1 x 1

The following will be the greenbelt development plan in 5 years period.

Table: 4.6

YEAR	NUMBER SAPLINGS
1st Year	2000
2nd Year	2000

3rd Year	1000
4th year	1000
5th year	600
Total	**6,600**

4.2.7. VEHICULAR TRAFFIC:

Total no. of trucks required for transportation of raw materials and products & solid waste will be a maximum of 196 per day. The following will be the breakup of it.

TABLE: 4.7 – TRUCKS REQUIREMENT

S.No.	Item	No. of trucks required per day
1	Raw material Grains	75
2	Fuel (coal)	28
3	Product	30
4	Solid waste	33
5	CO_2	30
Total		**196**

As covered trucks will be used for the transportation of raw materials and covered tankers to transport the product, there will not be any fugitive emission. Pucca road exist upto the site. The existing road is capable of absorbing this additional truck movement. The area earmarked for truck parking will be around 2.5 acres.

4.2.7.1.ADDITIONAL VEHICLES DUE TO PROPOSED PROJECT:

Number of staff vehicles per day (2-wheelers + 4 –wheelers): 350 + 30: 330

PCU of staff vehicles: 350 x 0.5 + 30 x 1: 205 PCU/day

Number of trucks for Raw material and product transportation per day: 196

PCU of trucks : 196 x 3 : 588 PCU/day

Total PCUs additional due to the proposed project: 205 + 588 : 793 PCU/day

: 793 /8

: 99.1 PCU/Hr

4.2.7.2. BASELINE TRAFFIC STUDY:

Peak hour volume for the road:

TABLE: 4.8
TRAFFIC COUNT DURING PEAK HOUR

Real time Traffic scenario at Raichur – Mahaboobnagar State highway Road:

Time	2-W	Cars	Buses	Trucks	Autos	LCV	Total
08.00 - 09.00	35	18	5	23	15	12	**108**
09.00 - 10.00	39	22	12	32	19	14	**138**
10.00 - 11.00	47	34	15	45	15	18	**174**
17.00 - 18.00	32	28	13	37	19	12	**141**
18.00 - 19.00	38	36	10	40	15	10	**149**
19.00 - 20.00	30	22	7	35	11	7	**112**

Note: The highest peak observed is 174 PCU's /hr during 10:00 hours to 11:00 hours.

TABLE: 4.9
STANDARDS

Vehicle Type	Equivalent PCU
2-W	0.5
Passenger car, pick-up van	1.0
Auto-Rickshaw	2.0
LCV	1.4
Trucks	3.0
Buses	3.0

TABLE: 4.10
PCU CALCULATION FOR PEAK HOUR TRAFFIC

Type of vehicle	Total Number of vehicles	Total PCU/hr
2-W	47	23.5
Cars	34	34.0
Buses	15	45.0
Trucks	45	135.0
Auto rickshwas	19	38.0
LCV	18	25.2
TOTAL	**178**	**300.7**

TABLE: 4.11
CATEGERISATION

V/C	LOS	Performance
0.0 – 0.2	A	Excellent
0.2 – 0.4	B	Very Good
0.4 – 0.6	C	Good
0.6 – 0.8	D	Fair/ Average
0.8 – 1.0	E	Poor
1.0 & Above	F	Very Poor

V = Volume in PCU's /hr, **C**= Capacity PCU's /hr, **LOS** = Level of Service

Level of service (LOS) for traffic study road during peak hour

TABLE: 4.12
LEVEL OF SERVICE AT STUDY ROAD DURING PEAK HOUR
(Existing baseline Scenario)

Road	Volume (PCU/hr)	Capacity (PCU/hr)	Existing V/C ratio	LOS
Raichur – Mahaboobnagar State highway Road @ Marrikal Y Junction	300.7	3000	0.10	A

TABLE: 4.13
LEVEL OF SERVICE AT STUDY ROAD DURING PEAK HOUR
(During operation of plant)

Road	Volume (PCU/hr)	Capacity (PCU/hr)	Existing V/C ratio	LOS
Raichur – Mahaboobnagar State highway Road @ Marrikal Y Junction	300.7 + 99.1 =399.8	3000	0.13	A

The level of service of road from Raichur to Mahaboobnagar is Excellent (LOS- A). Hence, there will not be any significant impact on the road due to the additional vehicular traffic due to the proposed project.

4.2.8. RAINWATER HARVESTING

Rain water harvesting structures will be constructed to harvest the run-off water from roof tops by laying a separate storm water drainage system for recharging of ground water. Rain water harvesting pits will be constructed in consultation with Central/State Ground Water Board. The harvested water will be reused to reduce the net water requirement of the plant.

It is proposed to construct 12 nos. of Recharge pits to Recharge Roof top water & surface run off storm water recharge into ground in the proposed project. The following is the Plan for rain water harvesting measure at project site.

Average annual rainfall = 800 mm

Quantum of Rain water that can be harvested from the premises

a) Average annual rainfall = 0.8 m

TABLE NO. 4.14: TOTAL RAIN WATER HARVESTING POTENTIAL

S.No.	Type of area	Total Area (in m^2)	Runoff Co-efficient	Rainfall (in m)	Rainwater Collection Potential (in m^3)
1	Roof top area	20234	0.85	0.8	13759.1
2	Internal roads	12140	0.65	0.8	6312.8
3	Storage areas	8093	0.85	0.8	5503.2
4	Greenbelt	44515	0.15	0.8	5341.8
5	Parking area	10117	0.2	0.8	1618.7
	Total				**32535.6**

Considering 90% of harvested water available for recharge is 29282.0 m^3/ Annum. This collected water will be utilized for recharging ground water table. This will also improve the ground water quality.

TABLE NO. 4.15: SIZING & NOS. OF RECHARGE STRUCTURES

S.No.	Type of area	Total Area (in m^2)	Runoff Co-efficient	Rainfall (in m)	Rainwater Collection Potential (in m^3)
1	Roof top area	20234	0.85	0.05	859.9
2	Internal roads	12140	0.65	0.05	394.5
3	Storage areas	8093	0.85	0.05	343.9
4	Greenbelt	44515	0.15	0.05	333.8
5	Parking area	10117	0.2	0.05	1011.7
	Total				**2943.8**

Considering retention time for recharge structure of 15 min. total quantum of rain water comes to 735.7 m^3/ 15 min.

Volume of recharge structure	=	∏ r^2h
Radius [r]	=	2 m
Effective Depth [h]	=	5 m
Hence volume	=	3.14 x (2.0 x 2.0) x 5
	=	**62.8**
Hence nos. of recharge structures require	=	735.7 ÷ 62.8
	=	**11.7 or say 12.0**

Rainwater harvesting and groundwater recharge structures will be constructed outside the project premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level.

5.0 RISK ASSESSMENT

5.1 INTRODUCTION:

Risk analysis deals with the identification and quantification of risks, the plant equivalent and personnel are exposed to, due to accidents resulting from the hazards present in the factory. Hazard analysis involves the identification and quantification of the various hazards (unsafe conditions) Involved in the factory.

Both hazard and risk analysis very extensive studies, and require a very detailed design and engineering information.

The various hazard analysis techniques that may be applied are Hazard and Operability (HAZOP) studies, Fault – Tree Analysis (FTA), event –tree analysis and failure and effects mode analysis.

Risk analysis follows an extensive hazard analysis. It involves the identification and assessment of risks the neighbouring populations are exposed to as result of hazard present. This requires a through knowledge of failure probability, credible accident scenario, vulnerability of populations etc., much of this information is difficult to get or generate. Consequently, the risk analysis is often confined to maximum creditable accident studies.

5.2.SCOPE OF THE STUDY:

The scope of study includes the study of proposed operations, storage and handling of raw materials with respect to Hazard Identification. Risk Assessment and preparation of Disaster Management Plan. Based on the Hazard Identification and analysis, the major disaster scenarios would be worked out to estimate the consequence of failure. A Disaster Management Plan (DMP)

would also be evolved to meet the emergency situation including the occupational health and safety.

5.3. STORAGE TANKS :

Details of tank farms are shown in Table 5.1

TABLE : 5.1
DETAILS OF THE TANK FARMS

DESCRIPTION OF THE TANK	TANK CAPACITY (M^3)	NO. OF TANKS	TOTAL CAPACITY (M^3)
Ethanol Bulk Storage	5,000	2	10,000
Denatured Tank	200	1	200
Total			**10,200**

The above storage capacities are tentative and subject to reconfirmation after detailed engineering as per state excise and Petroleum and Explosive Safety Organization (PESO) norms. Exact capacities will be finalized after detailed engineering. Company will obtain NOC to Petroleum and Explosive Safety Organization from Ministry of Commerce & Industry Govt. of India.

5.4. ALCOHOL STORAGE AND HANDLING AREA FIREFIGHTING FACILITY:

- Alcohol storage will be designed as per PESO norms.
- Firefighting system will be as per applicable fire safety norms.
- Provision of foam system for firefighting to control fire from the alcohol storage tanks.
- Providing flame arrestors on the top of all the storage tanks.
- Flame proof fitting to all the systems which handles the alcohol.
- Transfer of alcohol is by pipes only.
- All the lightings are flame proof.
- Water sump with a holding capacity.
- Foam extinguishers inside the warehouse.

5.5. FIRE PROTECTION SYSTEMS PROPOSED:

The following fire protection system will be proposed in the project

- Hydrant system covering the entire plant including all important auxiliaries and buildings is proposed. The system will be complete with piping, valves instrumentation, hoses, nozzles and hydrants, valves etc.

- Portable extinguisher such as pressurized water type, carbon dioxide type and foam type will be located at strategic locations throughout the plant.
- Modular type carbon dioxide panel injection fire extinguishing system will be provided in control equipment room, cable space below control room and at other unmanned electrical and electronic equipment room.
- Automatic medium velocity water sprinkler system for cable galleries / vaults / spreader room, coal conveyors, crusher house, transfer points.
- Foam injection system for fuel oil storage tanks consisting of foam concentration tanks, foam pumps, piping, instrumentation, valves etc.
- Automatic high velocity water spray system will be provided for all the transformers located in transformer yard, turbine generator lube oil equipment rooms, sets of boiler burners, boiler feed pump, lube oil systems, diesel engine driven fire pump, etc.
- Fire water reservoir will be part of the water storage tank.

The following pumps will be provided in the fire protection system.

Fire water pumps.

a) AC motor driven fire water pumps for hydrant, medium velocity water spray system and foam system.
b) AC motor driven fire water pumps for high velocity water spray system.
c) Diesel engine driven pump as stand by for the above.
d) Jackey pump 1 no. (AC motor driven) for maintaining pressure.

5.6. RISK ANALYSIS:

TABLE : 5.2
POSSIBLE RISKS FROM THE DISTILLERY PLANT

S.NO.	BLOCK / AREAS	QUANTITY	HAZARD IDENTIFIED
1.	Boiler	1 X 100 TPH	Fire (mainly near oil burners steam explosion, fire explosion
2.	Spirit storage	10,200 m^3	Fire

TABLE : 5.3
HAZARDS IDENTIFIED & PROPOSED MITIGATION MEASURES

S.	ACTIVITY	ASSOCIATED HAZARDS	ASSOCIATED RISK/ HEALTH	RISK RATING	MITIGATION MEASURES

N.			IMPACT		
1.	Storage & handling of raw material & Chemicals	Bursting of storage tanks	Exposure, physical injuries	H	○ Use of PPEs. ○ Inspection & regular monitoring ○ Training to workers for proper handling ○ Proper system for loading operation to prevent any spillage. ○ Spill kit for Acid and other chemicals
2.	Working near Distillation column	Heat & Fire	Physical injuries and burning	H	○ Firefighting facility ○ Provision of pressure indicators in the vessels. ○ Use of PPEs. ○ Inspection & regular monitoring ○ Training to workers for proper handling
3.	Fuel yard	Heat & Fire	Physical injuries and burning	H	○ Storage should be away from ignition source ○ Firefighting facility shall be provided ○ PPEs should be provided ○ First aid box
4.	APCD failure	Release of PM in ambient air	Air pollution	M	○ Regular monitoring & inspection shall be done. ○ Raw material input will be stopped to the system. ○ The plant shall immediately shut down on APCD failure ○ Emergency alarm to be given to Villagers. ○ Water sprinkling arrangements
5.	Working at height	Slip, trips & falls of operators	Physical injuries	H	○ Individual alertness of the workers. ○ First aid boxes shall be provided

6.	Storage of Alcohol	Exposure, inhalation, ingestion & Fire	Exposure to over 100 ppm may cause headache, drowsiness, etc. Ingestion may lead to depression of CNS, nausea, etc. Burn injuries	H	○ Well ventilation ○ Keeping away from heat sparks & open flame. ○ PPEs. ○ Firefighting measures shall be readily available.
7	Release of high pressure steam from boiler	Explosion	Risk of severe injury, damage to equipment	H	○ Regular maintenance & inspection of parts. ○ Proper training to the individuals ○ PPEs ○ First aid kit
8	Electrical maintenance work	Electric shock, short circuits in power room	Electrical shocks, Injury or burn	H	○ Regular checking and maintenance of electrical units ○ PPEs ○ Provision of First aid box
9	Working near Boiler, D.G. sets	High noise	Noise induced hearing losses	M	○ Provision of PPEs to the workers

Recommendations:

I. General Recommendations to Combat Liquid Pool Fires

The major hazard in a flammable storage may arise from pool fire of combustible liquid.

Removal of all ignition sources and maintaining sterile conditions in and all around the plant area.

II. Measures for Containing Liquid Pool Fires

Pool fire in one part of the installation may spread to another unless it is adequately contained. It is essential to provide spill-impounding areas popularly known as bunds to prevent

- Spread of liquid from the immediate spill area to other sections and if the liquid from the immediate spill is ignited despite safety precautions, impounding areas will serve to control the fire hazard
- Minimizing the fire size thus reducing radiant heat exposure to the surroundings
- Localizing the need for fire protection.

III. General Recommendations

- Joints in piping should be kept to a minimum. Piping more than 50 mm outside diameter should have welded or welded flanged joints except when connecting to equipment

fitted with screwed connections. Piping 50 mm diameter and less may have screwed joints. Where piping has screwed joints, which may be subjected to vibration, consideration should be given to tack welding them to prevent them from coming loose.

- To prevent the accumulation of static electricity metal piping should be electrically continuous so that the resistance to earth of the installation does not exceed 10^6 ohms. Reference should be made to BIS 5958: Part 1:1980 for further information.

IV. Specific Recommendations

i. Hydrocarbon sensors may be provided at the vulnerable areas and in case of any alcohol vapor release, immediate action to be taken to dilute the alcohol vapor concentration by suitable vapor dispersal mechanism.
ii. The entire area has to be kept free from the sources of ignition and made sterile during the storage, handling and transfer operation of all flammable chemicals.
iii. The piping design should conform to the codes and regulations.
iv. In case of a spill, mobile foam dispending system can be effective in reducing vapor generation by minimizing surface area exposed to atmosphere in addition to providing containment.
v. Other protective gadgets like gloves, DCP, CO_2 extinguishers should be made available.
vi. The thick green belt will be developed will help to mitigate the radiation intensity level outside plant boundary.

6.0. OCCUPATIONAL HEALTH

6.1. PERSONNEL PROTECTIVE EQUIPMENT:

The working personnel will be given the following appropriate personnel protective equipments.

- Industrial safety helmets
- Crash helmets
- Face shield with replacement acrylic vision
- Zero power plain goggles with cut type filters on both ends
- Zero power goggles with cut type filters on both sides and blue colour glasses
- Welders equipment for eye and face protection
- Cylindrical type earplug
- Ear plugs
- Canister gas masks

- Self contained breathing apparatus
- Leather apron
- Boiler suit
- Safety belt / line man's safety belt
- Leather hand gloves
- Asbestos hand gloves
- Canvas cum leather hand gloves with leather palm
- Industrial safety shoes with steel toe
- Electrical safety shoes without steel toe and gum boots

6.2. ANTICIPATED OCCUPATIONAL & SAFETY HAZARDS :

- Heat stress & stroke
  - ❖ Physical activity
  - ❖ Extremes of age, poor physical condition, fatigue
  - ❖ Excessive clothing
  - ❖ Dehydration
  - ❖ Cardiovascular disease
  - ❖ Skin disorders
- Noise
- Dust exposure
- Illumination
- Burns and shocks due to electricity

6.3. EMP FOR THE OCCUPATIONAL SAFETY & HEALTH HAZARDS:

The health of workers can be protected by adopting the following measures:

- Proper designing of buildings, work area.
- Relaxation facilities to workers with good ventilation & air circulation. This will help in relieving thermal stress.
- Good housekeeping practices.
- Well engineered ventilation & exhaust system.
- Enclosure.
- Isolation of specific areas

- Enforcement of usage of personal protective devices.
- Regular work environment monitoring
- Statistical monitoring
- Working hours
- Rotation of employees in specific areas to avoid continuous exposure

6.4. FREQUENCY OF PERIODICAL EXAMINATION:

Medical check-up will be carried to employees every year. Those employees who have health issues like hypertension, diabetic, etc. are checked every six months.

6.5. PLAN OF PRE PLACEMENT AND PERIODICAL HEALTH STATUS OF WORKERS:

Pre-employment checkup will be made mandatory and following test will be conducted:

- Plan of evaluation of health of workers
- Chest X rays
- Audiometry
- Spirometry
- Vision testing (far & near vision, color vision and any other ocular defect)
- ECG
- Haemogram (examination of the blood)
- Urine (routine and microscopic)
- Complete physical examination
    - ❖ Musculo-skeletal disorders (MSD)
    - ❖ Backache
    - ❖ Pain in minor and major joints
    - ❖ Fatigue, etc.
- Medical records of each employee will be maintained separately and will be updated as per finding during monitoring.
- Medical records of the employee at the end of his / her term will be updated.

6.6. BUDGET FOR DMP AND OHS:

- Capital cost of Rs. 2.0 Crore & Recurring cost of Rs. 20.0 lakhs per annum will be allocated for DMP & Occupational health & Safety.

- Occupational health checkup will be outsourced by third party. However, ambulance facility will be provided within the plant.
- Firefighting system will be provided all through the plant.

7.0. PROPOSED WATER & ENERGY CONSERVATION MEASURES

7.1. WATER CONSERVATION MEASURES:

The following water conservation measures will be adopted during operation of the plant

- Use of air cooled condensers instead of highly water consuming water cooled condensers.
- Reuse of condensate water after treatment.
- Rainwater harvesting measures will be taken up.
- Recycling/reuse of treated wastewater.

7.2. ENERGY CONSERVATION MEASURES:

- Installation of LED fixtures & lights.
- Use of energy efficient plant & machinery including motors.
- Prevention of leakages in all sections.
- Conduct of energy audits periodically.

7.3. PROPOSED WASTE MINIMIZATION MEASURES:

Reduce, reuse & recycle concepts of waste minimization.

- With improved technology the spent wash to MEE has reduced significantly due to improved recycling of thin slop.
- Adoption of Air-cooled condensers instead of highly water consuming water-cooled condensers will ultimately result in significant reduction in wastewater.
- Carbondioxide recovery plant will be provided to recover CO_2 and will be given to soft drink manufacturers/dry ice manufacturers, others.
- Condensate from MEE will be reused after treatment in CPU to meet the process water requirement.
- DDGS generated from the spent wash treatment process comprising of MEE followed by Dryer contains 35-40% proteins. Hence, it will be used as cattle feed/fish feed/poultry feed.
- Sanitary wastewater will be treated in STP and treated sewage will be utilized for greenbelt development.

- STP sludge will be used as manure.

