

# **FORM-1**

**FOR**

**Proposed 180 KLPD Grain based  
Ethanol Plant along with  
4.0 MW Cogeneration Power Plant**

**At**

**Village : Biana & Randauli, Tehsil Indri,  
District: Karnal, Haryana**

**// APPLICANT //**

**M/s. Iris Fuel India Private Limited**

**Regd. Address: Plot No. 3, Bichpari Chowk,  
Barsat Road, Panipat, Haryana - 132103  
E-mail - irisfuelindia@gmail.com**

**APPENDIX – I**

**(See paragraph – 6)**

**FORM 1**

**(I) Basic Information**

1.	Name of the Project	:	Proposed 180 KLPD Grain based Ethanol Plant along with 4.0 MW Cogeneration Power Plant at Village Biana & Randauli, Tehsil Indri, District Karnal, Haryana by M/s. Iris Fuel India Private Limited
2.	S. No. in the schedule	:	The proposed activity is covered under MoEFCC Notification S.O. 2339(E) dated 16 <sup>th</sup> June, 2021 a special provision in the EIA Notification, 2006- (Schedule 5 (ga), Category B2). As per the notification, 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 with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.
3.	Proposed capacity /area/length/tonnage to be handled/command area/lease area/number of wells to be drilled	:	<ul style="list-style-type: none"> <li>Proposed Capacity – 180 KLPD Grain based Ethanol Plant and 4.0 MW Cogeneration Power Plant</li> <li>Total Project Area: 8.44 ha (20.85 acres).</li> </ul>
4.	New/Expansion/Modernization	:	New
5.	Existing Capacity/Area etc	:	Not Applicable
6.	Category of Project i.e. 'A' or 'B'	:	Category 'B2'
7.	Does it attract the general condition? If yes, please specify	:	Haryana & Uttar Pradesh Interstate boundary (~3.5 km in ESE direction)
8.	Does it attract the specific condition? If yes, please specify.	:	No, it does not attract the specific condition
9.	Location		
	Plot/ Survey / Khasra No.	:	Village Biana - 140/9, 140/10, 140/11, 140/12, 140/13/1, 140/13/2, 140/13/3, 140/18, 140/19, 140/20, 140/22/1, 140/22,2, 140/23, 141/6/1, 141/6/2/1, 141/6/2/2, 141/7/1, 141/7/2, 141/8/1, 141/8/2, 141/13, 141/14/1/1, 141/14/1/2, 141/14/2/2, 141/14/2/1, 141/15/2, 141/15/1, 141/16, 141/17 Village Randauli - 45/21, 45/22, 46/16, 47/1/1, 47/1/2, 47/2/1, 47/2/2, 47/9, 47/13, 47/18/1, 47/18/2, 47/23
	Village	:	Biana
	Tehsil	:	Indri
	District	:	Karnal
	State	:	Haryana
10	Nearest railway station/airport along with distance in KMs		Karnal (~21.0 km in SW direction) Chandigarh International Airport (~100 km in NNW direction)

11.	Nearest Town, City, District Headquarters along with distance in Kms.	Indri (~9.0 km in NW direction) Karnal (~20.0 km in SW direction)
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	Sarpanch: Mrs. Mamta (Village Biana) Phone no: 9034400417 Address: VPO Biana, Tehsil Indri District Karnal - 132041
13.	Name of the applicant	M/s Iris Fuel India Private Limited
14.	Registered Address	: Plot No. 3, Bichpari Chowk, Barsat Road, Panipat, Haryana 132103
15.	Address for correspondence:	:
	Name	: Rajiv Khurana
	Designation (Owner/Partner/CEO)	: Executive Director
	Address	: Plot No. 3, Bichpari Chowk, Barsat Road, Panipat, Haryana 132103
	Pin Code	: 132103
	E-mail	: <a href="mailto:irisfuelindia@gmail.com">irisfuelindia@gmail.com</a> & <a href="mailto:rajivkhurana1977@gmail.com">rajivkhurana1977@gmail.com</a>
	Telephone No.	: <b>+91-7056356234</b>
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet	: No alternative site has been taken into consideration.
17.	Interlinked Projects	: There are no interlinked projects related to this project.
18.	Whether separate application of interlinked project has been submitted	: Not Applicable
19.	If yes, date of submission	: Not Applicable
20.	If no, reason	: Not Applicable
21.	Whether the proposal involves approval/clearance under: If yes, details of the same and the status to be given (a)The Forest (Conservation) Act, 1980 (b) The Wildlife (Protection) Act, 1972 (c) The C.R.Z Notification, 1991	: The proposal does not involve any approval /clearance under any act as mentioned in the condition.  No No No
22.	Whether there is any Government Order/Policy relevant/relating to the site	: No
23.	Forest land involved (hectares)	: No forest land is involved in the proposed project.
24.	Whether there is any litigation pending against the project and / or land in which the project is proposed to be set up (a) Name of the Court (b) Case No. (c) Orders/directions of the Court, if any and its relevance with the proposed project.	: No litigation is pending against the project.

