



GEM SUGARS LIMITED

Regd. Off. : Hoodi Apartment, 120, Cunningham Road, Bengaluru - 560 001. INDIA

Tel : (080) 2220 2214 / 2215, 2220 2829 Fax : (080) 2238 5433, 2220 2299

E-mail : gemsugars@yahoo.com CIN No. : U85110KA1995PLC017324 GST : 29AAACG4810D1Z0

Ref: GSL/Distillery/EC- CR/2024-25

Date: 3rd December, 2024

To,

**The Joint Director
Government of India, Environment, Forest & Climate Change
Regional Office (South Zone)
Kendriya Sadan. IVth Floor, E7F Wing, 17th Main Road
IInd Block, Koramangala,
Bengaluru – 560034
Karnataka**

Respected Sir,

Sub: Gem Sugars Limited, Kundargi-Distillery division Submission of Half Yearly Compliance Report-Environmental Clearance issued by the Ministry of Environment Forests & Climate Change - intimation –reg.

Ref: ENVIRONMENTAL CLEARANCE letter No.J-11011/93/2012-IA, II(I) dt. 14.2.2015 issued for our project "Installation of Molasses based distillery plant (60 KLPD) along with captive power plant (2 MW) in the existing sugar plant (6500 TCD) along with Cogeneration plant (22.5 MW) at parts of Sy. Nos.125 to 134,325 to 328, Village Kundaragi, Taluk Bilgi, Dist. Bagalkot, Karnataka.

As per the guidelines mentioned in the letter we are submitting the Half Yearly Compliance Report from **April-2024 to September-2024** for 90 KLPD, obtained EC for 120 KLPD Vide Letter No: J-11011/93/2012-IA, II(I) dt. 01.03.2021.

The soft copy sent to the email: rsoz.bng-mef@nic.in

This is for your information and records.

Kindly acknowledge the receipt of the same.

Thanking You,

Yours Faithfully,

For GEM SUGARS LIMITED,


Authorized signatory

Encl: 1. Compliance Report.

CC To: 1. The Environmental Officer, Regional Office KSPCB.Sector-7, Bypass Road, Navanagar, Bagalkot-587112.
2. Regional Office Central Pollution Control Board, Bangalore



Factory : Kundargi - 587116, Biligi Taluk, Bagalkot Dist.
Ph.: (08425) 273905 / 906 Telefax : (08425) 273941 / 944
E-mail : gemsugarsfactory@gmail.com



A.SPECIFIC CONDITIONS

S.N	CONDITIONS	COMPLIANCE
1	Distillery unit shall be based on molasses based only and no grain based distillery unit shall be operated. Distillery shall be operated for 300 days	The company constructed molasses based plant and operational days restricted to 300 days as per MOEF guide lines Year 2018-19 - 261 days operation Year 2019-20 - 272 days operation Year 2020-21 - 241 days operation Year 2021-22 - 262 days operation Year 2022-23 - 309 days operation Year 2023-24 - 300 days operation
2	Bag filter along with stack of adequate height shall be provided to bagasse/spent wash slops/imported coal fired boilers (22 TPH) to control particulate emissions within 50 mg/Nm ³ . At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall be restarted until the control measures are rectified to achieve the desired efficiency	We have installed Bag Filter along with stack of adequate 70 mtrs height provided as per the statutory requirement for spent wash slops/imported coal/Bagasse fired boiler (22 TPH) to control particulate emissions. We are monitoring emission levels as per the norms prescribed by PCB and online monitoring system is connected to CPCB server.
3	In plant, control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading & unloading areas to control dust emissions. Fugitive emissions in the work zone environment product, raw materials storage area etc. Shall be regularly monitored and records shall be maintained. The emission shall conform the limits prescribed by Karnataka state pollution control board(KSPCB)	The company had installed adequate steps to meet specific conditions stipulated by MoEF as well as emission limit conform to the limits prescribed by KSPCB. Pneumatic Ash Handling System was installed. Provided the Dust Collecting System – Fully Automatic. Ambient air quality monitoring stations within the distillery plant area are regularly monitored for the quality of air.
4	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB guide lines. Acoustic enclosures shall be provided to the DG sets to mitigate the noise measure.	Not Applicable
5	The company shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on its web site and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective zonal office of CPCB and the KSPCB. The levels of PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO and CH ₄ (Methane) in ambient air shall be monitored and displayed at a convenient location near the main gate of the and it important public places.	Already company uploaded the compliance status and EC copies in the company website. Reports can be accessed at the following link: http://gemsugars.com/wpcontent/uploads/2018/05/HALF-YEARLY-COMPLIANCE-REPORT-APRIL-SEPT-2023.PDF We have complied all the conditions stipulated in MoEF and the same sent to the concerned authorities, and also boards displayed at the entrance of main gate.

