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IN THE HON'BLE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI  
OA No.111of 2024

IN THE MATTER OF:

Ramesh Kumar ... Applicant  
Versus  
Haryana Organics (A Unit of Globus Spirits Limited)... Respondent

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Bhupinder Singh,  
Regional Officer, HSPCB,  
Panipat.

Date: 22.09.2024

Place: Panipat

Through

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IN THE MATTER OF:

Ramesh Kumar	...	Applicant
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Haryana Organics (A Unit of Globus Spirits Limited) ...		Respondent

**Status report on behalf of Haryana State Pollution Control Board,  
in compliance of order dated 05/07/2024.**

1. That the above said matter was listed before this Hon'ble Tribunal on 05.07.2024, wherein it was directed to file status report in the said matter.
2. That the complainant Sh. Ramesh Kumar has filed a similar complaint to HSPCB as well as to Hon'ble NGT regarding discharge of pollutant including water pollution, chemical & gases which is destroying and adversely affecting the crops of complainant.
3. That a joint committee was constituted by this Hon'ble Court vide order dated 01.02.2024 to visit the site and for submission of factual position of the unit mentioned in complaint.
4. The unit in question was inspected by the Joint Committee on 14.03.2024 by the members of the committee comprising of Sh. Kamlesh Singh, Scientist-E, CPCB, Delhi, Sh. Mandeep Kumar, Sub Divisional Magistrate, Panipat and Sh. Bhupinder Singh, Regional Officer, Haryana State Pollution Control Board, Panipat. The report was submitted before the Hon'ble tribunal on 28.05.2024.
5. That as per the observations raised by the Joint Committee in its joint inspection report a show cause notice was issued to the unit vide No.HSPCB/PR/2024/266 dated 31.05.2024. Following observations were made by the Joint Committee:-

**A. Effluent Management**

- i. The Unit should properly operate & maintain the aeration tank and clarifier (secondary) of CPU and accordingly rectify the problem at the earliest.
- ii. The Unit should properly operate & maintain the CPU and enhance the performance of CPU so as to meet the desired water quality for reuse & recycle of the treated effluent within the process/cooling tower makeup water.
- iii. The Unit should properly operate and maintain the STP and optimize the performance of its STP so as to meet the prescribed standard.
- iv. The Unit should provide Environmental Data display board at the entrance of the Gate and regularly update it.
- v. The Unit should take appropriate steps in cleaning and de-sludging of the Drain (flowing adjacent to the Unit) and should provide the action taken report to SPCB.
- vi. The Unit should not discharge their effluent into the drain and strictly follow the consent condition of the HSPCB.
- vii. The presence of high concentration of COD, BOD, TSS & TDS in the downstream of the Drain compared to the downstream drain reveals that Unit intermittently discharges its untreated/partially treated effluent into the drain. Therefore, SPCB should ensure strict periodical surveillance of the industry/drain and ensure no industrial waste water discharge into the drain.
- viii. The Unit should maintain proper logbooks regarding raw spent-wash/thin slope generation, Fermenter sludge generation, Boiler ash generation and disposal.

**B. Air Pollution and Control**

- i. The Unit should ensure regular water sprinkling and also take other necessary measures in and around the boiler to minimize the dust /ash dispersion in the ambient environment.
- ii. The Unit should provide easy ladder (spiral /scaffold type) ladder at stack of 25 TPH boiler instead of monkey ladder to ensure safe access to sampling port for emission monitoring as per CPCB Emission Regulations Part-III.

- iii. The Unit should provide proper house keeping at the boiler section.
- iv. The conveyor belt at the boiler should be covered (hood cover) or enclosed so as to control the fugitive emission during the transportation of fuel /rice husk. The Unit should provide adequate measure so as to avoid any fugitive emission /dust emission to the nearby areas/land.
- v. The Unit should pay the compensation to the affected land owner, which may be assessed by the HSPCB in consultation with agriculture department.

### C. Waste Management

- i. The Unit should maintain proper logbook record of Hazardous and other waste generated and disposed by the industry as per the Hazardous & Other Waste Rules, 2016.
6. The unit submitted the reply of the show cause notice issued on the basis of joint inspection report vide letter dated 19.06.2024. As per the reply submitted by the unit, it was informed that the unit has engaged Vasantdada Sugar Institute, Pune, Maharashtra (VSI) to undertake the adequacy report of Sewage Treatment Plant (STP) and Condensate Processing Unit (CPU) installed by the unit. VSI, Pune made inspection to the said unit on 12.06.2024. The unit submitted the adequacy report of CPU from VSI, Pune on 12.08.2024 and STP adequacy report on 06.09.2024. The copy of adequacy report of CPU prepared by VSI, Pune is attached as **Annexure-R1**. As per adequacy report received from VSI, Pune the design basis of CPU Plant is adequate for 140 KLPD of said Distillery.
7. The unit submitted the adequacy report of STPs installed by the unit on 06.09.2024. As per adequacy report prepared by Vasantdada Sugar Institute, Pune has recommended certain improvement in the STP which are as under:-
  - Complete retention time should be provided to the septic tank and equalization tank to allow heavier solids to settle at the bottom.
  - A new equalization tank with a retention time of 6-8 hours should be installed, and the overflow from the existing equalization tank should be directed into this new tank.
  - Sewage feed pumps should be installed on the new equalization tank.

- The STP should be operated continuously for at least 20 hours/day to maintain appropriate flow and batch type operation should be avoided.
- Replace the MBBR media with new media to promote better growth of microbial culture.
- Add isolated cultures to aeration tank at regular intervals to maintain MLSS and the Food to Microorganism (F/M) ratio.
- Implement recirculation of activated sewage in aeration tanks.
- Ensure adequate retention time for the tube settler, and adjust the inlet flow from upward side installing a baffle wall to maintain a proper laminar flow pattern and proper distribution of water within the settler which helps settling solid particles in the conical bottom.
- Continuously monitor and analyze the inlet and outlet of STP.

Based on the recommendation made by the VSI, Pune, the unit upgraded its STP and the unit was revisited by VSI, Pune on 16- 17 August, 2024. The sample of STP was collected by VSI, Pune and analyzed through M/s Envirochem Testing & Consultancy LLP, Plot No.165, 1st Floor, Sec-25, Part-II, HUDA, Panipat. As per report submitted by the unit through said laboratory parameters of STP are within permissible limit. The copy of adequacy report prepared by VSI, Pune of STP is attached as **Annexure-R2**.

8. That the third party inspection under Grossly Polluting Unit (GPI) of the unit in question was also done by the team of IIT Delhi deputed by CPCB. The inspection by third party was carried out on 04.07.2024 and as per the inspection report submitted by the IIT Delhi on 18.08.2024, the parameter of effluent after treatment from CPU and STP has been found complying with the permissible limit. The copy of inspection report is attached as **Annexure-R3**.
9. That the said unit was inspected by the HSPCB team on 27.08.2024 to check the compliance of observations made by the joint committee constituted by Hon'ble NGT. The compliance status of the observations are as under:-

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Sr. No.	Observations	Compliance
1.	<p><b>A. Effluent Management</b></p> <p>i. The Unit should properly operate &amp; maintain the aeration tank and clarifier (secondary) of CPU and accordingly rectify the problem at the earliest.</p> <p>ii. The Unit should properly operate &amp; maintain the CPU and enhance the performance of CPU so as to meet the desired water quality for reuse &amp; recycle of the treated effluent with in the process/cooling tower make up water.</p> <p>iii. The Unit should properly operate and maintain the STP and optimize the performance of its STP so as to meet the prescribed standard</p> <p>iv. The Unit should provide Environmental data display board at the entrance of the gate and regularly update it.</p>	<p>i. The unit is complying with the observation by operating and maintaining its aeration and secondary clarifier</p> <p>ii. As per VSI Pune report the CPU installed by the unit is adequate to meet out the results for reuse and recycle. The latest status report dated 18.08.2024 received from IIT Delhi and analysis report issued by HSPCB laboratory dated 10.09.2024 parameters are within permissible limit. The treated effluent is recycled and reused into cooling tower.</p> <p>iii. The unit has upgraded its STP on the basis of recommendations issued by VSI Pune. The unit has provided one more equalization tank, has increased the retention time and has replaced the membrane of PSF and ACF. The latest status report dated 18.08.2024 received from IIT Delhi and analysis report issued by HSPCB laboratory dated 10.09.2024 parameters are within permissible limit. The treated effluent is reused for gardening purpose.</p> <p>iv. The unit has submitted purchase order dated 06.07.2024 for installation of LED display board at the entrance of the unit but same has not been installed.</p>

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<p>v. The Unit should take appropriate steps in cleaning and de-sludging of the Drain (flowing adjacent to the Unit) and should provide the action taken report to SPCB.</p>	<p>v. The unit submitted request to Irrigation Department for cleaning and de-sludging and the same has been complied by the Irrigation Department in the month of June 2024. However, sludge still noticed in the drain adjoining to the unit during the inspection on 27.08.2024.</p>
<p>vi. The Unit should not discharge their effluent into the drain and strictly follow the consent condition of the HSPCB.</p>	<p>vi. During inspection on 27.08.2024 by HSPCB team no discharge of trade effluent was found into drain.</p>
<p>vii. The presence of high concentration of COD, BOD, TSS &amp; TDS in the downstream of the Drain compared to the downstream drain reveals that Unit intermittently discharges its untreated/partially treated effluent into the drain. Therefore, SPCB should ensure strict periodical surveillance of the industry/drain and ensure no industrial wastewater Discharge in to the drain.</p>	<p>vii. The drain has been cleaned by Irrigation Department for free flow of water into drain by replacing hume pipes with temporary steel bridge.</p>
<p>viii. The Unit should maintain proper logbooks regarding raw spent- wash/thin slope generation, Fermenter sludge generation, Boiler ash generation and disposal.</p>	<p>viii. The unit has start maintaining logbook of spent-wash but not maintained the logbook for Fermenter sludge generation, Boiler ash generation as per suggestion given by the joint committee.</p>
<p>2. <b>B. Air Pollution and Control</b> i. The Unit should ensure regular water sprinkling and also take other necessary measures in and around the boiler to minimize the dust /ash dispersion in the ambient environment.</p>	<p>i. Regular sprinkling is being done by the unit in and around the boiler for dust suppression.</p>

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<p>ii. The Unit should provide easy ladder (spiral/scaffold type) ladder at stack of 25 TPH boiler instead of monkey ladder to ensure safe access to sampling port for emission monitoring as per CPCB Emission Regulations Part-III.</p>	<p>ii. Monkey ladder has been provided by the unit. <b>No step has been initiated by the unit to provide spiral/scaffold type ladder to 25 TPH Boiler.</b></p>
<p>iii. The Unit should provide proper housekeeping at the boiler section.</p>	<p>iii. The unit has provided covered shed for storage of biomass multi fuel such as rice husk, mustered husk.</p>
<p>iv. The conveyor belt at the boiler should be covered (hood cover) or enclosed so as to control the fugitive emission during the transportation of fuel/rice husk. The Unit should provide adequate measure so as to avoid any fugitive emission /dust emission to the nearby areas/land.</p>	<p>iv. The unit has covered the conveyor belt to control fugitive emissions of fuel.</p>
<p>v. The Unit should pay the compensation to the affected land owner, which may be assessed by the HSPCB in consultation with agriculture department.</p>	<p>v. The unit has intimated that it has taken the 9 acre land adjoining to the unit on lease related to the complainant and his family.</p>
<p>3. <b>C. Waste Management</b> i. The Unit should maintain proper logbook record of Hazardous and other waste generated and disposed by the industry as per the Hazardous &amp; Other Waste Rules, 2016.</p>	<p>i. The unit has obtained authorization under HOWM Rules, 2016 valid upto 30/09/2027 for the used oil. The unit has made agreement with authorized service provider for disposal of hazardous waste. The hazardous waste generated in the form of used oil of quantity approximately 40 ltrs is found stored in drums</p>

Copy of analysis report by HSPCB laboratory, Panchkula is attached as **Annexure-R4**.

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10. That the unit was inspected by the team of HSPCB on 15.02.2024 and 21.02.2024 on basis of complaint filed by Sh. Ramesh Kumar. The unit was found discharging effluent into adjoining drain No.6 during the inspection done by the team of HSPCB. Therefore, interim environmental compensation of Rs.27,00,000/- was imposed upon the unit by HSPCB vide order No. I/254186/2024 dated 16/07/2024 on the basis of violations made by the unit. The unit has deposited the interim environment compensation amount on 06.08.2024. Copy of environmental compensation order with deposition receipt is enclosed as **Annexure-R5**.
11. That the additional environment compensation of Rs 33,90,000/- has also been recommended to Head Office vide office letter No.HSPCB/PR/2024/1261 dated 16/09/2024 for the violation found during the visit by Joint Committee. Copy of Environment compensation recommended to Head Office is enclosed as **Annexure-R6**.

The above status report is being submitted for kind consideration. It is undertaken to comply with the directions passed by the Hon'ble Tribunal.



Shivendra, Sc-B  
HSPCB, Panipat



Ajay Ahlawat, AEE  
HSPCB, Panipat



Bhupinder Singh, EE  
Regional Officer, HSPCB, Panipat



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**ADEQUACY ASSESMENT REPORT OF EFFLUENT  
TREATMENT PLANTS DECANTATION FOLLOWED BY  
EVAPORATION FOLLOWED BY STEAM TUBE  
BUNDLE DRYER TO PRODUCE DDGS  
INCLUDING CONDENSATE POLISHING UNIT  
FOR  
140 KLPD GRAIN BASED DISTILLERY PLANT  
OF  
M/S. HARYANA ORGANICS,  
(A UNIT OF GLOBUS SPIRIT LTD.),  
4 KM, CHULAKANA ROAD, SAMALKHA, DIST.  
PANIPAT - 132 101 (HARYANA)**

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**Prepared By-**



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**JULY - 2024**



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## ADEQUACY ASSESMENT REPORT FOR EFFLUENT TREATMENT PLANTS

OF

140 KLPD DISTILLERY PLANT BASED ON GRAIN TO PRODUCE  
EXTRA NEUTRAL ALCOHOL & FUEL ETHANOL

OF

M/S. HARYANA ORGANICS, (A UNIT OF GLOBUS SPIRIT LTD.),  
4 KM, CHULAKANA ROAD, SAMALKHA,  
DIST. PANIPAT – 132 101. (HARYANA)

### 1. INTRODUCTION:

Haryana Organics (A unit of Globus Spirit Limited) is located Samalkha, Dist. Panipat, Haryana state. Globus Spirits Limited (GSL) (Formerly Known as Globus Agronics Limited) was incorporated in 1993. Mr. Ajay K. Swarup, Founder & Managing Director of the Globus Spirits Limited.

In 1994-95, Globus Spirits set up its distillery in Samalkha, Haryana, with an installed capacity of 25 KLPD molasses based distillery to produce RS & ENA. In 2011, GSL has decided to expand its existing distillery capacity from 25 KLPD to 100 KLPD on grain route to produce RS & ENA by installing additional 75 KLPD distillery plant. Accordingly, unit has made necessary arrangement for grain handling system to produce alcohol from grain. GSL has obtained consent to operate for 100 KLPD distillery unit in December 2012 and commission the plant in the year 2011-12. In 2022, the unit applied for Environmental Clearance to further expand the existing distillery capacity from 100 KLPD to 205 KLPD and received the necessary Environmental Clearance in 3<sup>rd</sup> April 2023 the copy of EC is attached as annexure 1. Currently, the unit has expanded its capacity from 100 KLPD to 140 KLPD in the year 2023, the remaining expansion of 65 KLPD scheduled for the upcoming years. The consent to operate for 140 KLPD distillery unit is granted to the unit in 13<sup>th</sup> September 2023 and it is valid up to

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30<sup>th</sup> September 2027. The copy of CTO is attached as annexure 2. Now, the GSL have facility to produce 70 KLPD RS or ENA and 70 KLPD fuel ethanol. Distillery plant having fed-batch fermentation and multi-pressure distillation with integrated evaporation plant. To achieve ZLD, GSL has installed decantation followed by evaporation followed by ribbon mixer (Mingler) followed by dryer to produce Distillers Dry Grain Soluble (DDGS). GSL has also installed condensate polishing unit for treatment of process condensate water, cooling tower blow down etc. Treated water is recycled for process and non-process application.

## 2. Environmental Clearance-

GSL has obtained "Environmental Clearance" (EC) for expansion of grain-based distillery vide letter no. F. No. J-11011/714/2009-IA-II (I), dated 03<sup>rd</sup> April 2023 from Government of India, Ministry of Environment Forest and Climate Change, IA Division, Indira Paryavaran Bhawan, Jor bagh Road, New Delhi-3. GSL has received EC for expansion of grain-based distillery from 100 KLPD to 205 KLPD by installation of new 105 KLPD grain-based distillery and expansion of Co-generation power plant from 3.0 MW to 4.6 MW by installation of new 1.6 MW cogeneration of power plant. EC is attached herewith as annexure -I.

Units	Existing	Proposed	Total	Product
Grain based distillery (Grain: Broken rice, Maize, Barley & Sorghum)	100 KLPD	105 KLPD	205 KLPD	RS/ENA/Ethanol /CL/IMFL
Co-generation power plant	3.0 MW	1.6 MW	4.6 MW	Power
DWGS Dryer	58 TPD	46 TPD	104 TPD	DDGS
Carbon-di-oxide plant	76 TPD	81 TPD	157 TPD	CO <sub>2</sub> plant

Currently, the unit has expanded its capacity from 100 KLPD to 140 KLPD in the year 2023, the remaining expansion of 65 KLPD scheduled for the upcoming years.



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### 3. Consent to operate (Water & Air):

GSL has obtained 'Consent to Operate' for water & air vide letter no. 313106523PITCTO39884947, dated 20<sup>th</sup> September 2023 is attached herewith as annexure -II. The consent to operate is valid for the period from 13<sup>th</sup> September 2023 to 30<sup>th</sup> September 2027 for both water & air.

Consolidated Consent & Authorization (CCA) for Globus Spirits Limited, Samalkha granted for the following products.

Sr. No.	Product	Quantity	Unit
1	R.S./ENA/ETHANOL	140	KLPD
2	IMFL (Cases/Day)	10000	(Cases/Day)
3	Country Liquor (Cases/Day)	12000	(Cases/Day)

Conditions under Water (Prevention and Control of Pollution) Act -1974 as amended: - Daily quantity of effluent discharge (ZLD):

Kind of effluent	Quantity (KLD)	Treatment Facility	Discharge point
Domestic	15.0 KLD	STP	use for Horticulture
Industrial	554 KLD	ZLD/CPU/MEE	ZLD

Trade Effluent Parameters as per CTO-

Sr. No.	Parameter	Unit	Standard
1	pH		5.5 - 9.0
2	BOD	mg/Lit.	30
3	COD	mg/Lit.	--
4	TSS	mg/Lit.	100

Domestic Effluent Parameters as per CTO -

Sr. No.	Parameter	Unit	Standard
1	pH		5.5 - 9.0
2	BOD	mg/Lit.	10
3	COD	mg/Lit.	50
4	TSS	mg/Lit.	20
5	Faecal Coliform	100 MPN/100ml	100 MPN /100 ml



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Conditions under Air (Prevention and Control of Pollution) Act -1981 as amended as per CTO: -

Air Pollution Source	Type of fuel	Stack No.	Control Device	Height of Stack	Emission parameters, Suspended Particulate Matter (SPM)
25 TPH boiler	Biomass fired boiler	1	Suspended Particulate Matter	44.2 Meter from ground level	80 mg/m <sup>3</sup>
10 TPH boiler	Biomass fired boiler	1	Suspended Particulate Matter	42.67 Meter from ground level	80 mg/m <sup>3</sup>
Stack Attached to DG set	Diesel	1	Suspended Particulate Matter	10.9 Meter from above roof level	80 mg/m <sup>3</sup>

#### 4. Grant of Authorization under Hazardous and other wastes (Management & Transboundary Movement) Rules, 2016:

GSL has obtained hazardous wastes authorization vide letter no. HWMPIT/2023/6990998, dated 20<sup>th</sup> October 2023 is attached herewith as annexure - III. It is valid for the period from 1<sup>st</sup> October 2023 to 30<sup>th</sup> September 2027.

Sr. No.	Name of Process and category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorized mode of disposal or recycling or utilization or co-processing etc.	Quantity
1	Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems or other applications, used/spent oil.	Sent to M/s. Universal Hydrolubes	600KL/Annum



**5. NOC for Ground Water Extraction from Government of Haryana, Haryana Water Resources Authority:**

Unit has taken NOC from Government of Haryana, Haryana Water Resources Authority for extraction of 552 M<sup>3</sup>/day ground water from existing four borwells. But its validity expired on 18<sup>th</sup> June 2024. Now, GSL has applied for renewal of NOC on 19<sup>th</sup> June 2022 is attached herewith as annexure -IV.

Now, the GSL have facility to produce 70 KLPD RS or ENA and 70 KLPD fuel ethanol in existing 140 KLPD distillery. Distillery plant having fed-batch fermentation and multi-pressure distillation with integrated evaporation plant. To achieved ZLD GSL has installed Decantation followed by evaporation followed by ribbon mixer (Mingler) followed by dryer to produce Distillers Dry Grain Soluble (DDGS). GSL has also installed condensate polishing unit for treatment of process condensate water, cooling tower blow down etc. Treated water is recycled for process and non-process application.

The whole stillage (effluent) generated from grain-based distillery plant is separated in thin stillage and wet cake in decantation followed by evaporation of thin stillage to syrup followed by wet cake and thick syrup are mixed to produce Distillers Wet Grains with Solubles (DWGS) followed by dryer to produce Distillers Dried Grains solubles (DDGS).

**Objective of the adequacy assessment of 140 KLPD Distillery:**

On 14<sup>th</sup> March 2024, an inspection team comprising members of NGT, CPCB, and HSPCB visited the distillery unit. During the visit, the inspection team explored various areas of the distillery unit and collected samples from various treatment units such as MEE, CPU, STP, and groundwater samples from the premises. On 31<sup>st</sup> May 2024, the unit received a show cause notice (Attached as Annexure-V) regarding various issues. In response to this observation in the show cause notice, the management of GSL decided to conduct an adequacy assessment of the existing 140 KLPD grain-based distillery to understand the loopholes in the treatment facility and



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assigned this task to Vasantdada Sugar Institute (VSI), Pune through email dated 6<sup>th</sup> June 2024 (Attached as Annexure – VI). Accordingly, VSI team comprising of Mr. D. A. Patil, Joint Technical Advisor of Department of Alcohol Technology and Biofuels and Mr. Kapil Uphade, Scientific officer of Department of Environment science visited GSL distillery and effluent treatment plants 12<sup>th</sup> June 2024 for Adequacy Assessments of distillery ETPs (CPU) and STP to achieve ZLD. **Distillery and effluent treatment plants were in operation during the visit of VSI team.**

Technical team of VSI had elaborate discussion with Mr. Amitabh Singh, President- Technical Operations, Mr. Mahendra Pratap Singh, Vice President- Works, Mr. Akhil Kumar, General Manager- Administration, Mr. Naveen Kumar, Sr. General Manager, and other technical staff about the performance of both distilleries and effluent treatment plants during the visit.