**(II) Activity**

**1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)**

<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes/ No</b>	<b>Details there of (with approximate quantities /rates, wherever possible) with source of information data</b>
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	<b>Yes</b>	The total project area is 8.44 ha which is already under the possession of the company. Letter from Directorate of Town & Country Planning, Haryana via Memo No. E-Diary-171335/2022/TCP-OFA/1325/2022 dated 06/07/2022, the project site for proposed Ethanol plant falls outside the boundary of the Controlled Area or Urban Area. The topography of the core zone is flat. After installation of the plant, about 33% of the total project area will be covered under greenbelt & plantation i.e 2.8 ha, which will contribute to increase the aesthetic beauty of the area and reduction of pollution.
1.2	Clearance of existing land, vegetation and buildings?	<b>No</b>	The proposed project site is more or less flat and only little leveling, cutting and filling of ground will be required for construction. Minor vegetation is scattered in the form of bushes which will be cleared for the construction of various units of proposed Ethanol Plant.
1.3	Creation of new land uses?	<b>Yes</b>	The total project area is 8.44 ha which is already under the possession of the company. Letter from Directorate of Town & Country Planning, Haryana via Memo No. E-Diary-171335/2022/TCP-OFA/1325/2022 dated 06/07/2022, the project site for proposed Ethanol plant falls outside the boundary of the Controlled Area or Urban Area. Hence, no CLU is required for the project.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	<b>Yes</b>	Site specific geotechnical and sub-surface investigations will be carried out before construction of Ethanol Plant & Power Plant.
1.5	Construction works?	<b>Yes</b>	Construction will be done for installation of Ethanol Plant, power plant and required storage facilities & utilities etc.
1.6	Demolition works?	<b>No</b>	No demolition work is required.
1.7	Temporary sites used for construction works or housing of construction workers?	<b>Yes</b>	Local people will be preferred for the construction purpose; housing facilities may not be required for them. However, all required amenities / facilities will be provided for construction workers at site such as rest shelters, portable toilet, facilities

			for drinking water etc.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	<b>Yes</b>	There will be excavation, cut and fill during the process of construction for proposed project.
1.9	Underground works including mining or tunneling?	<b>Yes</b>	Underground works like mining or tunneling are not envisaged, however for construction of ethanol plant& power plant subsurface work like laying of foundation, piling etc. will be done as part of civil construction.
1.10	Reclamation works?	<b>No</b>	No reclamation work is required. However, materials especially top soil excavated during the civil works will be used for greenbelt development / plantation.
1.11	Dredging?	<b>No</b>	No dredging is involved.
1.12	Offshore structures?	<b>No</b>	Not Applicable
1.13	Production and manufacturing processes?	<b>Yes</b>	<b>Grain Based Ethanol Plant:</b> <ol style="list-style-type: none"> <li>1. Grain storage</li> <li>2. Grain cleaning, milling and flour handling</li> <li>3. Slurry preparation &amp; liquefaction</li> <li>4. Fermentation</li> <li>5. Multi pressure distillation</li> <li>6. Multi Effect Evaporator &amp; Dryer</li> <li>7. Alcohol daily receivers &amp; bulk storage</li> </ol> <i>Manufacturing process details are described in Pre-Feasibility Report.</i>
1.14	Facilities for storage of goods or materials?	<b>Yes</b>	Materials required for process like grains will be stored in silos/Covered Shed. Finished product (Ethanol) will be initially collected in respective daily receivers and then transferred to bulk storage tanks. DWGS/DDGS will be packed in bags and stored in covered sheds/go downs. Fuel like Biomass-Rice husk/agrowaste will be stored in covered sheds only.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	<b>Yes</b>	<b>Solid Waste</b> <ul style="list-style-type: none"> <li>• Ash (40 TPD) generated from the boiler will be used for brick manufacturing. The company will be exploring opportunities for installation of in-house briquetting unit inside plant premises.</li> <li>• DDGS (88 TPD) will be utilized as Cattle, poultry and fish feed ingredients.</li> </ul> <b>Liquid effluent</b> <ul style="list-style-type: none"> <li>• Grain Slops (1167 TPD) will be taken through Centrifuge</li> </ul>

