

Harinagar Sugar Mills Ltd. (Distillery Division)

Vill + P.O.: Harinagar, Dist. West Champaran, Bihar - 845 103

BRIEF SUMMARY OF PROJECT

Harinagar Sugar Mills Limited (HSML) is a Public incorporated on 03 January 1933. It is classified as Non-govt. company and is registered at Registrar of Companies, Mumbai. M/s Harinagar Sugar Mills Ltd., have been a pioneer in Sugar manufacturing and one of the best Units in the state of Bihar. The unit have been constantly achieving laurels in the field of Efficient Production, Quality and Environmental Management. The unit has the licensed capacity of 10,000 TCD sugar mill.

HSML has established its Distillery Project of 45 KLPD based on Molasses in the year 2006 for production of Rectified Spirit, Absolute Alcohol, Fuel Ethanol and Extra Neutral Alcohol (ENA). However, after implementation of the Bihar State Prohibition and Excise Bill - 2016, at present HSML Distillery Division is producing only Fuel Grade Ethanol (Absolute Alcohol) only. Environmental Clearance for existing distillery proeject was obtained from MoEF & CC, Govt. of India vide F. No. J.11011/51/2006-IA II (I) Dt: 01.06.2006.

The Distillery is being operated for 270 days on molasses produced at Harinagar Sugar Mills. The Press mud, surplus Bagasse and Boiler Ash produced in Sugar Mill is being utilised for making Bio-compost Fertilizer by spraying Anaerobically Treated Spent Wash (after Bio-Methanation).

Now, to meet the increasing national demand of Fuel Grade Ethanol (Absolute Alcohol) and surplus availability of Molasses from Own as well as nearby Sugar Mills, the management of HSML has embarked upon expansion of existing Distillery project alongwith captive Power generation plant of upto 6.5 MW by adding another 35 TPH Boiler and 5 MW Steam Turbine.

During proposed expansion all existing facilities will be utilized. In addition to existing 14 TPH Boiler and 1.5 MW Turbine, one new boiler of 35 TPH and 5 MW Steam Turbine will be installed for continuous operation in meeting the Steam and Power requirement of Distillery. Surplus Power will be utilized in own Sugar Mill and / or exported to State Grid as per feasibility.

A. Location of the Project ;

Harinagar Sugar Mills Ltd. (HSML), is situated at Harinagar, P.O. Harinagar, Block Ramnagar in District West Champaran, Bihar having Latitude 27° 9'13.67"N & Longitude 84°19'46.85"E at 102.4 m. above MSL. The Project Site is connected to NH-28 B via Lauriya - Ramnagar Road. It is about 50 kms. from district head quarter at Bettiah and is well connected by NH – 28B. HSML is about 0.5 Km. (SE) from Harinagar Railway Station on Bagaha - Narkatiaganj Sec. of ECR.

B. Land Availability ;

HSML owns a total land of 42.99 Acres at Mauza Harinagar, Khata No. 618 Khsera Nos. 537, 591, 598, 629, 636, 650, 687. The total land area is 42.99 acres. About 33% of total land area will be developed as green belt within existing premises. Out of this, at present about 8 Acres is already developed as Green Belt. The existing Distillery Plant and Machinery has been set up in about 12 Acres of Land, including Bio-Methanation and about 8 Acres of Green Belt. Total Land area developed for Bio-Composting is ~ 23 Acres plus 3 acres for Press Mud Storage and about 2 acres for 30 days lagoon. Ample space within existing Distillery complex is available for proposed expansion project. There will not be any need to purchase additional land. All necessary infrastructures are available in the existing plant premises.

C. Water Requirement;

Components	Total Water Requirement (KLD)	Fresh Water Requirement (KLD)	Recycle Water Usage (KLD)
Process Water	734	332	402
Soft Water	842	327	515
DM Water	862	361	501
TOTAL	2438	1020	1418

Hence, fresh water Requirement is 1020 KLD (8.5 KL/KL of Product Alcohol). Water requirement for first run would be 2438 KLD, of which 1418 KLD (~ 58%) will be Recycled.

D. **Water Pollution Management** ;

In the existing project all generated waste water (spent wash) is being treated bio-digester followed by Multiple Effect Evaporator followed by Bio-composting. Process condensate from MEE is also being treated through Stripper and condensate Water is recycled back in the process.

After proposed expansion same methodology for treatment of Distillery waste water will be implemented to achieve ZLD.

E. **Air Pollution Management** ;

Presently HSML Distillery project has 14 TPH boiler attached with multi cyclone and 45 m. height stack for wider dispersion of pollutants. Own Bio-gas and Bagasse are being used as boiler fuel.

For proposed expansion and captive Power Generation of additional 5 MW, one new boiler of 35 TPH capacity will be installed. To minimize air pollution load from new boiler, an ESP will be installed followed by a new ~ 65 m height stack for wider dispersion of pollutants.

F. **Solid Waste Management** ;

In the existing & proposed Distillery project, the Boiler ash and Decanter sludge are generated as Solid Waste. The same will be utilized in Bio-composting process as per present practice and CPCB guidelines.

G. **Cost of the Project** ;

Total cost of the proposed expansion project is estimated to be Rs. 4500 Lacs (Rs. 45 Crores).

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