Joint visit paid by VSI team & technical staff of the GSL to grain storage facilities, grain handling, Milling & Liquefaction, yeast propagation, Fermentation, Distillation sections, Decantation, evaporation, dryer, Process condensate treatment plant, Boiler and sewage treatment plant (STP).

During the visit, inspection of various sections, observations on operations and performance of each unit were made and discussed with the technical staff of the distillery plant.

GSL having capacity 140 KLPD distillery, during the visit plant was operated on 65.75 KLPD capacity (Average production from 1<sup>st</sup> to 10<sup>th</sup> June 2024) and use grain (Rice) as a feedstock to produce fuel ethanol.

GSL has installed one number of silos (Cap. 3127 MT) with pre-cleaning and blower arrangements for storage of grain. The grain from silo is transferred to pre-cleaning system which consist of de-stoner, magnetic separator, and cyclone system for removal of foreign material, stone & dust from grain. The grains contain 0.2 to 0.5% stone and sand particles. Stones and sand particles are separated in de-stoner, collected in bags, and used for land filling or road construction in distillery. The foreign



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materials of 1.0 – 1.50 % of total grain is removed in pre-cleaning system and used for boiler feed along with rice husk.

The liquefaction process is operated on high dissolved solids (about 30 to 32%) which help to reduce the dilution water and better separation of solids in decantation system. The fermentation process was simultaneous Saccharification and high gravity fermentation, which leads to high alcohol percentage (12.50 to 13%) in the fermented wash. The log sheet of liquefaction & fermentation section is attached as annexure – VII. The high alcohol percentage in fermented wash helps to reduce the effluent generation and energy (steam) consumption in distillation.

GSL has also installed 60 TPD CO<sub>2</sub> plant to recover Carbon dioxide (CO<sub>2</sub>) produced in fermentation process.

The distillation system is multi pressure type with heat integration consisting of seven columns system to produce potable grade Extra Neutral Alcohol.

The whole stillage generated after distillation is subjected to decantation and thin stillage generated after decantation is evaporated in Integrated & standalone evaporation plant (ISMEE). The wet cake from decantation and thick syrup are mixed in Mixer (Mingler) to produce Distillers' Wet Grain with Solubles (DWGS) or steam tube bundle dryer to produce Distillers Dried Grain Soluble (DDGS) with app. 90% total solids. DDGS is sold to farmers as cattle feed through agency.

The distillation column spent lees is recycled in liquefaction section for slurry preparation. The blow downs water of cooling towers, process condensate of evaporation is transferred to the Condensate Polishing unit (CPU). The GSL has also recycled thin slop for slurry preparation.

## 6. The 140 KLPD grain-based distillery plant technical details are as follows,

- Plant capacity 140 KLPD grain-based distillery to produce 70 KLPD RS or ENA and 70 KLPD fuel ethanol.
- Name of plant Supplier- M/s. Praj Industries, Pune
- Grain handling & storage system – Pre-cleaning system 20 MT/hr capacity.
- Grain silo 1No. with 3127 MT capacity for storage of grains



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- Mill section – Hammer mill with 24 MT/hr capacity (3 Nos. Capacity - 8 TPH each)
- Pre-masher (Screw mixer) – Capacity - 45 M<sup>3</sup>/hr
- Liquefaction Tank with Agitator – 150 M<sup>3</sup>, 1 No.
- Jet cooker – Capacity – 60 M<sup>3</sup>/hr, 1 No.
- Fermentation Technology – Batch /Fed-batch type
- Pre-fermenters capacity – 1 No, capacity 100 M<sup>3</sup>
- Fermenters – 5 Nos. (Cap. 600 M<sup>3</sup> each)
- Beer well- 1 No. (Cap. 600 M<sup>3</sup>)
- Distillation Technology – Multi-pressure distillation to produce RS or ENA
- Number of columns in distillation section- 5 Nos. for rectified spirit (R.S.) and additional 2 nos. of columns for ENA production (Analyzer cum degasser column, Pre-rectifier column, rectifier column, ED column, Simmering and Recovery column).
- Fuel Ethanol plant – 70 KLPD MSDH plant to produce fuel ethanol
- Decanters – 5 Nos. Total capacities – 96 MT/hr (4 Nos.- 20 MT/hr capacity each and 1 Nos.- 16 MT/hr capacity each)
- Stillage (Effluent) Evaporation Technology – Integrated (2 Falling film evaporator followed by standalone 1 No. Force circulation)
- Ribon mixer/ Mingler – 1 No.
- Steam tube bundle type dryer for DDGS – 2 Nos.
- Steam for Fermentation, Distillation & Evaporation plant - GSL having won boiler 10 TPH & 25 TPH.
- Power for Distillery & ETP (CPU) - having own 3.6 MW co-generation power plant.
- **Pre fermentation, fermentation section and distillation plant capacities are adequate to for 140 KLPD to produce 70 KLPD Rectified spirit or Extra Neutral Alcohol and 70 KLPD fuel ethanol (total 140 KLPD).**
- During the visit plant was operated on 65.75 KLPD distillery capacity and their work performance from 1<sup>st</sup> June to 10<sup>th</sup> June 2024 collected performance is given

## 521

in table no. 1. Based on performance parameters achieved for 65.75 KLPD is considered for worked out 140 KLPD performance. Similarly, we have also prepared the estimated performance for 140 KLPD capacity and is given in table no. 1.

**Table: 1 – Performance of 65.75 KLPD and 140 KLPD grain-based distillery  
(From 1<sup>st</sup> June to 10<sup>th</sup> June 2024)**

Sr. No.	Particulars	Unit	Average (1 <sup>st</sup> to 10 <sup>th</sup> June 2024)	Estimated for 140 KLPD
1	Total Alcohol production	B.L.	6,57,465	14,00,000
	a) Fuel ethanol	B.L.	6,57,465	14,00,000
	d) Impure spirit	B.L.	---	
2	Total Grain (Broken Rice) used	MT	1448	3084
3	Recovery of alcohol	Lit./MT	454.0	454.0
4	Fermentation Efficiency	%	92.50	92.50
5	Distillation Efficiency	%	99.20	99.20
6	Average Alcohol % in fermented wash	%	13.5-14.0	13.5-14.0
7	Total whole stillage generated	Lakh Lits.	35.43	75.60
8	Average whole stillage generated	M <sup>3</sup> /Day	354.3	756.0
9	Average whole stillage generated	Lits./Lit. of alcohol production	5.40	5.40
10	Whole stillage feed to Decanter	M <sup>3</sup> /Day	354.3	756.0
11	Wet Cake separation from Decanter	MT/Day	63.78	136.0
12	Thin slop separation from Decanter	M <sup>3</sup> /Day	290.5	620.0
13	Thin slop recycles to slurry preparation	M <sup>3</sup> /Day	49.4	105.0
14	Balance Thin slop feed to Evaporation (4% TS)	M <sup>3</sup> /Day	241.2	515.0
15	Concentrated Thick slop (30% TS)	M <sup>3</sup> /Day	32.1	68.7
		MT/Day	35.95	76.94
16	Process condensate generation	M <sup>3</sup> /Day	209.1	446.3
17	Total DWGS (70% Moisture) production (Wet cake + Thick slop)	MT/Day	99.73	212.94
18	Total DDGS (10% Moisture) production	MT/Day	33.24	70.98
19	Average thin slop generation after removal of wet cake in decantation	Lits./Lit. of alcohol production	4.40	4.40
20	Thick syrup generation after IMEE	Lits./Lit. of	0.49	0.49

		alcohol production		
--	--	-----------------------	--	--

Performance parameters of grain-based distillery plant for 1<sup>st</sup> June to 10<sup>th</sup> June 2024 is attached as Annexure- VIII.

Above performance data was collected during visit of VSI team to GSL Distillery division. Based on the production figures collected, the capacity utilization of grain-based distillery plant was 50% and average alcohol production was 65.75 KLPD against 140 KLPD capacity. The data collected from the fermentation log book and MPR distillation plant log book.

The alcohol percent in fermented wash as noted from the log book was found to be in the range of 13.50-14.00 % (v/v).

#### 7. Primary Effluent Treatment system- Decantation of Whole Stillage

Whole stillage generated from analyzer column bottom @ 354.3 M<sup>3</sup>/day (14.76 M<sup>3</sup>/hr) for 65.75 KLPD and 756.0 M<sup>3</sup>/day (31.5 M<sup>3</sup>/hr) for 140 KLPD with 5-6 % total solids is subjected to decantation. GSL has installed 5 Nos of decanters (4 Nos.- 20 MT/hr capacity each and 1 No.- 16 MT/hr capacity) to separate wet cake and thin slop. Thus, total capacity of decanters 96 MT/hr. **The installed capacity of 96 MT/hr of decanter is sufficient for 140 KLPD distillery.**

Thin slop generated after decantation in the range of 290.5 M<sup>3</sup>/day with 4.0 – 4.50 % total solids. Out of that 49.4 M<sup>3</sup>/day thin slop is recycled for slurry preparation and balance 241 M<sup>3</sup>/day thin slop is sent to integrated followed by standalone multiple effect evaporation plant (ISMEE) where it gets concentrated to about 30 % total solids. The wet cake generation is in the range of 63.78 MT/day. During operations, two decanters is in operation out of 5 decanters. The characteristic of the whole stillage is given in table no. 2.

**Table: 2 - Characteristics of whole stillage**

Sr. No.	Parameter	Unit	Stillage characteristics (For 65.75 KLPD)	Stillage characteristics (For Estimated 140 KLPD)
1.	Whole stillage generation, app.	M <sup>3</sup> /day	354.3	756

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2.	Colour		Pale yellow	Pale yellow
3.	Temperature	°C	75-80	75-80
4.	pH		3.87	3.87
5.	Total dissolved solids	mg/Lit.	17590	17590
6.	Total suspended solids	mg/Lit.	42,200	42,200
7.	Total Hardness (as CaCO3)	mg/Lit.	700	700
8.	C.O.D.	mg/Lit.	2,07,921.9	2,07,921.9
9.	Oil	%	5.76	5.76

**8. Secondary Effluent Treatment – Thin slop Evaporation plant (Integrated followed by SMEE) for concentration of thin stillage (from 4.0 % total solids to 30 % total solids): -**

The SMEE plant details are as given below-

- GSL has installed integrated evaporation followed by standalone multiple effect evaporation plant (SMEE) for concentration of thin stillage (vinasse) to thick syrup- Total three effects are installed, out of which two effects of evaporators are based on falling film and one evaporator is based on force circulation for concentration of thin stillage from 4.0 % total solids to 30 % total solids. In integrated evaporation the alcoholic vapor generated in analyser column is utilized for concentration of thin slop from 4% solids to 18-20% solids and Force circulation evaporation body steam is provided for further concentration of thin slop from 18-% solids to 30% solids.
- Mass flow meter is installed at outlet of SMEE plant for measurement of concentrated thick slop generation.

**Performance of Multiple Effect thin stillage Evaporation plant from 1<sup>st</sup> June to 10<sup>th</sup> June 2024**

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Table: 3 - Performance of the Evaporation plant for concentration of thin stillage feed.

Sr. No.	Parameters	Unit	Design Capacity	Value (For 65.75 KLPD)	Estimated for 140 KLPD
1	Thin stillage feed rate	M <sup>3</sup> /day	840	241	515
2	Thin stillage feed rate	M <sup>3</sup> /hr	35	10.04	21.45
3	Total solids in feed	%	3.5	4.0	4.0
4	Process condensate generation	M <sup>3</sup> /day	748.1	209.1	446.4
5	Water evaporation rate	Kg/hr	31170	8712	18600
6	Total concentrated thick syrup output	M <sup>3</sup> /day	91.9	32.1	68.6
		MT/day	103.6	35.95	76.8
7	Concentrated thick syrup output	Kg./hr	4319	1498	3200
8	Total Solids in concentrated thick syrup	%	32	30	30
9	Steam required for water evaporation	MT/hr	4.0	1.00	2.50

- The average thin stillage generation is about 241 M<sup>3</sup>/day. The log book sheet is attached as annexure – VIII.
- The average concentrated thick syrup generation was 32.1 M<sup>3</sup>/day. The water evaporation rate of 209.1 M<sup>3</sup>/day was achieved. Thus, thin stillage volume gets reduced from 241 M<sup>3</sup>/day (4% T.S.) to 32.1 M<sup>3</sup>/day (about 30 % T.S.) for 65.75 KLPD.
- The average concentrated thick syrup generation was 68.6 M<sup>3</sup>/day. The water evaporation rate of 446.4 M<sup>3</sup>/day was achieved. Thus, thin stillage volume gets reduced from 515 M<sup>3</sup>/day (4% T.S.) to 68.6 M<sup>3</sup>/day (about 30 % T.S.) for 140 KLPD.
- Steam required for water evaporation about 1.0 TPH
- The performance of the SMEE plant is given in table no. 3.

## 525

Table: 4 - Characteristics of thin &amp; thick stillage

Sr. No.	Parameter	Unit	Thin stillage characteristics	Thick stillage characteristics
1	Stillage generation	M <sup>3</sup> /day	241	32.1
2	<sup>o</sup> Brix		4.0	30
3	pH		3.81	3.51
4	Total dissolved solids	Mg/Lit.	17218	126296
5	Total suspended solids	Mg/Lit.	16480	18460
6	C.O.D.	PPM	71287	247525

Based on the data collected (refer Table 3), the design basis of evaporation plant of grain-based distillery plant is adequate for 140 KLPD and performance was found satisfactory.

### 9. Tertiary Effluent Treatments- Mingler

GSL has installed ribbon mixer for mixing of wet cake and thick slop. The wet cake (63.78 MT/day) from decantation is mixed with thick syrup (35.95 MT/day) in mingler to produce 99.73 MT/day Distillers' Wet Grain with Solubles (DWGS). DWGS is sold to farmers as cattle feed through agency or sent to dryer to produce DDGS around 33.24 MT/day with total solids about 90% for 65.75 KLPD.

The wet cake (136 MT/day) from decantation is mixed with thick syrup (76.94 MT/day) in mingler to produce 212.94 MT/day Distillers' Wet Grain with Solubles (DWGS). DWGS is sold to farmers as cattle feed through agency or sent to dryer to produce DDGS around 70.98 MT/day with total solids about 90% for 140 KLPD. A characteristic of DWGS is given in table no. 5.

Table: 5 - Characteristics of DWGS

Sr. No.	Parameter	Unit	DWGS characteristics
1	Moisture	%	75.2
2	Crude protein	%	27.2

Based on the data collected, the design basis of mingler plant of grain-based distillery plant is adequate for 140 KLPD and performance was found satisfactory.



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## 10. Final Treatment – Steam tube bundle dryer:

GSL has installed two steam tube type bundle dryers having design capacity feed of DWGS 5.5 TPD each. Dryer feed was observed 4.15 TPH as against capacity 11 TPH. 99.73 MT/day (4.15 TPH) Distillers' Wet Grain with Solubles (DWGS) is sent to dryer to produce DDGS around 33.24 MT/day with total solids about 90% for 65.75 KLPD. 212.94 MT/day (8.87 TPH) Distillers' Wet Grain with Solubles (DWGS) is sent to dryer to produce DDGS around 70.98 MT/day with total solids about 90% for 140 KLPD. Dryer provided 4 TPH steam for reduce initial moisture from 70% to 10%. DDGS slod as a cattle feed. The details of performance of dryer plant are given in table no. 6 and characteristic of DDGS is given in table no. 7.

**Table: 6 - Performance of the Dryer plant for DDGS production.**

Sr. No.	Parameters	Unit	Design Capacity	Value (For 65.75 KLPD)	Estimated for 140 KLPD
1	DWGS feed to Dryer	MT/day	264	99.73	212.94
2	Moisture content in DWGS feed	%	70	70	70
3	Total solids in DWGS feed	%	30	30	30
4	DDGS production	MT/day	88	33.24	70.98
5	Water evaporation duty	MT/day	176	66.49	141.96
6	Moisture content in DDGS feed	%	10	10	10
7	Total solids in DDGS	%	90	90	90

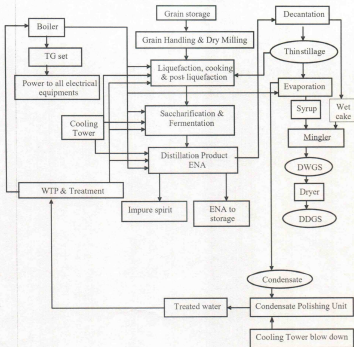
**Table: 7 - Characteristics of DDGS**

Sr. No.	Parameter	Unit	DWGS characteristics
1	Moisture	%	15.00
2	Protein	%	40.18
3	Starch	%	5.20
4	Sugar	%	14.90

## 527

Based on the data collected (refer table 6) the design basis of dryer plant for production of DDGS 90 MT/day of grain-based distillery plant is adequate for 140 KLPD distillery capacity and dryer plant performance was found satisfactory. GSL should maintain log book properly.

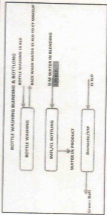
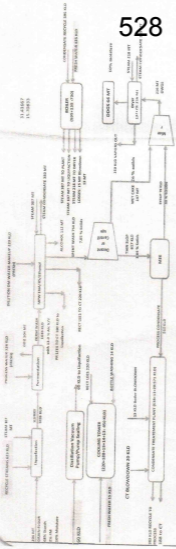
GRAIN BASE DISTILLERY PLANT TO PRODUCE EXTRA NEUTRAL ALCOHOL  
PROCESS FLOW DIAGRAM





# Mass Balance of 140 KLPD Grain based plant of GSL

Schematic Diagram of Plant. Water Balance of 140 KLPD





# 529

## 11. Condensate Polishing unit (CPU) : -

GSL distillery has installed Condensate Polishing unit for treatment of evaporation condensate (400 M<sup>3</sup>/day), cooling tower blow down (140 M<sup>3</sup>/day), CIP water (10 M<sup>3</sup>/day) and floor washing water (50 M<sup>3</sup>/day). Total feed capacity of CPU is 600 M<sup>3</sup>/day. CPU unit consist of anaerobic treatment followed by aerobic treatment followed by secondary clarifier followed by MGF followed by ACF followed by softener. After treatment treated clear water recycled back to fermentation process and cooling tower make up and remaining sludge transferred to sludge tank.

### Equalization Tank:

Equalization tank of adequate retention time is provided for flow and characteristics equalization. BRIO Submersible mixer shall be provided for mixing the equalization tank content. The equalized effluent is now pumped to the UASB Reactor for further treatment. Highly Power Efficient, Submersible BRIO Mixer is provided for mixing the tank content.

### Neutralization Tank:

The condensate from Equalization tank shall be pumped to Neutralization tank for increasing the pH. The neutralization tank shall be provided with an agitator to mix the lime solution in the condensate. Lime / Caustic shall be added to the condensate for the neutralization purpose.

### Primary Lamella Clarifier:

Sludge generated during the Neutralization shall be settled before the effluent is Subjected to biological treatment. Primary Lamella clarifier shall be provided for this purpose. The Primary lamella clarifier shall be provided with Tube Dek for improving the settling area. Sludge shall be taken to sludge drying beds for dewatering and drying.

### Buffer Tank:

Buffer Tank Fabricated in MS and painted in Epoxy paint shall be provided for preconditioning of the neutralized condensate before feeding it to UASB reactor. Buffer tank shall be constructed in RCC and shall be provided with UASB feed pumps.

# 530

## **UASB Reactor:**

UASB reactor consists of mainly feed distribution network at the bottom, Sludge blanket at mid height of the reactor and the gas, liquid, solid separator (GLSS) at the top of the reactor. In UASB process, the bacteria responsible for digestion are present in the form of sludge blanket. The bacteria grow and reside as bacterial flocs suspended in the up-flow effluent stream. The bacteria consume organic content of wastewater and metabolize it to produce CPU and biomass. UASB operates in the mesophilic range of temperature, i.e. 28° - 40°C. The pH inside the reactor is usually kept around 7.2 while proper ratio of volatile acid and alkalinity is maintained.

Biogas generated is collected at the top of the reactor and send to the flare stack. The anaerobically digested effluent is collected from the network of gutters and launders and taken to the aeration tank for further treatment. The excess sludge from the bottom of the reactor is periodically taken out and sent to the sludge handling facility.

The UASB Reactor fabricated in MS and painted with EPOXY Paint from Inside and Synthetic Enamel paint outside.

## **Extended Aeration Tank:**

The anaerobically treated condensate although has significantly lower concentration of the Organic matter i.e. BOD and COD, but it still has the organic matter which shall be removed before subjecting the same for recycle. Extended aeration process is provided for further removal of the organic matter from the post anaerobic condensate. The Extended aeration tank constructed in RCC shall be provided for this purpose. Extended aeration tank shall be provided with 15 HP slow speed fixed type surface aerator for oxygen transfer. The Mixed liquor from the extended aeration tank shall then be taken to secondary clarifier for removal of the biological sludge.

# 531

## **Secondary Clarifier:**

The mixed liquor from Extended Aeration Tank enters the Inlet Zone of the secondary clarifier for separation of sludge and liquid. The clarifier is a circular tank with conical bottom. In clarifier, solids get settled at the bottom. Clarifier Mechanism shall be provided for scrapping the settled sludge at the bottom. The supernatant from the clarifier overflows uniformly over the peripheral launder. A part of sludge from the clarifier is re-circulated back to aeration tank while the excess sludge is sent to the sludge handling systems. The clarified effluent is then collected in the treated effluent tank.

## **Clarified effluent Tank:**

Overflow from all the clarifier is collected in a Clarified effluent tank. The Treated Effluent Tank with a capacity of 30 m<sup>3</sup> is used for this purpose.

## **Sludge Drying Beds:**

The sludge is pumped to Sludge Drying beds for dewatering. The centrifuge is of Bowl type. The Filtrate from Sludge Drying beds is taken back to equalization tank for further treatment. The dewatered sludge is collected in a trolley and sent for further disposal. This being a stable biological sludge, it can be a source of good manure. The biologically treated effluent from ETP will be subjected to tertiary treatment for recycling the water.:

## **Flocculator:**

The clarified effluent from the Secondary clarifier shall be subjected to coagulation – flocculation treatment for removal of the colloidal solids from the effluent. Flocculation tank with Flocculator mechanism shall be provided for this purpose. Alum shall be added to the effluent along with Polyelectrolyte for this purpose.

## **Tube Settler:**

The biologically treated effluent from the treated effluent tank is received in tube settler Tank. Polyelectrolyte and Coagulant shall be added to the treated effluent tank before it enters to Tube settler. A static Flocculator zone provided for this purpose.

# 532

## Filter feed Tank:

The clear supernatant from the Tube settler is collected in the filter feed tank provided with adequate retention time. Hypochlorite solution shall also be added for disinfection purpose.

## Filter Feed Pump:

The effluent from filter feed tank will be first pumped to pressure sand filter, multi grade filter for removal of suspended solids.

## Pressure Sand Filter (PSF):

The filter is provided as primary filtering unit. Biologically treated effluent shall be filtered by PSF to remove suspended matters & turbidity present in the effluent.

## Activated Carbon Filter (ACF)

An activated Carbon Filter fabricated in MS and provided with filtering media such as sand + Activated carbon is provided. The carbon Filter shall remove the residual color and odor associated with treated Effluent

## Filtered Water Sump.

The filtered water shall be received in filtered water sump constructed in RCC. The Effluent from this sump shall further be pumped to the successive treatment units.