8.0 POST PROJECT MONITORING STRATEGY

The monitoring of various environmental parameters is necessary, which is one of a part of environmental protection measures. Monitoring is an important feature because the efficiency of control measures can only be determined by monitoring. A comprehensive monitoring programme is given under.

Locations and frequency of monitoring as per the guidelines of SPCB and MOEF are tabulated below.

TABLE: 8.1 MONITORING SCHEDULE FOR ENVIRONMENTAL PARAMETERS

S.NO	PARTICULARS	FREQUENCY OF MONITORING	DURATION OF SAMPLING	PARAMETERS REQUIRED TO BE MONITORED
1. Water quality				
	Water and waste water Quality a) Industrial Effluents. b. Ground water Quality (Peizometric wells will be located around spent wash storage area, ETP)	Online Once in a month	continuous Grab sampling	pH, EC, TDS, BOD, COD, Cl, SS, Sulphates As per BIS: 10500
2. Air Quality				
A.	Stack Monitoring	Continuous Online monitoring Once in a month		PM SO_2 & NOx
B.	Ambient Air quality	AAQMS	24-hourly	$PM_{2.5}$, $PM_{10,}$ SO_2, NO_x & CO
3. Meteorological Data				
	Meteorological data to be monitored at the plant.	Daily	Continuous monitoring	Temperature, Relative Humidity, rainfall, wind direction & wind speed.
4. Noise level monitoring				
	Ambient Noise levels	Twice in a year	Continuous for 24 hours with 1 hour interval	

9.0. EMPLOYMENT POTENTIAL

The man power required for the proposed project will be 500.

10.0. COST FOR ENVIRONMENTAL PROTECTION

Capital Cost for Environment Protection for proposed project : Rs. 54.5 Crores.

Recurring Cost per annum for Environmental protection : Rs. 2.9 Crores.

The budget for environmental management plan breakup is shown in table 11.1.

TABLE: 10.1

S.NO	ITEM	CAPITAL COST (RS.IN CRORES)	RECURRING COST (RS. IN CRORES/ANNUM)
1.	Air emission control systems (ESP, stack, bagfilters, dust suppression, etc.)	10.0	0.6
2.	Ash handling & management	5.0	0.25
3.	Effluent Tréatment Plant	30.0	1.5
4.	Fire fighting	2.0	0.1
5.	Environmental lab equipment & online monitoring equipment	4.0	0.2
6.	Greenbelt development	1.5	0.15
7.	Occupational Health & Safety	2.0	0.1
TOTAL		**54.5**	**2.9**

11.0. SOCIAL & INFRASTRUCTURAL DEVELOPMENT

Budget of Rs 8.1 Crore will be spent for social & infrastructural development and the following will be the activities.

TABLE : 11.1

DETAILED ACTIVITY WISE EXPENDITURE TO BE INCURRED IN A SPAN OF 3 YEARS

S.NO.	MAJOR ACTIVITY HEADS	YEARS (RS. IN LAKHS)			TOTAL EXPENDITURE (RS. IN LAKHS)
		1st	2nd	3rd	
A	**Based on Social Impact Assessment (SIA)**				
1	Community & Infrastructure Development Programs	60	60	60	180
2	**for Health & Hygiene of the community** (Mineral Water plants, construction toilets in villages, Distribution of Medicines etc.)	50	50	50	150

3	**Skill Development** **A Community Centre will be established in the village which will consist of the following:** i)Vocational Training Institute with latest tools, machinery & softwares etc. for making them Industry ready. ii)Workshop centre with latest tailoring machines for training women (like tailoring, stitching etc.) iii)Skill development / Computer / IT Training Centre for improving computer knowledge and making Industry ready.	100	100	100	300
4	**for Education & Sports** (Merit Scholarships (for), construction of class rooms in schools, providing computers in class rooms, development of library facility)	40	40	40	120
5	**Other Need based activities**	20	20	20	60
	TOTAL	**270**	**270**	**270**	**810**

Note: The allocation of budget given above is indicative and may change at time of execution. However the unit shall stand committed on the overall budget given.

12.0. ENVIRONMENT POLICY

The management will periodically review the Environmental Management System (EMS) to ensure its effectiveness and sustainability. The need for possible changes in the environmental policy and objectives for continual improvement will be ascertained and revisions will be made accordingly.

TABLE 12.1 ENVIRONMENTAL POLICY

Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.	The company has well laid down Environment Policy, approved by Management.
Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.	The organization has procedure detailing compliance with all aspects of Environmental norms including the process of corrective actions for its improvement. The policy provides a framework for setting and reviewing environmental objectives, which includes a commitment to fulfil its compliance obligations, to the protection of the environment, including

	prevention of pollution and other specific commitment(s) relevant to the context of the organization.
What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.	An Environmental Officer will look all the environmental issues and ensure the compliance with Environmental Clearance conditions and will report to the Head of Department, who will report to the Unit Head / CEO and ultimate reporting would be to the Managing Director. Subsequently it will be discussed in the Board meeting.
Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report	An Environmental Officer will look all the environmental issues and ensure the compliance with Environmental Clearance conditions and will report to the Head of Department, who will report to the Unit Head / CEO and ultimate reporting would be to the Managing Director. Subsequently it will be discussed in the Board meeting.

A Copy of Environment Policy by the company is enclosed as Annexure – 1.

13.0. CONCLUSION

The following are the salient features of the proposed ethanol project.

- ESP will be provided to the Boiler to bring down the particulate emission to less than 50 mg/Nm^3.
- Spent wash treatment will be through decanter, MEE followed by Dryer, which is a zero Liquid Discharge systems as approved by CPCB for grain based distilleries. Zero liquid discharge will be maintained.
- DDGS generated contains 35-40% protein and will be used as cattle feed /fish feed/poultry feed.
- Ash generated will be given to the brick manufactures/farmers.
- More than 33% of total area will be developed with the greenbelt @ 600 nos per acre.

- Notarised Self Certification confirming that Ethanol produced from this grain based Ethanol plant will be supplied to oil producing companies like HPCL, IOCL, BPCL, etc under Ethanol Blending program (EBP) is enclosed as Annexure- 2.

As per the GO issued by the Ministry vide No. S.O. 2399 (E) dated 16th June 2021 we request to kindly consider to accord EC for the Ethanol plant under category B-2.

Jurala
Organic Farms & Agro Industries
www.jurala.in

CORPORATE ENVIRONMENTAL POLICY

The "**Jurala Organic Farm and Agro Industires LLP {Unit-1)"** is committed for its contribution to the upliftment of the Society, is forever committed to protect and save the Environment, keeping in mind the Sustainable Development.

Resolution: **Jurala Organic Farm and Agro Industires LLP {Unit-l)on** 25th November 2021, the Management has taken a decision on Environment Policy, that it is committed to operate the Distillery Plant in Chittanur Village, Marikal Manda! Narayanpet District, Telangana with the following objectives.

Quality Policy

- Delivering the required products at the right place at the right time at the right cost from our Plant form the very backbone of our Principles of Manufacturing.
- We view improvement as a continuous process. We are constantly aspiring to achieve betterment of our core processes, be it manufacturing, quality control, sales or delivery. There is a joint effort to achieve Manufacturing Excellence.
- Strict monitoring and compliance of the conditions stipulated in Environmental clearance & Environment Protection Act & Rules
- Strict monitoring and compliance of the conditions stipulated in Consent for Establishment issued by State Polll1tion Control board (SPCB).
- Ensuring Implementation and regular operation of air emission control measures.
- Periodical monitoring of all environmental parameters such as Ambient air quality, water quality, noise levels, soil quality, etc. and submission of the same to statutory authorities periodically.
- Maintaining good housekeeping practices.
- The compliance of the C conditions/SPCB norms will be reported to the Board of Directors every Six (6) months.
- Appropriate corrective measures will be taken along with sanction of the budget.

Corporate Environment Responsibility P,olicy

As a Corporate Organization we believe .that it is our primary purpose to give back to society. Giving and sharing what we have received is embedded deeply in us. We will actively pursue to raise the quality of life of the people around us. We hold hands in our joint effort to create better tomorrows.

5 th Floor, **Dwarka** Heights,
Jubilee Enclave. Madhapur.
Hyderabad 500081
E: info@jurala.in
M: +9180742 11611
M: +919121211112

Jurala
Organic Farms &Agro Industries
www.jurala.in

Occupational Health & Safety Policy

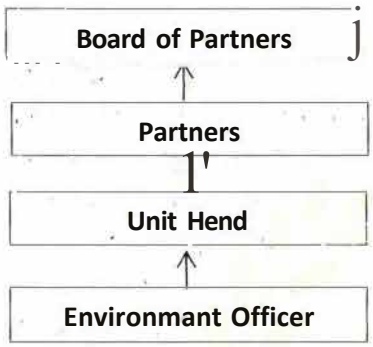
We follow the occupational health and safety policy as below:

- Create an environment which is safe and secure for everyone in its vicinity, be it a worker, contractor, visitor and even the local community. All identifiable risks and hazards are treated with the gravest concern.
- To constantly endeavour towards the highest level of health and safety such that injuries, waste and emissions are reduced to the bare minimum.
- Train all employees to work safely and responsibly thus preventing injury to themselves and others.
- Ensure that optimum conditions exist for the proper execution of all the stipulated health and safety norms.

Hierarchy to implement Environment Pclicy

An Environmental Officer will be 2ppointed to look after all environmental issues and ensure compliance with Environmental Clearance conditions / SPCB norms and will report to Unit Head who ultimately will report to Partner and the Board of Partners. Subsequently it will be discussed in the Board meeting and it will be made aware of the Environmental Policy and compliance on Environmental Clearance/SPCB norms to all. Any non--compliance / deviations will be brought to the notice of the ·Partner and the Bo:.ird of Partners. Review of compliance on Environmental Clearance/ SPCB norms at Six-monthly frequen·cy.

The following will be the organisation chart pertaining to Environment Policy.



Place : Hyderabad
Date : 25/11/2021

For: Jurala Organic Farm and Agro Industires LLP

nit-1)

Dr. T. Kiran Kumar
Director

5 th Floor, Dwarka Heights,
Jubilee Enclave, Madhapur.
Hyderabad 500081
E: info@jurala.in
M +918074211611
M +919121211112

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S.No. 11259 Date 17/11/2021 Rs 100/-

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S/o. ~~W/o~~ ~~D/o~~ D. Lingaiah

For Whom Jurala Organic Farms & Agro Industries LLP:

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MOHD ABDUL AQIL

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L.No. 16-03-018/2014

R.No. 16-03-065/2020

H.No.19-1-473/C, Doodh Bowli, Kamatipura, Hyderabad.

Cell: 99660 88018

SELF CERTIFICATE

I, Dr. If. Kiran Kumar, S/o. Sri T Murali, Director of **Jurala Organics Farms** & **Agro Industries LLP** (**Unit** - I), which is proposing to obatin Environmental Clearance for Distillery plant rapacity of 1 x 400 KLPD & 1X200 KLPD in Chittanur Village, Marikal Mandel Naraya pet District, Telangana do hereby confirm to undertake the following:

This is to certify that the entire Ethanol produced in the aforementioned 600 KLPD grain oased plantwill only be used for Ethanol Blended Petrol (EBP) programme only.

This is also to certify that If it is found that the Ethanol produced based on the Enviropmental Clearance (EC) granted as per this dispensation, is not being used completely for EBP programme, or 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.

<b twv'>--

Date: 27/11/2021

Placei Hyderabad

Dr. T. Kiran Kumar, Director
Jurala Organic farms & Agro Industries LLP
(Unit-1)

Annexure-2

रजिस्ट्री सं. डी.एल.- 33004/99

REGD. No. D. L.-33004/99

भारत का राजपत्र
The Gazette of India

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असाधारण
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

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अधिसूचना

नई दिल्ली, 16 जून, 2021

का.आ. 2339(अ).—केन्द्रीय सरकार ने पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उप-नियम 3 के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) के अधीन जारी की गई भारत सरकार के तत्कालीन पर्यावरण एवं वन मंत्रालय की अधिसूचना संख्याक का.आ. 1533 (अ), तारीख 14 सितम्बर, 2006 (जिसे इसमें इसके पश्चात् ईआईए अधिसूचना कहा गया है) द्वारा निदेश दिया था कि इसके प्रकाशन की तारीख से ही ईआईए अधिसूचना की अनुसूची में सूचीबद नई परियोजनाओं या कार्यकलापों या मौजूदा परियोजनाओं या कार्यकलापों के विस्तार या आधुनिकीकरण जिससे प्रक्रिया या प्रोद्योगिकी और/ या उत्पाद मिश्रण में परिवर्तन के साथ क्षमता परिवर्धन हो जाता है, का भारत के किसी भाग में प्रारंभ केन्द्रीय सरकार से पूर्व पर्यावरणीय स्वीकृति प्राप्त करने के पश्चात् या यथास्थिति, उक्त अधिनियम की धारा 3 की उप-धारा (3) के अधीन केंद्रीय सरकार द्वारा सम्यक् रूप से गठित राज्य स्तरीय पर्यावरण समाघात निर्धारण प्राधिकरण द्वारा, उसमें विहित प्रक्रिया के अनुसरण में ही किया जाएगा।

और एथनॉल मिश्रित पेट्रोल कार्यक्रम के प्रयोजन से एथनॉल के उत्पादन के लिए आशयित चीनी विनिर्माण या आसवनी इकाइयों के विस्तार के लिए अधिसूचना संख्याक का. आ. 345 (अ), तारीख 17 जनवरी, 2019 और अधिसूचना संख्याक का.आ. 750 (अ), तारीख 17 फरवरी, 2020 के द्वारा विशेष वितरण का उपबंध किया गया था। वर्ष 2025 तक पेट्रोल में एथनॉल के 20% मिश्रण के लक्ष्य की प्राप्ति हेतु सरकार की वचनबद्धता को ध्यान में रखते हुए इस वितरण को आगे भी जारी रखने का निर्णय लिया गया था और यह अधिसूचना संख्याक का.आ.980 (अ), तारीख 02 मार्च, 2021 के द्वारा अधिसूचित किया गया था।

और केंद्रीय सरकार ने यह देखा है कि चीनी विनिर्माण इकाइयां या आसवनियां सामान्यतया सक्षम प्राधिकारी से प्रमाणनन के संबंध में प्रमाणपत्र यह कि आसवनी में ईंधन के साथ समयबद रीति से मिश्रण करने के लिए एथनॉल का उत्पादन किया जा रहा है/ किया जाएगा, प्राप्त करने की अपेक्षा का अनुपालन करने में असमर्थ रहती हैं जिसमें संपूर्ण प्रक्रिया अवरूद्ध हो जाती है। इस मामले पर विचार किया गया और यह विनिश्चित किया गया है कि सक्षम प्राधिकारी दारा प्रमाणन की अपेक्षा को एक नोटरीकृत शपथ-पत्र के रूप में स्व-प्रमाणन से इस शर्त के अध्यधीन प्रतिस्थापित किया जाएगा कि बाद में यदि यह पाया जाता है कि इस वितरण के अनुसार प्रदान की गई पर्यावरणीय स्वीकृति के आधार पर उत्पादित एथनॉल का उपयोग पूर्ण रूप से एथनॉल मिश्रित पेट्रोल कार्यक्रम के लिए नहीं किया जा रहा है तो पर्यावरणीय स्वीकृति रद्द हो जाएगी।

और एथनॉल मिश्रण कार्यक्रम, शून्य द्रव विमुक्ति (जेडएलडी) वाली अनाज आधारित आसवनियों और सरकार के एथनॉल मिश्रण कार्यक्रम के प्रयोजनों के लिए केवल एथनॉल का उत्पादन करने की व्यवस्था को और अधिक बढ़ावा देने और ऐसी आसवनियों से एथनॉल के उत्पादन में पम्परागत जीवाश्म-ईंधन की तुलना में ग्रीन हाउस गैस उत्सर्जनों में कमी, जल और वायु प्रदूषण में कमी, कृषीय अर्थव्यस्था को संभाव्य प्रोत्साहन और समतुल्य मात्रा में आयातित जीवाश्म ईंधन पर निर्भरता में कमी सहित समस्त पर्यावरणीय, सामाजिक और आर्थिक फायदों को ध्यान में रखते हुए केन्द्रीय सरकार, परियोजनाओं की ऐसी श्रेणी (सरकार के एथनॉल मिश्रित पेट्रोल कार्यक्रम के लिए उपयोग किए जाने के लिए शून्य द्रव विमुक्ति के साथ अनाज आधारित आसवनियों द्वारा एथनॉलका विनिर्माण करने वाली) को पर्यावरणीय स्वीकृतियां (ईसी) प्रदान करने के संबंध में कतिपय शर्तों के अध्यधीन विशेष वितरण आवश्यक समझती है।

अत: अब, केन्द्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए ईआईए अधिसूचना में का निम्नलिखित और संशोधन करती है, अर्थात्-

उक्त अधिसूचना में :-

(i). पैरा 4 में, उप-पैरा (iii) के पश्चात् निम्नलिखित अंत:स्थापित किया जाएगा, अर्थात्-

(iiiक) केन्द्रीय सरकार द्वारा संकटकाल, जैसे कि महामारी, प्राकृतिक आपदाओं आदि के नाम पर अधिसूचित उक्त श्रेणी "ख" परियोजनाओं या राष्ट्रीय कार्यक्रमों / स्कीमों / मिशनों आदि के अंतर्गत पर्यावरणीय दृष्टि से अनुकूल कार्यकलापों पर, केन्द्रीय स्तर पर श्रेणी "ख" परियोजनाओं के तौर पर विचार किया जाएगा।

(ii). अनुसूची की मद 5 (छ) के सामने स्तंभ (5) में की प्रविष्टि के स्थान पर निम्नलिखित रखा जाएगा-

"(क) इस अनुसूची की मद 5(छ क) में आने वाली परियोजनाओं के सिवाय ;

(ख) परियोजना प्रस्तावक द्वारा एक शपथ-पत्र के रूप में स्व-प्रमाणन के अनुसार, पूर्ण रूप से केवल एथनॉल मिश्रित पेट्रोल (ईबीपी) कार्यक्रम के लिए ही उपयोग किए जाने हेतु विद्यमान इकाई के लिए पूर्व पर्यावरण स्वीकृति (ईसी) प्राप्त कर चुकी चीनी विनिर्माण इकाइयों या एथनॉल के उत्पादन के लिए आसवनियों के विस्तार का श्रेणी "ख2" परियोजनाओं के रूप में मूल्यांकन किया जाएगा।

परंतु यह कि बाद में यदि यह पाया जाता है कि इस संवितरण व्यवस्था के अनुसार प्रदान की गई पर्यावरण स्वीकृति के आधार पर उत्पादित एथनॉल का उपयोग पूर्ण रूप से ईबीपी कार्यक्रम के लिए नहीं किया जा रहा है या एथनॉल का उत्पादन नहीं किया जा रहा है या उक्त आसवनी उन अपेक्षाओं, जिनके आधार पर परियोजना का श्रेणी ख 2 परियोजना के रूप में मूल्यांकन किया गया है, को पूरा नहीं कर रही है तो पर्यावरण स्वीकृति को निरस्त माना जाएगा।

(iii). अनुसूची की मद 5(छ) के पश्चात् निम्नलिखित मद रखी जाएगी, अर्थात्-

परियोजना/क्रियाकलाप		आरम्भिक सीमा के साथ श्रेणी		शर्तें, यदि कोई हों
		क	ख	
5	विनिर्माण/ विरचना			
5(छक)	पूर्ण रूप से भारत सरकार के एथनॉल मिश्रित पेट्रोल कार्यक्रम के लिए	शून्य द्रव विमुक्ति रहित परियोजनाएं	शून्य द्रव विमुक्ति वाली परियोजनाएं	टिप्पण- (i). श्रेणी "ख" के अधीन आने वाली परियोजनाओं का