6	Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery to avoid fugitive emissions.	Established Pucca approach road within the premises
7	The total fresh water requirement from River Ghataprabha shall not exceed 643 m ³ /day for distillery and CPP and prior permission shall be obtained from the competent authority. Water consumption shall be reduced by adopting 3 R's (Reduce, reuse & recycle) concept in the process.	To follow MoEF guide lines company adopting advanced condensate treatment plant to reuse all process condensate water & strictly adhered to water requirement per day below 645 m ³ only. After treatment the treated water is completely reused and recycled in the process – thus water conservation is achieved at 532 M ³ per day.
8	Spent wash generation from molasses based distillery shall not exceed 8 KL/KL of alcohol. The spent wash from molasses based distillery shall be evaporated in MEE and concentrated spent wash will be incinerated in incineration boiler to achieve zero discharge. Evaporator condensate shall be treated and recycled/reused in process. Spent lees will be treated in RO & RO permeate will be recycled back in the process. RO rejects shall be treated in ETP of sugar unit	The Company will strictly adhere to the stipulation & guide lines made by the MoEF, CPCB. The effluent generated from distillery is spent wash and spent lees. The raw spent wash to the tune of 480 M ³ per day (8.00KL/KL of alcohol) and spent lees to the tune of 160 M ³ per days is generated. The raw spent wash is concentrated in Multiple effect evaporator (MEE). Concentrated spent wash 144 M ³ is incinerated along with coal/bagasse as fuel for the generation of steam and power. The spent lees and the condensate from the MEE is treated in RO and the permeate is recycle back in the process.
9	Spent wash shall be stored in impervious lagoon with HDPE lining as per CPCB guidelines and shall be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon shall be for 5 days.	The company already constructed Pucca storage tank with 250 micron HDPE lining as per CPCB guidelines & CREP norms with a storage capacity of 05 days.
10	Adequate number of ground water quality monitoring stations by providing piezometers around the project area shall be setup. Sampling and trends analysis monitoring must be made on monthly basis and report submitted to SPCB and this ministry. The ground water quality monitoring for PH, BOD, COD, Chloride, sulphate and total dissolved solids shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the ministry's Regional office at Bangalore and KSPCB.s	The company has installed four piezometers around the Distillery unit and test reports are submitted to SPCB. We are monitoring ground water quality and submitting monthly water consumption.
11	Process effluent/any waste water shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	The Company will strictly adhere to the stipulation made by the Pollution control Board and the MoEF
12	As proposed, no effluent from distillery and co-generation power plant shall be discharged outside the plant premises and zero discharge shall be adopted. Water consumption shall be reduced by adopting 3 R's (reduce, reuse & recycle) concept in the process.	The Company will strictly adhere to the stipulation made by the Pollution control Board and the MoEF. Total effluent was treated and recycled back in the various process and achieves ZERO discharge.

13	Automatic/online monitoring system for flow measurement and for relevant pollutants in the treatment system to be installed. The data to be made available to respective SPCB and in the company's website.	Online monitoring system installed for continuous stack monitoring purpose and data acquisition linked to CPCB.
14	Bagasse storage shall be done in such a way that it does not get Air borne or fly around due to wind. Fly ash shall be store separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by following along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.	Coal is used as supportive fuel in the incineration boiler and necessary measures were incorporated in the design of the handling system. We are storing fly ash separately as per the CPCB guidelines and much care taken to avoid adverse effect on air quality and with mixing of water during rainy season.
15	Boiler ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash & coal ash shall be stored separately	In general, the fly ash is allowed to be taken by the farmers from the ash silo itself to use as manure in their agricultural fields. Occasionally, the fly ash is taken into the ash storage yard for storage and the farmers are allowed to take the same from there.
16	Firefighting system shall be as per the norms and cover all the areas where alcohol is produced, handled and stored. Provision of foam system for the firefighting shall be made to control fire from the alcohol storage tanks.	Full pledged firefighting system was installed and is under operation.
17	Risk assessment should be carried to assess the fire and explosion risk due to storage of alcohol and report submitted to the ministry and its Regional office at Bangalore within six months	Risk assessment report submitted along with EIA. It also submitted to the concerned authority.
18	Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health center should be strengthened and the medical records of each employee should be maintained separately.	The company has already provided health clinic at the premises of the factory with a qualified doctor and the health records of each employee are being maintained.
19	Dedicated parking facility for loading & unloading of material shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.	Installed.
20	As proposed, green belt over 33% of the total project area shall be developed within the plant premises with at least 10 meter wide green belt on all sides along with the periphery of the project area, in down ward direction, and along road sides etc. Selection of plant species shall	Already planted 1486 thousand plant/trees within a campus. And continuously carry out plantation in the vacant land in and around the campus every year.