## Softener (600 m<sup>3</sup>/day):

A resin-based softener unit is provided for removal of the hardness form the treated effluent and make it suitable for reuse. The softener shall be regularly regenerated using brine solution. Th details of tank dimension with capacity are given below.

Sr. No.	Description	QTY	Specification
1	Equalization Tank	01	RCC, Liq. Volume: 300 M <sup>3</sup>
2	UASB Reactor	01	MSEP Volume 622 M <sup>3</sup>
3	Extended Aeration Tank	01	RCC, Liq . Volume 470 M <sup>3</sup>
4	Secondary Clarifier	01	RCC, Liq . Volume: 150 M <sup>3</sup> 8 m Dia x 3m SWD
5	Flocculator	01	RCC, Liq . Volume: 15 M <sup>3</sup>
6	Lamella Clarifier -II	01	RCC, Liq Volume: 30 M <sup>3</sup>
7	Sludge Drying Beds	01	Brick Masonry 100 M <sup>2</sup> .
8	Filter Feed Tank / CCT	01	RCC, Liq . Volume: 25 M <sup>3</sup>
10	MCC Room	1 No	20 M2

## 533

11	Neutralization Tank	1 No	MSEP. Volume:12.50 M <sup>3</sup>
12	Primary Clarifier Lamella	1 No	MSEP. Volume: 30 M <sup>3</sup>
13	Buffer Tank	1 No	MSEP. Volume: 98 M <sup>3</sup>

Evaporation condensate water & cooling tower blow down water etc. app. 230 M<sup>3</sup>/day are collected in equalization tank (Attached as Annexure – IX) and after cooling through PHE fed to biological CPU treatment plant and treated water recycled back to process and cooling tower make-up. Design and actual feed to CPU is given in table no. 7. Design feed and treated water characteristics is given in table no. 8. Analysis report of CPU inlet and outlet is attached as Annexure – X.

Table: 7 – CPU Design and Actual feed

Sr. No.	Particulars	Design	Actual	
		For 140 KLPD	For 65.75 KLPD	Estimated For 140 KLPD
1	Process Condensate Generation, M <sup>3</sup> /day	400.0	210.0	445.0
2	CT Blow down water, M <sup>3</sup> /day	140.0	20.0	30.0
3	CIP water	10.0	--	--
4	Floor washing	50.0	--	--
	Total low strength waste generation, M <sup>3</sup> /day	600.0	230.0	475.0

Table: 8 – Design feed and actual treated water characteristics

Sr. no.	Parameters	Unit	CPU Feed		CPU Treated		
			Design	Actual	Design	As per CTO	Actual
1	Feed quantity	M <sup>3</sup> /day	600	230	600	554	230
2	pH		3.0 – 3.5	5.91	7.0-8.0	5.5-9.0	7.64
3	COD	mg/L	3200	3972	< 250	--	51.7
4	BOD	mg/L	1536	1960	< 30	30	16.9
5	Total suspended solids	mg/L	76	203	< 30	100	36.0
6	Total dissolved solids	mg/L	1815	2512	< 1700	--	1205

Based on the data collected (refer table 7) the design basis of CPU plant of grain-based distillery plant is adequate for 140 KLPD distillery. However, it needs to

# 534

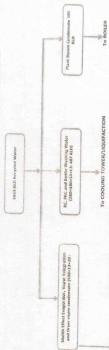
improve the performance of CPU plant. Treated water BOD level found 16.9 mg/L as per design less than 30 mg/L. As per CTO, it should be 30 mg/L. Following are our observations of CPU plant,

- 1) CPU unit area needs to maintain housekeeping properly.
- 2) GSL should display the board and process flow diagram entrance of CPU plant.
- 3) All CPU tanks need to be paint and labeling properly with names, dimension, and capacity of each tank.
- 4) CPU log book to be maintain properly with its inlet, outlet & recycle quantity.
- 5) Daily analysis to be carried out of inlet, outlet parameters COD, BOD, TDS, TSS etc.
- 6) Treated water BOD level found 16.9 mg/L, which is less than 30 mg/L as per CTO.
- 7) GSL has installed online analyzer monitoring system i.e. pH, COD, BOD, TSS at outlet of treated water but it is not connected to CPCB & HSPCB server.
- 8) During the visit we have recorded online analyzer parameters pH- 7.52, COD – 45.7 mg/L, BOD – 15.1 mg/L and TSS – 42.9 mg/L.
- 9) CPU aeration tank MLSS & MLVSS was observed 1715 mg/L and 1225 mg/L respectively. This is found as per desired level.

Process flow diagram is given in next page.

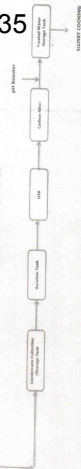
CPU

Schematic Diagram of Waste Water Stream Generation & Treatment



535

Schematic Diagram of Condensate Preheating Unit of Capacity of 600 RLPD





## 536

### 12. Details of utilities (Water, Steam & Power) consumption of 140 KLPD grain-based distillery plant:

Based on the actual working during the visit, the water balance considering fresh water consumption and recycled streams is given in table no. 9.

**Table: 9 – Water balance of grain-based plant during the visit**

Sr. No.	Particulars	For 65.75 KLPD	Estimated For 140 KLPD
<b>Water consumption, M<sup>3</sup>/day</b>			
<b>A</b>	<b>Process water, M<sup>3</sup>/day</b>		
	i) For slurry preparation	320	680
	ii) Pump sealing	5	10
	iii) CO <sub>2</sub> scrubber	12	25
	iv) Fermenter washing, laboratory & floor washing	25	50
	v) Domestic & Gardening	10	10
	<b>Total (A)</b>	<b>372</b>	<b>775</b>
<b>B</b>	<b>Soft water, M<sup>3</sup>/day</b>		
1	Vacuum pump of distillation	12	25
2	Vacuum pump of IME Evaporation	12	25
3	Alcohol scrubber	5	10
4	Make up water for FO decanter	15	30
5	Cooling Tower make-up		
	Fermentation, Distillation, IME Evaporation plant	200	400
6	Water requirement for softener charging	10	10
	<b>Total (B)</b>	<b>254</b>	<b>500</b>
<b>C</b>	<b>DM water, M<sup>3</sup>/day</b>		
	i) For boiler (Steam utilized in grain base plant)	450	850
	ii) For CL unit	80	120
	<b>Total (C)</b>	<b>530</b>	<b>970</b>
	<b>Total (A+ B + C)</b>	<b>1156</b>	<b>2245.0</b>
	Water requirement Lit./Lit. of alcohol production	17.58	10.03
<b>D</b>	<b>Recycled Streams, M<sup>3</sup>/day</b>		
1	Vacuum pump, sealing water for slurry preparation	24	25
2	Spent lees/ Process condensate etc.		
	i) Thin slop –used for slurry preparation	50	105
	ii) Spent lees –used for CT make up	100	190
	iii) Process condensate recycled for slurry preparation	50	75
	iv) Steam condensate recycled to boiler as feed	400	765

	water		
	v) Process condensate recycled for cooling tower make up	150	350
	<b>Total (D)</b>	<b>774.0</b>	<b>1510.0</b>
	Water recycled, Lit./Lit. of alcohol production	11.77	10.78
<b>E</b>	<b>Actual fresh water consumption, M<sup>3</sup>/day</b>	<b>382.0</b>	<b>735.0</b>
	Actual fresh water consumption, KL/KL of alcohol production	5.80	5.25
<b>F</b>	Actual fresh water consumption as per Bore well water withdrawal during the visit, M <sup>3</sup> /day	462.0	--
	Water consumption, KL/KL of alcohol production	7.02	--

#### Steam and power:

GSL has installed two boilers 10 TPH and 25 TPH with steam pressure 67 Kg/cm<sup>2</sup> (g), steam temperature 490<sup>o</sup> C. As well as two TG set having capacity 2.8 MW & 0.8 MW. Rice husk is used for as fuel for boiler. During visit 25 TPH boiler was found under operation and boiler load was 17.5 TPH. ESP is installed as air pollution control equipment for collect the dust/ash from flue gas produced in the boiler. The height of chimney was 44.2 meter. The ash generated 30% on rice husk feed to boiler i.e. 38 – 40 TPD ash was generated from boiler. This boiler ash is disposed for brick manufacturing. Steam & power consumption for grain-based plant, evaporation plant is given in table no. 10.

**Table: 10- Steam & Power consumption of grain-based plant during the visit**

Sr. No.	Particulars	For 65.75 KLPD	For 140 KLPD
<b>A</b>	<b>Steam consumption, MT/day</b>		
	i) For liquefaction & scarification	30.0	70.0
	ii) For wash to Ethanol	165.0	350.0
	iii) Evaporation	30.0	70.0
	iv) DDGS Dryer	80.0	170.0
	<b>Total steam consumption (MT/day)</b>	<b>305.0</b>	<b>660.0</b>
		<b>4.63 Kg/Lit</b>	<b>4.71 Kg/Lit</b>
<b>B</b>	<b>Power consumption, KWH/day</b>		
	i) Grain handling section		
	ii) Milling section		
	iii) Liquefaction		



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iv) Fermentation section	38000	72000
v) Distillation section		
vi) Evaporation section including CT		
vii) Cooling towers		
viii) DWGS section		
ix) Boiler and turbine		
x) Office & street light		
<b>Total power consumption (KWH/day)</b>	<b>38000</b>	<b>72000</b>
<b>MW/hr.</b>	<b>1.583</b>	<b>3.0</b>

Based on the data collected the design basis of boilers is adequate for 140 KLPD grain-based distillery. Following are our observations of Boiler section,

- 1) During visit 25 TPH boiler was found under operation and boiler load was 17.5 TPH.
- 2) ESP is installed as air pollution control equipment for collect the dust/ash from flue gas produced in the boiler.
- 3) The height of chimney was 44.2 meter.
- 4) The ash generated 30% on rice husk feed to boiler i.e. 38 – 40 TPD ash was generated from boiler. This boiler ash is disposed for brick manufacturing.
- 5) GSL should maintain the record of ash production and disposal properly.
- 6) GSL has installed online Suspended Particulate matter (SPM) monitoring system and connected to CPCB & HSPCB server. During visit SPM recorded 60 mg/Nm<sup>3</sup>.
- 7) During visit of the Boiler section, some ash & dust particles found around boiler area although the ash conditioning system along with water sprinklers found operative.
- 8) GSL should maintain proper cleaning in boiler section.

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13. Details of online monitoring system installed at grain base distillery plant is given in table no. 9:

Table 9: Details of online monitoring system installed at grain-based unit

Sr. No.	Particulars	Quantity	Remarks
1	Mass flow meter at Analyser column for whole stillage generation for both plant	2 Nos.	Installed & connected to MPCB/ CPCB server
2	Mass flow meter at MEE outlet for thick syrup generation for both evaporation plant	2 Nos.	Installed & working satisfactorily connected to HSPCB/ CPCB server
3	Online analyser monitoring system (pH, COD, BOD, for CPU outlet (Treated) water	1 No.	Installed & working satisfactorily but not connected to HSPCB/ CPCB server
4	SPM online monitoring system for Boiler	1 No.	Installed & working satisfactorily and connected to HSPCB/ CPCB server

**Conclusions:**

- i) During the visit rice is used as a feedstock for production of alcohol. GSL has achieved 13.5 to 14% alcohol in fermented wash.
- ii) The unit has installed two 70 KLPD distillation plant and their total capacity of 140 KLPD to produce RS or ENA or fuel ethanol. During the visit only one 70 KLPD was under operation and their average production was observed 65.75 KLPD (1<sup>st</sup> – 10<sup>th</sup> June 2024). Plant was produced fuel ethanol from broken rice.
- iii) GSL has installed integrated evaporation followed by standalone evaporation for concentration of thin slop from 4% solids to 30% solids. In integrated evaporation alcoholic vapors of analyzer column is utilized for concentration of thin slop. This help to reduce the steam consumption.
- iv) The designed capacities of effluent treatment plants i.e. decantation of whole stillage as primary effluent treatment system followed by Integrated & Standalone

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multiple effect thin stillage evaporation plant as secondary treatment system followed by mingler to produce DWGS & dryer to produce DDGS as final treatment are adequate for 140 KLPD grain-based distillery plant.

- v) Performance of GSL effluent treatment plants were found satisfactory considering the whole stillage generation and the treatment scheme adopted during the visit.
- vi) GSL should analyze the raw material and all ETP samples regularly from NABL accredited laboratory.
- vii) GSL has installed 2 Nos. mass flow meters at the outlet of analyzer column in distillation & 2 Nos. outlet of concentrated thick slop in SMEE plant. Mass flow meters are connected to HSPCB/CPCB servers and are operational.
- viii) GSL has installed 600 M<sup>3</sup>/day capacity of CPU plant for treatment of process condensate, cooling tower blow down water, CIP water and floor washing water. During the visit total inlet feed of CPU plant was observed 230 M<sup>3</sup>/day.
- ix) GSL has installed online analyzer monitoring system i.e. pH, COD, BOD, TSS at outlet of treated water but it is not connected to CPCB & HSPCB server. It should be connecting to CPCB & HSPCB server. During the visit we have recorded online analyzer parameters pH- 7.52, COD – 45.7 mg/L, BOD – 15.1 mg/L and TSS – 42.9 mg/L.
- x) GSL has installed two boilers 10 TPH and 25 TPH with steam pressure 67 Kg/cm<sup>2</sup> (g), steam temperature 490<sup>o</sup> C. As well as two TG set having capacity 0.8 MW & 2.8 MW. Rice husk is used for as fuel for boiler. During visit 25 TPH boiler was found under operation and boiler load was 17.5 TPH. ESP is installed as air pollution control equipment for collect the dust/ash from flue gas produced in the boiler.
- xi) GSL has installed online Suspended Particulate matter (SPM) monitoring system and connected to CPCB & HSPCB server. During visit SPM recorded 60 mg/Nm<sup>3</sup>.

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- xii) GSL has four borewell for withdrawal of water. Unit has taken NOC from Government of Haryana, Haryana Water Resources Authority for extraction of 552 M<sup>3</sup>/day ground water from existing four borwells. But its validity expired on 18/06/2024. Now, GSL has applied for renewal of NOC on 19/06/2022.
- xiii) GSL has installed 60 TPD CO<sub>2</sub> plant for recover CO<sub>2</sub> generated in fermentation process.

### Suggestions:

- i) GSL should maintain housekeeping properly Distillery, CPU & Boiler section.
- ii) GSL should maintain proper logbook for distillation, evaporation, decanter, ribbon mixer/mingler, DDGS dryer, CPU, and boiler.
- iii) GSL should maintain proper record of fresh waste consumption, recycled water, and actual fresh water consumption.
- iv) GSL should remove the scrap & waste material scattered in distillery premises and clean the premises properly as early as possible.
- v) GSL should display the board and process flow diagram entrance of CPU plant.
- vi) All CPU tanks need to be paint and labeling properly with names, dimension, and capacity of each tank.
- vii) CPU log book to be maintain properly with its inlet, outlet & recycle quantity. Also maintain the record of sludge generation and disposal.
- viii) Daily analysis to be carried out of inlet, outlet parameters COD, BOD, TDS, TSS etc. in CPU unit.
- ix) Treated water BOD level found 16.9 mg/L. Unit should put efforts for improve the performance of CPU unit.
- x) Proper training to be provided to CPU plant operators.
- xi) GSL should maintain the record of ash production and disposal properly.
- xii) During visit of the Boiler section, some ash & dust particles found around boiler area although the ash conditioning system along with water sprinklers found operative.
- xiii) GSL should maintain proper housekeeping in boiler section.



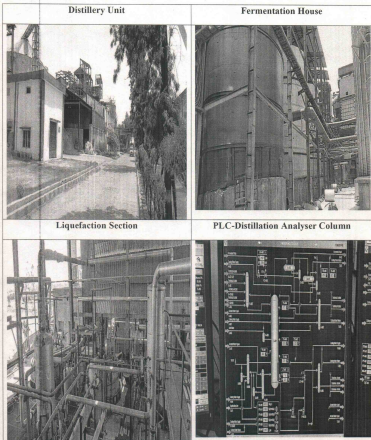
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- xiv) GSL should maintain proper logbook record of Hazardous waste and other waste generated and disposed by the GSL as per the Hazardous & other waste rules 2016.
- xv)GSL should comply the show cause notice given by HSPCB by vide letter no. HSPCB/PR/2024/266, dated 31/05/2024 on priority.

(Dr. K. S. Konde)  
Head, Professor and Technical Adviser  
Dept. of Alcohol Technology & Biofuels,  
Vasantdada Sugar Institute, Manjari (BK), Pune-412307.

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36 Photographs:

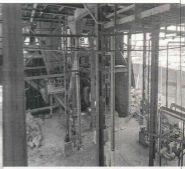


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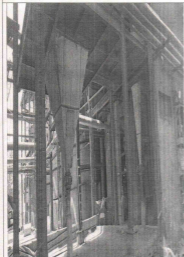
Grain Loading &amp; Unloading Section



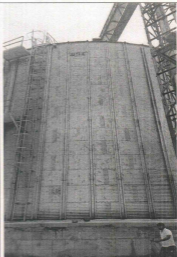
Grain Precleaning Section



Milling Section

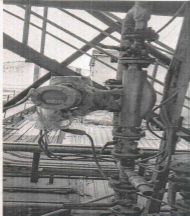


Mass flow meter MEE feed



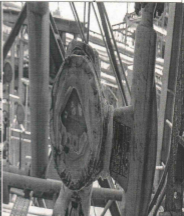
545

Mass flow meter MEE Product

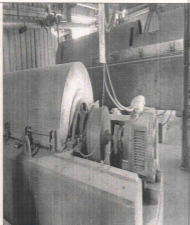


Decanter Section

Mass Flow meter Analyser Column



Ribon Mixer/ Mongler





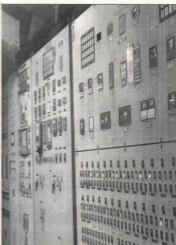
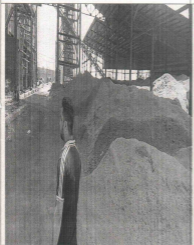
DDGS Dryer

Conventional Boiler



Rice Husk Storage Area

Boiler Control Panel



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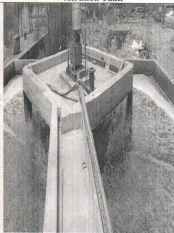
Conventional CPU Unit



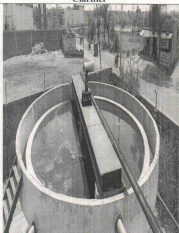
CPU- Digetser Outlet



Aeration Tank



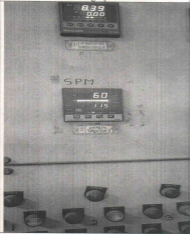
Clarifier



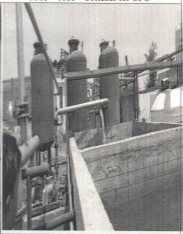


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SPM Monitoring System - Boiler



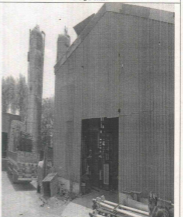
MGF - ACF - Softener for CPU



Country Liquor Bottling Section



CO<sub>2</sub> Plant



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IMFL Section



Sprinkler on Ash quenching

Visit Team



Sprinkler installed on Ash Conveying belt for quenching



Ash conditioning for boiler Ash before Discharge



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Annexure - I

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



ENVIRONMENTAL  
CLEARANCE

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive,  
and Virtuous Environment Single-Window Hub)



To,

The Executive Director  
GLOBUS SPIRITS LIMITED  
Globus Spirits Limited  
F-0, Ground Floor, The Mira Corporate Suites,  
Plot No. 1 & 2, Ishwar Nagar, Mathura Road,  
New Delhi, Kheri, Uttar Pradesh-110065

**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/HRU/IND/24088/10/2022 dated 10 Feb 2023. The particulars of the environmental clearance granted to the project are as below.

- |                                            |                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. EC Identification No.                   | EC23A022HR195384                                                                                                                                                                                                                                                                                               |
| 2. File No.                                | J-11011/714/2009-IA II (I)                                                                                                                                                                                                                                                                                     |
| 3. Project Type                            | Expansion                                                                                                                                                                                                                                                                                                      |
| 4. Category                                | A                                                                                                                                                                                                                                                                                                              |
| 5. Project/Activity including Schedule No. | 5(g) Distilleries                                                                                                                                                                                                                                                                                              |
| 6. Name of Project                         | Expansion of Grain based distillery from 100 KLFD to 205 KLFD by now installation of 105 KLFD Grain based Ethanol plant along with Co-generation power plant from 3.0 MW to 4.8 MW at Village Chulkana, Tehsil Samalkha, District Panipat, Haryana by M/s Haryana Organics (A Division of Globus Spirits Ltd.) |
| 7. Name of Company/Organization            | GLOBUS SPIRITS LIMITED                                                                                                                                                                                                                                                                                         |
| 8. Location of Project                     | Haryana                                                                                                                                                                                                                                                                                                        |
| 9. TOR Date                                | N/A                                                                                                                                                                                                                                                                                                            |

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

Date: 03/04/2023

(e-signed)  
A.N.Singh  
Scientist E  
IA - (Industrial Projects - 2 sector)

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 proposal no. IA/HR/IND2/408610/2022 dated 10<sup>th</sup> February, 2023 for environmental clearance to the above-mentioned project.

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2. The Ministry of Environment, Forest and Climate Change has examined the proposal seeking environmental clearance for expansion of Grain based distillery from 100 KLPD to 205 KLPD by new installation of 105 KLPD Grain based Ethanol plant alongwith Co-generation power plant from 3.0 MW to 4.6 MW at Village Chulkana, Tehsil Samalkha, District Panipat, Haryana by M/s. Haryana Organics (A Division of Globus Spirits Limited).

3. As per the MoEF&CC, Notification number S.O. 345(E), dated 17<sup>th</sup> January, 2019, notification number S.O. 750(E), dated 17<sup>th</sup> February, 2020, S.O. 980 (E) dated 02nd March, 2021 & S.O. 2339(E), dated 16th June, 2021 a special provision in the EIA Notification, 2006 (Schedule 5 (g)), a special provision in the EIA Notification, 2006-(Schedule 5(g)) "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".

4. The details of products and capacity as under:

S. No.	Name of unit	Name of the product/by product	Existing Production capacity	Additional Production capacity	Total production capacity
1	Distillery (Grain - broken rice, maize, barley & sorghum based)	Existing: ENA/ RS/CL/IMFL Additional: Ethanol only	100 KLPD ENA/ RS/CL (12000 Cases/day) &IMFL (10000 Cases/day)	105 KLPD Ethanol only	205 KLPD (ENA/RS/CL & IMFL and Ethanol)
3.	Co-generation power plant for distillery	Power	3.0 MW	1.6 MW	4.6 MW
3	DWGS Dryer	DDGS	58 TPD	46 TPD	104 TPD
4	Fermentation unit	Carbon di-oxide	76 TPD	81 TPD	157 TPD

5. Ministry has issued Environmental Clearance to the existing industry for expansion of Grain/Molasses based distillery unit (25 KLPD) to Grain (100 KLPD) or Grain (75 KLPD) and Molasses (25 KLPD) with Cogeneration Power Plant (3 MW) vide File No. J-11011/714/2009-IA II (I) dated 28th February, 2011. Certified compliance report of existing EC has been obtained from Regional Office,

MoEFCC, Chandigarh vide File No. 552/2011/ENV/PART-II dated 10.08.2022. Closure Report has been obtained from MoEFCC, Chandigarh Vide File No. 4-954/2011-IRO dated 20.01.2023. EAC was satisfied with the response.

6. Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16<sup>th</sup> June, 2021. It was informed that there is no litigation is pending against the project.
7. Total plant area after expansion will be 6,878 ha (17 acres) which is under possession of the company and converted to industrial use. No additional land is required for the expansion, as the same will be done within the existing plant premises. Out of the total plant area, 2,427 ha i.e., more than 33 % of total plant area already been developed and the same will be maintained. The estimated cost of the proposed Expansion project is Rs. 98 Crores. Capital cost of EMP would be Rs. 17.25 Crores and recurring cost for EMP would be Rs. 2.0 Crores per annum. Industry proposes to allocate additional Rs. 1.0 Crore towards Extended EMP (Social developmental activities). Total Employment after expansion will be 200 persons as direct.
8. There are no National Parks, Reserved Forests (RF) / Protected Forests (PF), Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km radius. Water bodies: Samalkha Drain adjacent to plant site in East direction, Samalkha Distributary is located at a distance of 0.5 km in WNW direction, Ganaur Distributary is located at a distance of 3.5 km in WSW direction, Western Distributary is located at a distance of 5 km in WNW direction, Narayana Distributary is located at a distance of 7.0 km in WNW direction & Rajpura Distributary is located at a distance of 8.5 km in SSW direction. NOC has been obtained for Samalkha drain from Sub Divisional officer, Samalkha W.S Sub Division, Panipat vide letter no. 16/NOC dated 27.01.2023 stating that there is no problem of flood in flood season since 25 years.
9. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.656  $\mu\text{g}/\text{m}^3$ , 0.262  $\mu\text{g}/\text{m}^3$ , 0.729  $\mu\text{g}/\text{m}^3$  and 0.84  $\mu\text{g}/\text{m}^3$  with respect to  $\text{PM}_{10}$ ,  $\text{PM}_{2.5}$ ,  $\text{SO}_2$  and  $\text{NO}_x$ . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).
10. Total fresh water requirement after expansion will be 952 CMD which will be met from ground water. Combined application has been submitted to HWRA for renewal of existing NOC and for additional abstraction of 400 KLPD groundwater vide Application No. HWRA/IND/R/2022/197 dated 19.06.2022 & is under process. Existing effluent generation is 548 CMD which is treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 600 CMD. Proposed effluent

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 generation (Process Condensate 55 CMD, ST blowdown 15 CMD, DM plant reject & washing 55 CMD, Boiler blowdown 33 CMD) will be 519 CMD will be treated through additional Condensate Polishing Unit /Effluent Treatment Plant of capacity 600 CMD. Raw stillage (1215 TPD) will be sent to decanter followed by MEE and dryer to produce DDGS. Domestic waste water is being/will be treated in STP of capacity 20 KLPD. The plant is being/will be based on Zero Effluent discharge system and treated effluent/ water will not be discharged outside factory premises.

11. Total power requirement after expansion will be 4.6 MW which will be sourced from 4.6 MW Co-generation power plant. 30TPH Biomass/Rice husk/Agro waste fired boiler will be installed by replacing 10 TPH boiler. APCE ESP with a stack height of 44.2 m & 42.67 m is installed with 25 TPH & 10 TPH Biomass/Rice husk/Agro waste fired boiler for controlling the particulate emission within the statutory limit of 50 mg/Nm<sup>3</sup>. APCE ESP with stack height of 50 m will be installed with proposed 30TPH Biomass/Rice husk/Agro waste fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. Industry has existing 1x380 KVA DG set & one proposed 1x750 KVA DG set will be used as power backup during power failure and stack height (5.5 m) will be provided as per CPCB norms to the proposed DG set.

#### 12. Details of Process emissions generation and its management:

- APCE ESP with a stack height of 44.2 m & 42.67 m is installed with the existing 25 TPH & 10 TPH Biomass/Rice husk/Agro waste fired boiler respectively for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. APCE ESP with a stack height of 50 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed 30 TPH Biomass/Rice husk/Agro waste fired boiler by replacing existing 10 TPH boiler.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> (157 TPD) generated during the fermentation process is being/will be collected and sold to authorized vendors as per local demand.

#### 13. Details of solid waste/Hazardous waste generation and its management:

- DDGS (Distilled Dried Grains Stillage) (104 TPD) is being/will be sold as cattle feed.
- Boiler ash (57 TPD) generated from the boiler is being/will be supplied to brick manufacturers in covered vehicles and given to farmers also.

- Used oil & grease (0.5 MTPA per annum) is being/ will be sold to authorized recyclers.
- ETP/CPU sludge (1.2 TPD) and STP Sludge (0.01 TPD) is being/will be used as manure.

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14. As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of 105 KLPD will be used for manufacturing fuel ethanol only.

15. During deliberations, EAC discussed following issues:

- EAC suggested that the company will increase provisions of solar power within plant and to the nearby areas from 10% to 15% of total power consumption of the unit in form of solar lights/solar panels/solar gadgets etc. as a part of socio economic developmental activities.
- Existing distillery has 25 TPH & 10 TPH Biomass/Rice husk/Agro waste fired boiler. The company will dismantle the existing 10 TPH boiler & install 30 TPH Biomass/Rice husk/Agro waste fired boiler. For this proposed 30 TPH boiler, 50 meters stack height & ESP as APCE will be installed & designed for the statutory limit of 50 mg/Nm<sup>3</sup> for controlling the particulate emissions.
- EAC suggested to revise EMP details considering the modification/up gradation in ESP along with allied utilities. Accordingly, PP has increased the EMP Capital cost from Rs. 12.0 Crores to Rs. 17.25 Crores and EMP recurring cost from Rs. 1.5 Crores per annum to Rs. 2.0 Crores per annum.
- EAC suggested that existing greenbelt in 33% of total project area, i.e., 2.427 ha will be densified @ 2500 trees/ha & the same will be achieved within December, 2023.

The committee was satisfied with the response provided by PP on above information.

16. The proposal was considered by the EAC meeting ID: IA/IND2/13448/23/02/2023) held on 23<sup>rd</sup> February, 2023 in the Ministry, wherein the project proponent and the accredited Consultant namely M/s. J.M. EnviroNet Pvt. Ltd. (NABET certificate no. NABET/EIA/2023/SA 0172 and validity till 7<sup>th</sup> August, 2023), presented the case. The Committee **recommended** the project for grant of environmental clearance.

17. 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

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 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.

18. 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.

19. 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.

20. 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 expansion of Grain based distillery from 100 KLPD to 205 KLPD by new installation of 105 KLPD Grain based Ethanol plant along with Co-generation power plant from 3.0 MW to 4.6 MW at Village Chulkana, Tehsil Samalkha, District Panipat, Haryana by M/s. Haryana Organics (A Division of Globus Spirits Limited), 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 the Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed expansion capacity of 105 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized 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 by the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented as per proposed in Annexure-1.
- (iii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (iv). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities. State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission. No ground water shall be used for the plant operations.
- (v). Total fresh water requirement after expansion shall not exceed 952 m<sup>3</sup>/day, which will be sourced from ground water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent Wash/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant shall be based on 'Zero Liquid Discharge' system and no effluent/treated water shall be discharged outside factory premises.
- (vii). ESP with a stack height of 44.2 m is already installed with the existing 25 TPH Rice husk/Agro waste fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. ESP (five fields) with a

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 stack height of 50 meters. The boiler shall be fitted with the 30 TPH Biomass/Rice husk/Agro waste fired boiler controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. Coal shall not be used as fuel. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system installed by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually. As proposed existing 10 TPH boiler shall be dismantled and disposed in an environmentally sound manner.

- (viii). Boiler ash (57 TPD) will be used for brick manufacturing and supplied to brick manufacturers. PP shall use biomass like rice husk/agro waste as fuel for the proposed boiler. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas. Approach to the project site to the nearest highway will be maintained by the Industry.
- (ix). CO<sub>2</sub> (157 TPD) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and shall be sold to authorized vendors.
- (x). PP shall allocate at least Rs. 50 Lakhs/annum 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.
- (xi). 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.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). 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.
- (xiv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste;

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- (b) Reuse of by-products for other process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment cleaning to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width has been developed in 2.427 hectares i.e., 35.28 % of total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery and same will be maintained. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map.
- (xvi). PP proposed to allocate Rs. 1.00 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan (Annexure-II) for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). 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 with facilities like rest rooms etc.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and gariand drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) system for monitoring of stack emissions/effluent quality shall be installed for flue gas emissions and the pollutants

concentration, and the data shall 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.

- (xx). 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. EMC head shall report directly to Head of Organization/ Director/CEO as per company hierarchy.
- (xxi). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12<sup>th</sup> August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

**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.

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- (v) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purpose.
- (vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- (viii) The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
- (ix) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.nic.in/>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- (x) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- (xi) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- 21.** 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.

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22. 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.

23. 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.

24. 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.

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

(A. N. Singh)  
Scientist-'E'

Copy to: -

1. The Principal Secretary, Department of Environment, Government of Haryana, SCD 1-2-3, Sector 17 (D), 2<sup>nd</sup> Floor, Chandigarh, Haryana
2. The Regional Officer, Ministry of Env., Forest and Climate Change, Integrated Regional Office, Bays No.24-25, Sector 31-A, Dakshin Marg, Chandigarh - 160030
3. The Member Secretary, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula, Haryana - 134109.
5. The Member Secretary, Central Ground Water Authority, 18/11, Jamnagar House, Mansingh Road, New Delhi - 11
6. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhawan, Jor Bagh Road, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi
7. District Collector, Kalaburagi, Haryana
8. Guard File /Monitoring File /Parivesh Portal / Record File

(A. N. Singh)  
Scientist-'E'  
E-mail: aditya.narayan@nic.in  
Tel. No. 11-24642176

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Annexure - I

Capital cost and recurring cost are given below:

S. No.	Description	Capital Cost (Crores)	Recurring Cost/annum (Crores)	
1	Air Pollution Management	ESP + Stack+ up gradation in existing ESP, online monitoring system	8.6	0.55
2	Effluent Treatment	Condensate polishing unit/ ETP and STP	5.5	0.8
3	Environment Monitoring	Lab instrument, Online Monitoring System, Third party monitoring, audit	0.5	0.10
4	Solid waste Management	Ash Handling & Management, Others	2.4	0.45
5	Greenbelt & Plantation Development	Plantation for Greenbelt	0.25	0.10
<b>Total</b>			<b>17.25</b>	<b>2.0</b>

Annexure - II

Details of extended EMP (CER) with proposed activities and budgetary allocation:

Proposed Activities	Proposed budget in 1 <sup>st</sup> Year	Proposed budget in 2 <sup>nd</sup> Year	Total Expenditure (lakhs)
Health facilities- Distribution of medical instruments, oxygen cylinders to nearby health centre and hospitals	Rs. 10 Lakhs (PHC in Village-Chulkana)	Rs. 10 Lakhs (PHC in Village-Kiwana)	Rs. 20.0
Education - Infrastructure Renovation of Govt schools & classroom development, Provision of digital education in school & laptop distribution, sanitation facilities, safe drinking water etc.	Rs. 20 Lakhs (Govt school in Village-Kiwana)	Rs. 10 Lakhs (Govt school in Village-Chulkana)	Rs. 30.0 Lakhs
Skill Development - Establishment of Skill Development centre for Youth & organising Training	Rs. 7.5 Lakhs (Village-	Rs. 7.5 Lakhs (Village-	Rs. 15.0 Lakhs

programmes for youth/residents. Infrastructure Construction/Renovation- Solar power installation in schools & Panchayat bhavan, rainwater harvesting system, development of community halls & nearby plantations etc	563 Lakhs (Village- Chulkana)	Chulkana) Rs. 15 Lakhs (Village- Kiwana)	Rs. 35.0 Lakhs
<b>TOTAL</b>			<b>Rs.100 Lakhs</b>

Validity unknown

Digitally signed by AN Singh

Scientist E

Date: 4/3/2023 11:43:59 PM



**564**  
**HARYANA STATE POLLUTION CONTROL BOARD**

SCO-55, Sec.25, HUDA, Panipat Ph. 0180-2672037  
 Email:- hspcbropr@gmail.com  
 E-mail: hspcb@hry.nic.in



No. HSPCB/Consent/ : 313106523PFYCTO39884947

Dated:20/09/2023

To.

M/s :HARYANA ORGANICS A Unit of Globus Spirits Ltd  
 4 KM, Chulkana Road, Samalkha, Panipat

Subject: Grant of consent to operate to M/s HARYANA ORGANICS A Unit of Globus Spirits Ltd.

Please refer to your application no. 39884947 received on dated 2023-08-24 in regional office Panipat. With reference to your above application for consent to operate, M/s HARYANA ORGANICS A Unit of Globus Spirits Ltd is here by granted consent as per following specification/Terms and conditions.

Consent Under	BOTH
Period of consent	13/09/2023 - 30/09/2027
Industry Type	Distillery ( molasses / grain / yeast based)
Category	RED
Investment(In Lakh)	15967.691
Total Land Area(Sq. meter)	72216.0
Total Builtup Area(Sq. meter)	15000.0
<b>Quantity of effluent</b>	
1. Trade	354.0 KL/Day
2. Domestic	15.0 KL/Day
Number of outlets	00
<b>Mode of discharge</b>	
1. Domestic	STP then use for Horticulture
2. Trade	ZLD/CPU/MEE
<b>Domestic Effluent Parameters</b>	
1. BOD	10 mg/l
2. COD	50 mg/l
3. TSS	20 mg/l
4. pH (5.5-9.0)	5.59.0
5. Faecal Coliform (MPN/100 ml)	100 MPN/100ml
6. TOTAL NITROGEN	10
<b>Trade Effluent Parameters</b>	
1. BOD	30 mg/l
2. TSS	100 mg/l

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3. pH (5.5-9.0)	5.59.0
4. All Applicable Standards as per EP Acts/Rules/Norms	
Number of stacks	3
<b>Height of stack</b>	
1. S T A C K ATTACHED TO 10 TPH BOILER	42.67 m
2. S T A C K ATTACHED TO 25 TPH BOILER	44.2 m
3. S T A C K ATTACHED TO DG SET (above roof level)	10.9 m
<b>Emission parameters</b>	
1. SPM	80 mg/m <sup>3</sup>
<b>Product Details</b>	
1. IMFL	10000 Cases/day
2. COUNTRY LIQUOR	12000 Cases/day
3. RECTIFIED SPIRIT, ENA, ETHANOL	140 Kilo liters/Day
<b>Capacity of boiler</b>	
1. BIOMASS FIRED BOILER	25 Ton/hr
2. BIOMASS FIRED BOILER	10 Ton/hr
<b>Type of Furnace</b>	
1. NA	
<b>Type of Fuel</b>	
1. BIOMASS	300 TON/DAY
2. Diesel	2.4 KL/day
<b>Raw Material Details</b>	
DISCARDED GRAIN, NAKKU,BAJRA,MAIZE	296 Metric Tonnes/Day
RAW WATER	135 Kilo Liters/Day

Regional Officer, Panipat  
Haryana State Pollution Control Board.

**Terms and conditions**

- The applicants shall maintain good house keeping both within factory and in the premises. All hose pipelines valves, storage tanks etc. shall be leak proof. In plant allowable pollutants levels, if specified by State Board should be met strictly.
- The applicant/company shall comply with and carry out directive/orders issued by the Board in this consent order at all subsequent times without negligence of his /its part. The applicant/company shall be liable for such legal action against him as per provision of the

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- law/act in case of violation of any order/directives. Issued at any time and or non compliance of the terms and conditions of his consent order.
3. The applicant shall make an application for grant of consent at least 90 days before the date of expiry of this consent.
  4. Necessary fee as prescribed for obtaining renewal consent shall be paid by the applicant alongwith the consent application.
  5. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above required variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard vary all or such condition and there upon the applicant shall be bound to comply with the conditions so varied.
  6. The industry shall provide adequate arrangement for fighting the accidental leakages, discharge of any pollutants gas/liquids from the vessels, mechanical equipment etc. which are likely to cause environment pollution.
  7. The industry shall comply noise pollution (Regulation and control) Rules, 2000.
  8. The industry shall comply all the directions/Rules/Instructions as may be issued by the MOEF/CPCB/HSPCB from time to time.
  9. The industry shall ensure that various characteristics of the effluents remain within the tolerance limits as specified in EPA Standard and as amended from time to time and at no time the concentration of any characteristics should exceed these limits for discharge.
  10. The industry would immediately submit the revised application to the Board in the event of any change in the raw material in process, mode of treatment/discharge of effluent. In case of change of process at any stage during the consent period, the industry shall submit fresh consent application alongwith the consent to operate fee, if found due, which may be on any account and that shall be paid by the industry and the industry would immediately submit the consent application to the Board in the event of any change during the year in the raw material, quantity, quality of the effluent, mode of discharge, treatment facilities etc.
  11. The officer/official of the Board shall reserve the right to access for the inspection of the industry in connection with the various process and the treatment facilities. The consent to operate is subject to review by the Board at any time.
  12. Permissible limits for any pollutants mentioned in the consent to operate order should not exceed the concentration permitted in the effluent by the Board.
  13. The industry shall pay the balance fee, in case it is found due from the industry at any time later on.
  14. If the industry fails to adhere to any of the conditions of this consent to operate order, the consent to operate so granted shall automatically lapse.
  15. If the industry is closed temporarily at its own, they shall inform the Board and obtain permission before restart of the unit.
  16. The industry shall comply all the Directions/ Rules/Instructions issued from time to time by the Board.

#### Specific Conditions :

1. The unit shall keep all the parameters within the prescribed limits and shall comply with all the Norms and Rules as prescribed in the Acts.
2. That the unit will comply with all the provisions of Hazardous Waste Rules and maintain agreement with Authorized recycler of the Board for scientific disposal of Hazardous Waste.
3. That unit will use only biomass fuel as per

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direction of CAQM. 4. That the Unit will run APCM regularly and maintained log books properly. 5. That the unit will provide inter locking arrangement of DG set with APCM and shall have adequate D.G. set to ensure regular and effective running of pollution control devices. 6. That the unit will not generate Trade effluent more than permission granted without prior permission from the board. 7. That the unit will not add any air polluting process/ machinery and also not add any process which increases the water pollution load. 8. That the unit will follow the directions issued from HSPCB, CPCB, NGT and CAQM. 9. That the unit will deposit the balance consent fee as per schedule, if any. 10. The unit will run and maintain its MEE and APCM regularly & effectively and will keep all the parameters within limit, it will dispose off its boiler ash in scientific method. 11. That the unit should obtain/renew the NOC from HWRA for extraction of ground water. 12. Unit will Hand over the waste oil of the D.G set only to the authorized recycler and will timely renew their agreement. 13. That the CTO so granted shall become invalid in case of violation of any of the above / any law of the land If the unit fails in complying of above said conditions. 14. That this CTO is issued in suppression of earlier CTO issued vide no. HSPCB/Consent/ 313106523PITCTE2060767 Dated: 13/07/2023. 15. That the unit will submit the compliance of conditions of CTO each year.

*Regional Officer, Panipat  
Haryana State Pollution Control Board.*

HARYANA STATE



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Application no. :6990998

Industry Id: 14PIT1382554

Date: 20/10/2023



Annexure - III  
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**Haryana State Pollution Control Board**  
SCO-55, Sec.25, HUDA, Panipat Ph. 0180-2672037 Email:-  
hspcbropr@gmail.com



No. :HWM/PIT/2023/6990998

DT: 20/10/2023

To

M/s HARYANA ORGANICS A Unit of Globus Spirits Ltd  
4 KM, Chulkana Road, Samalkha, Panipat  
Panipat

**Sub: Grant of Authorization under Hazardous and Other Wastes(Management & Transboundary Movement) Rules, 2016**

1. Reference of application:6990998 dated: 20/10/2023
2. Dr Bhaskar Roy of HARYANA ORGANICS A Unit of Globus Spirits Ltd is hereby granted an authorization for generation, collection, storage, transportation on the premises situated at 4 KM, Chulkana Road, Samalkha, Panipat

**Details of Authorization**

S.No.	Name of process and Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorized mode of disposal or recycling or utilisation or co-processing, etc.	Quantity
1	Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems or other applications, Used/spent oil	SENT TO M/s UNIVERSAL HYDROLUBES	600 KL/Ann m

1. The authorization shall be valid for a period of 01/10/2023 to 30/09/2027
2. The authorization is subject to the following general and specific conditions :-

**Regional Officer Panipat**  
**For Haryana State Pollution Control Board**

**Conditions of Authorization:**

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.

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4. Any unauthorised change in personnel equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of this authorization.
5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty".
7. An application for the renewal of an authorization shall be made as laid down under these Rules.
8. Any other conditions for compliance as per the guidelines issued by the Ministry of Environment, Forest and Climate Changes or Central Pollution Control Board from time to time.
9. Annual return shall be filed by June 30 th for the period ensuing 31 st March of the year.

**BILWINDER SINGH**  
Regional Officer Panipat  
For Haryana State Pollution Control Board

HARYANA STATE

570<sup>क.क. - IV</sup>

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हरियाणा सरकार  
हरियाणा जल संसाधन प्राधिकरण  
Government of Haryana  
Haryana Water Resources Authority

PERMISSION CERTIFICATE FOR GROUND WATER EXTRACTION

Project Name: HARYANA ORGANICS (A UNIT OF GLOBUS SPIRITS LTD)  
 Project Address: HARYANA ORGANICS (A UNIT OF GLOBUS SPIRITS LTD) 4 KM  
 CHULKANA, SAMALUKHA, PANPAT  
 Village/NC: Chulkana Tehsil Samalkha  
 District: PANPAT State Haryana  
 Pin Code: --  
 Communication Address: HARYANA ORGANICS (A UNIT OF GLOBUS SPIRITS LTD) 4 KM  
 CHULKANA, SAMALUKHA, PANPAT  
 Address Regional Office: Sirsahai Bhawan, Sector-5, Panchkula

1. NOC No. HWRA-NOC/INDIN/2021/04  
 2. Application No. 13-3/205641/HRI/IND/2021 3. Category. Industry  
 4. Project Status: New 5. NOC Type: New

6. Ground Water Extraction Permitted:

Ground Water For	m <sup>3</sup> /day	m <sup>3</sup> /year	Valid From	Valid Upto
Fresh Water	552.00	162168.00	18/05/2021	18/05/2022
Total	552.00	162168.00	--	--

7. Details of Ground Water Extraction: Total Existing No. 4 Total Proposed No. --

Abstraction Structure*	DW	DCB	BW	TW	DW	DCB	DW	TW
	--	--	4	--	--	--	--	--

\*DW - Dug Well/DCB - Dug cum Bore Well/BW - Bore Well/TW - Tube Well/DWLR - Digital Water Level Recorder

8. Quantum of ground water recharged(3/year) --  
 9. Number of Piezometers (Observation wells) No. of Piezometers Monitoring Mechanism  
 to be constructed/monitored & Monitoring Manual DWLR Telemetry  
 mechanism 1 0 1 1

\* Terms & conditions are at the back of this paper



Note: This is computer generated certificate. It can be validated by scanning QR code

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Validity of this NOC shall be subject to compliance of the following mandatory conditions

- 1. The NOC for abstraction of ground water shall be subject to the following terms and conditions
- 2. All as granted to the applicant on the condition that least groundwater water supply systems are suitable to supply the desired quantity of water. In case of supply of water from local agency the applicant shall immediately inform HWRDA and follow the abstraction of ground water accordingly.
- 3. The applicant shall adopt latest water efficient technologies to reduce dependence on ground water resources by 20% in three years. Catchment norms in their regional shall be implemented strictly. The grant of reduction of dependence on ground water shall also be submitted half yearly i.e. at the time of deposit of water abstraction charges of the second quarter.
- 4. The applicant abstracting ground water from the site shall submit quarterly data on the portal. Monthly water level data shall be submitted to the HWRDA through the web portal quarterly basis.
- 5. The applicant shall not construct structures as per Haryana Water Pollution Control Board shall also. The horizontal extension on surface (non-charge) shall ensure sufficient protection measures to prevent ground water pollution and to all extent the compliance under 3.
- 6. The applicant shall submit quarterly water level monitoring data on the portal.
- 7. The applicant shall submit quarterly water level monitoring data on the portal.
- 8. The applicant shall submit quarterly water level monitoring data on the portal.
- 9. The applicant shall submit quarterly water level monitoring data on the portal.
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- 25. The applicant shall submit quarterly water level monitoring data on the portal.
- 26. The applicant shall submit quarterly water level monitoring data on the portal.
- 27. The applicant shall submit quarterly water level monitoring data on the portal.