	उपयोग किए जाने के लिए एथनॉल का उत्पादन करने वाली अनाज आधारित आसवनियां टिप्पणी: अनाज में गेहूं, चावल, मक्का, जौ और ज्वार शामिल हैं।			मूल्यांकन, ख 2 श्रेणी के रूप में और इस अधिसूचना के पैरा 4 (iiiक) की निबंधनों में किया जाएगा। (ii). उन परियोजनाओं के लिए लागू जिन्होंने पर्यावरण स्वीकृति प्राप्त करने के लिए अपना आवेदन 31 मार्च 2024 तक या अगली अधिसूचना, जो भी पहले हो, तक फाईल किया हो, परंतु कि 31 मार्च 2024 के पश्चात् उत्पाद मिश्रण में किसी भी प्रकार के तदनन्तर संशोधन या विस्तार या परिवर्तन पर , उस समय लागू उपबंधों के अनुसार विचार किया जाए। (iii). परियोजना प्रस्तावक एक नोटरीकृत शपथ-पत्र फाईल करेगा कि प्रस्तावित परियोजना से उत्पादित एथनॉल का उपयोग पूर्ण रूप से ईबीपी कार्यक्रम के लिए किया जाएगा। परंतु कि बाद में यदि यह पाया जाता है कि इस वितरण व्यवस्था के अनुसार प्रदान की गई पर्यावरण स्वीकृति के आधार पर उत्पादित एथनॉल का उपयोग पूर्ण रूप से ईबीपी कार्यक्रम के लिए नहीं किया जा रहा है या एथनॉल का उत्पादन नही किया जा रहा है या उक्त आसवनी अपेक्षाओं, जिनके आधार पर परियोजना का श्रेणी ख 2 परियोजना के रूप में मूल्यांकन किया गया है, को पूरा नही कर रही है तो पर्यावरण स्वीकृति को निरस्त हो जाएगी।

[फा.सं. 22-33/2019-आईए.III]

डा. सुजीत कुमार बाजपेयी, संयुक्त सचिव

टिप्पण: मूल अधिसूचना भारत के राजपत्र में का.आ- 1533 (अ), तारीख 14 सितम्बर, 2006 द्वारा प्रकाशित की गई थी और इसका अंतिम संशोधन अधिसूचना सं. का.आ. 1247 (अ) तारीख,18 मार्च, 2021 द्वारा किया गया था।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 16th June, 2021

S.O. 2339(E).—WHEREAS, by notification of the Government of India in the erstwhile Ministry of Environment and Forests number S.O.1533 (E), dated the 14th September, 2006 issued under sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986, read with clause (d) of the sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 (hereinafter referred to as the EIA Notification), the Central Government directed that on and from the date of its publication, the new projects or activities or the expansion or modernization of existing projects or activities listed in the Schedule to the EIA notification entailing capacity addition with change in process or technology and/or product mix shall be undertaken in any part of India only after obtaining prior environmental clearance from the Central Government or as the case may be, by the State Level Environment Impact Assessment Authority, duly constituted by the Central Government under sub-section (3) of section 3 of the said Act, in accordance with the procedure specified therein;

AND WHEREAS, for the purpose of Ethanol Blended Petrol Programme, a special dispensation was provided for expansion of sugar manufacturing or distillery units, intended for production of Ethanol *vide* notifications numbers S.O. 345(E), dated the 17th January, 2019 and S.O. 750(E), dated the 17th February, 2020. In view of the Government's commitment to achieve 20 percentage blending of ethanol in petrol by the year 2025, it was decided to continue further with this dispensation and it was notified *vide* notification number S.O. 980(E) dated the 2ndMarch, 2021;

AND WHEREAS, the Central Government has noticed that the expansion projects of sugar manufacturing units or distilleries are generally unable to comply with the requirement of obtaining certificate from the competent authority relating to certification that the distillery is producing/shall produce ethanol for blending with fuel in a timely manner thereby stalling the entire process. The matter has been considered and it has been decided that the requirement of certification by competent authority may be replaced with self-certification in form of a notorised affidavit, subject to condition 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 Ethanol Blended Petrol Programme, the EC shall stand cancelled;

AND WHEREAS, to give a further boost to the Ethanol Blending Program, Grain based distilleries, having Zero Liquid Discharge (ZLD) and setup to produce only ethanol for the purposes of Ethanol Blending Program of the Government, and keeping in view overall environmental, social and economic benefits in production of ethanol from such distilleries including reduction in Green House Gas emissions in comparison to conventional fossil-fuel, less water and air pollution, potential boost to agricultural economy and reduced dependence on imported fossil fuel by equivalent amount, the Central Government deems it necessary to give a special dispensation as regards granting of Environmental Clearances (EC) to such category of projects [Manufacturing of ethanol by Grain Based distilleries with Zero Liquid Discharge, to be used for Ethanol Blended Petrol Programme of the Government], subject to certain conditions;

Now, therefore, in exercise of powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government, hereby makes following further amendments in the EIA Notification, namely:-

In the said notification:-

(i) In paragraph 4 after sub-paragraph (iii), the following shall be inserted, namely:-

(iii a) Such Category 'B' projects, as notified by the Central Government on account of exigencies such as pandemics, natural disasters, or to promote environmentally friendly activities under National Programmes or Schemes or Missions, shall be considered at the Central level as Category 'B' projects;

(ii) in the Schedule, against item 5(g), for the entry in column (5), the following shall be substituted:-

"(a) Except for the projects falling in item 5(ga) of this Schedule;

(b) Expansion of sugar manufacturing units or distilleries for production of ethanol, having Prior Environment Clearance (EC) for existing unit, to be used completely for Ethanol Blended Petrol (EBP) Programme only, as per self-certification in form of an affidavit by the Project Proponent, shall be appraised as category 'B2' projects.

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";

(iii) in the Schedule, after item 5(g), the following item shall be inserted, namely:-

Project/ Activity		Category with threshold limit		Conditions, if any
		A	B	
5	Manufacturing/Fabrication			
"5(ga)	*Grain based distilleries producing ethanol, solely to be used for Ethanol Blended Petrol Programme of the Government of India* *Note: Grains include wheat, rice, maize, barley, sorghum.*	*Projects without Zero Liquid Discharge*	*Projects with Zero Liquid Discharge*	*Note:* *(i) Projects under category B shall be appraised as B2 category project and in terms of para 4(iiia) of this notification* *(ii)Applicable for projects who file application for grant of EC upto 31st March 2024 or till further notification whichever is earlier provided that any subsequent amendment or expansion or change in product mix after 31st March 2024, shall be considered as per the provisions inforce at that time.* *(iii) The project proponent shall file a notorised affidavit that ethanol produced from proposed project shall be used completely for EBP Programme. 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".

[F.No. 22-33/2019-IA.III]

Dr. SUJIT KUMAR BAJPAYEE, Jt. Secy.

Note: The principal notification was published in the Gazette of India, *vide* number S.O. 1533 (E), dated the 14th September, 2006 and was last amended *vide* the notification number S.O.1247(E) , dated the 18thMarch, 2021.

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Annexure - 3.

Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The Designated Partner
JURALA ORGANIC FARMS AND AGRO INDUSTIRES LLP (UNIT-1)
Chittanur village, Marikal Mandal, Narayanpet District,
Telangana. ,, NARAYAN PET, Telangana-509353

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/TG/IND2/241233/2021 dated 01 Dec 2021. The particulars of the environmental clearance granted to the project are as below.

1.	**EC Identification No.**	**EC22A060TG127852**
2.	**File No.**	IA-J-11011/492/2021-IA-II(I)
3.	**Project Type**	New
4.	**Category**	A
5.	**Project/Activity including Schedule No.**	5g(a)-Grain Based distilleries for Ethanol Blended Petrol
6.	**Name of Project**	Jurala Organic Farm and Agro Industries LLP - Unit-I
7.	**Name of Company/Organization**	JURALA ORGANIC FARMS AND AGRO INDUSTIRES LLP (UNIT-1)
8.	**Location of Project**	Telangana
9.	**TOR Date**	N/A

The project details along with terms and conditions are appended herewith from page no 2 onwards.

(e-signed)
A.K Pateshwary
Director
IA - (Industrial Projects - 2 sector)

Date: 03/01/2022

Note: A valid environmental clearance shall be one that has EC identification number &E-Sign generated from PARIVESH.Please quote identification number in all future correspondence.

This is a computer generated cover page.

This has reference to your online proposal no. IA/TG/IND2/241233/2021, dated 04th December, 2021 for environmental clearance to the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the Proposed Grain Based Distillery capacity 600 KLPD (1X400 KLPD & 1X200 KLPD) with 15 MW Co-generation power by M/s. Jurala Organic Farm and Agro Industries LLP Unit-I located at Chittanur Village, Marika! Mandal Narayanpet District, Telangana.

3. As per the MoEF&CC Notification 5.0. 2339(E), dated 16th June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that- ethanol produced from proposed project shall be used completely for EBP Programme.

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

5. The details of products and capacity are as under: -

S.No.	Product Details	Production quantity
Product		
1	Ethanol	600 KLPD
2	Power	15 MW
By product		
1	IDDGS	330 TPD
2	CO2	340 TPD

6. Total land area of 13.19 Ha. (32.6 acres) is allocated for the proposed project, which will be used for proposed Grain Based Distillery Project. Number of operational days of plant will be 350 per annum. Industry will develop greenbelt in an area of 33 % i.e., 11.0 Acres out of total area of the project. The estimated project cost is Rs. 602.5 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 54.5 Crores and the Recurring cost (operation and maintenance) will be about Rs. 2.9 Crores per annum. Total Employment will be 500 persons as direct & indirect. Industry proposes to allocate Rs. 8.1 Crores @ 1.3 % towards Corporate Environment Responsibility.

7. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Manne Vagu is flowing at a distance of 0.5 Km. in East direction.

8. Total water requirement is 2700 m^3/day will be met from Koilasagar lift Irrigation Scheme. Effluent of 4240 m^3/day quantity will be treated through MEE

and Condensate Polishing Unit. The plant will be based on Zero Liquid discharge system.

9. The Unit's own Power cogeneration will be 15 MW generation out of which 15 MW will be used for captive power requirement. 2 Nos. 500 KVA DG sets will be used in case of emergency. 100 TPH Coal/Biomass/ Briquettes Boiler will be installed and ESP with a stack of height of 83 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/NM^3 for the proposed boiler. Travelling Grate Boiler will be equipped with ESP for controlling process emission. Bag filters with dust collectors will be installed in Grain handling & milling area and DOGS Dryer section to minimize fugitive emissions. Boiler Ash (220 TPD) & ETP Sludge (316 Kg/Day) will be generated as solid waste from the proposed distillery project. Waste lube oil from DG Sets will be generated as Hazardous Waste. Boiler ash will be sold to cement manufacturing units / fly ash brick manufacturers / ceramic industry. ETP Sludge will be reused as biocompost for green belt development.

10. Details of process emissions generation and its management:

- ESP with a stack height of 83 meters will be installed for controlling the particulate emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO2 generated (340 TPD) during the fermentation process will be collected by utilizing CO2 scrubbers and sold to authorized vendors.

11. As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed capacity of 600 KLPD will be for manufacturing of fuel ethanol only.

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

- 33% of the total project area shall be developed with greenbelt within the plant premises including 5-10 m width greenbelt peripherally.
- Entire project shall be ZLD and no single drop of water shall be discharged outside of plant premises.
- PP shall utilize fresh water @4.0 KL/KL of ethanol production.
- PESO certificate shall be obtained.
- 15% of the total plant area will be reserved for parking.
- CO2 generated from the process shall not be released to the atmosphere and shall be bottled/made solid ice and utilized/sold to authorized vendors.
- PP shall confirm that the entire land is under the possession of the company and land is converted for non-agricultural use.
- PP shall meet 10% (1.5 MW) of the total power requirement from solar/wind power.
- Brick manufacturing unit will be installed within the plant premises for utilization of fly ash.
- PP shall allocate at least Rs. 80 Lakhs for Occupational Health Safety.

- Company to construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- PP shall install ESP with the boiler.
- The proposed budget allocation of Rs. 9.0 Crores towards CER and shall be used before commissioning of the plant. An amount of Rs. 4.5 Crores shall be spent on establishment of solar power in nearby villages and the balance amount of Rs. 4.5 Crores shall be spent for construction/up-gradation of school building nearby villages with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light etc. others as per the need base.

PP has submitted the desired information as sought above.

13. The proposal was considered by the EAC in its 46th meeting held on 13th-14th December, 2021 in the Ministry, wherein the project proponent and their consultant M/s. Pioneer Enviro Laboratories and Consultants Private Limited, presented the case under B2 category. The Committee **recommended** the project for grant of environmental clearance.

14. 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.

15. 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.

16. 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.

17. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project for **Proposed Grain Based Distillery capacity 600 KLPD (1X400 KLPD** & **1X200 KLPD) with 15 MW Co-generation power by M/s. Iurala Organic Farm and Agro Industries LLP Unit-I located at Chittanur Village, Marikal Mandal Narayanpet District, Telangana,** under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under:-

A. Specific Condition:

(i). As per OM dated 16th June, 2021, project falls in category B2 and the proposed capacity of 600 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). PP shall confirm that the entire land is under the possession of the company and land is converted for non-agricultural use.

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

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

(v). Total Fresh water requirement shall not exceed 2400 KLD (@4.0 KL/KL) and will be met from Koilasagar lift Irrigation Scheme. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.

(vi). The spent wash shall be concentrated and dried to form DOGS to be used as cattle feed. Brick manufacturing unit will be installed within the plant premises for utilization of fly ash. PP shall install ESP with the boiler and

meet 10% (1.5 MW) of the total power requirement from solar/wind power.

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

(viii). PP shall allocate at least Rs. 80 Lakhs for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

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

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

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

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

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

(xiv). PP proposed to allocate Rs. 9.0 Crores towards CER and shall be used before commissioning of the plant. An amount of Rs. 4.5 Crores shall be spent on establishment of solar power nearby villages and the balance amount of Rs. 4.5 Crores shall be spent for construction/up-gradation of school building nearby villages with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, Drinking Water Facilities, solar light etc. others as per the need base.

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

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

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

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

B. General Condition:

(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 st 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.

18. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all

the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

19. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

20. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

21. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

22. This issues with the approval of the competent authority.

(Ashok Kr. Pateshwary)
Director

Copy to: -

1. The Principal Secretary, Environment, Forests, Science and Technology Department, Telangana Government Secretariat, Room No. 327A, D-Block, 2nd Floor, Khairatabad, Hyderabad (Telangana)
2. The Regional Officer, Ministry of Env., Forest and Climate Change, Integrated Regional Office, Hyderabad, 3rd Floor, Room No. 309, Aranya Bhawan, Opp. RBI, Safiabad - 500004, Hyderabad, Telangana
3. The Member Secretary, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Telangana State Pollution Control Board, Paryavaran Bhawan, A-III, Industrial Estate, Sanath Nagar, Telangana - 500018 Hyderabad
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi
6. District Collector, Narayanpet, Telangana
7. Guard File/Monitoring File/ Parivesh Portal /Record File

(Ashok Kr. Pateshwary)
Director
E-mail: ak.pateshwary@gov.in
Tel. No. 24695290

Validity !twn
Digitally signe . Pateshwary
Director
Date: 1/3/2022 5 PM

Annexure - V

TELANGANA STATE POLLUTION CONTROL BOARD
Paryavarana Bhavan, A-III, Industrial Estate, Sanathnagar,
Hyderabad-500 018
Phone : 040-23887500

CONSENT ORDER FOR ESTABLISHMENT-RED CATEGORY

Order No. 02/TSPCB/CFE/NPT/RO-HYD/HO/2022 **Dt.29.01.2022**

Sub:	TSPCB - CFE - Mis. Jurala Organic Farms and Agro Industries LLP Unit-1, Sy.No. 278/P ,294/P ,295/P,296/P, 297/P ,298/P ,307/P ,308/P, Chittanur (V), Marikal (M), Narayanpet District - Application for CFE - Consent for Establishment of the Board under Sec.25 of Water (Prevention & Control of Pollution) Act, 1974 and Under Sec.21 of Air (Prevention & Control of Pollution) Act, 1981 - Issued - Reg.
Ref:	1) Environmental Clearance dt. 03.01.2022, issued by MoEF&CC. 2) Industry's application dt: 10.01.2022 (Application No. 3537990). 3) R.O's verification report dt. 18.01.2022. 4) CFE - CFO Committee meeting held on 20.01.2022. 5) Industry's lr. dt. 21.01.2022.

1. M/s. Jurala Organic Farms and Agro Industries LLP Unit-1 obtained EC order vide reference 1st cited to establish grain based distillery to produce ethanol and establish captive power plant at Sy.No. 278/P, 294/P, 295/P,296/P, 297/P, 298/P, 307/P, 308/P, Chittanur (V), Marika! (M), NaraiYanpet District.

2. The industry, vide reference 2nd cited, submitted an application to the Board seeking Consent for Establishment (CFE) to produce following products with capacities as mentioned below, with project cost of Rs. 602.5 Crore, in an area of 32.6 Acres.

S.No	Products	Capacity
1.	Ethanol	600 KLD
2.	Coal / Bio-mass / Briquettes based Power plant	15MW

By products:

S.No	By-Products	Quantity
1.	DOGS	330 TPD
2.	CO2	340 TPD

3. As per the application, the above activity is to be located at Sy.No. 278/P,294/P,295/P,296/P, 297/P,298/P, 307/P,308/P, Chittanur (V), Marikal **(M),** Narayanpet District.

4. The above site was inspected by the Asst. Environmental Engineer, Regional Office, Hyderabad, T.S. Pollution Control Board on 11.01.2022 and observed that the site is surrounded by:

   North: 18 m wide approach Road;
   South: 24 m wide approach Road followed by open lands;
   East: Open Land;
   West: Open Land.

5. The Board, after careful scrutiny of the application and additional information submitted by the industry, verification report of the Regional Officer, E.C. Order dated 03.01.2022 issued by MoEF&CC and after examining in the CFE-CFO Committee meeting held on 20.01.2022, hereby issues CONSENT FOR ESTABLISHMENT to your industry under Section 25 of Water (Prevention & Control of Pollution) Act, 1974 and under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under. This order is issued to the products and capacities as mentioned at Para (2) only.

6. This Consent Order now issued is subject to the conditions mentioned in S.chedule 'A' and Schedule 'B'.

7. This order is issued from pollution c.ontrol point of view only. Zoning and other regulations are not considered.

Encl: Schedule 'A'
Schedule 'B'

Sd/-
MEMBER SECRETARY

To
Mis. Jurala Organic Farms and Agro Industries LLP Unit-1,
Sy.No. 278/P,294/P,295/P,296/P, 297/P,298/P, 307/P,308/P,
Chittanur (V), Marika! (M), Narayanpet District.