	be as per the CPCB guide lines in consultation with the DFO	
21	All the commitments made during the public hearing /public consultation meeting held on 29 th October, 2013 shall be satisfactorily implemented and adequate budget provision shall be made accordingly	Implemented as per the requirements with adequate Budget provision.
22	At least 5 % of the total cost of the project shall be earmarked towards the enterprise social commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.	Provided for the implementation
23	Provision shall be made for the housing for the construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile sewage treatment plant, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.	Already planned and will be implemented

Yours Faithfully,
For GEM SUGARS LIMITED,

Authorized signatory 

B.GENERAL CONDITIONS.

Sl.No	CONDITION	COMPLIANCE
1	The project authorities must strictly adhere to the stipulations made by the Karnataka State Pollution control Board and the State Govt. and any other statutory authority.	The Company will strictly adhere to the stipulation made by the Pollution control Board and the Govt.
2	No further expansion or modification in the plant should be carried out without prior approval of the ministry of Environment & Forest. 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 to assess the adequacy of conditions imposed and to add additional environmental protection measures required if any.	New EC for expansion received from 60 KLPD to 120 KLPD EC No: J-11011/93/2012-1A 11(I) Dated 01.03.2021
3	The locations of Ambient air Quality Monitoring stations shall be decided in consultation with the state pollution control board (SPCB) and it shall be ensured that at least one stations is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	The company is regularly monitoring the ambient air quality in the Distillery premises.
4	The national Ambient Air quality Emission standards issued by the ministry wide G.S.R No. 826(E) dated 16 th November, 2009 shall be followed	The company will follow the same
5	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, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under environment (protection) Act, 1986 Rules, 1989 VIZ 75 dBA(day time) and 70dBA (night time).	The company will take necessary measures to maintain the ambient noise levels as prescribed under EPA rules, 1986
6	The company shall harvest rain water from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project conserve the fresh water.	The company is going to construct an adequate capacity of rain water collection pond and the water will be used for recharging the ground water.
7	Training shall be provided to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	One safety officer appointed for given training and daily monitoring of safety issues. Also factory having own health clinic and routine health checkup are done.
8	The company shall also comply with all the environmental protection measures and safe guards proposed in the documents submitted to the ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.	The Company will comply all the environmental protection measures and safeguards recommended in the EIA/EMP report.

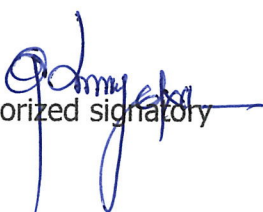
9	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.	Agreed
10	The company shall under take eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment	Agreed
11	A separate Environmental management cell equipped with full-fledged laboratory facilities shall be setup to carry out the Environmental Management and Monitoring functions.	The Company put up a full-fledged laboratory with a qualified Environmental officer to carry out the environmental management activities
12	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the ministry of Environment and Forests 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.	Agreed
13	A copy of the clearance letter shall be sent by the project proponent to concerned panchayat, zilla parisad/Municipal corporation, urban local body and the local NGO. If any from whom suggestions/representations, if any, were received while processing the proposal.	Already done
14	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, the respective zonal office of CPCB and KSPCB. A copy of Environmental clearance and six monthly compliance status report shall be posted on the website of the company.	Submitted.
15	The Environmental statement for each financial year ending 31st March in form-V as is mandated shall be submitted to the concerned SPCB as prescribed under the Environment (Protection) Rules 1986, as amended subsequently, shall also be put on the web site of the company along with the status of the compliance of Environmental clearance conditions and shall also be sent to the respective Regional offices of MoEF by e-mail.	Submitted.

16	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 at http://moef.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 Ministry.	The company authorities have already notified in two daily newspapers and the copies of the same has been submitted to the statutory authorities.
17	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	Submitted.

This is for your information.

Thanking You,

Yours Faithfully,
For GEM SUGARS LIMITED,


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