Note: This is computer generated certificate. It can be validated by scanning QR code

5

# 572

Government of Haryana

Haryana Water Resources Authority

Applications for Issue of Permission to Extract Ground Water

## Application for Permission to Extract Ground Water for Industrial Use

Application No: HWRA/IND/R/2022/197

I. General Information:

Application Type Category/ Type of Application:

(i) Name of Applicant:	PARVESH CHAWLA
ID Proof Type	Driving License
ID Proof no	HRSS2304006352
ID Proof Document	Download
(ii) Designation of Applicant:	AUTHORISED SIGNATORY
(iii) Name of Industry:	HARYANA ORGANICS A UNIT OF GLOBUS SPIRITS LTD
(iv) Registration number of Industry:	6414
(v) Location Details of the Industrial Unit	
Industrial Unit Address	HARYANA ORGANICS A UNIT OF GLOBUS SPIRITS LTD 4
State:	KM CHULKANA, SAMALGHA, PANPAT
District:	Haryana
Tehsil:	PANPAT
Block:	Sarullaha
Village/WC:	SAMALGHA
Region:	Chulkana
(vi) Correspondence Address	own-registered
Complete Postal Address	
Mobile Number:	HARYANA ORGANICS A UNIT OF GLOBUS SPIRITS LTD 4
E-mail of industry:	KM CHULKANA, SAMALGHA, PANPAT
(vii) Salient Features of the Industrial Activity:	8392260575
Type of industry	parvesh04@gmail.com
Industry fall under	Beverages
Is Water Intensive	Large
Purpose of Abstraction	No
Groundwater utilization for	Other Use - Industrial use
Consent to Operate	Existing Industry
Date of commencement	23/03/2018
Description	23/03/2018
(viii) Land use details of the existing/proposed Industrial unit premises	
Ownership of the land(Enclose documents of ownership)	MANUFACTURING OF EXTRA NEUTRAL ALCOHOL, SNA FROM DISCARDED GRAINS, BOTTLING OF COUNTRY LIQUOR AND INDIAN MADE FOREIGN LIQUOR, IMP.
	Download

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Latitude	Longitude	3.2197725	76.9938826
Location Map	Download		
Total Land area(in sq m)			
Roof top area of buildings/sheds(in sq m)			72216.32
Road/paved area(in sq m)			2860.00
Green belt area(in sq m)			33394.32
Open Land (in sq m)			16000.00
Source of availability of surface water for industrial use, if any	No		19872.00
Township/villages within 2 km radius of the industrial unit	Yes	CHULKANA	
Source of recycled water		ETP	

2) Detail of water requirement/ recycled water usage : (Please enclose flow chart of activities and requirement of water at each stage)

Flow Chart of activities and requirement of water	Download
Quality of groundwater	Fresh Water
Name of NABL(Under Valid Certificate)	ENVIRON TECH LABORATORIES
Upload test report of groundwater quality from NABL accredited lab	Download
Total water required(in m3/day)	682.00
Ground Water required(in m3/day)	552.00
Recycled Water usage(in m3/day)	130.00
Proposed/existing water supply from any agency(in m3/day)	0.00

(ii) Breakup of Water Requirement and Usage:

Activity	Existing Requirement (m3/day)	Proposed Requirement (m3/day)	Total Requirement (m3/day)	No. of Operational Days in a Year	Annual Requirement (m3/year)
Industrial Activity	632.00	0.00	632.00	330	208560.00
Residential / Domestic	5.00	0.00	5.00	330	1650.00
Greenbelt Development / Environment Maintenance	45.00	0.00	45.00	330	14850.00
Other Use	0.00	0.00	0.00		
Grand Total	682.00	0.00	682.00	0	0.00
					225060.00

(iii) Breakup of Recycled Water Usage:

	(m3/day)	(Days)	(m3/year)
(a) Total Waste Water Generated:	164.00	330	54120.00
(b) Quantity of Treated Water Available	130.00	290	42900.00

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i). Reuse in Industrial Activity:	45.00	330	28950.00
ii). Reuse in Green Belt Development:	45.00	330	14850.00
8). Any other use	0.00	0	0.00
ic) Total Treated Water Utilized:	130.00		
(d) Quantity and mode of disposal of unutilised effluent:	0.00	0	42960.00

## 3. Details of existing and/ or proposed groundwater abstraction structures

## (a) Groundwater Abstraction Structure-Existing

SNo.	Type/ Year of construction	Depth (meter) / Diameter (mm)	Depth to water level (meters below ground level)	Discharge (m <sup>3</sup> per hour)	Operational hours/ (day)/year	Mode of lift	Horse Power of pump	Whether fitted with water meter or not	Whether permission/ registered with HRWA / If so Details of permission
1	bore well/ 1994	100.00/ 250.00	34.00	24.00	6/ 330	4	15	No	No/
2	bore well/ 1994	100.00/ 250.00	36.00	24.00	6/ 330	4	10	No	No/
3	bore well/ 1994	175.00/ 300.00	35.00	30.00	6/ 330	4	35	Yes	No/
4	bore well/ 1994	150.00/ 250.00	34.00	24.00	6/ 330	4	15	Yes	No/

Quantity of ground water recharge(m<sup>3</sup>/year)

364320.00

NOC for water supply from Local Authority

Download

Details of rainwater harvesting and artificial recharge measures for groundwater recharge in the premises. If the firm has proposed to take up rainwater harvesting and recharge outside the industrial unit premises, then provide NOC from the concern authority/agency where the harvesting measures are proposed, if already implemented, details may be furnished. (attach report on comprehensive & feasible Rainwater harvesting/recharge proposal).

Download

Water Balance Chart with water requirement at each Stage.

Download

Have you applied earlier for groundwater clearance from Government Agency, if so, give details thereof with status

Download

Water Efficient Technology will be adopted

Download

Consent of operate issued by HSPCB(CFO)

Download

Impact Assessment Report Proposed Extraction

Download

Certificate regarding non/ partial availability of fresh water treated waste water supply from the local government water supply agency

Download

Proof of Large Industry

Download

Any Other Document/Information

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Download  
YesI shall comply with all the terms and conditions of the  
Permission

It is to certify that the details and information furnished above are true to the best of my knowledge and belief and I am aware that if any part of the data/information submitted is found to be false or misleading at any stage the application will be rejected out rightly.

Date:

Place:

Name of Authorized Person:

Designation of Authorized Person:

Authorization Letter:

Signature of Applicant with Office Seal

a) Information of payment for Application Fee

Total Amount

Mode of Payment

Online

Reference No.

Transaction No.

HRMA1002056413123463

688C10120

Date

Amount

Status

b) Information of payment for Tariff Fee

19/06/2022

50000

Success

Total Amount

Mode of Payment

5

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Haryana Water Resources Conservation, Regulation and Management Authority  
Government of Haryana  
Welcome: parveshcid@gmail.com ()

Ground Water Extraction - Tariff

Tariff Information

NOC Number\*

Select One

Quarter Number\*

Meter number\*

Meter installed on (Date)\*

DDMMYYYY

Opening meter Reading (in M<sup>3</sup>/D)\*

(meter reading on the day meter is installed)

Date\*

DDMMYYYY

Current meter reading (in M<sup>3</sup>/D)\*

Date\*

DDMMYYYY

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Upload Cico-tag meter reading image file\*

No file chosen

(Maximum only under 312 KB)

Other Details (if any)

Tariff Details

Sr No.	NOC No.	QTR No.	Qtr Start Date	Qtr End Date	Tariff Status	Tariff	In
1	HWRA/NOC/IND/N/2021/34	1	18/06/2021	15/09/2021	Tariff Paid Tariff Receipt	1468320.00	99
2	HWRA/NOC/IND/N/2021/34	2	16/09/2021	14/12/2021	Tariff Paid Tariff Receipt	496800.00	24
3	HWRA/NOC/IND/N/2021/34	3	15/12/2021	14/03/2022	Tariff Paid Tariff Receipt	496800.00	15
4	HWRA/NOC/IND/N/2021/34	4	15/03/2022	13/05/2022	Tariff Paid Tariff Receipt	331200.00	;



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Government of Haryana  
Haryana Water Resources Conservation, Regulation and  
Management Authority  
Tariff Receipt

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CLWA

Receipt No: HRWA1002006416154161

Dated: 05-08-2022

Project Name : HARYANA ORGANICS (A UNIT OF GLOBUS SPIRITS LTD)

NOC Number : HWRA/NOC/IND/N/2021/34

Address : HARYANA ORGANICS (A UNIT OF GLOBUS SPIRITS LTD)

Payment Type : Tariff Charges for Extraction of Groundwater

Period : 18-05-2021 to 14-12-2021

Amount : Rs. 521054

(In words) Rupees Five Hundred Twenty-One Thousand Fifty-Four

Accounts Officer,  
For HWRA,  
(This is computer  
generated Receipts so  
no signature required)

Note : In case of any calculation discrepancy, the Authority keeps every right reserve to charge extra tariff or refund in case extra amount of tariff received.



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Government of Haryana  
Haryana Water Resources Conservation, Regulation and  
(Management) Authority  
Tariff Receipt

Receipt No: HRWA1002055417483758

Date: 28-07-2022

Project Name : HARYANA ORGANICS (A UNIT OF GLOBUS SPIRITS LTD)

NOC Number : HWRANOC/IND/N/2021/34

Address : HARYANA ORGANICS (A UNIT OF GLOBUS SPIRITS LTD)

Payment Type : Tariff Charges for Extraction of Groundwater

Period : 18-06-2021 to 15-09-2021

Amount : Rs. 1567794

(In words) Rupees One Million Five Hundred Sixty-Seven Thousand Seven Hundred Ninety-Four

Accounts Officer,  
For HWRA,  
(This is computer  
generated Receipts so  
no signature required)


Note : In case of any calculation discrepancy, the Authority keeps every right reserve to charge extra tariff or refund in case extra amount of tariff received.


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**Indian-Non Judicial Stamp  
Haryana Government**


Date: 13/10/2022

Certificate No. Q8M2022J33  Stamp Duty Paid: ₹ 101

GRN No. 95337876  Penalty: ₹ 0

**Deposit**

Name: Haryana organics  
 H.No/Floor: X Sector/Ward: X Landmark: Chuhana road  
 City/Village: Samakhia District: Panipat State: Haryana

Phone: 80\*\*\*\*08 

Purpose: other to be submitted at Other

The authenticity of this document can be verified by scanning the QR Code Through smart phone or on the website <http://govstamps.in>



**AFFIDAVIT**

I, Sheshank Singh Balyan (Auth Signatory) son of Sh PS Balyan aged about 48 years, in the Firm Haryana Organics (Unit of Globus Spirits Ltd.) located at 4KM Chuhana Road Samakhia, Distt Panipat, Haryana hereby solemnly affirm and declare that firm is complying with the conditions mentioned in the NOC issued by HWRA vide No/ HWRA/NOC/IND/N/2021/34 dated 18/06/2021 as under:

1. The firm has not abstracted more than 552 m<sup>3</sup>/day (Quantum of ground water mentioned in the NOC) for the period from 18/06/2021 to 18/06/2022 (NOC validity period)
2. The firm has constructed four No. ground water abstraction structures/dewatering abstraction/dewatering structure/structure(s) for this purpose as per the NOC condition.
3. The firm has installed digital water flow meters in all the groundwater abstraction structure/ structure(s) as mentioned in the NOC. All the flow meter /meter(s) are functional.
4. The firm has implemented rain water harvesting/ recharge measures within the premises as per the condition mentioned in the NOC. The firm also carries out periodic maintenance of recharge structure/structure(s).
5. In case of saline groundwater abstraction, the firm has sealed existing tube-well yielding freshwater and new well has been constructed tapping saline water zone as per NOC condition.

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- 6 The firm has re-used 100% for non-potable usage of self-generated waste water after due treatment. He shall also ensure to reuse for non-potable usage the Treated Waste Water (other than self-Generated) as per application and registration terms and conditions.
- 7 The firm has taken all preventive measures to prevent contamination of groundwater within the premises.

I hereby undertake that all the information furnished above is true to the best of my knowledge and belief. I am fully aware that if any information's submitted by me is found to be false or violation of NOC conditions is observed at any stage, the firm shall be liable to pay Environmental Compensation for illegal withdrawal of ground water/Penalty, as per the relevant provision of HWRA as and when decided by the Statutory Authorities.

*[Handwritten Signature]*  
 DIRECTOR

Place: *SRK*

Date: *12/10/22*



ATTACHED  
*[Handwritten Signature]*  
 12 OCT 2022

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**HARYANA STATE POLLUTION CONTROL BOARD**  
**SCO No.55, SECTOR-25, HUDA, PANIPAT**  
 Ph. = (0181) 2672027, Telex = 2664981, E-mail: harspcb@rediffmail.com

No. HSPCB/PR/2024/ 266

Dated: 31/05/2024

To

M/s Haryana Organics, A unit of Globus Spirit Ltd.  
 4 KM, Chalkana Road, Sonalkha, Panipat

Sub:

Show cause notes for closure u/s 33-A of Water Act, 1974 & 31-A of Air Act, 1981 and prosecution under section 43/44 for the violation section 24/25 of Water Act, 1974 and Under Section 37 for violation of section 21 of Air Act, 1981 and imposition of Environmental Compensation as per board policy.

Whereas your unit was inspected on 14/03/2024 by the Joint Committee consisting of CPCB, New Delhi, District Administration, Panipat and HSPCB, Panipat in respect of O.A. No.111/2024 pending before Hon'ble NGT. During inspection sampling at various point of your unit was done by the team and the parameters as mentioned in tables below has been found exceeding the prescribed standards:-

1. Lab analysis results of STP (sewage treatment plant)

Parameter	STP Inlet (Sample code: I)	Aeration Tank	STP outlet (Sample code: 2)	Discharge Standard (Standard as per the H.O. No.16/1) order dated 30.04.2019)	Discharge Standard (Permissible under STP Rules, 1984) Applicable for all kinds of disposal (except land)
pH	7.30		7.30	6.5-9.0	6.5-9.0
TSS	160		85	10	<10
DO	2.02		2.64	—	—
BOD	876		100	10	20
COD	2130		277	30	—
NO <sub>3</sub> -N	1.30		1.0	—	—
TP	18.0		1.50	1.0	—
SO <sub>4</sub>		613			
NO <sub>2</sub> -N		413			

All values are in mg/l except pH.

The parameter has been found exceeding in TDS, BOD, COD and Total Phosphorus as mentioned in above table showing that the STP provided by the unit is not operated regularly and effectively.

2. Groundwater analysis result for physical parameters

Parameter	Borewell-1 (within the Unit) (Sample code-BW-1)	Borewell-2 (within the Unit) (BW-2)	Borewell-3 (within the Unit) (BW-3)	Borewell (outside the Unit premises) installed at Sh. Kamal Kumar Road (BW-4)	BIS 10500-2012 (Acceptable Limit)	BIS 15 18500-2012 (Permissible Limit in absence of alternative source)
pH	7.5	7.8	8.3	7.5	6.5-8.5	6.5-8.5
Color	107	104	105	105	45	15
TDS	1063	1063	1144	1082	500	2000
Hard Hardness (Ca)	45	44	577	50	200	600
Hard Hardness (Mg)	290	307	411	426	200	600
Hard Hardness (Ca+Mg)	337	365	988	526	—	—
Chloride (Cl)	248	211	31	164	250	1000

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Hardness	0.33	0.61	0.90	0.97	1.2	1.5
Sulphate SO <sub>4</sub> <sup>2-</sup>	195	192	201	158	200	480
NO <sub>3</sub> -N	3.38	5.03	3.86	6.59	43	No relaxation
COD	3.0	BDL	9.0	16	-	-
K <sup>+</sup>	3.47	3.58	6.2	6.03	-	-

All values are in mg/l except pH, conductivity & color

The value of COD of the borewell (outside the Unit premises) installed at Sh.Ramesh Kurar land has been found 16 mg/l indicates possible threat to ground water and need urgent attention towards cleaning of drain at the back side of your unit.

3. Analysis results of water samples collected from Drains

Parameters	Drain sample location	
	Drain (Up-stream of the Unit) (Sample code-USD)	Drain (down-stream of the Unit) (sample code-DSD)
pH	7.8	7.0
Colour	30	24
Total Suspended Solid	549	4739
TDS	1189	1789
Sulphate as SO <sub>4</sub> <sup>2-</sup>	157	64
Nitrate+NO <sub>3</sub> -N	1.20	11.0
PO <sub>4</sub> -P	6.70	13.0
Potassium K <sup>+</sup>	37	34
COD	429	9268
BOD	213	4850

All values are in mg/l except pH & color

High concentration of BOD and COD in between the upstream and downstream of the drain passing back side of the unit reveal that untreated/partially treated effluent is discharge into drain.

Also, the final results at CPU have been found high in BOD-160, COD-458 and TDS-1332 mg/l which shows that treated water of CPU is not suitable to be used in cooling tower makeup. During the time of inspection, it was noticed that the ash coming from the boiler of industrial unit is falling on the crop of the complainant land and damaging the crop.

Beside these following observations has been found during the time of inspection by the joint committee: -

A. Effluent Management

- i. The Unit should properly operate & maintain the aeration tank and clarifier (secondary) of CPU and accordingly rectify the problem at the earliest.
- ii. The Unit should properly operate & maintain the CPU and enhance the performance of CPU so as to meet the desired water quality for reuse & recycle, recycle effluents treated with in the process/cooling tower make up water.
- iii. The Unit should properly operate & maintain the STP and optimize the performance of its STP so as to meet the prescribed standard.
- iv. The Unit should provide Environmental Data display board at the entrance of the Gate and regularly update it.
- v. The Unit should take appropriate steps in cleaning and de-sludging of the Drains (flowing adjacent to the Unit) and should provide the action taken report to SPCB.
- vi. The Unit should not discharge their effluents into the drain and strictly follow the consent condition of the HSPCB.
- vii. The presence of high concentration of COD, BOD, TSS & TDS in the downstream of the Drain compared to the downstream drain reveals that Unit intermittently discharges its

untreated/partially treated effluents into the drain. Therefore, SPCB should ensure strict periodical surveillance of the industry/drain and ensure no industrial waste water discharge into the drain.

viii. The Unit should maintain proper logbooks regarding raw spent-wash/lin slope generation, Fermenter sludge generation, Boiler ash generation and disposal.

**B. Air Pollution and Control**

- i. The Unit should ensure regular water sprinkling and also take other necessary measures in and around the boiler to minimize the dust /ash dispersion in the ambient environment.
- ii. The Unit should provide easy ladder (spiral /sea/old type) ladder at stack of 25TPH boiler instead of monkey ladder to ensure safe access to sampling port for emission monitoring as per CPCB Emission Regulations Part-III.
- iii. The Unit should provide proper housekeeping at the boiler section.
- iv. The conveyor belt at the boiler should be covered (hood cover) or enclosed so as to control the fugitive emission during the transportation of fuel /rice husk. The Unit should provide adequate measure so as to avoid any fugitive emission /dust emission to the nearby areas/land.
- v. The Unit should pay the compensation to the affected land owner, which may be assessed by the HSPCB in consultation with agriculture department.

**C. Waste Management**

- i. The Unit should maintain proper logbook record of Hazardous and other waste generated and disposed by the industry as per the Hazardous & Other Waste Rules, 2016.
- ii. The Unit should not store Hazardous waste for period not exceeding 90 days.

In view of that above, you are hereby directed to show cause within 15 days, as to why closure and legal action against your unit may not be taken along with the imposition of the Environmental Compensation for the damage caused to the environment w/ 33-A of Water Act, 1974 & 31-A of Air Act, 1981 and prosecution under section 43/44 for the violation section 24/25 of Water Act, 1974 and Under Section 37 for violation of section 21 of Air Act, 1981.

In case you fail to comply with the deficiencies mentioned above within the above mentioned stipulated period, it will be presumed that you have nothing to say in this regard and accept the status above, which will warrant action w/ 33-A of Water Act, 1974 & 31-A of Air Act, 1981 and prosecution under section 43/44 for the violation section 24/25 of Water Act, 1974 and Under Section 37 for violation of section 21 of Air Act, 1981.

This may be treated as MOST URGENT.

DAW Copy of Joint Inspection Report

*[Signature]*  
Regional Officer  
Parbhani Region

Endst.No.HSPCB/PR/2024/

Dated

A copy of the above is forwarded to the Chairman, HSPCB, Parbhikula for information & necessary action please.

*Received on 4/06/24*  
*[Signature]*

Regional Officer  
Parbhani Region

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Dinesh Patil <dineshvs180@gmail.com>

## Adequacy Audit of STP & CPU at Grain Based Distillery Haryana Organics Samalakh, Panitpat Haryana

10 messages

Amitabh Singh <amitabh@globusgroup.in>

6 June 2024 at 16:19

To: d.patil@vsiisugar.org.in

Cc: kakasheh.konde@gmail.com, dineshvs180@gmail.com, Mahendra Pratap Singh <mpaingh@globusgroup.in>, Akhil Kumar <akhil@globusgroup.in>

Email 1 / 2

Dear Patil Saheb

It was nice taking to you today.

As explained to you about subject matter,

I am attaching the Show cause notice issued to our plant Haryana Organics ( A unit of Globus Spirits Ltd) at Samalakh along with joint inspection report of CBCB, HSPCB & Local Administration team for ready reference.

This audit is required to reply the show cause notice issued to us we would get conducted the Adequacy Audit of our 600 KLPD Capacity CPU and 15 m3 Capacity STP by VSI ASAP.