// T.C.F.B.O.//

oint Chief Environmental Engineer

SCHEDULE-A

1. **This order is valid for a period of 5 years from the date of issue.** Progress on implementation of the project shall be reported to the concerned Regional Office, T.S. Pollution Control Board once in six months. The consent of the Board shall be exhibited in the factory premises at a conspicuous place for information of the inspecting officers.
2. The proponent shall obtain Consent for Operation (CFO) from TSPCB, as required Under Sec.25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under sec. 21/22 of the Air (Prevention and Control of Pollution) Act, 1981, before commencement of the activity.
3. The proponent shall ensure that there shall not be any change in the process technology and scope of working without prior approval from the Board.
4. The industry is liable to pay compensation for any environmental damage caused by it, as fixed by the Hon'ble Courts, Collector and District Magistrate as Civil liability.
5. The rules and regulations notified under Environmental Acts by the MOEF&CC and by the Ministry of Law and Justice, GOI, regarding the Public Liability Insurance Act, 1991 shall be followed.
6. Concealing the factual data or submission of false information / fabricated data and failure to comply with any of the conditions mentioned in this order may result in withdrawal of this order and attract action under the provisions of relevant pollution control Acts.
7. Notwithstanding anything contained in this consent order, the Board hereby reserves the right and powers under Section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and amendments thereof, to review any and/or all the conditions imposed herein, to modify conditions or stipulate any further conditions and to take action including revocation of this order in the interest of public health and environment.
8. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per the State Water Rules, 1976 and Air Rules, 1982, to such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of Water (Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.

SCHEDULE-8

Water:

1. The source of water is Koilsagar lift irrigation scheme. The maximum total water consumption shall not exceed 2700 KLD. The industry shall comply with the following:

S. No.	Purpose	Quantity (KLD)
1.	Process	1020
2.	Soft water for distillation, Cooling tower Makeup	820
3.	OM Water for Boiler makeup & Distillation dilution	835
4.	Domestic	25
Total		**2700 KLD**

2. The total fresh water requirement shall not exceed 2400 KLD (@ 4.0 KUKL of ethanol production), as stipulated in the EC order.
3. Industry shall provide water storage pond of 60 days capacity and the accumulated water shall be used as fresh water thereby reducing fresh water consumption, as stipulated in the EC order.

4. The maximum Waste Water Generation (KLD) shall not exceed the following:

S.No	Source	Quantitv **(KLD)**
1	Spent wash	3540
2	Spent Lees	700
3.	CT & Boiler blow down	450
4.	Domestic	20
Total		**4710 KLD**

5. **Effluent Treatment & Disposal:** Industry shall comply with the following:

S. No.	Description	Max Daily Discharae	Method of treatment & Point of Disposal
1,	Spent wash,	3540 KLD	Spent wash through centrifuge decanters for separation of suspended solids and then treated in MEE followed by DWGS dryer to obtain DOGS.
2.	Spent Lees	700 KLD	Spent Lees and MEE condensate are treated in CPU consisting of aeration, clarification, sand filtration and activated charcoal filtration followed by RO plant. RO permeate for reuse in process & coolina and RO reiects to MEE.
3.	CT & Boiler blow down	450 KLD	Neutralized in a neutralization tank and will be mixed with cooling tower blow down in the CMS followed by RO plant. RO permeate for reuse in process & coolin!I and RO rejects to MEE.
4.	Domestic	20 KLD	STP
	Total	**4710 KLD**	

6. The industry shall provide MEE, Effluent Treatment Plant (ETP} consisting of Equalisation, Cooling & pH Adjustment, Nutrient dosing, Anaerobic Treatment, Degasification, Addition of Spent Leese and Dilute WW, Extended Aeration with diffused aeration, Secondary Clarifier, Pressure Sand Filter, Ozonation, Activated Carbon Filter followed by RO plant. The MEE, ETP and RO plant shall be constructed and commissioned along with the commissioning of the activity. All the units of the ETP shall be impervious to prevent ground water pollution. Industry shall install RO plant of capacity 3600 KLD as committed vide letter dt. 21.01.2022.
7. The industry shall treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
8. The industry shall provide separate water meters for recording water consumption for process, washings, boiler feed & utilities and domestic purposes and also maintain daily records.
9. The industry shall provide digital flow meters for recording the quantity effluent generation, quantity of treated effluents at ETP outlet, MEE feed & MEE condensate utilized for cooling tower makeup/ plantation.

10. The industry shall install IP camera with PAN, TILT Zoom, 5x or above focal length, with night vision capability at MEE as per CPCB norms and connect the data to the CPCB & TSPCB servers as stipulated in EC order.
11. The industry shall provide real time effluent quality monitoring system for outlet of ETP for the parameters: flow, pH, COD, BOD, TSS as per CPCB directions and connect the data to the CPCB & TSPCB servers as stipulated in EC order.
12. The industry shall maintain electronic data logging flow totalisers and maintain records of water consumption, spent wash generation, CO2 generation. The above flow meter readings shall be integrated to PLC system. The consolidated records shall be submitted to the RO, every month.

Air:

13. The proponent shall comply with the following for controlling air pollution.

S. No	Source of air pollution	Control Equipment
i)	Coal / Biomass/ Briquettes fired boiler of capacitv 100 TPH	ESP followed by stack of 83 m height
ii)	DG Sets of capacities - 2 x 500 KVA	Acoustic enclosures.

14. Industry shall install ESP for the boiler as stipulated in the EC order.
15. The industry shall install separate energy meters for recording energy consumption for APCE and maintain record for daily energy consumption.
16. The industry shall provide interlocking system to the APCE, so that in case of failure of APCE, the complete process shall be shut down.
17. A sampling port with removable dummy of not less than 15 cm diameter shall be provided in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc. A platform with suitable ladder shall be provided below 1 meter of sampling port to accommodate three persons with instruments. A 15 AMP 250 V plug point shall be provided on the platform.
18. The generators shall be installed in a closed area with a silencer and suitable noise absorption systems. The ambient noise level shall not exceed 75 dB(A) during day time and 70 dB(A) during night time.
19. Raw materials shall be stored in silos or in covered areas to prevent dust pollution and fugitive emissions. Industry shall provide closed sheds for storage of coal and husk.
20. Industry shall take following mitigation measures to control air pollution, as proposed:
    - Raw material/fuel unloading areas provided with dust suppression system.
    - All material transfer points provided with dust extraction system with bag filters.
    - All the conveyers covered with sheets to prevent the fly-off of fugitive dust.
    - All internal roads are made pucca to prevent the fugitive dust to vehicular movement.
    - No open storage of ash and the ash is being stored in silo only.
21. Industry shall install online stack monitoring system and connect the same to CPCB and SPCB servers as stipulated in EC order.

Solid Waste:

22. The proponent shall comply with the following:

S. No.	Description	Quantity	Mode of Disposal
1.	Waste oil	500 LPA	Shall be sent to Authorized Re-processors / Recyclers.
2.	ETP sludge	316 kg/day	Shall be reused as manure.
3.	Ash	220 TPD	To Brick Manufacturing unit within the plant premises.

23. Industry shall install brick manufacturing unit within the plant premises for utilization of fly ash, as stipulated in the EC order.

24. The following rules and regulations notified by the MoEF&CC, Gal shall be implemented.

a) Solid Waste Management Rules, 2016.
b) Construction and Demolition Waste Management Rules, 2016.
c) Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
d) The Plastic Waste Management Rules, 2016.
e) Batteries (Management & Handling) Rules, 2001 and its Amendment Rules, 2010.
f) E-Waste (Management) Rules, 2016 and its Amendment Rules, 2018.
g) Bio-Medical Waste Management Rules, 2016 and its Amendment Rules, 2018.

Other Conditions:

17. Greenbelt of atleast 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, as stipulated in EC order.

18. Industry shall utilize solar / wind power to meet atleast 10% of total power requirement, as stipulated in the EC order.

19. Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.

20. A separate Environment 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 function.

21. CO_2 generated from the process shall be bottled/ made ice and utilized/ solid to authorized vendors.

22. The proponent shall comply with the provisions laid under Fly ash Notification No.S.O.763 (E), dt. 14.09.1999 and Amendments thereof.

23. The proponent shall comply with all the directions issued by the Board from time to time.

Sd/-
MEMBER SECRETARY

To
M/s. Jurala Organic Farms and Agro Industries LLP Unit-1,
Sy.No. 278/P,294/P,295/P,296/P, 297/P,298/P, 307/P,308/P,
Chittanur (V), Marikal (M), Narayanpet District.

// T.C.F.B.O.//

Joint Chief Environmental Engineer

Annexure - 5

PHONE No.: 040•23733176
FAX No.: 040-23747622
EMAIL:dtcp@tolangana.gov.In

GOVERNMENT OF TELANGANA

From:
The Director ofTown and
Country Planning,
Government of Telangana,
4th & 5th Floors,640, AC.Guards,
HYDERABAD-500 004.

To:
The Commissioner of Industries,
Government of Telangana,
Chirag Ali Lane, Abids,
HYDERABAD.

Lr.D.01s.No. 29112022/P, Dl. 21-02-2022

Sir,

Sub:- COI-TS-iPASS- O/o. DT&CP- Mis. Jurala Organic Farms and Agro industries LLP with in Sy.no. 278/P, 294/P to 298/P, 307/P, 308/P 313/P Chittanur Gram Panchayat G,P , Marika! Mandal Narayanpet District -Technical Clearance-Issued -Reg.

Ref: - TS-iPASS UID No. UID No : MEG033053676785 Mis. Jurala Organic Farms and Agro Industries LLP

####

The proposal for installation of Mis. Jurala Organic Farms and Agro industries LLP with in Sy.no. 278/P, 294/P to ,298/P,307/P, 308/P 313/P Chittanur Gram Panchayat G,P , Marlkal Mandal Narayanpet District have been examined in detail and Technical Clearance issued for the construction as per section 114 of TSPR Act 2018 (Act No. 5 of 2018) subject to the following conditions:

1. The applicant Is responsible for any misrepresentation of the facts while obtaining the approval, since the proposals are processed as per the Information furnished In the Common Application Form and self-certification made by the applicant
2. The Panchayat Secretary, Chlttanur Gram Panchayat shall ensure that, M/s. Jurala Organic Farms and Agro industries LLP with In Sy.no. 278/P,294/P to 298/P,307/P, 308/P 313/P Chittanur G.P, Marika! Mandal Narayanpet District getting access from 40'-0" wide public road before commencement of commercial production.
3. The Panchayat Secretary Chlttanur Gram Panchayat shall release the permission after obtaining the LCC from the applicant for the total extent of the site.
4. The Applicant shall pay the Building Fee and Layout Fee as per GOMs.No.67, PR&RD, Dt:26-02-2002 to the built up area and site area.
5. The Applicant shall pay the Installation Charges to the G.P. as per GOMs.No.16 PRO & Rellef(Pts.111), Dl.10-01-1996.
6. The Applicant shall provide the parking space of the 10% of built up area as shown in the plans as per GOMs.No.67 PR & RD (Pts.V) Dt.26-02-2002.
7. The applicant shall pay the Environmental _Impact Fee for the total built-up area 16,536.70 Sq mts (i.e 177,999.6 sq ft)@ Rs. 3/- per Sq feet, totally amounting to Rs. 6,33,999 /- towards Environmental Impact Fee as additional charges under section 15(1·A)(g) of the Mines and Minerals (Development & Regulations) Act-1957 and as per the G.O.M.s No. 34 I & C(Mines-1) Dept. Dt. 17.6.2015 and Go. Ms No.8 I & C(Mlnes-1) Dt. 24.22016.

a. The Panellayat Scc:relary, t.:hiltaour Gmm P,111chayat, shall release the plans onl}t After satisfying 1he ownership documents of the site under reference and also ensure LhAl no Government lands, Water bodies are encroached by the entrepreneur.

9. The **Pan**chayal Secretary, CIIIIIonur Gram Panchayat shall release lhe plans only after obtaining necessary permissions/NOC's from lha concerned authorities.

1O.It does not confer ***any*** right, ***title*** or ownership ***to*** the appllcant over the site under reference.

11. The applicant shall maintain setbacks as per plan without any deviations.

12. The appllcant shall be solely and severally responsible for the ownership aspects ***including*** the boundaries of the site for development applied for.

13. The Panchayat Secretary, Chiltanur Gram Panchayal, shall release the plans only after obtaining "N.O.C." from the Telangana ***State*** Pollution Control Board.

14. The Panchayat Secretary, Chittanur Gram Panchayat, shall release the plans only after obtaining "N.O.C." from Telangana State Disaster Management Response & Fire Service Department.

15.The Panchayat Secretary, Chittanur Gram Panchayat shall release the plans to the applicant only after confirming all the conditions imposed by the concerned Authorities.

16. The applicant shall construct Rainwater harvesting pits and plant trees In the site under reference as per TelanganaWater Land and Trees Rules.2002.

The Technical Clearance Issued plans are assigned **B.P.No: 09/2022/INST/H.**

Yours faithfully,
Sd/- K.Vidyadhar
Director of Town and
Country Planning

Copy *to:*

1. The Panchayat Secretary, Chlttanur Gram Panchayat for Information and for taking necessary action.
2. The Regional Deputy Director ofTown Planning, Hyderabad for information.
3. The DT&CPO, Narayanpet for Information.
4. To **Mis.** Jurala Organic Farms and Agro Industries LLP with in Sy.no. 278/P,294/P,to298/P,307/P, 308/P 313/P Chltlanur ***Gram*** Panchayat G,P , Marika! Manda! Narayanpet District .

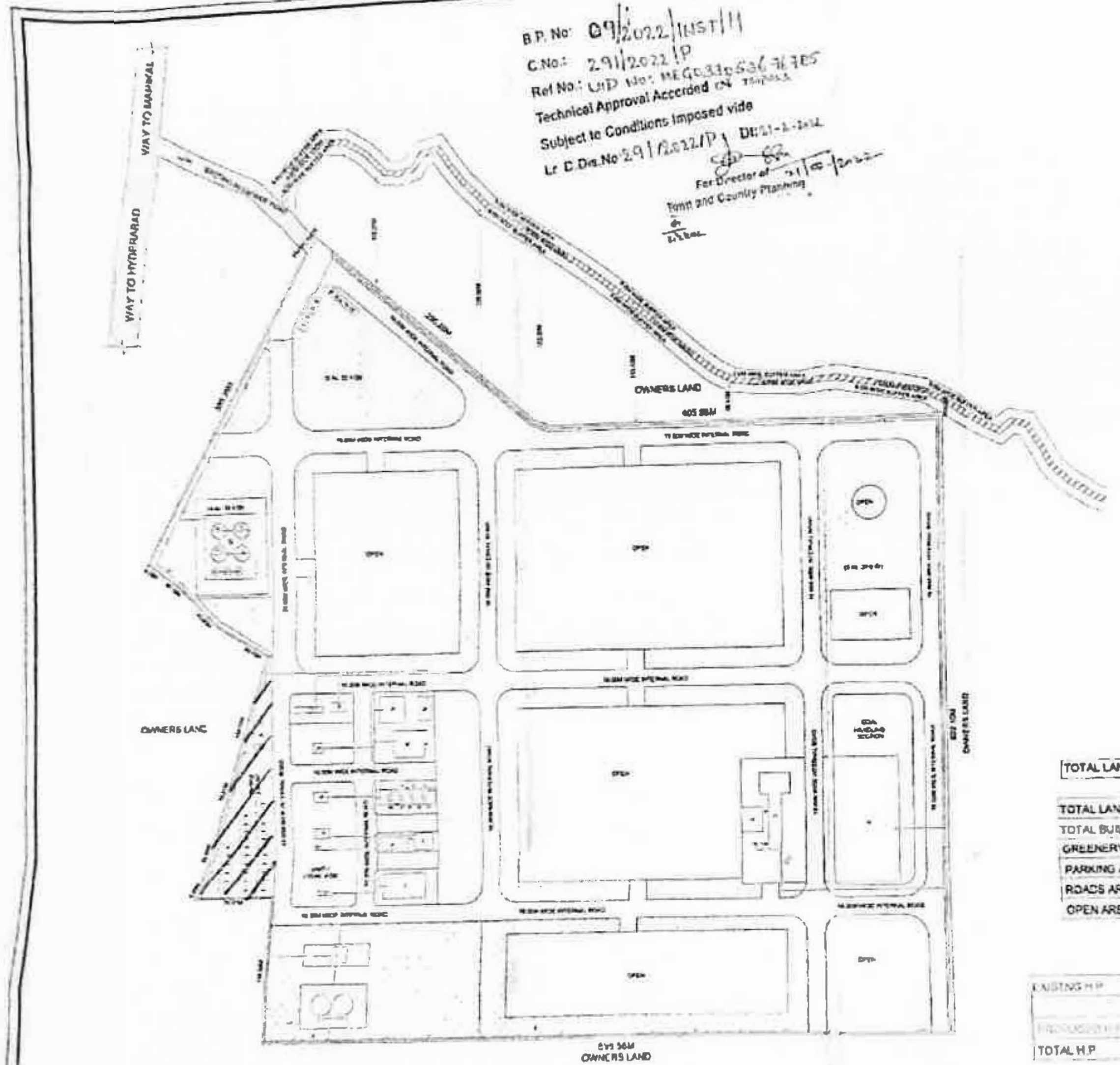
J/t.c.f.b.o./1

Joint Director r2.\ oi

7

SP-JOFAILLP-GEN-12.01/18

M/s JURALA ORGANIC FARMS & AGRO INDUSTRIES LLP



MARK	DESCRIPTION	L in MT	B in MT	AREA in Sq Mts
01	GRAIN UNLOADING PIT/GRAIN HANDING	30 00	9 30	279 00
02	CLEANING AND MILLING	16 60	17 50	292 75
03	LIQUEFACTION & FERMENTATION	42 90	25 20	1051 08
04	DISTILLATION+MSDH	53 50	17 00	909 50
05	INTEGRATED EVAPORATION	21 75	17 00	369 85
06	COOLING TOWER FOR MSDH			
07	COOLING TOWER FOR DISTILLATION			
08	COOLING TOWER FOR EVAPORATION	58 00	15 50	899 00
09	COOLING TOWER FOR LIQUEFACTION			
10	COOLING TOWER FOR FERMENTATION			
11	BOILER HOUSE+AUXLIARIES			
12	CHIMNEY FOR BOILER	128 00	68 00	8316 00
13	TURBINE ROOM, POWER HOUSE PROS			
14	COAL/FUEL YARD	128 00	65 00	8318 00
15	PCC AND D.G ROOM	25 00	22 00	560 00
16	WEIGH BRIDGE	15 00	7 00	105 00
17	SECURITY CABIN	5 00	5 00	25 00
18	TIME OFFICE	5 00	5 00	25 00
19	ADMINISTRATIONBUILDING	15 00	10 00	150 00
20	CANTEEN	15 00	10 00	150 00
21	BULK CHEMICAL STORAGE	23 00	6 50	149 50
22	EXCISE OFFICE	5 00	5 00	25 00
23	MECHANICAL ROOM	10 00	10 00	100 00
24	AA BULK STORAGE (PESO)	67 50	54 00	3645 00
25	CHEMICAL STORE	15 00	10 00	150 00
26	DECANTATION DRYER AND DDGS STORE	36 50	27 00	985 50
27	PCTP	29 00	26 00	678 00
28	WTP&RAW WATER STORAGE TANK	25 00	15 00	375 00
29	AMBULANCE VAN ROOM	8 00	4 00	32 00
30	SECURITY	8 00	8 00	64 00
31	OCCUPATIONAL HEALTH CENTER	8 00	8 00	64 00
32	REST ROOM	8 00	8 00	64 00
33	DRESS CHANGE ROOM	8 00	8 00	64 00
34	SAFTEY ROOM	8 00	8 00	64 00
35	EMERGENCY CONTROL ROOM	8 00	8 00	64 00
36	LUNCH ROOM	8 00	8 00	64 00
37	TOILTES	8 00	8 00	64 00
	TOTAL LAND COVERAGE AREA			28133 99 SCM

TOTAL LAND AREA 122.74 AC OR 497372.78 SCM

TOTAL LAND COVERAGE AREA	28133 99 SQM
TOTAL BUILT UP AREA	16538 78 SQM
GREENERY AREA (33 13%)	164791 24SQM
PARKING AREA (60 20%)	9965 26 SQM
ROADS AREA	84055 70 SQM
OPEN AREA	210436 79 SQM

EXISTING H.P	—
PROPOSED H.P	[illegible]
TOTAL H.P	9750 00H.P

FIRE LEGEND

DESCRIPTION	SYMBOL
YARD HYDRANT POINTS	
MS CLASS C PIPE LINE	
BUTTERFLY VALVES 100 DIA	
SLUICE VALVES	
MS CLASS C PIPE	

MASTER LAYOUT

☐ REVIEW
☐ APPROVAL
☐ CONSTRUCTION

SICHERRA PHARMATEK

Scanned with CamScanner

Annexure 6

भारत सरकार
Government of India
वाणिज्य और उद्योग मंत्रालय
Ministry of Commerce & Industry
पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पैसो)
Petroleum & Explosives Safety Organisation (PESO)
रूम नं. 602, 6th फ्लोर,, सी. जी. ओ. टावर्स, कवडीगुठा
सिकंदराबाद- 500080
Room No. 602, 6th floor, C.G.O. Towers, Kavadiguda,
Secunderabad - 500080

E-mail:
dyccehyderabad@explosives.gov.in
Phone/Fax No : 040 • 27540359

संख्या /No : A/P/SH/TG/15/4468 (P526013) /Dated: 31/12/2021

सेवा में
/To,

Mia. JURALA ORGANIC FARMS AND AGRO INDUSTRIES LLP,
5th Floor, Dwaraka Heights, Jubilee Enclave, Madha.,
Chlttanur Vliiage, Marika! Manda!, Narayan pet Dist
Chlttanur,
Marlkal,
Taluka: Marika!,
District: MAHBUBNAGAR
State: Telangana
PIN: 509301

/Sub ' Survey No, 298/A, 299/A/2 & 299/AA/2, 301/E,304/E, 304/EU, 30, Chlttanur Vliiage, Marika! Mandal, Narayanpet District, Telangana, Chlttanur, Marika!, Taluka: Marika!, District: MAHBUBNAGAR, State: Telangana, PIN: 509351 *it* •,n-c1rrl) IIA rdr A t" t" I

Proposed Petroleum Storage Class A Installation at Survey No, 298/A, 299/A/2 & 299/AA/2, 301/E,304/E, 304/EU, 30, Chlttanur Vliiage, Marika! Mandal, Narayanpet District, Telangana, Chfttanur, Marlkal, Taluka: Marlkal, District: MAHBUBNAGAR, State: Telangana, PIN: 509351
Approval Regarding.