			<p>Decaners for separation of Suspended Solids separated as Wet Cake &amp; will then be treated in Multi Effect Evaporator followed by DWGS dryer to finally obtain DDGS (88 TPD) (Cattle, poultry and fish feed).</p> <ul style="list-style-type: none"> <li>Process condensate &amp; other wastewater will be treated in CPU/ETP of Capacity 1200 KLPD and recycled within plant premises.</li> </ul>
1.16	Facilities for long term housing of operational workers?	<b>Yes</b>	The operational workers will be employed from nearby area, who may commute daily from their residence for work therefore; no long-term housing will be required. Also, nearest towns are Indri (~9.0 km in NW direction) & City Karnal (~20.0 km in SW direction) from the project site; employees may also be accommodated there. Transport and other facilities will be provided by the company.
1.17	New road, rail or sea traffic during construction or operation?	<b>Yes</b>	During construction phase, incremental traffic load on nearby SH 7 & NH-44 will be marginal. During operation phase, all Raw materials and finished product transport will be done considering 100 % transportation by road, therefore road traffic will be increased after the proposed project.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	<b>Yes</b>	Proposed project is situated near SH 7 (~9.5 km in WNW direction) & NH 44 (~18 Km in SW direction). Existing infrastructure will be sufficient for this project, thus, no new road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc. will be required.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	<b>No</b>	There will be no closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements will be required for proposed project.
01.20	New or diverted transmission lines or pipelines?	<b>No</b>	No new or diverted transmission lines or pipelines are proposed.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	<b>No</b>	There is no impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers.
1.22	Stream crossings?	<b>No</b>	There is no stream crossing through the proposed site.
1.23	Abstraction or transfers of water from ground or surface waters?	<b>Yes</b>	Total fresh water requirement will be 990 KLPD which will be sourced from Ground water.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	<b>No</b>	Topography of the land is more or less flat which may require little leveling / cutting and filling for construction of the project. No change in the water bodies or the land surface

			affecting drainage or runoff envisaged.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	<b>Yes</b>	Local people will be deployed for construction purpose; thus, no transportation facility will be required.  Transport arrangements will be provided for operational workers coming from nearby villages / towns from where they can commute to and from for work.  There will be transportation of material and machinery during construction & operational phase by road.
1.26	Long-term dismantling or decommissioning or restoration works?	<b>No</b>	No long-term dismantling or decommissioning or restoration works is required.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	<b>No</b>	Not Applicable.
1.28	Influx of people to an area in either temporarily or permanently?	<b>Yes</b>	Temporary or permanent influx of people will be there as the managerial and supervisory staff will be recruited from different areas. During construction phase approx. 150 persons will be required. Total manpower required during the operational phase of the project will be 200 persons. Preference will be given to the nearby villages as per eligibility.
1.29	Introduction of alien species?	<b>No</b>	Introduction of alien species is not envisaged. The plant species will be native and selected in consultation with the Local Forest Department and local people.
1.30	Loss of native species or genetic diversity?	<b>No</b>	No such case is reported from the area so far neither envisaged.
1.31	Any other actions?	<b>No</b>	Not Applicable

**2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):**

<b>S. No.</b>	<b>Information/checklist confirmation</b>	<b>Yes/ No</b>	<b>Details thereof (with approximate quantities/ rates, wherever possible) with source of information data</b>
2.1	Land especially undeveloped or agricultural land (ha)	<b>Yes</b>	The total project area is 8.44 ha (20.85 acres) which is already under the possession of the company. Letter from Directorate of Town & Country Planning, Haryana via Memo No. E-Diary-171335/2022/TCP-OFA/1325/2022 dated 06/07/2022, the project site for proposed Ethanol plant falls outside the boundary of the Controlled Area or Urban Area. Hence, no