The show cause notice date is 31<sup>st</sup> may 24 and we have 15 days time to send them reply with this report hence in any case we need report by 14<sup>th</sup> June 24

PL do take up this audit and arrange to provide us the report.

I am waiting for your quick response

Note : Joint inspection report is large hence sending by another email

Regards

Amitabh Singh

President - Technical & Operations



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Fermentation Data: (7th Round)

Fermenter	F-16 01-06-2024 17	F-17 01-06-2024 20	F-12 02-06-2024 22	F-15 03-06-2024 20	F-14 04-06-2024 20	F-16 05-06-2024 25	F-17 07-06-2024 23	F-12 08-06-2024 26	F-13 09-06-2024 23
Feeding Hr	20	20	22	20	20	25	23	26	23
Fermentation Hr	20	20	16	18	16	16	16	14	18
Retention Hr	34	8	4	10	12	12	12	12	18
Total Cycle	55	48	43	48	48	53	53	52	53
Setup Ph	4.15	3.92	3.95	4.10	3.92	3.86	4.01	3.86	3.99
Final pH	3.70	3.61	3.71	3.86	3.89	3.86	3.80	3.81	3.90
Setup Gravity	1.058	1.054	1.044	1.044	1.040	1.000	1.038	1.096	1.046
Final Gravity	1.000	1.000	1.020	1.009	1.000	1.000	1.000	1.000	1.000
Setup Sugar%	6.11	6.11	4.95	4.95	4.85	5.20	4.85	4.86	5.20
Avg Temp. °C	36.0	37.0	37.5	37.0	37.0	35.5	35.6	35.0	35.5
RSt%	0.18	0.16	0.16	0.17	0.16	0.16	0.17	0.16	0.16
RSt%	0.52	0.50	0.53	0.52	0.50	0.51	0.52	0.53	0.54
AWC	13.58	13.42	13.42	13.00	12.45	13.10	13.54	13.54	13.54
WTA(g/gss)	385	390	390	384	394	390	377	381	385
Grain MT	157.19	152.58	160.64	142.410	133.999	151.728	151.750	139.920	164.67
Volume	502093	502400	552400	558620	475873	552400	541680	508860	552400



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DATE	WASH FEED BL	DRAW BL	DECANTORS FEED (ONLINE)BL	WETCAKE PRODUCTION KG	TOTAL THIN SLOP BL	THIN SLOP IN PROCESS BL	THIN SLOP IN MEE BL	SYRUP ONLINE/BL	DUMPS KG	DOGS (DRYER) KG
01.06.2024	427855	65375.00	361680	65302	296578	50418	246159	31200	96302	29372
02.06.2024	419321	68201.00	351120	63202	287918	48946	238572	16560	79762	24377
03.06.2024	490780	66700.00	334680	60134	273946	46571	227375	6480	66614	20317
04.06.2024	410877	65137.00	345840	62251	283589	48210	255379	18000	80251	24477
05.06.2024	418600	65700.00	352320	63418	288902	49113	239789	20400	83018	25564
06.06.2024	419143	64662.93	354480	63806	290674	49415	241259	19680	83486	25463
06.06.2024	424888	65857.85	359040	64627	294413	50050	244363	22320	86947	26019
06.06.2024	424586	64586.00	360000	64800	295200	50184	245016	29040	93840	28021
05.06.2024	425227	63787.25	361440	65659	296381	50385	245996	30000	95039	28993
10.06.2024	410818	67458.20	363360	65405	297955	50652	247303	29760	95165	29025
AVERAGE	42083	65746.52	3546336	63780	290556	49384	241161	22344	86124	26368

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CPU Daily Parameters Annexure - IX (9)

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Analysis Report

DATE	Equalization Tank				Digester			
	PH	Temp <sup>o</sup> C	T.D.S	COD	PH	Temp <sup>o</sup> C	T.D.S	COD
1/06/024	4.39	36 <sup>o</sup> C	1986	3814	7.10	35 <sup>o</sup> C	1810	29%
2/06/024	5.06	35 <sup>o</sup> C	1570	"	7.15	34 <sup>o</sup> C	1863	28%
3/06/024	4.51	37 <sup>o</sup> C	1585	-	7.24	35 <sup>o</sup> C	1397	27%
4/06/024	4.54	38 <sup>o</sup> C	1658	-	7.08	35 <sup>o</sup> C	1730	27%
5/06/024	4.51	38 <sup>o</sup> C	1645	-	7.5	36 <sup>o</sup> C	1695	29%
6/06/024	4.39	40 <sup>o</sup> C	1722	3657	7.06	35 <sup>o</sup> C	1587	28%
7/06/024	4.43	39 <sup>o</sup> C	1662	-	7.10	35 <sup>o</sup> C	1680	30%
8/06/024	4.86	40 <sup>o</sup> C	1630	-	7.15	35 <sup>o</sup> C	1482	29%
9/06/024	4.31	38 <sup>o</sup> C	1920	-	7.12	36 <sup>o</sup> C	1530	29%
10/06/024	4.50	40 <sup>o</sup> C	2146	-	7.15	36 <sup>o</sup> C	2015	28%
11/06/024	4.46	41 <sup>o</sup> C	2016	3530	7.18	36 <sup>o</sup> C	1896	29%
12/06/024								
13/06/024								
14/06/024								
15/06/024								
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28/06/024								
29/06/024								
30/06/024								



CPU Daily Parameters

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Aeration Tank					Page No: FINAL WATER					
PH	Temp <sup>o</sup>	T.DS	m.L.S.S.	cod	PH	Temp	TDS	TSS	cod	Bob
7.52	26 <sup>o</sup> c	1448	17%	720	7.55	26 <sup>o</sup> c	856	22	85	19
7.535	26.5 <sup>o</sup> c	1210	16%	"	7.49	25 <sup>o</sup> c	882	19	70	"
7.31	26 <sup>o</sup> c	1244	19%	"	7.41	25 <sup>o</sup> c	891	22	83	25
7.25	27 <sup>o</sup> c	1347	19%	"	7.36	26 <sup>o</sup> c	927	26	87	"
7.27	27 <sup>o</sup> c	1398	18%	"	7.38	26 <sup>o</sup> c	895	24	85	"
7.22	27 <sup>o</sup> c	1255	18%	"	7.33	26 <sup>o</sup> c	900	27	91	"
7.24	27 <sup>o</sup> c	1487	18%	622	7.34	26 <sup>o</sup> c	875	26	82	25
7.30	26 <sup>o</sup> c	1371	20%	"	7.35	26 <sup>o</sup> c	910	27	92	"
7.27	27 <sup>o</sup> c	1429	19%	"	7.36	26 <sup>o</sup> c	922	28	96	"
7.29	27 <sup>o</sup> c	1985	19%	607	7.32	26 <sup>o</sup> c	915	27	84	26
7.30	27 <sup>o</sup> c	1880	20%	"	7.33	26 <sup>o</sup> c	1110	26	72	25



DOC-20049412-WADD14

Open with Google Docs

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1st Feed Reading - June-2024  
 2nd - Haryan organic Samal Khas / /  
 12/2/24

DATE	Initial Reading	Final Reading	Total ml%	Points in Feed
1/06/2024	91058		226	226
2/06/2024	91224	91224	231	231
3/06/2024	91815	91331	236	236
4/06/2024	91751	91990	239	239
5/06/2024	91990	92231	241	241
6/06/2024	92231	92477	246	246
7/06/2024	92477	92710	233	233
8/06/2024	92710	92957	247	247
9/06/2024	92957	93211	254	254
10/06/2024	93211	93460	249	249
10/06/2024	93460	93699	239	239
13/06/2024				
14/06/2024				
15/06/2024				
16/06/2024				
17/06/2024				
18/06/2024				
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25/06/2024				
26/06/2024				
27/06/2024				
28/06/2024				
29/06/2024				
30/06/2024				



(14)

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<u>Date</u>	<u>Power</u>	<u>Consumption (kWh)</u>
1/6/024	- 206613	- (KWH 24Hr.)
2/6/024	- 206880	- 282
3/6/024	- 207193	- 267
4/6/024	- 207525	- 313
5/6/024	- 207921	- 332
6/6/024	- 208303	- 346
7/6/024	- 208662	- 382
8/6/024	- 208991	- 359
9/6/024	- 209313	- 329
10/6/024	- 209648	- 322
11/6/024	- 209994	- 335
12/6/024	- 210332	- 346
		- 338





# Envirochem Testing & Consultancy LLP

(Formerly known as Envirochem Testing Laboratory & Research Centre)

592

(GOVT. APPROVED LAB)

(As ISO 9001 : 2015, ISO 14001 : 2015, ISO 45001 : 2018 Certified Lab)

Plot No. 165, 1st Floor, Sector-25, Part-II, HUDA, Panipat-132103, Hr.

M: +91 90248 91120, 98501 75366, 98719 96792

Email : envirochemtestinglab@gmail.com

Web : www.etcils.com



## TEST REPORT

Report No & ULR No.	ETL/PNP/7669&TC60152400091156F	Report Date	17.06.2024	Doc No.	ETL/QP/7.8/01
Issue to M/s Haryana Organics (A Unit of Globus Spirits Ltd.) Samalkha, Panipat		Party's Ref No:Nil			
		Work Order No:7989			
		Period of Testing: 12.06.2024-17.06.2024			

### SAMPLE PARTICULARS

1. Type of sample	: WATER SAMPLE
2. Point of Sample Collection	: CPU Islet
3. Date of sample collection/ received	: 12.06.2024 (12:15 PM)
4. Purpose of analysis	: Monitoring purpose
5. Sample collected/ supplied by	: By Lab Representative (Mr. Anuj)
6. Quantity of Sample	: 5 Liter

### TEST RESULTS

Sr. No.	Parameters	Results	Protocol Used
1.	Color P.C.U (Platinum Cobalt Using)	625	IS: 3025 (P-4): 2021
2.	pH	5.91	IS 3025 (P-11) : 1983
3.	COD, mg/L	3972	IS 3025 (P-58) 2023
4.	BOD at 27°C for 3 Days, mg/L	1960	IS 3025 (P-44) 2023
5.	Total Suspended Solids, mg/L	203	IS 3025 (P-17) 2022
6.	Total Dissolved Solids, mg/L	2512	IS 3025 (P-16) : 2023

\*\*\*\*\*End Report\*\*\*\*\*

Verified By  
Neha Singh

Reviewed By  
Bilal

Authorized By  
Dr. Rajendra Kumar

H 1. Samples shall be disposed off after 15 days issue of test report unless specified.  
 O 2. Results listed above related to the listed samples. Enforcement of the same is neither inferred nor implemented.  
 Y 3. The test report shall not be re-used for full or in part & can't be used as proof in the court of law.  
 E 4. The test report should not be used in any advertising agencies/media without the written approval of laboratory.



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M: +91 93049 91125, 88501 76586, 96719 88782

Email: envirochemtestinglab@gmail.com

Web: www.etrn.com



## TEST REPORT

Report No. & ULR No.	ETL/PNP/767D&TC601524800991157F	Report Date	17.06.2024	Doc No.	ETL/QF/7.8/01
Issue to	M/s Haryana Organics (A Unit of Global Spirits Ltd.) Sarokhla, Panipat	Party's Ref No/Nil	Work Order No:7990 Period of Testing:12.05.2024-17.06.2024		

### SAMPLE PARTICULARS

1. Type of sample	: WATER SAMPLE
2. Point of Sample Collection	: CPU OUTLET
3. Date of sample collection/ received	: 12.06.2024 (12:30 PM)
4. Purpose of analysis	: Monitoring purpose
5. Sample collected/ supplied by	: By Lab Representative (Mr. Anuj)
6. Quantity of Sample	: 5 Litre

### TEST RESULTS

Sr. No.	Parameters	Results	Permissible Limit As Per CPCRI	Protocol Used
1.	Color P.C.U (Maximum Cobalt Units)	8	-	IS: 3025 (P-4): 2021
2.	pH	7.64	250	IS: 3025 (P-11): 1983
3.	COD, mg/L	51.7	6.5 - 8.5	IS: 3025 (P-58): 2023
4.	BOD at 27°C for 3 Days, mg/L	16.9	30	IS: 3025 (P-44): 2023
5.	Total Suspended Solids, mg/L	36.0	100	IS: 3025 (P-17): 2022
6.	Total Dissolved Solids, mg/L	1205	2100	IS: 3025 (P-16): 2023

\*\*\*\*\*End Report\*\*\*\*\*

Verified By  
Neha Singh

Reviewed By  
Bilal

Authorized By  
Dr. Rajendra Kumar



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 O 2. Results listed above related to the listed samples, involvement of the same is neither inferred nor implemented.  
 T 3. The test report shall not be reproduced full or in part & won't be used as proof in the court of law.  
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M: +91 90348 91125, 89031 75388, 96719 86782

Email : envirochemtestinglab@gmail.com

Web : www.etrco.com



## TEST REPORT

Report No & ULR No.	ETL/PNP/7679&TC981523008001166P	Report Date	17.06.2024	Doc No.	ETL/Q877.8/01
Issue to:		Party's Ref No:Nil			
M/s Haryana Organics (A Unit of Globus Spirits Ltd.) Sarakha, Panipat - 132103, Haryana		Work Order No:7999			
		Period of Testing: 12.06.2024-17.06.2024			

### SAMPLE PARTICULARS

1. Type of sample	: CPU AERATION TANK
3. Date and Time of sample collection/ received	: 12.06.2024 (03:00 PM)
4. Purpose of analysis	: Monitoring purpose
5. Sample collected/ supplied by	: By Lab Representative (Mr. Anuj)
6. Sample Quantity	: 2 litre
7. Method of Sampling	: 15 3025 (P - I) 1587

### TEST RESULTS

Sr. No.	Parameters	Results	Practical Used
1.	MLSS, mg/L	1715	ETL/SOP/W11: 2014
2.	MLVSS, mg/L	1225	ETL/SOP/W52: 2014

\*\*\*\*\*End Report\*\*\*\*\*

*Neha Singh*  
Verified By  
Neha Singh

*Bilal*  
Reviewed By  
Bilal

Authorized By  
Dr. Rajendra Kumar  
*Rajendra Kumar*  
17-6-24

M 1. Samples shall be disposed off after 15 days issue of test report unless specified.  
 O 2. Results listed above related to the tested samples. Endorsement of the same is neither inferred nor implied.  
 T 3. The test report shall not be reproduced full or in part & can't be used as proof in the court of law.  
 S 4. The test report should not be used in any advertising agencies/media without the written approval of laboratory

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Annexure - 2

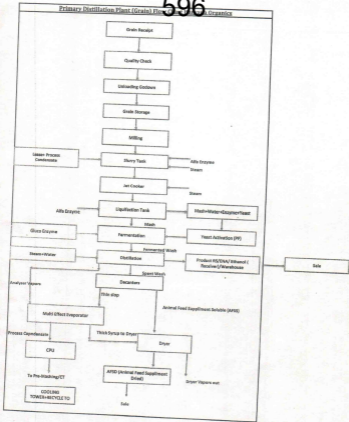
Logbook of Botanical Garden.

BONE AIR 01				BONE AIR 02				BONE AIR 03				BONE AIR 04				apsara	
IR	FR	weibry	JA	IR	FR	weibry	JA	IR	FR	weibry	JA	IR	FR	weibry	Total	apsara	
01-06-24	16898	16898	16898	11458	11669	217	90	90	0-00	17379	17436	57	202	000	000	000	
02-06-24	16898	16898	16898	11864	11832	163	90	90	0-00	17436	17636	200	263	000	000	000	
03-06-24	16898	16898	16898	11998	11998	166	90	90	0-00	17636	17862	226	392	000	000	000	
04-06-24	16898	16898	16898	11998	11985	187	90	90	0-00	17862	18063	201	388	000	000	000	
05-06-24	16898	16898	16898	12185	12400	215	90	90	0-00	18063	18198	135	350	000	000	000	
06-06-24	16898	16898	16898	12400	12618	218	90	90	0-00	18198	18386	188	326	000	000	000	
07-06-24	16898	16898	16898	12618	12810	192	90	90	0-00	18386	18598	212	414	000	000	000	
08-06-24	16898	16898	16898	12810	13055	245	90	90	0-00	18598	18692	94	409	000	000	000	
09-06-24	16898	16898	16898	13055	13342	287	90	90	0-00	18692	18887	195	382	000	000	000	
10-06-24	16898	16898	16898	13342	13460	118	90	90	0-00	18887	18999	112	310	000	000	000	
11-06-24	16898	16898	16898	13460	13460	198	90	90	0-00	18999			322.6				
12-06-24	16898	16898	16898	13460			90										

595



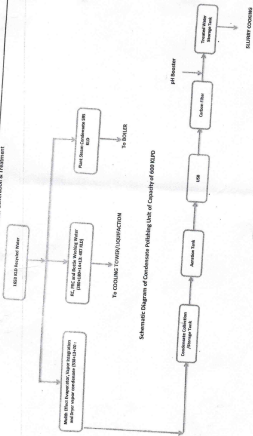
596





CPU

Schematic Diagram of Waste Water Steam Generation & Treatment



Schematic Diagram of Condensates Polishing Unit of Capacity of 600 KL/PO



599<sup>n</sup>

SEWAGE TREATMENT PLANT (STP) ADEQUACY ASSESSMENT

**M/s. Haryana Organics**  
**A unit of Globus Spirits Limited**

4 KM, Chulkana-Samalkha Road,  
Samalkha, District Panipat, Haryana 132101

Prepared by

**VASANTDADA SUGAR INSTITUTE**

Manjari (Bk), Haveli, Pune 412 307

Tel: 020 2690 2100; Fax: 020 26902244

Web: [www.vsisugar.com](http://www.vsisugar.com) Email: [vsilib@vsnl.com](mailto:vsilib@vsnl.com)

June 2024



## Sewage Treatment Plant **600** Adequacy Assessment Report

**Name of industry:** M/s. Haryana Organics, A unit of Globus Spirits Limited

**Industry type:** Distillery unit

**Capacity of plant:** 140 KLPD

**STP capacity:** 20 KLPD

**Allied units:** NA

**Address:** 4 KM, Chulkana-Samalkha Road, Samalkha, District Panipat, Haryana 132101

**Contact person:** Mr. Amitabh Singh (President - Technical & Operation)

**Contact no:** 7496844480

**E-mail:** [msingh@globusgroup.in](mailto:msingh@globusgroup.in)

### Interacting Officials

1. Mr. M P Singh (Vice President)
2. Mr. Akhil Kumar G.M. (HR & Admin.)
3. Mr. Navin Kumar Sharma (Production Head)
4. Mr. Nirmal Singh (Production Lead)

### Visiting VSI team:

1. Mr. Kapil Upadhye (Scientific Officer),  
Department of Environmental Sciences, Vasantdada Sugar Institute

**Site visit date:** June 12, 2024



# 601

## I. Introduction

M/s. Haryana Organics, a unit of Globus Spirits Limited, operates a grain and molasses-based distillery located at Village Chulkhana, Tehsil Samalkha, District Panipat (Haryana). Globus Spirits Limited (formerly known as Globus Agronics Limited) was incorporated in 1993 and has been active in the alcohol-beverage sector for nearly three decades.

In 1994-95, Globus Spirits set up its first distillery in Samalkha, Haryana, with an installed capacity of 25 KLPD. The following year, in 1995-96, the company established its second unit in Behror, Rajasthan, with an installed capacity of 14.4 million BL per annum, marking it as the first distillery built with grain as the dedicated raw material. Between 1989 and 2000, the company also launched bottling plants in Hisar, Haryana, Behror, Rajasthan, and Samalkha, Haryana.

In 2011, M/s. Haryana Organics, decided to expand its existing capacity from 25 KLPD to 100 KLPD and obtained consent to operate the 100 KLPD distillery unit in December 2012. In 2022, the unit applied for Environmental Clearance to further expand the existing distillery unit from 100 KLPD to 205 KLPD and received the necessary Environmental Clearance in 03 April 2023 the **copy of EC is attached as annexure 1**. Currently, the unit has expanded its capacity to 140 KLPD, with the remaining expansion of 65 KLPD scheduled for the upcoming years. The consent to operate for 140 KLPD distillery unit is granted to the unit in 13 September 2023 and it is valid up to 30 September 2027. The **copy of CTO is attached as annexure 2**

## II. Objective of the adequacy assessment of STP

On March 14, 2024, an inspection team deputed NGT by comprising members of CPCB, HSPCB and Local district administration visited the distillery unit. During the visit, the inspection team explored various areas of the distillery unit and collected samples from various treatment units such as MEE, CPU, STP, and also groundwater samples from the premises. On May 31, 2024, the unit received a show cause notice (**Attached as annexure 3**) regarding various issues. Among these, it was found that the parameters of the treated sewage sample collected during visit exceeded the prescribed limits which are given in the consent to operate. In response to this observation in the show cause notice, the management of M/s. Haryana Organics Ltd, decided to conduct an adequacy assessment of the existing 20 KLPD sewage treatment plant (STP) to understand the loopholes in the treatment facility and assigned this task to Vasantdada Sugar Institute (VSI), Pune. Accordingly, the VSI team visited the unit on June 12, 2024, collected the necessary data for the preparation of this report and also discussed the issues in sewage treatment/disposal with the representatives of the distillery unit. Subsequently, the report has been prepared for the adequacy assessment of the 20 KLPD STP. While the preparation of this report following objective are considered

- To calculate and assess the daily sewage generation quantities by considering the daily population of workers and staff present in the distillery unit
- To evaluate the existing capacity of the STP in terms of hydraulic load (flow rate) and organic load (BOD, COD) it can effectively treat. This evaluation will help to determine if the STP can meet current wastewater treatment demands.
- To identify any operational limitations, bottlenecks, or deficiencies within the STP that could affect its performance or compliance with regulatory standards. This includes mechanical, electrical, and process-related issues.
- To assess the effectiveness of the treatment processes (e.g., primary, secondary, tertiary treatment) in reducing pollutants (BOD, COD, TSS) to acceptable levels in the treated effluent. This involves analyzing effluent quality data and comparing it against regulatory limits.
- To provide recommendations for upgradation, modifications or enhancements to the STP infrastructure, processes, or operational practices based on the findings of the adequacy report.

The STP adequacy report aims to comprehensively assess the current state of the treatment plant, identify areas for improvement, ensure regulatory compliance, and plan for future growth and sustainability in wastewater treatment operations

### III. Population and Sewage Generation

M/s. Haryana Organics Ltd, a unit of Globus Spirits Limited, is actively running a 140 KLPD Distillery plant and a bottling plant for country liquor and Indian manufactured foreign liquor (IMFL). During discussion with the distillery officials it is found that the operational workforce at the facility totals around 400 individuals, including both laborers and administrative staff. It's important to highlight that the premises do not include residential accommodations, thus sources of sewage generation primarily consists of human waste, water from toilets, sinks, showers, pantries, water taps and other sanitary facilities that are situated on-site.