/Slr(s),

◆ ◆tr:rifi1l'fctiOIN947433 ◆ 08/12/2021 ◄T 'ifit I

Please refer to *your* letter No. OIN947433 dated 08/12/2021

Orawlng(s) nos. 21/DEC/2021 dated 07/12/2021, 21/DEC/2021 dated 0111212021, m ;;n;,r &

cf!IT MITIJI1T<fir 't66i rl –;;nrt I

The Orawing(s) nos. 21/DEC/2021 dated **07/12/2021,** 21/DEC/2021 dated 07/12/2021,showlng the site and layout etc. of the specified Installation **is/are** approved and **one** copy of the **same is retumed** llcrewi1t1 in token of approval.

lfffm iiii" I

The following documents which are necessary in connection with the grant of a licence in Form XV **or** the Petroleum Rules, 2002 for the above installation may please be submi!led to this office **!Ilr** rurther action **in the** matter.

Annexure - 7

Office of the Chief Engineer, Inigatlon,
Mahabubnagar.
Present: Sri B.V. Ramona Reddy, B.E., FJE.,
Chief Engineer, Irrigation, Mahabubnngar.

Pr c. No.CEjIIMBNR/DCEJOT-I/TS6/WA/Jurnln/ O te:1,.j .08.2022

Sub:- CEil)- MBNR - I&,CADD - JuroJ:J Ortinnic Panna ond Agro Industries LLP-1\llocnlion of 0.03093 TMC :1urface w:.itcr for lhe proposed Ethrn10\ factory and Bio- Refinery complCY. :it Chittanur (V) Mo.rilml {M), Nnroyrmpcl (Dist) from Surge pool uf Kuilsagar Lif1 In;golfoll scheme slogc-1 ol Nagireddypal!y (Vl, Narva (Ml, Nnmyonpcl (Dist) - ApprovoJ for allocation of 0.03093 TMC of wolcr lo indusl riul unit - Wntcr /\Uocnlion - Accorded permission - Request -Reg.

Ref:- I. GovL Memo No.7288/Rcforrns/A2/2016 D. 15.03.2017.
2. Engineer-in-Chief (G)Lr.No.ENC(G)/SE(P&M)/DCE/ (GB)/ OTI / AEES/M/s. Dcvsristi, Dated: 07-01-2022.
3. Agency Lr.No. Nil, Dated: 16-08-2022.
4. Lr.No.SE/IC·I /MBNR/DSE/DEE-1 / AE-4/Jurala Organic/427 CE, Dated: 18-08-2022.

In the reference I u cited, the Government- have delegated the powers to the Chief Engineers concerned to allocation of water upto 0.200 TMC or 200Mcft from irrigation sources to industrial units under intimation to the Engineer-in-Chief (General). Hyderabad so as to enable the industrial Department to expedite the clearance schemes under TS-iPASS Act No 3 of 2014.

The Superintending En.gineer, Irrigation Circle No. I, Mah:abubnagar vide reference 4°' cited, has submitted the representation o[Jurala organic Farms & Agro Industries LLP with primary resources of water at Jur.ala stage-I S=ge pool.

The Engineer-in-Chief {General), Hyderabad vide reference 2nd cited, has given certain instructions to follow the provision of the KWDT-1 award subject to the following terms and conditions apart from usual statutory clearances from the District Collector and Pollution Control Board for a period o[5 years and payment of water charges upto date as per G.O.Ms.No.115, Dt: 27-06-2015.

Under the circumstances explained and recommendation of the Superintending Engineer, Inigation Circle No.I, Mahabubnagar, after careful. examination of the proposals of the firm, permis·sion is here by accorded for drawl of water not exceeding 2400 KLD i.e., 0.03093 TMC (or) 30.93 MCFJ' per year from Surge pool of Koilsagar Stage-I pumping station.

Further the permission accorded is subject to the concurrence of Nodal agency of appropriate committee of TS-il'ASS, usual statutory clearance from District collector concerned, Pollution control Board, Ground water department permissions of all other departments necessary as per orders/Laws/Rules/enactments of the state and central Government in force and as issued time to time and suoject to'the following terms and conditions apart from usual terms and conditions,

1. **The applicant should furnish the required information to the competent .authority and also to the Nodal Agency simultaneously.**
2. **The Superintending Engineer, Inigalion Circie No, 1, Mahabubnagar is requested to ensure lhe designs, drawings and approvals from competent authority for suitable pumping system required and monitor the same.**
3. **Toe firms should make its own arrangements with their own costs for drawl and required storage of water for non pumping period including**

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8. T11c finn should mnl<e il1 own nrrongernenl for creating storage facilities to a\·oid drowls rrom river durinr, Jenn period.

9. T11c utilization should nol exceed 0.03093 TMC per annum under any circumst;ınc,,. nnd necc:1,u1ry measuring orrongements including maintcn:m,:c of Log buuk records have to be made by the !inn itself and reported 10 the Executive Engineer, Irrigation Division No.3, Dc,·arkndrn.

10. Subject to followi.ng the terms and conditions apart from ui;ual statutOI)' clearance from the District Collector and the Pollution Control Board for n period or 5 years, the applicant shall pay Water rate charges for supply of water/use and other charges as fixed by the government and the water royalty charges to the Government as per G.O.Ms.No.115, Dt: 27.06.2015 and subsequent amendments.

Sd/- 29-08-2022
Chier Engineer,
Irrigation, Mababubnagar.

To,

1. M/s Jurala Organic Farms & Agro Industries LLP, 5th Floor, Jubilee Encla,•e, Madhapur, Hyderabad.
2. The District Collector, Narayanpet for information and necessary action.
3. The District Nodal Agency, through District Collector, Narayanpet for information and necessary action.
4. Copy submitted to the Special Chief Secretary to the Government, I & CAD, Department for kind information.
5. Copy submitted to the Engineer-in-Chief (General), I & CAD, Department, Jalasoudha Building Hyderabad for information.
6. Copy to the Superintt:nding Engineer, Irrigation Circle No. I, Mahabubnagar for information.
7. Copy to Executive Engineer, Irrigation Division No.3, Devarkadra for further necet1iwry action.

//Attested//

Dep y Chier Englm,cr,
Irrlgu on, Muhububnogor

Annexure - 8

No. 12/1/2022-(BP&E)
Government of India
Department of Food and Public Distribution
Directorate of Sugar & Vegetable Oils

Krishi Bhawan, New Delhi
Dated: 11.5.2022

To,

M/s JURALA ORGANIC FARMS & AGRO INDUSTRIES LLP,
Chittanoor Village, Marikal Mandal, District- Narayanpet,
Telangana- 509 353

Subject: Proposal/application under the modified Scheme for extending financial assistance to project proponents for enhancement of their ethanol distillation capacity or to set up distilleries for producing 1st Generation (1G) ethanol from feed stocks such as cereals (rice, wheat, barley, corn & sorghum),sugarcane, sugar beet etc. notified on 22.4.2022.

Madam/Sir,

I am directed to refer to your proposal/ application received under the above cited Scheme and to convey the in-principle approval of Government of India for grant of interest subvention as per para 2(i) of the aforesaid Scheme for maximum loan amount of **Rs. 245.62 crore (Rupees Two Hundred and Forty Five Crores and Sixty Two Lakhs only)** under the said Scheme for **setting up of new grain based distillery of 400 KLPD with Zero Liquid Discharge (ZLD) System.** For this purpose, the project has been given EC vide No. EC22A060TG127852 dated 3.1.2022.

2. This in-principle approval is only for the purpose of indicating the maximum loan for which interest subvention would be admissible under this Scheme and does not convey any approval of Government of India about the requirement of loan for the above purpose. The interest subvention under the Scheme would be released on the basis of actual amount of loan disbursed or the amount indicated above, whichever is lower.

3. The above approval is subject to the following conditions:-

i) Banks/financial institutions would be at liberty to sanction/ release the loan as per their commercial norms/ policies and in compliance with regulatory guidelines, including the restructuring guidelines, as notified by RBI from time to time.

ii) Payment of interest subvention on loan amount under the Scheme will be limited to only 5 years, including one year moratorium period. It may be noted that those the project proponents who have availed loans for 6 years with 2 year moratorium, the interest subvention may be available in such cases from second year of moratorium period only (i.e. after the end of first year moratorium) & an interest for the first year moratorium shall be borne by the project proponents.

(1__-.

iii) You should get the loan disbursed from the bank/financial institution within one year from the date of this in-principle approval by Government of India, failing which this in-principle approval will be treated as cancelled.

iv) The project should be completed within two years from the date of disbursement of first installment of loan from bank/financial institutions.

v) The disbursement of loan under the Scheme shall be in a separate account so that the utilization of the money for the said purpose is easily monitored.

vi) A certificate duly verified by the Central Pollution Control Board certifying that the Zero Liquid Discharge System as indicated in the Para 1 of this letter has been installed to achieve zero liquid discharge would be submitted to the nodal bank i.e. NABARD. Any failure to submit such certificates shall lead to non-reimbursement of interest subvention by the Central Government.

vii) The utilization certificate for the sanctioned loan amount within three months of the completion of the project, duly verified by the respective sugar/cane commissioners certifying that the loan amount has been utilized for the purpose specified in the Scheme, would also be submitted to NABARD. Any failure to submit the utilization certificate shall lead to non-reimbursement of interest subvention by the Central Government.

viii) This approval will also be subject to fulfillment of all other conditions stipulated in the **modified Scheme for extending financial assistance to project proponents for enhancement of their ethanol distillation capacity or to set up distilleries for producing 1st Generation** (1G) **ethanol from feed stocks such as cereals (rice, wheat, barley, corn & sorghum), sugarcane, sugar beet etc. notified on 22.4.2022.**

4. The above in-principle approval is based on preliminary scrutiny of basic information as provided in the application/ proposal and no technical or financial appraisal has been carried out by Government of India. As such, lending banks/financial institutions would be required to carry out all such requisite scrutiny on their part with due diligence before sanction and release of loan.

5. On the basis of project completion certificates and utilization certificates received from the distillery unit, the nodal bank, i.e. NABARD shall determine eligibility of the distillery unit for release of further interest subvention to it.

6. It is also stated that benefits of interest subvention scheme is to be extended to **only those grain based distilleries** which are using dry milling technique to produce Dry Distillers Grain Soluble(DDGS).

7. The concerned distillery unit must register itself on the portal of DFPD i.e. https://sugarethanol.nic.in before initiating the process of interest subvention to NABARD and update the progress of the project on monthly basis on the portal (5th of every month) to avail the

benefit under the interest subvention scheme failing which the in-principle approval may be cancelled by DFPD. The distillery unit shall also submit a quarterly progress report to DFPD by 10th of following month of every quarter through email (ethanol.fpd@gov.in) giving status of the project including sanction/disbursement of loan, signing of BPA/TPA with OMCs, participation in Eol by OMCs for supply of ethanol, other statutory clearances and civil works etc.

8. After 6 months, if at any point of time, it is observed that the progress of the project with regard to sanction/disbursement of loan, obtaining of other statutory clearances etc. is not satisfactory or the project proponent is not fulfilling the terms & conditions of this scheme as mentioned above and in the notification dated 22.04.2022, this in-principle approval may be cancelled and your proposal shall not be considered for interest subvention under this Scheme.

Yours faithfully,

l--.

(Kanav Dua)
Deputy Director (Cost)
#011-23070422

Copy to:-

i) Department of Financial Services, Gal (Kind attn: Shri. Chandragupta Shaurya, US(AC))
ii) Nodal Bank; NABARD (Kind attn: Shri. Vivek K. Sinha, Chief General Manager, Department of Refinance, NABARD, H.0- Mumbai)
iii) Ministry of Petroleum & Natural Gas (Kind attn: Shri Vinay Kumar, US(Bio-Refinery Cell)
iv) SDF Division, Department of Food and PD, Go! (Kind attn: Shri Ved Prakash Singh, US (SDF)).
v) Lending Bank (State Bank of India/Industrial Finance Branch/Hyderabad) of the distillery unit.

Copy also to:-

i) Principal Secretary (Cane/Excise/Industry), Govt. of Telangana.
ii) State Pollution Control Board, Govt. of Telangana.

Annexure - 9.

LONG TERM OFFTAKE AGREEMENT WITH DEDICATED ETHANOL PLANT

The execution of this Long term offtake Agreement has been completed on _______ at ____ (in two originals, one to be retained by Buyer/ OMCs and one to be retained by Seller/ Supplier)

BETWEEN

Sourabh Banerjee
(General Manager (Operations) (M.D.) (H.O.)
INDIAN OIL CORPORATION LTD.
IndianOil Bhavan,
G-9, Ali Yavar Jung Marg,
Sandra (E), Mumbai - 400 051.

MUMBAI

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1) Btw" t Petroleum Corporatlon LinTted, 11compftny of-pomted under the laws of 1111a l1ay'n JtS rel.{tstcrc<l,:, z;;, office at Bharat Bhavan, 4 and 6 Ciltrimbhoy•Rmlcfr.BstJard Est.l -, Mumbai 40000 I :tccre.lnafle!'referred to as "BPCL" (which expression shall, unless it be repugnant to the context or meaning thereof, be deemed lo mean and include its successor and permitted assigns);

2) INDIANOILCORPORATIONLIMITED(IOCL),acompanyregi stcredunderlhe Companies Acl, 1956aucl having its registered office at G-9, Ali Ynvar Jung Marg, Bandra (East), Mumbai-400051 (bereinafler rchrecl to as ';IOCL" which expression shall, unless repugnant to the context or meaning lhereor, be deemed to include its successors and pem1itted assigns);

3) HINDUSTAN PETROLEUM CORPORATION LIMrl ED (HPCL), a company rcgisrered under the Companies Act, 1956 and having its registered office al Petroleum House, 17, .lamshcclji Tata Road, Mumbai, Maharashtra-400020 (hereinafter referred to as "HPCL" which cxprcssion shall. unless rep11gnant to the context or meaning thereof, be deemed to include its successors and permitted assigns);

SI no. I, 2 & 3 together are hereinafter collectively called as "BUYER/ OMCs" (which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors and permitted assigns) of the ONE PART

AND

Name of Ethanol Seller/ Supplier, a Project promoter/ proponent desirous of setting up Dedicated Ethanol Plant and having its registered office/ principal place of business at **Jurala Organic Farms And Agro Industries LLP H.No.13-195/1,Kistapur Road Medchal, Hyderabad, Tclangana,50140 I India** hereinafter referred to as "SELLER/ SUPPLIER" (which expression shall, unless it be repugnant to the context or meaning thereof, be deemed to mean and include its successor) of the OTHER PART.

Hereinafter, Buyer/ OMCs and Seller/ Supplier shall be collectively referred to as "Parties" and individually as "Party".

WHEREAS:

a) Buyer/ OMCs are acting as implementing agency/ enablers of the Ethanol Blended Petrol (ERP) Program under aegis of MoP&NG.

b) Buyer/ OMCs are desirous to procure Ethanol from such Seller/ Supplier as a part of the EBP Program under the aegis of MOPNG.

c) Buyer/ OMCs have formulated "Guidelines for Signing Agreements with Ethanol plants in deficit States" (hereinafter referred to as "Guidelines")

d) Huyer/ OMCs, as per said Guidelines. hirve invited applications for supply of Ethanol under the EBP program from project promoter(s)/ prnponenl(s) through an Expression of Interest (EOI) no. 100037<1 174 System ID - 86996 floated on 27.08.2021 & opened 17.09.21.

e) Pursuant to the same, the Project promoter / proponent M/S **Jurala Organic Farms And Agro Industries LLP** who are in the process of setting up Dedicated Ethanol plant have submitted an application under above EOI.

के.के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व वितरण / General Manager - O&D
दक्षिण मध्य अंचल- रिटेल / South Central Zone-Retail
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LTD.

JURALA ORGANIC FARMS & AGRO INDUSTRIES LLP
PETROLEUM ... MUMBAI

सौरभ बैनर्जी / Sourabh Banerjee
महाप्रबंधक (प्रचालन) / General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
इंडियनऑयल भवन / IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग / G-9, Ali Yavar Jung Marg,
बांद्रा (पूर्व), मुंबई / Bandra (E), Mumbai - 400 051.

t) Based on evaluation of the application by OMC Ethanol Procurement Group (OEPG), the project promoter/ proponent M/S **Jurala Organic Farms And Agro Industries LLP** has been shortlisted for signing of Long term Offtake Agreement with Buyer/ OMCs for supply of Ethanol under EBP Program.

g) The project promoter/ proponent M/S **Jurala Organic Farms And Agro Industries LLP** desirous of setting up a Dedicated Ethanol Plant for supply of Ethanol to Buyer/ OMCs under EBP Program, in his capacity as Seller/ Supplier has expressed an interest to sell/ supply Ethanol to OMC's from such proposed Dedicated Ethanol Plant to be set up at **CHrTTANUR VILLAGE, MARIKAL MANDAL, NARAYANPET DISTRICT, Tchmgana, area 239 acers** (complete details/ address of the plant).