			CLU is required for the project.
2.2	Water (expected source & competing users) unit: KLPD	<b>Yes</b>	Total fresh water requirement will be 990 KLPD which will be sourced from Ground water.
2.3	Minerals (MT)	<b>No</b>	No minerals use is envisaged.
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	<b>Yes</b>	Construction material as available locally such as sand, reinforcement steel, cement etc. will be used. The quantification of the materials will be done during detailed engineering stage.
2.5	Forests and timber (source – MT)	<b>No</b>	No forests and timber will be used.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	<b>Yes</b>	Total power requirement will be around 4 MW; which will be sourced from 4 MW Co-generation Power Plant. D.G. sets of 2 x 1010 KVA will be installed for the power back up. Fuel for Boiler 40 TPH: Biomass- Rice husk or agrowaste. 15% coal may also be used as auxiliary fuel
2.7	Any other natural resources (Use appropriate standard units)	<b>No</b>	Not Applicable

**3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.**

<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes/ No</b>	<b>Details thereof (with approximate quantities/rates, wherever possible) with source of information data</b>
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	<b>Yes</b>	The hazardous chemicals used in the plant are Caustic Soda (Sodium Hydroxide) & minor amounts of Nitric acid. The hazardous chemicals will be provided with proper storage facilities as per MSIHC rules to avoid any harm to environment or human health.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	<b>No</b>	The Ethanol Plant will be based on "Zero Liquid Discharge". Therefore; there will be no changes in occurrence of disease or affect disease vectors.
3.3	Affect the welfare of people e.g. by changing living conditions?	<b>Yes</b>	Positive impact is envisaged at local as well as regional level in the project area viz., generation of approx. 200 direct & 500 indirect employment opportunities, improved local Infrastructure facilities, Increased revenue to the State & Central exchequer by participation in EBP Programme. In addition, various rural development initiatives for the upliftment of the nearby communities will be undertaken under socio-economic developmental activities.

3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	<b>Yes</b>	There are many schools, hospitals, dispensaries, and hotels etc. in the study area, which have the vulnerable group of people who could be affected by the project if proper mitigation measures are not implemented. The company will take all precautionary measures to ensure there are no negative impacts because of the proposed project and also take measures to control air, water and noise pollution.
3.5	Any other causes	<b>No</b>	Not Applicable

**4. Production of solid wastes during construction or operation or decommissioning (MT/month)**

<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes/ No</b>	<b>Details thereof (with approximate quantities/rates, wherever possible) with source of information data</b>
4.1	Spoil, overburden or mine wastes	<b>No</b>	No major spoil production is envisaged from the plant as demolition work is not envisaged. However, the spoil generated during construction will be reused for leveling.
4.2	Municipal waste (domestic and or commercial wastes)	<b>Yes</b>	Municipal solid waste generated from Plant canteen will be disposed after segregating into bio-degradable and non-degradable waste. Bio-degradable waste will be composted and non-degradable wastes will be disposed off suitably.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	<b>Yes</b>	Used or Spent oil to the tune of 0.6 KL/annum (Cat. 5.1), Contaminated cotton rags or other cleaning materials (Cat 33.2) Empty barrels will be generated as per Schedule I of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
4.4	Other industrial process wastes	<b>Yes</b>	Ash (40 TPD) generated from the boiler will be used for brick manufacturing. The company will be exploring opportunities for installation of in-house briquetting unit inside plant premises. No other industrial process waste will be generated except the already mentioned details.
4.5	Surplus product	<b>No</b>	No
4.6	Sewage sludge or other sludge from effluent treatment	<b>Yes</b>	Sludge will be dried and used as manure.
4.7	Construction or demolition wastes	<b>Yes</b>	Construction waste like soil, brick bits will be utilized in levelling of land and road making. No demolition waste will be generated.
4.8	Redundant machinery or equipment	<b>No</b>	There will be no redundant machinery or equipment.
4.9	Contaminated soils or other materials	<b>No</b>	There will be no contamination of soil or any other material.
4.10	Agricultural wastes	<b>No</b>	There will not be any agricultural waste.