Detailed calculations for sewage generations are given below

**Table 1: Calculation of sewage generation quantity**

#	Particulate	Quantity
1	Total population including workers and staff	400
2	Water consumption for domestic use per capita daily	45 lit/Capita/Day
3	Total water consumption 400 X 45 lit/Capita/Day	18,000 Lit /Day
4	Domestic wastewater/sewage generation (80% on consumption)	14,400 Lit/Day

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5	Inlet sewage quantity as per flow records Logbook is attached as annexure 4	13,800 Lit/Day
6	Total domestic sewage quantity mentioned in CTO	15,000 Lit/Day
7	Sewage quantity considered for STP adequacy assessment	15,000 Lit/Day i.e. 15 KL/Day

#### IV. Quality of Sewage:

Domestic wastewater or sewage includes the used water from canteen, toilets, washing area and pantries. This type of wastewater is also known as sanitary sewage. Sanitary sewage refers to wastewater from residential, commercial, institutional, and industrial sources that primarily consists of human waste, water from toilets, sinks, showers, canteen and other sanitary facilities. Sanitary sewage is predominantly composed of water, with a significant portion being human waste (feces and urine) and greywater (from baths, sinks, washing machines, etc.). The exact composition can vary based on the sources contributing to the sewage. Human waste in sanitary sewage is rich in organic matter, including fecal coliform bacteria, which are indicators of fecal contamination. This organic content also includes food particles, detergents, and other household chemicals. Sanitary sewage contains nutrients such as nitrogen and phosphorus, derived from human waste and detergents. These nutrients can contribute to eutrophication if sewage is discharged untreated into natural water bodies, promoting excessive algae growth. Sewage may exhibit variations in pH, temperature, and turbidity depending on the contributing sources and treatment processes. These factors can influence the efficiency of sewage treatment and the environmental impact upon discharge.

#### V. Adequacy Assessment of Sewage Treatment Plant (STP)

The calculations in Table 1 above indicate that sewage generation amounts to 14.4 KLD as per daily population, originating from toilets, sinks, showers, pantries, water taps, and other sanitary facilities. According to the consent to operate granted to the unit, sewage generation quantity is considered to be 15 KL/D, and the mode of discharge is designated for horticulture after treatment through the sewage treatment plant.

Currently, the unit utilizes the treated sewage for gardening and greenbelt development on the premises. Approximately 5.52 acres of land is allocated by the unit for horticulture and greenbelt development, where the treated sewage is applied to meet water requirements. **The layout of the available greenbelt area near STP is attached as annexure 5**

This report provides a detailed capacity assessment of each unit process, considering sewage generation quantity, sewage quality, expected treated sewage quality, and actual tank size measurements obtained during site visit.



The following effluent parameters have been considered for STP adequacy calculations.

# 604

**Table 2.2: Quality of treated and untreated sewage**

#	Designing Parameter	Expected Characteristic of untreated sewage (Mg/lit)	Expected Characteristic of treated sewage (Mg/lit) as per consent to operate
1.	pH	7.0 - 7.5	5.5 - 9.0
2.	Total Suspended Solids	200 - 400	< 20
3.	BOD	100 - 300	<10
4.	COD	400 - 800	<50
5.	Oil and grease	25 -30	<10

#### VI. Technical details of STP:

The unit has installed 20 KLPD capacity sewage treatment plant based on the Moving Bed Biofilm Reactor (MBBR) technology, which is a widely used and effective method for sewage treatment, offering several advantages over traditional treatment processes. MBBR technology is a biological wastewater treatment process that utilizes suspended plastic biofilm carriers within a reactor to create a large surface area for microbial growth. These carriers are kept in motion by the aeration provided in the reactor, allowing for a dynamic biofilm formation and efficient treatment of sewage. Microorganisms attach and grow on the surface of the plastic carriers (media) in the reactor. This biofilm provides a high concentration of active biomass, enhancing treatment efficiency. The simplicity of the process and modular design of MBBR units contribute to ease of operation, maintenance, and scalability.

The following treatment has been installed to treat the sewage

- 1. Preliminary treatment:** Screening.
- 2. Primary treatment:** Septic tank and Equalization tank
- 3. Secondary Treatment:** Aeration tank i.e. MBBR tank 1, MBBR tank 2 and Tube settler
- 4. Tertiary treatment:** Sand filter and carbon filter, UV light and chlorination system
- 5. Sludge treatment:** Sludge drying beds (SDB)

**Disposal of treated effluent:** The treated sewage, after undergoing the aforementioned treatment, is sprinkled and utilized for gardening and horticulture development on the factory premises. The unit has approximately 5.52 acres of land available for greenbelt and horticulture development, with part of the land already developed as greenbelt, where the treated sewage is applied to meet water requirements

#### vi. Detailed process description of STP:



As mentioned above the sewage treatment capacity is 605 KL/day at the sewage amounting to 15 KLD i.e. 0.62 KL/hr. which is also considered for adequacy calculations.

#### **i) Screen chamber:**

Reduction of the suspended solids by screening mechanism is the objective of this unit. Coarse or rack screen is installed to screen the large suspended matter including gunny bags, teacups, packing materials, floating matter etc. Separate screen chamber is not available however the screen is installed in effluent gutter attached to the equalization tank, the arrangement for the removal of solid material stuck in the screen chamber is removed manually as per the requirements.

The unit has provided the screen chamber in the inlet sewage gutter line attached to the equalization tank.

#### **ii) Septic tank:**

A septic tank is a key component in a sewage treatment plant (STP). Inside the septic tank, the heavier solids settle to the bottom, forming a sludge layer, while lighter materials like oil and grease float to the top, creating a scum layer. This process is facilitated by the tank's design and the force of gravity. The unit has provided septic tank attached to the equalization tank.

#### **iii) Equalization tank:**

The equalization tank in STP plays a crucial role in managing variations in wastewater flow by balancing the incoming flow over time. It smooths out peak flows and reduces hydraulic surges that can overwhelm downstream treatment processes. Sewage enters the equalization tank where it is temporarily stored. During storage, mixing mechanisms such as mechanical mixers or diffused aeration ensure the uniform distribution of solids and dissolved contaminants within the tank.

The adequate hydraulic retention time for an equalization tank in an STP is typically 4-8 hours. The current volume of the equalization tank including septic tank is 30.03 KL, and the hydraulic retention time is 48 hours, which exceeds the required duration and is more than sufficient for effective operation.

#### **iv) Aeration tank (MBBR Tank 1 & 2):**

The Moving Bed Bio Reactor (MBBR) is an advanced process compared to Activated Sludge Process (ASP). It involves aerobic treatment where HDPE plastic media serves as biofilm. The MBBR tank contains plastic biofilm carrier media that offer a large surface area for microbial growth. The active biofilm provides a habitat for diverse microbial communities that degrade organic pollutants in wastewater. These microorganisms metabolize organic matter, converting it into carbon dioxide, water, and microbial biomass.

## 606

Microbial activity in this unit reduces  $CO_2$  through aerobic treatment. Mixed Liquor Suspended Solids (MLSS) are maintained by controlling parameters such as dissolved oxygen (DO), pH, and temperature. MLSS levels are typically kept between 1500 to 2000 mg/l. The food to microorganism ratio is maintained within the range of 0.2 to 0.25.

The adequate hydraulic retention time for an MBBR tank in an STP is recommended to be 12-14 hours. At this STP, two MBBR tanks with a combined volume of 9.58 KL are provided, and the retention time is set at 15 hours, which appears sufficient for effective treatment.

### v) Tube settler:

A tube settler is a sedimentation unit designed to enhance the settling of suspended solids from wastewater. It increases settling surface area within sedimentation tanks or clarifiers by using closely spaced vertical tubes or channels. Wastewater flows through the tube settler unit, where flow is evenly distributed over inclined tubes, minimizing turbulence and promoting laminar flow conditions ideal for effective sedimentation. Suspended solids in the wastewater collide with the inclined tube surfaces. Due to increased area and reduced settling distance, particles settle faster than in conventional tanks. Settled particles slide down tubes under gravity and collect at tank bottoms as sludge, periodically removed for further treatment or disposal.

The adequate hydraulic retention time for tube settlers is typically 2.0 - 3.5 hours. The current volume of the existing tube settler tank is 1.08 KL, providing a retention time of 1.7 hours, which appears inadequate for effective sludge settling. Therefore, increasing the volume of the tube settler is necessary to achieve an adequate retention time.

### vi) Chlorine contact tank/collection tank:

This is a tertiary treatment where microbial activity is controlled using sodium hypochlorite. The collection tank serves for chlorine dosing to disinfect the treated sewage and also functions as the feed tank for the tertiary sand and carbon filters.

The unit has a collection tank with a volume of 1.08 KL, which meets the necessary requirements. Chlorine dosing is performed within this tank.

### vii) Pressure sand filter and activated carbon filter:

This is the second stage of tertiary treatment, where the treated sewage undergoes filtration through a multimedia sand and carbon series. Tertiary sand filters are engineered to eliminate fine particles, residual suspended solids, and some pathogens that may persist in treated wastewater after primary and secondary treatment processes. Carbon filters utilize activated carbon as the filtering medium, where organic compounds, residual disinfectants (such as chlorine), certain chemicals, and odors are adsorbed onto the carbon surface. This process effectively reduces their concentration in the treated effluent. Typically, the hydraulic retention time (HRT) for a tertiary sand filter ranges from 5 to 15 minutes.

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The unit has provided sand filters and carbon filters each with a capacity of 0.14 KL and a hydraulic retention time of 11 minutes, which is adequate.

**viii) UV (Ultraviolet) disinfection systems:**

The UV (Ultraviolet) disinfection system is an essential component in many Sewage Treatment Plants (STPs) for effectively treating sewage before discharge. These systems utilize ultraviolet light to deactivate or destroy microorganisms present in wastewater, with UV-C light (wavelengths between 200 and 280 nanometers) being particularly effective for disinfection purposes.

The unit has installed a UV disinfection system after the tertiary sand and carbon filters, and it was operating properly during the visit

**ix) Sludge Drying Beds:** Sludge drying beds are simple and effective dewatering systems used in wastewater treatment plants to reduce the moisture content of sludge generated during the treatment process

The unit has provided two sludge drying beds of capacity 5.80 KL which is adequate for the sludge drying

**Table 3: Design details for STP units & their adequacy**

#	Unit	Size/Use	Qty.	Effective Volume m <sup>3</sup>	Retention time and other aspect
<b>A.</b>	<b>Civil Components</b>				
1	Screen chamber	-	1	-	Screen is installed in the sewage gutter line attached to the equalization tank
2	Septic Tank	3.3 m X 3.5 m X 2.6 m deep	1	30.3	The hydraulic retention time is 48 Hrs which is more than sufficient
3	Equalization tank				
4	MBBR tank 1 & 2 (Aeration tank)	1: 1.48 m X 0.98 m X 3.3m deep  2: 1.48 m X 0.98 m X 3.3m deep	2	6.79 Each Total volume 9.58	The hydraulic retention time provided is 15 hrs. which is adequate for the treatment.



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#	Unit	Size/Use	Qty	Effective Volume m <sup>3</sup>	Retention time and other aspect
5	Tube settler	0.90 m X 0.98 m X 1.2 m deep	1	1.06	The hydraulic retention time is 1.7 hrs., which seems to be inadequate for the sludge settling. The volume of the tube settler need to be increase to achieve adequate retention time
6	Filter feed tank/Collection tank	0.90 m X 0.98 m X 1.2 m deep	1	1.08	The tank capacity is adequate for the treatment
9	Sludge drying beds	1.32 m X 1.2 m X 2 m deep	2	5.80	Existing Sludge drying beds are adequate
<b>B. Electro-Mechanical</b>					
1	Feed pump	At equalization tank / to feed sewage to the MBBR tank	1+1	Discharge: 1.5 to 4.4 L/s each Head: 11.5 m each HP: 0.75 Make: Kirloskar	Adequate.
2	Sludge pump	At tube settler attached to the sludge collection bottom	1+1	Discharge: 1.5 to 4.4 L/s each Head: 11.5 m each HP: 0.75 each Make: Kirloskar	Adequate
3	Air blower	Attached to the MBBR tank and	1+1	Discharge: 120 M <sup>3</sup> /hr each HP: 5.0 each Make: Kirloskar	Adequate



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#	Unit	Size/Use	Effective Volume m <sup>3</sup>	Retention time and other aspect
		equalization tank		
4	MBBR media	Inside the aeration tank for microbial growth	1	Quantity: Approx. 3 M <sup>3</sup> Adequate
5	Tube settler media	To collect settled sludge at bottom of clarifier	2	Quantity: Approx. 1.0 M <sup>3</sup> Adequate.
6	Sand filter	Dia. 0.35, Height: 1.4 m	1	0.14 Adequate
7	Carbon filter	Dia. 0.35, Height: 1.4 m	1	0.14 Adequate

The technical details including the layout of the STP and capacities of the electro-mechanical equipment's is attached as **annexure 6**

#### vii. Observations and recommendations for sewage treatment

According to the table above, most treatment units in the STP have adequate capacity to handle sewage of 15 KLPD, except for the tube settler. Additionally, the majority of electromechanical units are capable of treating the sewage. However, despite the current system's ability to manage 15 KLPD sewage, consistently achieving the prescribed limits for treated sewage such as COD (50 mg/l), BOD (10 mg/l), and TSS (20-50 mg/l) as per the consent to operate is challenging. This difficulty may be due to the high organic load present in the incoming sewage. Annexure 7 includes third-party analysis reports.

#### To address this issue, the following process improvements are recommended:

To address this issue, the following process improvements are recommended:

- Complete retention time should be provided to the septic tank and equalization tank to allow heavier solids to settle at the bottom.
- A new equalization tank with a retention time of 6-8 hours should be installed, and the overflow from the existing equalization tank should be directed into this new tank.
- Sewage feed pumps should be installed on the new equalization tank.



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- The STP should be operated continuously for at least 20 hours/day to maintain appropriate flow and batch type operation should be avoided.
- Replace the MBBR media with new media to promote better growth of microbial culture.
- Add isolated cultures to the aeration tank at regular intervals to maintain MLSS and the Food to Microorganism (F/M) ratio.
- Implement recirculation of activated sewage in aeration tanks.
- Ensure adequate retention time for the tube settler, and adjust the inlet flow from the upward side installing a baffle wall to maintain a proper laminar flow pattern and proper distribution of water within the settler which helps settling solid particles in the conical bottom.
- Continuously monitor and analyze the inlet and outlet of the STP.

These improvements are aimed at enhancing treatment efficiency, meeting regulatory standards, and optimizing the performance of the STP in effectively treating wastewater. Depending on the performance of the STP after the aforementioned modifications, advanced treatment technologies may be installed as needed to achieve the required parameters.

#### viii. Staff & Environmental Laboratory

The distillery management already has an Environment Management Cell; however, it is recommended to appoint a separate STP chemist with an environmental education background. It is also suggested to analyze samples from every unit of the STP regularly to ensure smooth operation and maintain records of analyses, as well as properly document flow meter readings in a logbook.

**(Mr. Kapil Upadhye)**

Scientific officer

Dept. of Environmental Sciences

**(Dr. Deepali Nimbalkar)**

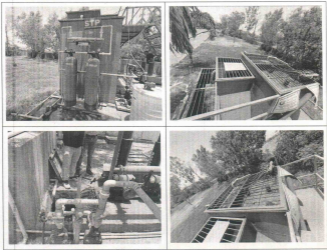
Senior Scientist & Head

Dept. of Environmental Sciences



# 611

## PHOTOGRAPHS



ENVIRONMENTAL  
CLEARANCE

**612**  
Government of India  
Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)

To,

The Executive Director  
GLOBUS SPIRITS LIMITED  
Globus Spirits Limited  
F-0, Ground Floor, The Mira Corporate Suites,  
Plot No. 1 & 2, Ishwar Nagar, Mathura Road,  
New Delhi, Kheri, Uttar Pradesh-110065

**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/HR/IND2/408610/2022 dated 10 Feb 2023. The particulars of the environmental clearance granted to the project are as below.

- |                                            |                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. EC Identification No.                   | EC23A022HR195384                                                                                                                                                                                                                                                                                              |
| 2. File No.                                | J-11011/714/2009-IA II (I)                                                                                                                                                                                                                                                                                    |
| 3. Project Type                            | Expansion                                                                                                                                                                                                                                                                                                     |
| 4. Category                                | A                                                                                                                                                                                                                                                                                                             |
| 5. Project/Activity including Schedule No. | 5(g) Distilleries                                                                                                                                                                                                                                                                                             |
| 6. Name of Project                         | Expansion of Grain based distillery from 100 KLPD to 205 KLPD by new installation of 105 KLPD Grain based Ethanol plant along with Co-generation power plant from 3.0 MW to 4.6 MW at Village Chukana, Tehsil Samalkha, District Panipat, Haryana by M/s Haryana Organics (A Division of Globus Spirits Ltd.) |
| 7. Name of Company/Organization            | GLOBUS SPIRITS LIMITED                                                                                                                                                                                                                                                                                        |
| 8. Location of Project                     | Haryana                                                                                                                                                                                                                                                                                                       |
| 9. TOR Date                                | N/A                                                                                                                                                                                                                                                                                                           |

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

Date: 03/04/2023

(e-signed)  
A N Singh  
Scientist E  
IA - (Industrial Projects - 2 sector)

*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.*

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive,  
and Virtuous Environment Single-Window Hub)



This has reference to your online proposal no. IA/HR/IND2/408610/2022 dated 10<sup>th</sup> February, 2023 for environmental clearance to the above-mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal seeking environmental clearance for expansion of Grain based distillery from 100 KLPD to 205 KLPD by new installation of 105 KLPD Grain based Ethanol plant alongwith Co-generation power plant from 3.0 MW to 4.6 MW at Village Chulkana, Tehsil Samalkha, District Panipat, Haryana by M/s. Haryana Organics (A Division of Globus Spirits Limited).

3. As per the MoEF&CC, Notification number S.O. 345(E), dated 17<sup>th</sup> January, 2019, notification number S.O. 750(E), dated 17<sup>th</sup> February, 2020, S.O. 980 (E) dated 02nd March, 2021 & S.O. 2339(E), dated 16th June, 2021 a special provision in the EIA Notification, 2006 (Schedule 5 (g)), a special provision in the EIA Notification, 2006-(Schedule 5(g)) "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".

4. **The details of products and capacity as under:**

S. No.	Name of unit	Name of the product/by product	Existing Production capacity	Additional Production capacity	Total production capacity
1	Distillery (Grain - broken rice, maize, barley & sorghum based)	Existing: ENA/ RS/CL/IMFL Additional: Ethanol only	100 KLPD ENA/ RS/CL (12000 Cases/day) &IMFL (10000 Cases/day)	105 KLPD Ethanol only	205 KLPD (ENA/RS/CL & IMFL and Ethanol)
3.	Co-generation power plant for distillery	Power	3.0 MW	1.6 MW	4.6 MW
3	DWGS Dryer	DDGS	58 TPD	46 TPD	104 TPD
4	Fermentation unit	Carbon di-oxide	76 TPD	81 TPD	157 TPD

5. Ministry has issued Environmental Clearance to the existing industry for expansion of Grain/Molasses based distillery unit (25 KLPD) to Grain (100 KLPD) or Grain (75 KLPD) and Molasses (25 KLPD) with Cogeneration Power Plant (3 MW) vide File No. J-11011/714/2009-IA II (I) dated 28th February, 2011. Certified compliance report of existing EC has been obtained from Regional Office,

MoEFCC, Chandigarh vide File no. 4-954/2011/ENV/PART-II dated 10.08.2022. Closure Report has been obtained from MoEFCC, Chandigarh Vide File no. 4-954/2011-IRO dated 20.01.2023. EAC was satisfied with the response.

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6. Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16<sup>th</sup> June, 2021. It was informed that there is no litigation is pending against the project.

7. Total plant area after expansion will be 6.878 ha (17 acres) which is under possession of the company and converted to industrial use. No additional land is required for the expansion, as the same will be done within the existing plant premises. Out of the total plant area, 2.427 ha i.e., more than 33 % of total plant area already been developed and the same will be maintained. The estimated cost of the proposed Expansion project is Rs. 98 Crores. Capital cost of EMP would be Rs. 17.25 Crores and recurring cost for EMP would be Rs. 2.0 Crores per annum. Industry proposes to allocate additional Rs. 1.0 Crore towards Extended EMP (Social developmental activities). Total Employment after expansion will be 200 persons as direct.

8. There are no National Parks, Reserved Forests (RF) / Protected Forests (PF), Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km radius. Water bodies: Samalkha Drain adjacent to plant site in East direction, Samalkha Distributary is located at a distance of 0.5 km in WNW direction, Ganaur Distributary is located at a distance of 3.5 km in WSW direction, Western Distributary is located at a distance of 5 km in WNW direction, Narayana Distributary is located at a distance of 7.0 km in WNW direction & Rajpura Distributary is located at a distance of 8.5 km in SSW direction. NOC has been obtained for Samalkha drain from Sub Divisional officer, Samalkha W.S Sub Division, Panipat vide letter no. 16/NOC dated 27.01.2023 stating that there is no problem of flood in flood season since 25 years.

9. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.656 µg/m<sup>3</sup>, 0.262 µg/m<sup>3</sup>, 0.729 µg/m<sup>3</sup> and 0.84 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

10. Total fresh water requirement after expansion will be 952 CMD which will be met from ground water. Combined application has been submitted to HWRA for renewal of existing NOC and for additional abstraction of 400 KLPD groundwater vide Application No. HWRA/IND/R/2022/197 dated 19.06.2022 & is under process. Existing effluent generation is 548 CMD which is treated through Condensate Polishing Unit /Effluent Treatment Plant of capacity 600 CMD. Proposed effluent

generation (Process Condensate 435 CMD, ST blowdown 15 CMD, DM plant reject & washing 55 CMD, Boiler blow-down 135 CMD) will be 519 CMD will be treated through additional Condensate Polishing Unit /Effluent Treatment Plant of capacity 600 CMD. Raw stillage (1215 TPD) will be sent to decanter followed by MEE and dryer to produce DDGS. Domestic waste water is being/will be treated in STP of capacity 20 KLPD. The plant is being/will be based on Zero Effluent discharge system and treated effluent/ water will not be discharged outside factory premises.

**11.** Total power requirement after expansion will be 4.6 MW which will be sourced from 4.6 MW Co-generation power plant. 30TPH Biomass/Rice husk/Agro waste fired boiler will be installed by replacing 10 TPH boiler. APCE ESP with a stack height of 44.2 m & 42.67 m is installed with 25 TPH & 10 TPH Biomass/Rice husk/Agro waste fired boiler for controlling the particulate emission within the statutory limit of 50 mg/Nm<sup>3</sup>. APCE ESP with stack height of 50 m will be installed with proposed 30TPH Biomass/Rice husk/Agro waste fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. Industry has existing 1x380 KVA DG set & one proposed 1x750 KVA DG set will be used as power backup during power failure and stack height (5.5 m) will be provided as per CPCB norms to the proposed DG set.

**12. Details of Process emissions generation and its management:**

- APCE ESP with a stack height of 44.2 m & 42.67 m is installed with the existing 25 TPH & 10 TPH Biomass/Rice husk/Agro waste fired boiler respectively for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. APCE ESP with a stack height of 50 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed 30 TPH Biomass/Rice husk/Agro waste fired boiler by replacing existing 10 TPH boiler.
- Online Continuous Emission Monitoring System is being/will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> (157 TPD) generated during the fermentation process is being/will be collected and sold to authorized vendors as per local demand.

**13. Details of solid waste/Hazardous waste generation and its management:**

- DDGS (Distilled Dried Grains Stillage) (104 TPD) is being/will be sold as cattle feed.
- Boiler ash (57 TPD) generated from the boiler is being/will be supplied to brick manufacturers in covered vehicles and given to farmers also.