NOW, THEREFORE, TI-11S LONG TERM OFFTAKE AGREEMENT (AGREEYIENT) WITNESSETH AS FOLLOWS:

1. DEFINITIONS AND INTERPRETATJON:

1 I. Definitions:

In th.is Long-tenn Offtake agreement, unless the subject or context otherwise requires, the following words and expressions shall have the following meanings:

1.1.1. Dedicated Ethanol Plant (DEP): These ethanol plants will only produce ethanol (as per prevalent BIS specifications) and all of the quantity produced in this unit would be supplied to 13uyer/ OMCs only. In case a new dedicated ethanol plant is setup in the same premises where the existing distillery is operating (or is set up as a new distillery), the ethanol plant should be clearly identifiable as a separate unit. Processing units and storage area of ethanol have to be separate for the dedicated ethanol plant. The nonproduction facilities, however, can be shared. Necessary certification of such plants by appropriate authorities is required.

1.1.2. "Business" means sale and purchase of Ethanol by Seller/ Supplier and Buyer/ OMCs respectively through DEP/ PDEP/ GD on mutually agreed terms and conditions.

I. 1.3. The "Ethanol Procurement Process" is the process followed by OMCs for procurement of ethanol. The process is guided by the directions/ advice issued by MOPNG /Govt. of India from time to time.

1.1.4. ESY means Ethanol Supply Year i.e. from Ist Dec to 30th November offollowing year.

1.1.5. "Purchase Agreement" means supply agreement made by individual OMC with the supplier for the purchase of ethanol as per al location 1iiade in each ESY.

1.1.6. "Allocation" means OMC supply location-wise quantity of ethanol to he supplied by the Seller/Supplier as per prevalent Ethanol procurement process

1.1.7. "Supply Price" means the price at which Ethanol shall be purchased by Buyer/ OMCs from Seller/ Supplier as explained in Clause 9.

के.के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व वितरण / General Manager - O & D
दक्षिण मध्य अंचल- रिटेल / South Central Zone-Retail
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LTD.

सौरभ बैनर्जी / Sourabh Banerjee
महाप्रबंधक (प्रचालन) / General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
इंडियनऑयल भवन / IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग / G-9, Ali Yavar Jung Marg
बांद्रा (पूर्व), मुंबई / Bandra (E), Mumbai - 400 051

1.1.8. "Taxes" means all forms of taxation and statutory, governmental, state, principal, local governmental or municipal impositions, duties, contributions and levies, imposts, tariffs and rates and all penalties, charges, costs and interest payable in connection with any failure to pay or delay in paying them and any associated deductions or withholdings of any sort, and as may revised from time to time by statutory authorities.

1.1.9. "Standards" shall include applicable national or international standards relevant to Ethanol business.

I. I .I 0. "EOI" means Expression of Interest for signing long term offtake agreement with upcoming ethanol plants (DEP/ PDEP/ GD) in ethanol deficit states for supply of denatured anhydrous ethanol to oil marketing companies (OMCs) floated by Buyer/ OMCs for inviting application f'om project proponents

1.1. I. "Application" means the application submitted by the Project promoter/ proponent to participate in the EOI

1.2. INTERPRETATION:

1.2.1. Unless the context otherwise requires, a reference to a singular shall include a reference to plural thereof and vice-versa; and a reference to any gender shall include a reference to the other gender.

1.2.2. Unless the context otherwise requires, a reference to any article, clause, appendix, schedule, attaclunent or annexure shall be to an Article, Clause, Appendix, Schedule, Attachment or Annexure of this Agreement as may be amended, modified, supplemented and extended from time to time.

1.2.3. The appendices, schedules, annexures and/or attachments to this Agreement shall form an inte1:,,ral part of this Agreement.

1.2.4. Reference to any law includes a reference to that law as f'om time to time amended, modified, supplemented, extended or re-enacted.

1.2.5. Reference to this Agreement shall incl(lde a reference to this Agreement as may be amended, modified, supplemented, and extended from time to time.

1.2.6. Reference to any other agreement shall include a reference to that agreement as may be amended, modified, supplemented, and extended f'om time to time.

1.2.7. Any reference lo time shall, except where the context otherwise requires, be construed as a reference to the Indian Standard Time and reference to any Month shall mean to refer to a Gregorian English calendar month.

1.2.8. The headings and side-headings/notes of Clauses, Appendices, Schedules, Attachments and Annexures in this Agreement are inserted for convenience of reference only and shall not affect the meaning or interpretation of this Agreement.

के.के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व वितरण / General Manager - O&D
दक्षिण मध्य अंचल- दिल्ली / South Central Zone-Re
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION

Page 4 of 7

BIRLA ORGANIC FARMS & AGRO INDUSTRIES LLP

BHARAT PETROLEUM MUMBAI

सौरभ बैनर्जी / Sourabh Banerjee
महाप्रबंधक (प्रचालन) / General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
इंडियनऑयल भवन / IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग / G-9, Ali Yavar Jung Marg
बांद्रा (पूर्व), मुंबई / Bandra (E), Mumbai - 400 051

1.2.9. The words "include" or "including" shall be deemed to be followed by "without limitation" or "but not limited to" whether or not they are followed by such phrases.

1.2.10. Unless the context otherwise requires, any period of time referred to shall be deemed to expire at the end of the last date of such period.

1.2.11. The terms "Seller/ Supplier" and "Buyer/ OMCs" shall include their respective officers, managers, employees and their authorized representatives.

1.2.12. This Agreement is made and executed in English Language, which shall be the governing text for all purposes.

1.2.13. In the event of any conflict between any provisions of main body of this Agreement and the provisions of the Appendices, Schedules, Annexures and Attachments; the provisions of the main body of this Agreement shall prevail.

1.2.14. All terms and conditions mentioned in the Expression of Interest (EOI) and Letter of Intent (LOI) issued by OMCs/ Buyer in relation to signing of this agreement shall be deemed to be included in this Agreement by reference.

1.2.15. The clauses of EOI / LOI/ this agreement are to be read in cognizance & in totality. Similar clause mentioned in this agreement shall supersede clause mentioned in the EOI/ LOI.

2. SCOPE OF AGREEMENT:

2.1. The Seller/ Supplier agrees to supply and the Buyer/ OMCs agree to purchase Ethanol under the terms of this Agreement in the quantities, and at Supply Price determined in accordance with, and subject to, the terms and conditions of this Agreement.

2.2. The Ethanol Plant from which the Ethanol shall be supplied under this Agreement is located at **CHITI'ANUR VILLAGE, MARIKAL MANDAL, NARAYANPET DISTRICT, Tclangana, area 239 accrs** (complete details / address of the plant) and has a design capacity to produce **13.2 Crorc litre** per annum of Ethanol by using **Rice/ Broken Rice** & **maize** as feedstock.

2.3. The Seller/ Supplier shall deliver Ethanol at the designated location(s) of Buyer/ OMCs.

2.4. The Buyer/ OMCs shall entitled to appoint other suppliers for the supply of Ethanol at the designated location(s). Seller/ Supplier agrees not to dispute, object or challenge the appointment of other sellers / suppliers of Ethanol for the designated location(s) by the Buyer/ OMCs. The Seller/ Supplier shall not be entitled to any compensation, remuneration, commission or allowance whatsoever for such appointments/ purchase by the Buyer/ OMCs.

3. ETHANOL PLANT AND ITS OPERATIONS:

3.1. The Ethanol Plant and any facilities installed therein shall be installed, commissioned, operated and maintained by the Seller, at his own cost, and the Buyer/ OMCs shall not be entitled to claim any right, title or interest therein.

के.के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व विपणन / General Manager - O&D
दक्षिण मध्य अंचल- रिटेल / South Central Zone-Retail
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
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सौरभ बनर्जी / Sourabh Banerjee
महाप्रबंधक (प्रचालन) / General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का.
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.
इंडियनऑयल भवन / IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग / G-9, Ali Yavar Jung Marg
बांद्रा (पूर्व), मुंबई / Bandra (E), Mumbai - 400 051

Nothing herein contained shall be deemed to create any lease, license or other right in Buyer/ OMCs with respect to the Ethanol Plant and facilities at the Ethanol Plant, except as provided in this Agreement.

3.2. The Seller/ Supplier shall be responsible for planning, preparation (including arranging the entire land, capital and finance), engineering, execution, installation, testing, commissioning, continuous operation and maintenance, of the Ethanol Plant including storage of raw material, at its own cost and expense.

3.3. The Seller/ Supplier shall, at no cost or expense to the Buyer/ OMCs, obtain and maintain, or cause to be obtained and maintained, all approvals required from government/ statutory/concerned authorities under applicable laws, for its Ethanol Plant and other facilities installed by it for the purposes of this Agreement.

3.4. The Seller/ Supplier shall ensure that the facilities installed at the Ethanol Plant meet the requirements laid under all applicable Standards at all times.

3.5. The Seller/ Supplier shall be responsible for arranging the feedstock and other material required for numing the Ethanol Plant on continuous basis.

3.6. The Seller/ Supplier shall have to create sufficient storage capacity for feedstock as well as Ethanol for optimal supply chain management.

3.7. Seller/ Supplier shall be responsible for managing the by-products and wastes from the Ethanol Plant as per existing cencral / state norms.

3.8. All approvals required from the government/ statutory/ concerned authorities with regard to Ethanol Plant shall be the responsibility of Seller/ Supplier. The Seller/ Supplier shall ensure to obtain any other statutory license (or amendment of existing license if applicable) for commencing and carrying on production and supply of Ethanol and its renewal f'om time to time.

4. COMMERCIAL SUPPLY:

4.1. Seller/ Supplier) have proposed to set up the plant at **CHITTANUR VILLAGE, MARIKAL MANDAL, NARAYANPET DISTRICT, Tclangana, nrea 239 acers** (complete details / address of the plant) by using **Rice / Broken Rice & maize** as feedstock. The Seller/ Supplier shall commence actual supply **within** I **year** from the effective date of this agreement i.e. 15th January 2022 as specified in the LOI.

4.2. Changes are not permitted in the land/ location, type of feedstock and time period for commissioning as well as any other commitments made by you in the application and documents submitted. No changes are permitted and deviation by Seller/ Supplier, if any, will be considered as breach of this agreement and then without pr❖judice to any other right or remedy available to the Seller, the Buyer/ OMCs shall be entitled to terminate this agreement at their sole discretion.

4.3. The commissioning of the plant will be considered as per the following condition precedent:

4.3.1. 15 days continuous production, meeting the committed quantity as per the LTOA and as per the specifications.

के.के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व वितरण / General Manager - O & D
दक्षिण मध्य अंचल- रिटेल / South Central Zone-Retail
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LTD.

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सौरभ बैनर्जी / Sourabh Banerjee
महाप्रबंधक (प्रचालन) / General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (बि.प्र.)(प्र.का.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
इंडियनऑयल भवन / IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग / G-9, Ali Yavar Jung Marg,
बांद्रा (पूर्व), मुंबई / Bandra (E), Mumbai - 400 051.

4.3.2. Seller/ Supplier need to submit certificate towards 4.3.1 above based on physical verification carried out jointly by TPIA or any olher certifying ageucy, which shall be appointed by Buyer /OMC(s) and the Seller/ Supplier.

4.4. The Seller/ Supplier shall ol;o proviul: Quarterly progress stalus of the establi;shment of Ethanol plant to Buyer/ OMCs. Additionally, the seller/ supplier shall also inti mate rhe likely commi!\sioning date al least I month prior lo the sla1t of the ESY quarter in which the commissioning is likely. The ESY quarters are Dec-Feb, Mar-May, June-Aug and Sep - Nov for the ESY year.

4.5. In the event that the Commercial Supply does not occur within the aforesaid timelinc, tlue to any failure or 11011-pi:rformancc of the Seller/ Supplier, then without pr1.:judice lo any Q[11er right or remedy available lo the Seller, the Buyer/ OMCs shall be ent-itled to te1111m1c this agreement at lhdr i;ole discretie)n.

5. TRANSPORTATION:

5.1. The Seller/ Supplier shall be responsible for transportation of Ethanol from the Ethanol Plant to the designated loc11tion(s) of the Buyer/ OMCs.

5.2. Transportation rate of Ethanol will be as per rates decided and declared by Buyer/ OMCs from time to time.

6. Quantities and Allocations:

6.1. Seller/ Supplier will register himself with OMCs/ BPCL through a vendor registration process and participate in ethanol procurement process mandatorily. After successful registration, the Seller/ Supplier will participate in ethanol procurement process followed by OMCs for their location-wi e requirement of ethanol.

6.2. Buyer/ OMCs offer jointly an annual offtake quantity of **13.2 Crore litres** of Ethanol and the Seller/ Supplier commits to supply the same by participating in the vendor registration process and ethanol procurement process. Interstate movements, if required, by Buyer/ OMCs should be honoured by the Seller/ Supplier. The annual offtake quantity offered is on best endeavor basis to the extent of ethanol required, considering prevalent ethanol blending percentage and MS sale of Auyer/ OMCs, and any other factor impacting ethanol requirement, including, but not limited to, demand issues arising out of the new economic imperatives/ regulations, vehicle short supply and such similar circumstances beyond the control of Buyer/ OMCs. In case, the Seller/ Supplier intends to supply during the ongoing ESY, of[i ake quantity will be limited to the requirenu:nt of Buyer/ OMCs for the balance period of that ESY.

6.3. Oftlake quantity offered jointly by Buyer/ OMCs is subject to the Seller/ Supplier complying with the condition under clause 6. l.

6.4. The annual off take quantity offered as above for supply of denatured anhydrous ethanol to OMCs may be less than the annual design capacity offered by the shortlisted bidder in his application.

के. के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व वितरण / General Manager - O&D
दक्षिण मध्य अंचल- रिटेल / South Central Zone-Retail
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LTD.

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सौरभ बैनर्जी / Sourabh Banerjee
महाप्रबंधक (प्रचालन) / General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
इंडियनऑयल भवन / IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग / G-9, Ali Yavar Jung Marg,
बान्द्रा (पूर्व), मुंबई / Bandra (E), Mumbai - 400 051.

6.5. The shrntlisted bidder is free to set up plant upto the annual design capacity offered in his application. This additional capacity, over and above the annual offtake quantity offered in 6.2 above, also needs to remain dedicated ethanol plant only.

6.6. Ethanol so produced f'om additional capacity stated in 6.5 above, may be procured through the prevailing Ethanol procurement process followed by 0MCs and / or Pvt. 0MCs on need basis.

6.7. The annual offtake quantity offered as per 6.2 above, may be considered for amendment in future, to include the additional capacity as stated in 6.5 above, as per the need of 0MCs at that point of time and rules and guidelines in force.

6.8. In the above EOI floated for setting up of dedicated ethanol units, in case a bidder is being issued LOI for a quantity lesser than the quantity for which they have bid it is clarified that in case they set up plants as per their bids, Buyer/ 0MCs may offer additional annual offtake quantity, beyond that offered under 6.2 above, with overall annual offiake quantity limited to the design capacity of the plant offered by the bidder under the EOI. This additional offtake quantity by Buyer/ 0MCs will be given through preferential allocation in the ethanol procurement process followed by Buyer/ 0MCs on best endeavor basis.

6.9. "EOI for Quantity Bids" for the full requirement of the ESY shall be floated prior to the start of ESY to the registered vendors only. There after EOI for quantity bids shall be floated for the shortfall quantity/ additional requirement, if any, purely based on requirements of Buyer/ 0MCs.

a. Location-wise, individual 0MC-wise quantity to be supplied in each ESY qumter shall be allocated to the Seller/ Supplier as per prevalent al location crite1ia.

b. All allocations including any subsequent re-allocation will be at the sole discretion of the Buyer/ 0MCs.

c. LOI will be issued by individual 0MCs for the allocated quantity to the Seller/ Supplier.

d. For tlle allocated quantity, Seller/ Supplier will sign Purchase A_g 'eement with each 0MC after submitting Security Deposit as per the tenns and conditions of the LOI. All terms and conditions ol'the Purchase Agreement will be binding on the Seller/ Supplier.

6.10. The responsibility of execution of allocations/ re-allocations made in relation to procurement of ethanol and related activities will lie with the respective OMCs to whom allocation has been made as per procurement process and the parties will keep each other indemnified in respect of any dispute arising between them or with any third party after such allocations/ re-allocations has been done.

7. Quality of Ethanol:

7.1. The quality of Ethanol supplied by the Seller/ Supplier shall be confirming to relevant BIS standards applicable to Automotive grade.

के. के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व वितरण / General Manager - O & D
दक्षिण मध्य अंचल- रिटेल / South Central Zone-Retail
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LTD.

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सौरभ बैनर्जी / Sourabh Banerjee
महाप्रबंधक (प्रचालन) / General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
इंडियनऑयल भवन / IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग / G-9, Ali Yavar Jung Marg,
बांद्रा (पूर्व), मुंबई / Bandra (E), Mumbai - 400 051.

7.2. Test reports/ quality certificates/ excise ce1tificate/ any other approvals or permissions as required from time lo time, duly certified by the competent authority, shall be accompanied with every Ethanol supply.

7.3. If the Ethanol offered is not as per Specifications ("Off-Spec"), the Buyer/ OMCs shall have the right to reject such Off-Spec Ethanol.

8. Delivery:

8.1. The Supplier will effect delivered supply through sealed calibrated Lank-trucks (cal ihra1cd by statutory agencies and also complying to al I statutory regulations) to Buyer/ OMCs designated location(s) as per Buyer/ OMCs delivery schedule and ensure desired quantity and quality at the time of delivery.

8.2. The Supplier will ensure that no malpractice with respect to Ethanol being carried takes place en-route.

8.J.. The custody of material will transfer from Seller/ Supplier to Buyer/ OMCs at OMC's Delivery Location (subject to quantity & quality checks).

9. Price:

9.1. The Supply Price of Ethanol will include basic Price, transportation and taxes. Basic Price of Ethanol and transportation will be published at the beginning of every ESY. The prevailing prices are given in Annexure I.

9.2. In case of any revision in the prices, lhe same shall remain binding on the Seller/ Supplier.

I0. Payments:

I0.1. Buyer/ OMCs shall make payments to the Seller/ Supplier's Account / Escrow Account, as the case may be, in Indian Rupees, under this Agreement.

I0.2. LOO% payment shall be made as per agreed payment terms (currently 21 days from the date of receipt of material and acceptance of materials at Buyer/ OMC's location{s) & submission of all required documents).

1I. Taxation:

11.1. It would be the responsibility of the Seller/ Supplier to get the registration with the respective tax authorities. Any taxes/duties/levies being charged by the Seller/ Supplier would be claimed by issuing proper tax invoice indicating details/ elements of all taxes charged and necessary requirements as prescribed under respective tax laws and also to mention correct and valid registration nurnber(s) on all invoices raised on the Buyer/ OMCs.

I1.2. The Seller/ Supplier would be liable to reimburse or make good of any loss/claim by the Buyer/ OMCs towards tax credit rejected /disallowed by any tax authorities due to non-deposit of taxes or non-compliance of tax laws by the Seller.

11.3. The Seller/ Supplier will be under obligation for charging correct rate of tax as prescribed under the respective tax laws. Further the Seller/ Supplier shall avail

के.के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व वितरण / General Manager - O&D
दक्षिण मध्य अंचल- रिटेल / South Central Zone-Retail
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LTD.