4.11	Other solid wastes	<b>Yes</b>	DDGS - Dried Distillers Grains Soluble (By product- 88 TPD) will be sold as by-products for Cattle/Poultry/Fish feed.
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**5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)**

<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes/ No</b>	<b>Details thereof (with approximate quantities/rates, wherever possible) with source of information data</b>
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	<b>Yes</b>	The major pollutants of the plant will be particulate matter, SO <sub>2</sub> & NO <sub>x</sub> from proposed 40 TPH boiler. ESP with adequate stack height (60 m) will be installed with proposed 40 TPH Boiler to control the suspended particulate emissions due to combustion of fuel.
5.2	Emissions from production processes	<b>Yes</b>	CO <sub>2</sub> generated (138 TPD) during fermentation process will be collected and sold to vendors.
5.3	Emissions from materials handling including storage or transport	<b>Yes</b>	Fugitive emissions will be generated during transport and storage of material. Company will have provisions of material transfer in closed loop and covered manner so negligible emissions are envisaged. Covered storage facilities will be provided for raw material & finished products. Road sweeping machines will be used for cleaning of paved roads and proper house-keeping will be maintained to control fugitive dust emissions. All vehicles will be PUC certified.
5.4	Emissions from construction activities including plant and equipment	<b>Yes</b>	Fugitive dust emissions are likely to be generated from construction activities and vehicular movements. These emissions will be temporary and will be controlled by water spraying and regular sweeping of internal roads.
5.5	Dust or odors from handling of materials including construction materials, sewage and waste	<b>Yes</b>	During construction, there will be minor generation of dust which will be controlled by water spaying and road sweeping regularly. Odor problems will be properly controlled at source by good operational practices, including physical and management control measures.
5.6	Emissions from incineration of waste	<b>No</b>	There will be no incineration of waste.
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	<b>No</b>	There will be no burning of waste in open air.
5.8	Emissions from any other sources	<b>No</b>	There will be no emissions from any other sources.

**6. Generation of Noise and Vibration, and Emissions of Light and Heat:**

<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes/ No</b>	<b>Details thereof (with approximate quantities/rates, wherever possible) with source of information data with source of information data</b>
6.1	From operation of equipment e.g. engines,	<b>Yes</b>	In the Ethanol plant, noise will emanate from operation of

	ventilation plant, crushers		equipment; which will be kept below the prescribed limit by CPCB. Proper noise abatement measures will be taken and persons working close to machine and machine operators will be provided with personal protective equipment viz. Ear plugs / Ear muffs/defenders etc. for further protection.  Vibrations due to any operation are ruled out.  D.G sets (Whenever required for back up) will be covered with acoustic enclosures to control noise level. Noise level will be within permissible limit.
6.2	From industrial or similar processes	<b>Yes</b>	Noise will be generated due to the running of the machinery {60 to 70 Leq. (A)} will be kept below the prescribed limit by CPCB. Proper mitigation measures will be taken for the reduction of noise levels viz. acoustic enclosures etc. The workers will be provided with PPE; personal protective equipment.
6.3	From construction or demolition	<b>Yes</b>	Noise generated from the construction activities such as drills, hammering, cement mixing, heavy vehicle transportation, welding etc. {50 to 60 Leq. (A)} will be maintained within the prescribed noise standards. No demolition activity will be done.
6.4	From blasting or piling	<b>No</b>	There will be no blasting. Slight noise during piling activities will be addressed by providing PPEs and covering.
6.5	From construction or operational traffic	<b>Yes</b>	There will be some noise {50 to 55 Leq. (A)} due to movement of machine/vehicle but the same will be maintained within the prescribed limit.
6.6	From lighting or cooling systems	<b>No</b>	No noise will be generated from lighting or cooling systems
6.7	From any other sources	<b>No</b>	There are no other sources of noise generation.

**7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:**

<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes/ No</b>	<b>Details thereof (with approximate quantities/rates, wherever possible) with source of information data</b>
7.1	From handling, storage, use or spillage of hazardous materials.	<b>Yes</b>	Permission will be obtained from The Petroleum and Explosives Safety Organization (PESO) for proper storage of ethanol. The company has already applied for PESO and is under process. Used oil to the tune of 0.6 KL/annum for

			lubrication will be handled in closed containers and stored at designated areas as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and will be sold to CPCB authorized recycler. Also, care will be taken during its use for lubrication of external part of equipment, so that nothing falls on ground, which will contaminate the soil. Equipment will be kept well maintained, so that they may remain leakage free.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	<b>No</b>	The proposed plant is based on the concept of "Zero Liquid Discharge" hence no sewage or other effluent will be discharged outside the plant premises.
7.3	By deposition of pollutants emitted to air into the land or into water	<b>Yes</b>	There is likely hood of increase of air emissions. But proper mitigating measures will be adopted to reduce the effect such as installation of pollution control equipment, greenbelt development, dust suppression by regular water sprinkling etc., However, periodical monitoring and continuous online Emission monitoring will be done and results will be analyzed. In case of any exigencies, corrective measures will be taken.
7.4	From any other sources	<b>No</b>	Not Applicable.
7.5	Is there a risk of long-term build-up of pollutants in the environment from these sources?	<b>No</b>	No long-term buildup of pollutants in the environment is envisaged, the emission levels will be maintained well within the prescribed standards and continuous online stack (CEMS) monitoring will be done so that timely mitigation measures can be undertaken.

**8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment**

<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes/ No</b>	<b>Details thereof (with approximate quantities/rates, wherever possible) with source of information data</b>
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	<b>Yes</b>	The hazardous materials will be stored in a proper storage facility designed with protective measures to avoid risks due to spillages and leakages. Proper handling and storage practices will eliminate risk of accidents. However; in an emergency, fire-fighting equipment will be provided near all risk prone areas. Workers will be properly trained to use fire-fighting system to quench the fire at source itself.
8.2	From any other causes	<b>No</b>	Not Applicable
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	<b>No</b>	No such case has been reported in the area and chances are minimal. However, the company will have Emergency and Contingency plans in place.

**9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality**

<b>S. No.</b>	<b>Information/Checklist confirmation</b>	<b>Yes/ No</b>	<b>Details thereof (with approximate quantities/rates, wherever possible) with source of information data</b>
9.1	Lead to development of supporting utilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: <ul style="list-style-type: none"> <li>• Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.)</li> <li>• housing development</li> <li>• extractive industries</li> <li>• supply industries</li> <li>• other</li> </ul>	<b>Yes</b>	Proposed project will result in considerable growth of the surrounding areas. Some of the direct & indirect benefits are as follows: <ul style="list-style-type: none"> <li>• By generating direct (200 persons) and indirect (500 persons) employment opportunities in the region including ancillary development.</li> <li>• Promoting Education</li> <li>• Health and Family Welfare</li> <li>• Social Welfare Services</li> <li>• Infrastructure development</li> <li>• Sustainable livelihood (women empowerment)</li> <li>• Overall growth of the surrounding area in terms of socio-economic status and standard of living.</li> </ul>
9.2	Lead to after-use of the site, which could have an impact on the environment	<b>No</b>	Negligible impact is envisaged on air, noise and aesthetic parameters due to the proposed project.

9.3	Set a precedent for later developments	<b>Yes</b>	This project will have positive effect on the living standards of local people in terms of employment, infrastructure and overall development of the area.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects.	<b>Yes</b>	Positive impact on overall development of the area is envisaged in terms of improvement in local Infrastructure & economic well-being of the people around.

**(III) Environmental Sensitivity**

<b>S. No.</b>	<b>Areas</b>	<b>Name/ Identity</b>	<b>Aerial distance (within 15 km.) Proposed project location boundary</b>
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	No	As per the details available on Survey of India Toposheet there is no area within 15 km radius of the proposed project falling or protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.
2	Areas which are important or sensitive for ecological reasons-Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Yes	Water Bodies: - River: Purani Nadi (~1.5 km in East direction), Yamuna River (~3.0 km in East direction), Saindli Nadi (~6.5 km in East direction), Budhi Nadi (~8.5 km in ENE direction) Drain: Hanauri Drain (~3.5 km in West direction), Nanhera Garmpur Drain (~4.5 km in NW direction), Khera Drain (~8.0 km in NW direction), Murad Nagar Drain (~9.0 km in NNW direction), Canal: Augmentation Canal (~3.5 km in NW direction), Western Yamuna Canal (~9.5 km in WNW direction) Forests:- Baragaon RF (~9.0 km in SSW direction) are present within 15 km radius. No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 15 km radius.
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	As per the Secondary Literature survey i.e. Journal, no endangered / Endemic or sensitive species of the Flora & fauna is reported in the study area.
4	Inland, coastal, marine or underground waters	Yes	The project site is located at Village Biana & Randauli, Tehsil Indri, District Karnal, Haryana which is away from any coastline and marine water bodies. However, inland