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सौरभ बैनर्जी / Sourabh Banerjee
महाप्रबंधक (प्रचालन) / General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
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and pass on the benefits of all exemptions/ concessions/ benefits/ waiver or any other benefits qf similar nature or kind available under the tax laws, In no case, differential tax claims due to wrong classification of goods and/or services or understanding of law or rules or regulations or any other reasons of similar nature shall be entertained by the Buyer/ OMCs.

11.4. Modalities for lax naymont under OST: Currently, GST @ 5% is applicable on Ethanol which is used for blending in Petrol under the EBP Program. Reimbursement of tax

will be done on the basis of submission of Tax Invoice. The Seller/ Supplier shall upload the Sales Invoice of Ethanol in GSTN portal for claiming input Tax Credit. Any loss of Input Tax Credit due to non-submission of invoice or non-uploading of the tax details, within the prescribed time limits as per US'I N portal shall be deductible from the running bills of the Seller/ Supplier.

12. Bank Guarantee:

12.1. The Seller/ Supplier has to provide an unconditional and irrevocable bank guarantee ("Bank Guarantee") for a sum of Rs. 2 (Two) lakh from a bank accepted by the Buyer/ OMCs and in such form and substance as accepted by the Buyer/ OMCs for the performance of its obligations under this Agreement i.e. :supply of Ethanol. The Bank Guarantee shall remain valid until six (6) months after the expiry of the Tem1.

12.2. The Buyer/ OMCs shall have the right to enforce and encash the Bank Guarantee without any demur or protest by the Seller/ Supplier or its bank and without any notice to the Seller/ Supplier in the event of:

12.2.1. The Commercial Supply of Ethanol does not start within the specified period as per clause 4.3 due to any failure or non-performance of the Seller/ Supplier.

I2.2.2. Agreement is terminated upon breach by the Seller/ Supplier of any provision(s) of this Agreement.

13. Compliance with Safety and Laws:

13.1. The Seller/ Supplier shall follow Safety Procedures and Standards while supplying Ethanol to the Buyer/ OMCs.

13.2. The Seller/ Supplier shall at all times, observe, perfonn and carry out the directions, instructions and guidelines on safe practices, operation and functioning including those given by the Buyer/ OM Cs or its reprcscntative(s), f'om time to time.

13.3. The Seller / Supplier shall not contravene any laws or legal requirements which could reasonably be expected to have an adverse effect on its ability to meet its obligations under this Agreement or cause it to be in breach in any material respect of its obligations under this Agreement.

14. Term:

के.के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व विपणन / General Manager - O & D
दक्षिण मध्य अंचल- रिटेल / South Central Zone-Retail
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LTD.

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सौरभ बैनर्जी / Sourabh Banerje
महाप्रबंधक (प्रचालन) /General Manager (Operation
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का
INDIAN OIL CORPORATION LTD. (M.D.) (H.O
इंडियनऑयल भवन/ IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग/G-9, Ali Yavar Jung Mar
बांद्रा (पूर्व), मुंबई/Bandra (E), Mumbai - 400 05

14.1. This Agreement shall be valid for a period of up to 10 years from the date of signing, unless earlier te1minated, due to the events hereinaHcr mentioned.

15. LIABILITY FOR EXPENSES

Each pa11y shall bear its own costs/expenses incurred in connection with this Agreement and the subject matter, whether such costs/expenses were incurred before or after the date of this Agreement in negotiating, preparing and signing this Long-term offtake agreement or any amendment there of (including expenses incurred in obtaining any legal, financial or other advice).

16. CONFIDENTIALITY

The Parties agree not to disclose the Confidential Information of the other Party/disclosing Party acquired through or in pursuance of this Long-term offtake agreement.

For the purpose of this Long-term offtake agreement, the term "Confidential Information" shall mean and include without limitation, with respect to either party, any and all information in written, representational, electronic, verbal or other form, directly or indirectly to the present or potential business, operation or financial condition of or relating to the disclosing party (including but not limited to infonnation identified as being proprietary and/or confidential or pertaining to pricing, volumes, services rendered, customers and suppliers lists, financial or technical or service matters or data, employee/agent/consultant/officer/director related personal or sensitive data and any information which might reasonably be presumed to be proprietary or confidential in nature excluding any such infonnation which:

a) has become part of the public domain, other than by breach of this clause
b) is lawfully acquired by the receiving party from an independent source having no obligation to maintain the confidentiality of such info1mation
c) was known to the receiving party prior to its disclosure under Long-term offtake agreement.
d) was or is independently developed by the receiving party without breach of Long-term offt:akc agreement and which can be proved by sufficient documentary evidences; or
c) is required to be disclosed by any law, governmental or judicial order or other regulation made in accordance with the order of any court, arbitral panel or other regulatory, statutory or administrative body, in which case the receiving party shall give the disclosing party a prompt written notice, wherever possible, and use reasonable efforts to ensure that such disclosure is accorded confidential treatment and also to enable such disclosing party to seek a protective order or other appropriate remedy.
t) is required to be disclosed to Buyer's /OMC's Affiliates and professional advisors;
g) is required to disclose to any bona tide prospective transferee of the Buyer's /OMC's rights and obligations under this Abrreement (including a prospective transferee with whom a Party and/or its atliliates are conducting bona fide negotiations directed toward a merger, consolidation or the sale of a majority of its or an afftliate's shares), and any consultant retained by such prospective transferee, in order to enable such prospective transferee to assess such Pat1y's rights and obligations;

17. Representations and Warranties:

These representations and warranties shall survive the execution and delivery of this Agreement.

17.1. The Seller/ Supplier represents and warrants to the Buyer / OMCs that:

17.1.1. The Seller/ Supplier is and shall continue to be in compliance with all applicable laws.

के.के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व वितरण / General Manager - O & D
दक्षिण मध्य अंचल- रिटेल / South Central Zone-Retail
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LTD.

Sourabha Banerjee
महाप्रबंधक (प्रचालन) / General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
इंडियनऑयल भवन / IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग/G-9, Ali Yavar Jung Marg,
बांद्रा (पूर्व), मुंबई/Bandra (E), Mumbai - 400 051.

17.1.2. The Seller/ Supplier has obtained all liccn.ses, permissions, consents, approvals and authori:1..ations from any government / statutory authorities required under law, and all management and shareholder approvals necessary to enahle the Seller/ Supplier to perform its obligations under this Agreement and all such neccssaiy approvals, Iicenses, permissions, consents, approvals and authorizations are valid and cffecti ve, and covenants that the same shall remain valid and e ffective through the Term and shall obtain any additional approvals, licenses, pemtissions, consents and authorizations that are required to enahle the Buyer/ OMCs to perfonn its obi igations under this Ab>Tcement i.e., operation of the Plant and manufacture and sale to Buyer/ OMCs of the Ethanol under this Agreement and shall be solely n:spcmsihle for and indemnify Buyer/ OMCs against any costs, liabilities or fines arising out of Seller's failure to comply with any applicable requirements of such licenses. consents and approvals.

17.1.3. The Seller / Supplier and the Ethanol Plant is not under any liquidation, courl receivership, or any similar legal proceedings nor any other steps have been taken or notice received for its winding-up or dissolution.

17.1.4. The Seller/ Supplier has in place /shall have the requisite infrastructure, facilities to perform its obligations under the Agreement, and shall maintain the adequacy of its infrastructure during the period of this Agreement, without any cost to Buyer/ OMCs.

17.1.5. The Seller/ Supplier is the rightful owner of or has sutlicient right, title and interest in its Ethanol Plant, the facilities installed at its Ethanol Plant.

17.1.6. The Seller/ Supplier has clear title to the Ethanol being sold under this Agreement and the OMCs/ Duyer shall acquire the same. free from any encumbrances.

17.1.7. The Seller/ Supplier shall supply and tender for delivery at the designated dcpots(s) of the OMCs/ Buyer in the quantities, at the times and at the prices determined in accordance with, and subject to, the terms and conditions of this Agreement. and that it has necessary ability to do so.

17.1.8. There is no restriction or impediment preventing the Seller/ Supplier from selling Ethanol to the Duyer/ OMCs and from perfom,ing its obligations hereunder.

17.1.9. The Seller/ Supplier shall not without the prior written consent of Buyer/ OMCs, undertake or allow any 'Change in Constitution'. 'change in Constitution' shall mean; (a) change in sole proprietor of a sole proprietorship, (b) change in partner(s) of partnership firm or a limited liability partnership, (c) change in member of a one person company, (d) change in shareholder of a private limited company or unlisted public limited company, (e) change in 'promoter' or any member of the 'promoter group' of a listed public limited company, (I) change in committee representative (person identified as 'committee representative' in case of a registered co-operative society at the time of making an application for appointment as CS) of registered cooperative society, or (g) change in kalta of a hindu undivided family, or (h) change in legal status.

17.2. The Seller/ Supplier fulther represents and warrants to Lhc Buyer/ OMCs that:

17.2.1. it is duly incorporated an? validly exist_ulg under the laws of its place of in orpor tion and has the power, capaclLy and authority to own lls assets and to conduct its business as currcnlly conducted and as contemplated hcr!/iin;

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BIRLA ORGANIC FARMS & AGRO INDUSTRIES LLP

BHARAT PETROLEUM MUMBAI

I Sourabh Banerje
महाप्रबंधक (प्रचालन)/General Manager (Operation
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का
INDIAN OIL CORPORATION LTD. (M.D.) (H.O
इंडियनऑयल भवन/IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग/G-9, Ali Yavar Jung Ma
बांद्रा (पूर्व), मुंबई/Bandra (E), Mumbai - 400 05

17.2.2. this Agreement has been duly executed by it and is a legal, valid and binding document enforceable against it in accordance with its tenns;

17.2.3. the execution of this Agreement docs not violate any law, or any document constituting the Party, or any permit granted to such Party or any a!,'l'eement to which such Party is a party;

17.2.4. it shall always act as a reasonable and prudent operator;

17.2.5. it confirms that all its representations and warranties set forth in this Agreement arc independent of each other and truu, complete and correct in all respects at the time as of which such represcnmtions and warranties were made or deemed made, and shall continue to have full effect during the period of this Agreement; and

17.2.6. It has the necessary power to perfonn its respective obligations under this Agreement.

17.2.7. The Seller/ Supplier covenants that it will maintain accurate and complete production and delive1y records in a prudent and businesslike manner in accordance with sound commercial practices in respect of Ethanol produced by Seller/ Supplier at the Plant.

17.3. The Buyer/ OMCs Represents and Warrants to the Seller/ Supplier that:

17.3.1. The Buyer/ OMCs is and shall continue to be in compliance with all applici1ble laws.

17.3.2. The Buyer/ OMCs has obtained all governmental licenses, permissions, consents, approvals and authorizations f'om any government/ statutory authorities and all management and shareholder approvals as nccessary to enable the Buyer to perform its obligations under this A$_{g}$reement and all such necessary approvals, licenses, permissions, consenl. and authorization/i are valid and effective and covenants lhat the sume shall remain valid and effective thi·ough the Te m and shall obtain any additional approvals, licenses, permissions, consents and authorizations that arc required to enable the Buyer to perform its obligations under this Agreement.

17.3.3. The Buyer/ OMCs has in place /shall have the requisite infrastructure, facilities to perfonn its obligations under the Agreement, and shall maintain the adequacy of its infrastructure during the period of this Agreement, without any cost to Sci ler.

17.3.4. The Buyer/ OMCs shall take delive1y of Ethanol at the designated depot (s), in the quantities, at the times and at the prices detclTT1incd in accordance with, and subject to, the terms and conditions of this Agreement.

17.3.5, The Buyer/ OMCs is not under any liquidation, court receivership, or any similar legal proceedings, nor any other steps have hcen taken or notice received for its winding-up or dissolution.

17.4. The Ruyer/ OMCs further represents and warrants to the Seller/ Supplier that:

17.4.1. it is duly incorporated and validly existing under the laws of its place of incorporation and has the power, capacity and authority to own its assets and to conduct its business as currently conducted and as contemplated herein;

17.4.2. this Agreement has been duly executed by it and is a legal, valid and binding document enforceable against it in accordance with its terms;

के.के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व वितरण / General Manager - O&D
दक्षिण मध्य अंचल- रिटेल / South Central Zone-Retail
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LTD.

सौरभ बैनर्जी / Sourabh Banerjee
महाप्रबंधक (प्रचालन) / General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
इंडियनऑयल भवन / IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग / G-9, Ali Yavar Jung Marg,
बांद्रा (पूर्व), मुंबई / Bandra (E), Mumbai - 400 051.

17.4.3. the execution of this Agreement does not violate any law, or any document constituting the Party, or any permit b1fanted to such Paity or any agreement to which such Party is a party;

17.4.4. it shall always act as a reasonable and prudent operator;

17.4.5. it confirms that all its representations and warranties set forth in this Agreement arc independent of each other and true, complete and correct in all respects at the time as of which such representations and wan-anties were made or deemed made, and shall continue to have full effect during the period of this Agreement; and

17.4.6. It has the necessary power to perform its respective obligations under this Agreement.

18. Indemnity and Liability:

18.1. The Seller/ Supplier shall at all times be liable and responsible for all losses, damages, claims, actions, proceedings, costs, charges and expenses that may be suffered or incmTed by the Buyer/ OMCs, its directors, employees, Dealer and Dealer's employees and representatives due to the quality of Ethanol not meeting the Specifications, noncompliance of statutory duty or non-payment of taxes by the Seller/ Supplier.

18.2. The Seller/ Supplier shall indemnify and keep indemnified Buyer/OMCs, its Director, employees and its Dealer, their Directors and employees, against any losses, damages, claims, actions, proceedings, costs, charges and expenses that may be suffered or incun-ed by the Buyer/ OMCs on account of loss or i1jury to any per on in connection with performance of this Agreement, unless such losses, damages, claims, actions, proceedings, costs, charges and expenses arise due to gross negligence of the Buyer/ OMCs.

18.3. The Seller/ Supplier shall indemnify and defend Buyer/ OMCs, its Directors, employees, and its Dealers and their employees against expenses actually and reasonably incurred in connection with the defense of any Proceeding (civil, criminal, arbitrative etc.), in which Buyer/ OMCs and/or its Directors, employees, or Dealers and their employees are made a party by reason of Seller/ Supplier and/or its employees', members', managers', officers' or agents' commission of an act or omission that involves negligence, intentional misconduct or a violation oflhe law.

18.4. The indemnity provisions herein contained shall survive the expi$_{ry}$ or termination of this Agreement.

18.5. Unless otherwise provided in this Agreement, neither Party shall be liable for any remote, consequential, punitive and indirect loss or damage sustained by it as a result of any act or omission in the course of or in connection with the performance of this Agreement.

19. TERMINATION:

K.K. K\SHORE
General Manager
South Cantral Zone

CORPORATION LTD.

Page 14 of 25

सौरभ बैनर्जी / Sourabh Banerje
महाप्रबंधक (प्रचालन)/General Manager (Operation
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का
INDIAN OIL CORPORATION LTD. (M.D.) (H.O
इंडियनऑयल भवन/ IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग/G-9, Ali Yavar Jung Mar
बांद्रा (पूर्व), मुंबई/Bandra (E), Mumbai -

19.1. Event of Termination:

19.1.1. The Seller/ Supplier may at any time, by rendering a thirty (30) days written notice to Buyer/ OMCs, terminate this Agreement, if

a. The Buyer/ OMCs fail to comply with any of its obligations or undertaking or commits any breach of the covenants or conditions that shall be observed, performed or fulfilled on its part; or

b. Any representation or warranty by the Buyer/ OMCs given herein or in pursuance of this Agreement is found to be incorrect; or

c. The Buyer/ OMCs cease to carry on its business or suspends all or substantially all of its operations; or

d. The Buyer/ OMCs are unable to pay its debts or becomes unable to pay its debts as and when due or makes any composition or arrangement with or for the benefit of its creditors; or

e. A liquidator, receiver or administrator or any beneficiary under an encumbrance takes possession of or is appointed over the whole or any pati of the assets of the Buyer/ OMCs; or

t. A resolution for winding up of the Buyer/ OMCs is passed or a petition for its winding up is filed against the Buyer/ OMCs; or

g. There is any material adverse change or any change in applicable law, rules, regulations, directives or guidelines which prevent the purchase/ sale of Ethanol; or

h. Any consent, approval, license or pem1ission required by the Buyer/ OMCs lo enabh: ii to can-yon its business or1o sell Ethanol is suspended, canceled; or withdrawn or expires and is not renewed despite efforts by the Buyer/ OMCs.

19.1.2. The Buyer/ OMCs may at any time, by rendering a thirty (30) days written notice to the Seller, terminate this agreement it;

a. The Seller/ Supplier fails to comply with any of its obligations or undertakings or commits any breach of the covenants or conditions, representations and/or warranties that shall be observed, performed or fulfilled on its part or fails to make regular supply of Ethanol and as per the quality Specifications.

b. The Seller/ Supplier fails to commence supplies within the specified period as per clause 4.1.

c. The Seller/ Supplier ceases to carry on its business or suspends all or substantially all of its operation; or

d. A liquidator, receiver or administrator or any beneficiary under an encumbrance takes possession of or is appointed over the whole or any part of the assets of the Seller/ Supplier or initiation of corporate insolvency resolution process; or

e. A resolution for winding up of the Seller/ Supplier is passed or a petition for its winding up is filed against the Seller/ Supplier; or

के.के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व वितरण / General Manager - O & D
दक्षिण मध्य जंक्शन- रिटेल / South Central Zone-Retail
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LTD.

सौरभ बैनर्जी / Saurabh Banerjee
महाप्रबंधक (प्रचालन) / General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
इंडियनऑयल भवन / IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग / G-9, Ali Yavar Jung Marg,
बांद्रा (पूर्व), मुंबई / Bandra (E), Mumbai - 400 051.

f. Any consent, approval, license or pennission required by the Seller to enable it to carry on its business or to sell Ethanol is suspended, cancelled or withdrawn or expires and is not renewed despite efforts by the Seller/ Supplier; or

g. The Seller/ Supplier causes or permits any Change in its Constitution without prior written consent of the Buyer/ OMCs; or

h. If bank guarantee is not submitted/ renewed by the Seller/ Supplier withi11 the stipulated time frame; or

l. An event of force m jeurc or its effoct, affecting the performance of this Agreement, persists beyond a period of one hundred and twenty (120) days f'om the date when such event of force majeure occurred; or

j. There is any violation on the part of the Seller/ Supplier pertaining to any tenns & condition of the EOI /Application/ LOI.

19.1.3. Notwithstanding anything contained above, if there is any material adverse change or any change in applicable law, rules, regulations, directives or guidelines which prevent the sale / supply of Ethanol, then in that case, without prejudice to any other right or remedy available to the Buyer/ OMCs, the Buyer/ OMCs may tenninate this Agreement immediately by giving seven (7) days' notice to the Seller.

19.2. Effect ofTennination:

19.2.1. Unless termination is on account of clause *19.* l.2(a), l*9.* l.2(b) or I9. l.2(c), upon the termination of this Agreement, the Buyer/ OMCs shall forthwith pay to the Seller/ Supplier the Supply Price for all Ethanol supplied from the date of the lasl invoice by the Seller/ Supplier to the 811yer/ OMCs till the date of tcm1ination of this Agreement in accordance with the provisions of Clause 7.

19.2.2. In the event the Agreement is terminated on account of clause I9. l.2(a) or I9. l.2(b), without prejudice to its other rights, the Buyer shall also be entitled to continue to make sales of the unsold Ethanol at the risk and cost of the Seller.

19.3. Obligations to Survive Termination:

The tennination of this Agreement for any reason shall not relieve or affect the rights or remedies of either Party in relation to any accrued rights or unperformed obligations, arising prior to or upon the date of such tcnnination and shall not affect any claims which a Pa1ty may have against the other Party with respect to any antecedent breach.