			water bodies exist such as detailed in point 2 above. Underground water is present in the study area.
5	State, National boundaries	Yes	Haryana & Uttar Pradesh Interstate boundary (~3.5 km in ESE direction)
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Yes	SH 7 (~9.5 km in WNW direction) & NH 44 (~18 Km in SW direction)
7	Defense installations	No	No
8	Densely populated or built-up area	Yes	Indri (~9.0 km in NW direction)
9	Areas occupied by sensitive man-made land uses ( <i>hospitals, schools, places of worship, community facilities</i> )	Yes	There are primary schools, dispensaries, small hospitals, places of worship within 15 km radius of the project site.
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Yes	The area falls under Semi-Critical category as per the CGWB categorization, 2020. The surface water resources have been mentioned in Point No. 2. Agricultural land is available in the study area.
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No	Proposed project area does not fall in pollution or environmental damage.
12	Areas susceptible to natural hazard which could cause the project to present environmental problems ( <i>earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions</i> )	No	There is no incidence of subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions in the area so far. The plant site falls in Seismic Zone - IV as per IS: 1893 (Part-I): 2002

**(IV) Proposed Terms of Reference**

M/s. Iris Fuel India Private Ltd. (IFIPL) is proposing a 180 KLPD Grain Based Ethanol Plant along with 4 MW Co-generation Power Plant at Village Biana & Randauli, Tehsil Indri, District Karnal, Haryana in a total project area of 8.44 ha (20.85 acres) which is already in possession of the project proponent.

Letter from Directorate of Town & Country Planning, Haryana via Memo No. E-Diary-171335/2022/TCP-OFA/1325/2022 dated 06/07/2022, the project site for proposed Ethanol plant falls outside the boundary of the Controlled Area or Urban Area. Hence, no CLU is required for the project.

The Government of India approved the National Policy on Bio-fuels in 04th June 2018 stipulating Ethanol Blended with Petrol (EBP) Programme as its main component, offering indigenous and non-polluting renewable energy source and successful implementation of the programme would not only result in substantial reduction in air pollution but also saving of precious foreign exchange through import substitutions. This policy has laid out

indicative targets of achieving 20% blending of ethanol in petrol in the whole country by 2030. The government of India has advanced the target for 20% ethanol blending in petrol (also called E20) from 2030 to 2025.

Accordingly Ministry of Environment, Forest and Climate Change 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.

According to latest MOEFCC notification S. No. 2339(E) dated 16<sup>th</sup> June, 2021, "*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*" with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

The company is submitting the notarized affidavit (self-declaration as mentioned in the Notification dated 16<sup>th</sup> June, 2021) stating that the new 180 KLPD Grain based Ethanol Plant along with 4.0 MW Co-generation Power Plant will be completely utilized for production of ethanol only so as to participate in Ethanol blending Programme (EBP) of Government of India (Gol).

*In view of the above submissions, we humbly request you to kindly consider our proposal for grant of Environmental Clearance under "B2" Category.*

**(V) Undertaking**

## UNDERTAKING

"I hereby give undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance given if any to the project will be revoked at our risk and cost.

Date:13.07.2022

Place:Panipat

For IRIS FUEL INDIA PRIVATE LIMITED

  
AUTH. SIGN.

Signature of the applicant

Rajiv Khurana

(Authorized Signatory)

Iris Fuel India Private Limited

Note:

1. The projects involving clearance under Coastal Regulation Zone Notification, 1991 will submit with the application a C.R.Z. map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t. C.R.Z. (at the stage of ToR) and the recommendations of the State Coastal Zone Management Authority (at the stage of EC). Simultaneous action will also be taken to obtain the requisite clearance under the provisions of the C.R.Z. Notification, 1991 for the activities to be located in the CRZ.
2. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent will submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon (at the stage of EC).
3. All correspondence with the Ministry of Environment & Forests including submission of application for ToR/Environmental Clearance, subsequent clarifications, as may be required from time to time, participation in the EAC Meeting on behalf of the project proponent will be made by the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized signatory for the specific project.



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