Further, any provision of this Agreement, which, by its express tenns or nature and context is intended to survive termination or expiration of this Agreement, shall survive any such termination or expiry, such as fndemnity, Confidentiality, Governing Law, Dispute Resolution, Jurisdiction.

20. Force Majelll'e:

20.1. Definition: The term Force Majeure means any event or circumstance or combination of events or circumstances that affects the performance by the vendor of its obligations pursuant to the terms of this Agreement (including by preventing, hindering or delaying such performance), but only if and to the extent that such events and

के.के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व वितरण / General Manager - O&D
दक्षिण मध्य अंचल- रिटेल / South Central Zone-Retail
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LTD.

सौरभ बैनर्जी / Sourabh Banerjee
महाप्रबंधक (प्रचालन) / General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
इंडियनऑयल भवन / IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग / G-9, Ali Yavar Jung Marg,
बांद्रा (पूर्व), मुंबई / Bandra (E), Mumbai - 400 051.

circumstances are not within the vendors reasonable control and were not reasonably foreseeable and the effects of which the vendor could not have prevented or overcome by acting as a Reasonable and Prudent person or, by the exercise of reasonable skill and care. Force Majeure events and circumstances shall in any event include the following events and circumstances to the extent they or their consequences satisfy the requirements set forth above in this Clause: the effoct of any element or other act of God, including any storm, tlood, drought, lightning, earthquake, tidal wave, tsunami, cyclone or other natural disaster;(ii) fire, accident, loss or breakage of facilities or equipment, structural collapse or explosion; epidemic, plague or quarantine; air crash, shipwreck, or train wreck; acts of war (whether declared or undeclared), sabotage, terrorism or act of public enemy (including the acts of any independent unit or individual engaged in activities in fi.irtherance of a programme of irregular warfare), acts of belligerence of foreign enemies (whether declared or undeclared), blockades, embargoes, civil disturbance, revolution, rebellion or insurrection, exercise of military or usurped power, or any attempt at usurpation of power; (vi) radioactive contamination or ionizing radiation;

20.2. Notice and Rep011ing:

The Supplier shall as soon as reasonably practicable after the date of commencement or the event of Force Majeure, but in any event no later than seven (7) days after such commencement date, notify the Buyer/ OMCs in writing of such event of Force Majeure and provide the following information:

reasonably full particulars of the event or circwnstancc of Force Majeure and the extent to which any obligation will be prevented or delayed; such date of commencement and an estimate of the period of time required to enable the vendor to resume foll perfonnance of its obligations; and all relevant information relating to the Force Majeure and full details of the measures the vendor is taking to overcome or circumvent such Force Majeure.

The Supplier shall, throughout the period during which it is prevented from performing, or delayed in the performance ot: its obligations under this Agreement, upon request, give or procure access to examine the scene of the Force Majeure including such information, facilities and sites as the other Party may reasonably request in connection with such event. Access to any facilities or sites shall be at the risk and cost of the Party requesting such information and access.

20.3. Mitigation Responsibility:

The Supplier shall use all reasonable endeavours, acting as a Reasonable and Prudent Person, to circumvent or overcome any event or circumstance of Force Majeure as expeditiously as possible, and relief under this Clause shall cease to be available to the Vendor claiming Force Majeure if it fails to use such reasonable endeavours during or following any such event of Force Majeure.

The Supplier shall have the burden of proving that the circumstances constitute valid grounds of Force Majcure under this Clause and that it has exercised reasonable diligence efforts to remedy the cause of any alleged Force Majeurc. The Supplier shall notify OMCs when the Force Majeure has terminated or abated to an extent which permits resumption of performance to occur and shall resume performance as expeditiously as possible alter such termination or abatement.

Consequences of Force Majeure. Prov'i&:nm the Supplic has compli d continues to comply with the obligations of this int\ l to the fmth r. pmvil11"

K K KISHORE
General Manager-O&D
South Zone-Retail

General Manager (Operations)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
IndianOil Bhavan,
G-9, Ali Yavar Jung Marg,
Bandra (E), Mumbai - 400 051.

a. Llie obi igarions of the Par1ies under this Agreement lo the c-tent pcl'fonnance lhcreOf is prevented or impeded by lhe event of force Majourc shall be suspended and the Parties shal I not be liable for the non-perfonnancc thcrcor for the durnli0n or the period of Force Majcurc; and

b. the time period(s) for the performance of the obligations of the Parties under this

Agreement to the extent perfonnance thereof is prevented or impeded by the event of Force Majeure shall be extended for the duration of the relevant period of Force Majeure except as provided herein.

20.4. Force Majeure Events Exceeding 60 Days

If an event or series of events (alone or in combination) of Force Majeure occur, and continue for a period in excess of 60 consecutive days, then OMCs shall have the right to terminate this agreement, whereupon the Parties shall meet to mitigate the impediments caused by the Force Majeure event.

20.5. Special instructions for Force Majeure Clause as appearing in Pllrchase Agreement shall be binding on the Seller/ Supplier.

21. Governing Law and Jurisdiction:

This Agreement shall be governed and construed in accordance with the laws oflndia including without limitation, the relevant Central and State acts and the rules, regulations and notifications issuea and amended there under from time to time; and subject to Clause 23 below, the courts of Mumbai shall have exclusive jurisdiction in relation to all disputes arising from or relating to the Agreement.

22. Dispute Resolution:

22.1. A Dispute shall be deemed to have arisen under this Agreement, when either Paily notifies the other Party of any issue, difforence or dispute in writing to that effect. (" Dispute").

22.2. Any Dispute arising out of this Agreement shall be resolved amicably through discussions in good faith with a view to expeditiously resolve such Dispute. In the event the Dispute cannot be resolved amicably within a period of thirty (30) days from the date of its occurrence, either Party may refer the Dispute for resolution through conciliation in accordance with provisions of Buyer/ OMCs Conciliation Rules, if applicable or available.

22.3. In the event of non-resolution of Dispute by conciliation within a period of sixty (60) days (or any period thereafter, which the Parties may agree to mutually extend) or on nonapplicability of Conciliation Rules applicable to OMCs/ Buyer or on non-availability of Conciliation Rules with the OMC then in the event the dispute cannot be resolved amicably within a period of 30 days from the date its occurrence, the Parties agree that any dispute or difference whatsoever arising out of or in connection with this Agreement including any question regarding its existence, validity, construction, interpretation, application, meaning, scope, operation or effect of this contract or termination thereof shall be referred to and finally resolved through arbitration as per the procedure mentioned herein below:

K. KISHORE
General Manager
Retail
CORPORATION LTD.

/ Saurabh Jec
(Operations)
INDIAN OIL CORPORATION LTD. (M.O) (H.C.)
Indian Oil Bhavan,
G-9, Ali Yavar Jung Marg,
Bandra (E),

a. The dispute or difference shall in any event be referred only to a Sole Arbitrator

b. The appointment and arbitration proceedings shall be conducted in accordance with the SCOPE Forum of Arbitration Rules for the time being in force or as amended from time to time

c. The Seat of arbitration shall be at Mumbai

d. The proceedings shall be conducted in English language.

e. The cost of the proceeding shall be equally borne by the parties, unless otherwise directed by the Sole Arbitrator

22.4. When a matter is referred to resolution under this Clause 22, it shall not prevent or constitute a valid excuse for either Party from performing their respective obligations (to the extent possible) under this Agreement.

23. Miscellaneous:

23.1. Relationship:

Nothing contained in this A!,Jfeement shall constitute partnership, agency or joint venture between the Parties nor shall any relationship of employer or employee be deemed to be created between Seller/ Supplier and Buyer/ OMCs. Neither Party shall be liable for the acts of commission or omission of other Party or its employees, personnel or representatives.

23.2. Benefits of this Agreement:

This Agreement and the respective rights and obligations of the Parties hereto under this Agreement shall inure to the benefits of and be binding on their respective successors and permitted assigns.

23.3. Assignment:

Neither Party shall assign this Agreement or all or any of its rights or obligations hereunder to any person, without the prior written consent of the other Party.

23.4. Costs and Expenses:

Each Party shall bear its own expenses in connection with negotiation and finalization of this Agreement.

23.5. Partial Invalidity:

If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of the Agreement shall not be affected thereby.

23.6. fwthe, Acts:

/ K.K. KISHORE
General Manager, South Central Zone-Retail
HINDUSTAN PETROLEUM CORPORATION LTD.

SURALA ORGANIC FARMS & AGRO INDUSTRIES LLP

/ Sourabh Banerjee
/General Manager (Operations)
Indian Oil CORPORATION LTD. (M.O.) (H.O.)
/IndianOil Bhavan,
G-9, Ali Yavar Jung Marg,
Bandra (E), Mumbai - 400 051.

Each of the Parties hereto undertakes to execute, do and take all such steps as may be required to give effect to the provisions of this Agreement.

23.7. Modification:

No tenn of this Agreement shall be amended, changed or modified unless such amendment, change or modification is mutually agreed to in writing by and between the Parties.

23.8. Waiver:

The waiver by any party hereto of a breach of any provision of this Agreement shall not operate or be construed as a waiver of any other or subsequent breach.

23.9. Entirety of Agreement:

This Agreement constitutes and contains the entire agreement between the Parties relating to the supply of Ethanol during the Term and, except for this Agreement, no prior promises, agreements, warranties, or understandings whether written or oral, shall be of any force or eftect.

23.10. Compliance with Laws:

"Buyer/ OMCs" and "Seller/ Supplier" shall perform their obligations in strict compliance with all applicable laws in India, along with rules and regulations of duly constituted Governmental Authorities in India and shall obtain all licenses, registrations or other approvals, if any, required by laws in India in connection with this Agreement.

23.11. Exclusivity:

Subject to the terms and conditions of this Agreement, during the Term of this Agreement, the Seller/ Supplier shall not enter into any similar agreement with any third party pertaining to supply of Ethanol from the Ethanol Plant.

24. AMENDMENTS

This Agreement may be amended only upon mutual consent of the Parties in writing.

25. NOTICES

25. I. All notices or demands or other communications given or made under this Agreement shall be in writing and be made in English language. A notice may be delivered personally, sent by prepaid registered post, or facsimile or an email. 0ml communication, however, do not constitute notice for purposes of this Agreement.

For BPCL, To,
Executive Director (Retail)
Bharat Petroleum Corporation Limited
12th Floor, E&F Maker Towers,
Cuffe Parade, Mumbai 400 005

k
I K.K. KISHORE
/Gener.ii Manager-O & D
I South Central Ione-Retell
HINDuSTAN PE1ROLEU!, CORPOM toN LID.

सौरभ बैनर्जी / Sourabh Banerjee
महाप्रबंधक (प्रचालन) /General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
इंडियनऑयल भवन/IndianOil Bhawan,
जी-9, अली यावर जंग मार्ग/G-9, Ali Yavar Jung Marg,
बांद्रा (पूर्व), मुंबई/Bandra (E), Mumbai

For IOCL To,
Executive Director (Supplies)
G-9, Ali Yavar Jung Marg,
Bandra (East), Mumbai-400051

For HPCL, To,
Executive Director -Supplies, Operations & Distribution,
Hindustan Bhawan, S V Marg, Fort, Mumbai-400001

25.2. Any such notice, demand from the sender shall be deemed to have been duly served if given personally on delivery thereof to the address of the recipient or made by facsimile transmission immediately on receipt of the transmission report by the sender, by email after ___ hour(s) of sending, or given by registered post three days after the date of posting the same by registered post.

25.3. The above addresses may be changed by two (2) weeks written notice thereof to the other Party.

26. Counter Parts:

This Agreement may be executed in counter parts, each of which when executed and delivered shall constitute a duplicate original but each of which when taken together shall constitute one and the same agreement.

IN WITNESS WHEREOF the Parties hereto have executed these presents on the day and year first hereinabove mentioned.

SIGNED FOR AND ON BEHALF OF BUYER/ OMCs (BHARAT PETROLEUM CORPORATION LIMITED/ INDIAN OIL CORPORATION LIMITED/ HINDUSTAN PETROLEUM CORP. LTD)

By:

P S Ravi
ED-Retail BPC

BHARAT PETROLEUM CORPN. LTD. MUMBAI

By:

R K Sayal
ED-Supplies IOC

SOURABH BANERJEE
GM OPS IOL

Sourabh Banerjee
/General Manager (Operations)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
IndianOil Bhavan,
G-9, Ali Yavar Jung Marg,
/Bandra (E), Mumbai - 400 051.

By:

K K Kishore
GM-Operations & Distribution SCZ, HPC

/ K.K. KISHORE
/ General Manager- O &D
/ South Central Zone-Retail
HINDUSTAN PETROLEUM CORPORATION LTD.

JURALA ORGANIC FARMS & AGRO INDUSTRIES LLP

Witness
1. ANURAG SARAOGI, CGM Biofuels(Retail), HQ, BPCL
2. SHRUTIK KAKHECHA, mngr(ops) HO, IOCL
3. R. D. VAITY GM Biofuels HPCL HQO

SIGNED FOR AND ON BEHALF OF SELLER/ SUPPLIER

By: For JURALA ORGANIC FARMS & AGRO INDUSTRIES LLP

Authorised Signatory

(Signature)

Name and Designation: Dr. T. KIRAN KUMAR DIRECTOR

Witness
1. KSR Krishna [K. SIVARAMA KRISHNA, DIRECTOR) JURALA ORGANIC FARMS & AGRO INDUSTRIES LLP HYDERABAD
2.

K.K. KISHORE
General Manager - Biofuels & D
South Central Zone - Retail
HINDUSTAN PETROLEUM CORPORATION LTD.

BHARAT PETROLEUM CORPN. LTD. MUMBAI

/ Sourabh Banerjee
/ General Manager (Operations)
INDIAN OIL CORPORATION LTD. (M.O.) (H.O.)
/ IndianOil Bhavan,
G-9, Ali Yavar Jung Marg,
/ Bandra (E), Mumbai. 400 051.

JURALA ORGANIC FARMS & AGRO INDUSTRIES LLP

ANNEXURE-- I

SUPPLY PRICE OF ETHANOL/ RATES OF ETHANOL

A) In line with MoPNG notification dated 17.11.21 the price of Ethanol for Ethanol Supply Year 2021-22 from O1 December 2021 to 30 November 2022 is fixed as below:

- The price of ethanol from C heavy molasses route is fixed at Rs.46.66 per litre.
- The price ofctl1anol from B heavy molasses route is fixed at Rs.59.08 per litre.
- The price **of** ethanol from sugarcane juice/sugar/sugar syrup route is fixed at Rs.63.45 per litre.

OMCs arc guided by MOP&NG circulars/ PIB notifications regarding prices of ethanol for EBP Program. Rate for ethanol derived from damaged food grains unfit for human consumption/Maize is Rs.52.92 per litre and rate for ethanol derived from Surplus Rice procured from FCI has been fixed as Rs.56.87 per litre (in case of upward revision by FCI in the price of surplus rice, refer formula provided in Evaluation/Order Award Criteria for revised price)

Ethanol manufactured from Special Denatured Spirit (SDS), Extra Neutral Alcohol (ENA), Rectified Spirit (RS) etc. which have been manufactured from C-Heavy molasses are to be categorized in C-Heavy molasses and to be quoted under the respective column in the price bid form accordingly. Similarly Ethanol manufactured f'om Special Denatured Spirit **(SOS),** Extra Neutral Alcohol (ENA), Rectified Spirit (RS) etc. which has been manufactured Sugarcane Juice/Sugar/Sugar Syrup or B-Heavy Molasses or from Damaged Food Grains, Maize/Surplus Rice procured from FCI are to be categorized and quoted under the respective column in the price bid form accordingly.

8) The following transportation rates shall be applicable and will be paid to bidders for supply of ethanol:

Slabs (One way distance in km)	**Transportation Rates (Rs./kl)**
0 to 75	163
>75 to 200	373
>200 to 400	793
>400 to 600	1328
>600 to 800	1864
>800 to 1000	2632
> 1000 to 1200	3451
>1200	Per kl rate shall be Rs. 3451 t-2.59 for additional KM beyond 1200 KM

- Distance slabs of the distillery unit of Bidders is the one way distance in KM, between nearest OMC in gate and the Distillery unit's out **gale.**

Escalation clause is applicable on transportation rates which is linked with HSD rate as per latest EOI

के.के. किशोर / K.K. KISHORE
महा प्रबंधक-परिचालन व वितरण / General Manager - O & D
दक्षिण मध्य अंचल- रिटेल / South Central Zone-Retail
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LTD.

सौरभ बैनर्जी / Sourabh Banerjee
महाप्रबंधक (प्रचालन) / General Manager (Operations)
इंडियन ऑयल कॉर्पोरेशन लिमिटेड (वि.प्र.)(प्र.का.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
इंडियनऑयल भवन / IndianOil Bhavan,
जी-9, अली यावर जंग मार्ग/G-9, Ali Yavar Jung Marg,
बांद्रा (पूर्व), मुंबई / Bandra (E), Mumbai - 400 051.

C) Goods and Service Tax (GST) in%: OST @5% is applicable for HSN code 2207 for Ethanol.

D) Delivered cost will be total of administered price/rate for Ethanol, transportation rates and GST as applicable. In case of revision in the Administered price of Ethanol by Govt. of India, effective date for implementation of new Administered price of Ethanol will be either the date of Press Information Bureau (PIB) release or as mentioned in PIB Note or as advised by Govt. of India to OMCs.

In the states where Industries (Development & Regulation) Amendment Act **(IDR)** Act is being implemented or will be implemented at future dale, all the conditions mentioned by state government have to be complied by the successful bidders.

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HINDUSTAN PETROLEUM CORPORATION LTD.

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qq, (1;[i{J) /Genera! Manager (Operations)
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INDIAN OIL CORPORATION LTD. (M.D.) (H.O)
"qcA/IndianOil Bhavan,
-Rt-9, 3Rit ufll irPf/G-9, Ali Yavar Jung Marg,
('gf), / Sandra (E), Mumbai - 400 051

Annexure-JI

Other details pertaining to the application:

Details	Reference
Bank Guarantee	00080100006902
BG Name of the Bank	Axis Bank
BG Amount	Rs. 200000
BG Valid upto	14-07-2032
Financial Capacity	More than or equal to Rs. 18 Crores as per net worth cert. dated 11.9.21
Environmental Clearance	NA
Consent to Establish	NA
Assured power availability	NA
Use of non-coal/non-oil/other renewable energy source	NA
PESO Initial approval	NA
State Govt Approval	NA
Proximity of the proposed plant from OMC (within 250KM/Beyond 250KM)	Submitted map

/ K.K. KISHORE
/General Manager - O & D
/ South Central Zone-Retail
HINDUSTAN PETROLEUM CORPORATION LTD.

सौरभ बैनर्जी / Sourabh Banerjee
/ General Manager (Corp. Strat.)
INDIAN OIL CORPORATION LTD. (M.D.) (H.O.)
IndianOil Bhavan
G-9, Ali Yavar Jung Marg
/ Bandra (E), Mumbai

BEFORE THE NATIONAL GREEN TRIBUNAL

SOUTHERN ZONE, CHENNAI

APPEAL No. 40 OF 2022 (SZ)

IN THE MATTER OF:

Kalal Muhindar Narendargoud & Others

... Applicant

Versus

Union of India & Others

...Respondents

REPLY FILED ON BEHALF OF THE 4TH RESPONDENT

M/S. K.S. VISWANATHAN & T.HEMALATHA

COUNSEL FOR RESPONDENT No. 4