- Used oil & grease (0.5 Kilolitres per annum) is being/ will be sold to authorized recyclers.
- ETP/CPU sludge (1.2 TPD) and STP Sludge (0.01 TPD) is being/will be used as manure.

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14. As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of 105 KLPD will be used for manufacturing fuel ethanol only.

15. During deliberations, EAC discussed following issues:

- EAC suggested that the company will increase provisions of solar power within plant and to the nearby areas from 10% to 15% of total power consumption of the unit in form of solar lights/solar panels/solar gadgets etc. as a part of socio economic developmental activities.
- Existing distillery has 25 TPH & 10 TPH Biomass/Rice husk/Agro waste fired boiler. The company will dismantle the existing 10 TPH boiler & install 30 TPH Biomass/Rice husk/Agro waste fired boiler. For this proposed 30 TPH boiler, 50 meters stack height & ESP as APCE will be installed & designed for the statutory limit of 50 mg/Nm<sup>3</sup> for controlling the particulate emissions.
- EAC suggested to revise EMP details considering the modification/up gradation in ESP along with allied utilities. Accordingly, PP has increased the EMP Capital cost from Rs. 12.0 Crores to Rs. 17.25 Crores and EMP recurring cost from Rs. 1.5 Crores per annum to Rs. 2.0 Crores per annum.
- EAC suggested that existing greenbelt in 33% of total project area, i.e., 2.427 ha will be densified@2500 trees/ha & the same will be achieved within December, 2023.

The committee was satisfied with the response provided by PP on above information.

16. The proposal was considered by the EAC meeting ID: IA/IND2/13448/23/02/2023) held on 23<sup>rd</sup> February, 2023 in the Ministry, wherein the project proponent and the accredited Consultant namely M/s. J.M. EnviroNet Pvt. Ltd. (NABET certificate no. NABET/EIA/2023/SA 0172 and validity till 7<sup>th</sup> August, 2023), presented the case. The Committee **recommended** the project for grant of environmental clearance.

17. 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.

18. 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.

19. 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.

20. 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 expansion of Grain based distillery from 100 KLPD to 205 KLPD by new installation of 105 KLPD Grain based Ethanol plant along with Co-generation power plant from 3.0 MW to 4.6 MW at Village Chulkana, Tehsil Samalkha, District Panipat, Haryana by M/s. Haryana Organics (A Division of Globus Spirits Limited), 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 the Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed expansion capacity of 105 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized 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.

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- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented as per proposed in Annexure-I.
  - (iii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
  - (iv). NOC from the Central Ground Water Authority (CGWA)/ Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities. State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission. No ground water shall be used for the plant operations.
  - (v). Total fresh water requirement after expansion shall not exceed 952 m<sup>3</sup>/day, which will be sourced from ground water. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
  - (vi). Spent Wash/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., is shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant shall be based on 'Zero Liquid Discharge' system and no effluent/treated water shall be discharged outside factory premises.
  - (vii). ESP with a stack height of 44.2 m is already installed with the existing 25 TPH Rice husk/Agro waste fired boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. ESP (five fields) with a

stack height of 50 meters will be installed with the 30 TPH Biomass/Rice husk/Agro waste fired boiler to controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. Coal shall not be used as fuel. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system installed by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually. As proposed existing 10 TPH boiler shall be dismantled and disposed in an environmentally sound manner.

- (viii). Boiler ash (57 TPD) will be used for brick manufacturing and supplied to brick manufacturers. PP shall use biomass like rice husk/agro waste as fuel for the proposed boiler. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas. Approach to the project site to the nearest highway will be maintained by the Industry.
- (ix). CO<sub>2</sub> (157 TPD) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and shall be sold to authorized vendors.
- (x). PP shall allocate at least Rs. 50 Lakhs/annum 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.
- (xi). 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.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained.
- (xiii). 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.
- (xiv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste;

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(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.

- (xv). The green belt of at least 5-10 m width has been developed in 2.427 hectares i.e., 35.28 % of total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery and same will be maintained. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map.
- (xvi). PP proposed to allocate Rs. 1.00 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan (Annexure-II) for monitorable activities like up-gradation of schools with provision of facilities e.g. Class rooms, playground, Laboratory, Library, Computer class, toilets, potable drinking water facilities, solar light/solar power support for uninterrupted power supply, soil nutrient management etc. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). 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 with facilities like rest rooms etc.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) system for monitoring of stack emissions/effluent quality shall be installed for flue gas emissions and the pollutants

concentration, and the data shall 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.

- (xx). 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. EMC head shall report directly to Head of Organization/ Director/CEO as per company hierarchy.
- (xxi). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12<sup>th</sup> August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

**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.

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- (v) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- (vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- (viii) The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
- (ix) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.nic.in/>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- (x) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- (xi) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

**21.** 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.

22. 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.

23. 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.

24. 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.

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

**(A. N. Singh)**  
**Scientist-'E'**

**Copy to :-**

1. The Principal Secretary, Department of Environment, Government of Haryana, SCO 1-2-3, Sector 17 (D), 2<sup>nd</sup> Floor, Chandigarh, Haryana
2. The Regional Officer, Ministry of Env., Forest and Climate Change, Integrated Regional Office, Bays No.24-25, Sector 31-A, Dakshin Marg, Chandigarh - 160030
3. The Member Secretary, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula, Haryana - 134109.
5. The Member Secretary, Central Ground Water Authority, 18/11, Jamnagar House, Mansingh Road, New Delhi - 11
6. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi
7. District Collector, Kalaburagi, Haryana
8. Guard File /Monitoring File /Parivesh Portal / Record File

**(A. N. Singh)**  
**Scientist-'E'**

**E-mail: aditya.narayan@nic.in**  
**Tel. No. 11-24642176**

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Annexure - I

Capital cost and recurring cost of EMP are given below:

S. No.	Description		Capital Cost (Crores)	Recurring Cost/annum (Crores)
1	Air Pollution Management	ESP + Stack+ up gradation in existing ESP, online monitoring system	8.6	0.55
2	Effluent Treatment	Condensate polishing unit/ ETP and STP	5.5	0.8
3	Environment Monitoring	Lab instrument, Online Monitoring System, Third party monitoring, audit	0.5	0.10
4	Solid waste Management	Ash Handling & Management, Others	2.4	0.45
5	Greenbelt & Plantation Development	Plantation for Greenbelt	0.25	0.10
<b>Total</b>			<b>17.25</b>	<b>2.0</b>

Annexure - II

Details of extended EMP (CER) with proposed activities and budgetary allocation:

Proposed Activities	Proposed budget in 1 <sup>st</sup> Year	Proposed budget in 2 <sup>nd</sup> Year	Total Expenditure (lakhs)
Health facilities- Distribution of medical instruments, oxygen cylinders to nearby health centre and hospitals	Rs. 10 Lakhs (PHC in Village-Chulkana)	Rs. 10 Lakhs (PHC in Village-Kiwana)	Rs. 20.0
Education - Infrastructure Renovation of Govt schools & classroom development, Provision of digital education in school & laptop distribution, sanitation facilities, safe drinking water etc.	Rs. 20 Lakhs (Govt school in Village-Kiwana)	Rs. 10 Lakhs (Govt school in Village-Chulkana)	Rs. 30.0 Lakhs
Skill Development - Establishment of Skill Development centre for Youth & organising Training	Rs. 7.5 Lakhs (Village-	Rs. 7.5 Lakhs (Village-	Rs. 15.0 Lakhs

programmes for youth/residents.	(Kiwana)	Chulkana)	
Infrastructure Construction/Renovation- Solar power installation in schools & Panchayat bhavan, rainwater harvesting system, development of community halls & nearby plantations etc	625 Rs. 25 Lakhs (Village- Chulkana)	Rs. 15 Lakhs (Village- Kiwana)	Rs. 35.0 Lakhs
<b>TOTAL</b>			<b>Rs.100 Lakhs</b>

Signature Not Verified  
Digitally signed by A N Singh  
Scientist E  
Date: 4/3/2023 11:43:59 PM


**HARYANA STATE POLLUTION CONTROL BOARD**

SCO-55, Sec.25, HUDA, Panipat Ph. 0180-2672037

Email:- hspcbropr@gmail.com

E-mail: hspcb@hry.nic.in



No. HSPCB/Consent/ : 313106523PITCTO39884947

Dated:20/09/2023

To.

 M/s :HARYANA ORGANICS A Unit of Globus Spirits Ltd  
 4 KM, Chulkana Road, Samalkha, Panipat

Subject: Grant of consent to operate to M/s HARYANA ORGANICS A Unit of Globus Spirits Ltd.

Please refer to your application no. 39884947 received on dated 2023-08-24 in regional office Panipat. With reference to your above application for consent to operate, M/s HARYANA ORGANICS A Unit of Globus Spirits Ltd is here by granted consent as per following specification/Terms and conditions.

<b>Consent Under</b>	BOTH
<b>Period of consent</b>	13/09/2023 - 30/09/2027
<b>Industry Type</b>	Distillery ( molasses / grain / yeast based)
<b>Category</b>	RED
<b>Investment(In Lakh)</b>	15967.691
<b>Total Land Area(Sq. meter)</b>	72216.0
<b>Total Builtup Area(Sq. meter)</b>	15000.0
<b>Quantity of effluent</b>	
1. Trade	554.0 KL/Day
2. Domestic	15.0 KL/Day
<b>Number of outlets</b>	0.0
<b>Mode of discharge</b>	
1. Domestic	STP then use for Horticulture
2. Trade	ZLD/CPU/MEE
<b>Domestic Effluent Parameters</b>	
1. BOD	10 mg/l
2. COD	50 mg/l
3. TSS	20 mg/l
4. pH (5.5-9.0)	5.59.0
5. Faecal Coliform (MPN/100 ml)	100 MPN/100ml
6. TOTAL NITROGEN	10
<b>Trade Effluent Parameters</b>	
1. BOD	30 mg/l
2. TSS	100 mg/l

3. pH (5.5-9.0)	5.59.0	<b>627</b>
4. All Applicable Standards as per EP Acts/Rules/Norms		
Number of stacks	3	
<b>Height of stack</b>		
1. S T A C K ATTACHED TO 10 TPH BOILER	42.67 m	
2. S T A C K ATTACHED TO 25 TPH BOILER	44.2 m	
3. S T A C K ATTACHED TO DG SET (above roof level)	10.9 m	
<b>Emission parameters</b>		
1. SPM	80 mg/m3	
<b>Product Details</b>		
1. IMFL	10000 Cases/day	
2. COUNTRY LIQUOR	12000 Cases/day	
3. RECTIFIED SPIRIT, ENA, ETHANOL	140 Kilo liters/Day	
<b>Capacity of boiler</b>		
1. BIOMASS FIRED BOILER	25 Ton/hr	
2. BIOMASS FIRED BOILER	10 Ton/hr	
<b>Type of Furnace</b>		
1. NA		
<b>Type of Fuel</b>		
1. BIOMASS	300 TON/DAY	
2. Diesel	2.4 KL/day	
<b>Raw Material Details</b>		
DISCARDED GRAIN, NAKKU,BAJRA,MAIZE	296 Metric Tonnes/Day	
RAW WATER	135 Kilo Liters/Day	

*Regional Officer, Panipat*  
*Haryana State Pollution Control Board.*

#### Terms and conditions

1. The applicants shall maintain good house keeping both within factory and in the premises. All hose pipelines valves, storage tanks etc. shall be leak proof. In plant allowable pollutants levels, if specified by State Board should be met strictly.
2. The applicant/company shall comply with and carry out directive/orders issued by the Board in this consent order at all subsequent times without negligence of his /its part. The applicant/company shall be liable for such legal action against him as per provision of the

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law/act in case of violation of any of the conditions. Issued at any time and on non compliance of the terms and conditions of his consent order.

3. The applicant shall make an application for grant of consent at least 90 days before the date of expiry of this consent.
4. Necessary fee as prescribed for obtaining renewal consent shall be paid by the applicant alongwith the consent application.
5. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above required variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard vary all or such condition and there upon the applicant shall be bound to comply with the conditions so varied.
6. The industry shall provide adequate arrangement for fighting the accidental leakages, discharge of any pollutants gas/liquids from the vessels, mechanical equipment etc. which are likely to cause environment pollution.
7. The industry shall comply noise pollution (Regulation and control) Rules, 2000.
8. The industry shall comply all the direction/Rules/Instructions as may be issued by the MOEF/CPCB/HSPCB from time to time.
9. The industry shall ensure that various characteristics of the effluents remain within the tolerance limits as specified in EPA Standard and as amended from time to time and at no time the concentration of any characteristics should exceed these limits for discharge.
10. The industry would immediately submit the revised application to the Board in the event of any change in the raw material in process, mode of treatment/discharge of effluent. In case of change of process at any stage during the consent period, the industry shall submit fresh consent application alongwith the consent to operate fee, if found due, which may be on any account and that shall be paid by the industry and the industry would immediately submit the consent application to the Board in the event of any change during the year in the raw material, quantity, quality of the effluent, mode of discharge, treatment facilities etc.
11. The officer/official of the Board shall reserve the right to access for the inspection of the industry in connection with the various process and the treatment facilities. The consent to operate is subject to review by the Board at any time.
12. Permissible limits for any pollutants mentioned in the consent to operate order should not exceed the concentration permitted in the effluent by the Board.
13. The industry shall pay the balance fee, in case it is found due from the industry at any time later on.
14. If the industry fails to adhere to any of the conditions of this consent to operate order, the consent to operate so granted shall automatically lapse.
15. If the industry is closed temporarily at its own, they shall inform the Board and obtain permission before restart of the unit.
16. The industry shall comply all the Directions/ Rules/Instructions issued from time to time by the Board.

#### Specific Conditions :

1. The unit shall keep all the parameters within the prescribed limits and shall comply with all the Norms and Rules as prescribed in the Acts.
2. That the unit will comply with all the provisions of Hazardous Waste Rules and maintain agreement with Authorized recycler of the Board for scientific disposal of Hazardous Waste.
3. That unit will use only biomass fuel as per

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direction of CAQM. 4. That the Unit will run MOP regularly and maintained log books properly. 5. That the unit will provide inter locking arrangement of DG set with APCM and shall have adequate D.G. set to ensure regular and effective running of pollution control devices. 6. That the unit will not generate Trade effluent more than permission granted without prior permission from the board. 7. That the unit will not add any air polluting process/ machinery and also not add any process which increases the water pollution load. 8. That the unit will follow the directions issued from HSPCB, CPCB, NGT and CAQM. 9. That the unit will deposit the balance consent fee as per schedule, if any. 10. The unit will run and maintain its MEE and APCM regularly & effectively and will keep all the parameters within limit, it will dispose off its boiler ash in scientific method. 11. That the unit should obtain/renew the NOC from HWRA for extraction of ground water. 12. Unit will Hand over the waste oil of the D.G set only to the authorized recycler and will timely renew their agreement. 13. That the CTO so granted shall become invalid in case of violation of any of the above / any law of the land If the unit fails in complying of above said conditions. 14. That this CTO is issued in suppression of earlier CTO issued vide no. HSPCB/Consent/ : 313106523PITCTE2060767 Dated:13/07/2023. 15. That the unit will submit the compliance of conditions of CTO each year.

*Regional Officer, Panipat  
Haryana State Pollution Control Board.*

HARYANA STATE





**HARYANA STATE POLLUTION CONTROL BOARD**  
**SCO No.55, Sector 25, HUDA, PANIPAT**  
 Ph. - (0180) 2672037, Telex - 3504981, E-mail: hspcbpn@gmail.com

No. HSPCB/PR/2024/ 266

Date: 31-05-2024

To

M/s Haryana Organics, A unit of Glitbus Spirit Ltd.  
 4 KM, Chukana Road, Samalkha, Panipat

Sub:

Show cause notice for closure u/s 23-A of Water Act, 1974&31-A of Air Act, 1981 and prosecution under section 43/44 for the violation section 24/25 of Water Act, 1974 and Under Section 37 for violation of section 21 of Air Act, 1981 and imposition of Environmental Compensation as per board policy.

Whereas your unit was inspected on 14/03/2024 by the Joint Committee consisting of CPCB, New Delhi, District Administration, Panipat and HSPCB, Panipat in respect of O.A. No.111/2024 pending before Hon'ble NGT. During inspection sampling at various point of your unit was done by the team and the parameters as mentioned in tables below has been found exceeding the prescribed standards:-

## 1. Lab analysis results of STP (sewage treatment plant)

Parameters	STP Inlet (sample code S-1)	Aeration Tank	STP outlet (sample code S-2)	Discharge Standard <sup>a</sup> (Standard as per the Haryana NGT order dated 30.04.2019)	Discharge Standard (Notified under EPP Rules, 1986) (applicable for all mode of disposal including land)
pH	7.20		7.30	5.5-9.0	5.5-9.0
TSS	150		85	20	<100
TDS	2652		2664	-	-
TRT	875		104	20	20
UGD	2135		277	50	-
NO3-N	1.38		1.0	-	-
TP	18.0		15.60	1.8	-
MBSS		413			
MEVVA		413			

*All values are in mg/l except pH.*

The parameter has been found exceeding in TDS, BOD, COD and Total Phosphorus as mentioned in above table showing that the STP provided by the unit is not operated regularly and effectively.

## 2. Groundwater analysis result for physical parameters

Parameter	Borewell-1 (within the Unit) [Sample code-BS-1]	Borewell-2 (within the Unit) [BS-2]	Borewell-3 (within the Unit) [BS-3]	Borewell (outside the Unit perman) installed at Sh.Ramesh Kumar land [BS-4]	BIS 10500:2012 (Acceptable Limit)	BIS IS 10500:2012 (Permissible Limit in absence of alternative source)
pH	7.5	7.8	8.1	7.6	6.5-8.5	6.5-8.5
Colour	BDL	BDL	BDL	BDL	05	15
TDS	1660	1688	1144	1082	500	2000
Total Hardness (TH)	484	488	272	263	200	600
Total Alkalinity	299	307	411	426	200	600
Cond	1671	1655	1728	1598	-	-
Calcium Cl	205	215	131	164	250	1000

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Fluorides F	0.55	0.61	0.56	0.47	1.0	1.5
Sulphates SO <sub>4</sub> <sup>2-</sup>	195	192	631	158	200	400
NO <sub>3</sub> -N	5.38	5.03	3.86	6.59	45	No relaxation
COD	3.0	BOD	9.0	16	--	--
K <sup>+</sup>	5.47	3.58	6.2	6.03		

*All values are in mg/l except pH, conductivity & color*

The value of COD of the borewell (outside the Unit premises) installed at Sh. Ramesh Kumar land has been found 16 mg/l indicates possible threat to ground water and need urgent attention towards cleaning of drain at the back side of your unit.

### 3. Analysis results of water samples collected from Drain

Parameters	Drain sample location	
	Drain (Up-stream of the Unit) (Sample code-USD)	Drain (down-stream of the Unit) (sample code-DSD)
pH	7.8	7.0
Colour	30	34
Total Suspended Solid	249	4730
TDS	1180	1780
Sulphate as SO <sub>4</sub> <sup>2-</sup>	157	64
Nitrate as NO <sub>3</sub> -N	1.20	11.0
PO <sub>4</sub> -P	6.70	13.0
Potassium as K <sup>+</sup>	37	34
COD	429	9268
BOD	213	4850

*All values are in mg/l except pH & color*

High concentration of BOD and COD in between the upstream and downstream of the drain passing back side of the unit reveal that untreated/partially treated effluent is discharge into drain.

Also, the final results at CPU have been found high in BOD-160, COD-458 and TDS-1332 mg/l which shows that treated water of CPU is not suitable to be used in cooling tower makeup. During the time of inspection, it was noticed that the ash coming from the boiler of industrial unit is falling on the crop of the complainant land and damaging the crop.

Beside these following observations has been found during the time of inspection by the joint committee: -

#### A. Effluent Management

- The Unit should properly operate & maintain the aeration tank and clarifier (secondary) of CPU and accordingly rectify the problem at the earliest.
- The Unit should properly operate & maintain the CPU and enhance the performance of CPU so as to meet the desired water quality for reuse & recycle of the treated effluent with in the process/cooling tower make up water.
- The Unit should properly operate and maintain the STP and optimize the performance of its STP so as to meet the prescribed standard.
- The Unit should provide Environmental Data display board at the entrance of the Gate and regularly update it.
- The Unit should take appropriate steps in cleaning and de-sludging of the Drain (flowing adjacent to the Unit) and should provide the action taken report to SPCB.
- The Unit should not discharge their effluent into the drain and strictly follow the consent condition of the HSPCB.
- The presence of high concentration of COD, BOD, TSS & TDS in the downstream of the Drain compared to the downstream drain reveals that Unit intermittently discharges its

untreated/partially treated effluent into the drain. Therefore, SPCB should ensure strict periodical surveillance of the industry/drain and ensure no industrial waste water discharge into the drain.

- viii. The Unit should maintain proper record regarding raw spent-wash/thin slope generation, Fermenter sludge generation, Boiler ash generation and disposal.

#### B. Air Pollution and Control

- i. The Unit should ensure regular water sprinkling and also take other necessary measures in and around the boiler to minimize the dust /ash dispersion in the ambient environment.
- ii. The Unit should provide easy ladder (spiral /scaffold type) ladder at stack of 25TPH boiler instead of monkey ladder to ensure safe access to sampling port for emission monitoring as per CPCB Emission Regulations Part-III.
- iii. The Unit should provide proper housekeeping at the boiler section.
- iv. The conveyer belt at the boiler should be covered (hood cover) or enclosed so as to control the fugitive emission during the transportation of fuel /rice husk. The Unit should provide adequate measure so as to avoid any fugitive emission /dust emission to the nearby areas/land.
- v. The Unit should pay the compensation to the affected land owner, which may be assessed by the HSPCB in consultation with agriculture department.

#### C. Waste Management

- i. The Unit should maintain proper logbook record of Hazardous and other waste generated and disposed by the industry as per the Hazardous & Other Waste Rules, 2016.
- ii. The Unit should not store Hazardous waste for period not exceeding 90 days.

In view of that above, you are hereby directed to show cause within 15 days, as to why closure and legal action against your unit may not be taken along with the imposition of the Environmental Compensation for the damage caused to the environment w/s 33-A of Water Act, 1974 & 31-A of Air Act, 1981 and prosecution under section 43/44 for the violation section 24/25 of Water Act, 1974 and Under Section 37 for violation of section 21 of Air Act, 1981.

In case you fail to comply with the deficiencies mentioned above within the above mentioned stipulated period, it will be presumed that you have nothing to say in this regard and accept the status above, which will warrant action w/s 33-A of Water Act, 1974 & 31-A of Air Act, 1981 and prosecution under section 43/44 for the violation section 24/25 of Water Act, 1974 and Under Section 37 for violation of section 21 of Air Act, 1981.

This may be treated as MOST URGENT.

DA/ Copy of Joint Inspection Report

  
Regional Officer  
Panipat Region

Endst.No.HSPCB/PR/2024/

Dated

A copy of the above is forwarded to the Chairman, HSPCB, Panchikula for information & necessary action please.

Received on 4/06/24  


Regional Officer  
Panipat Region

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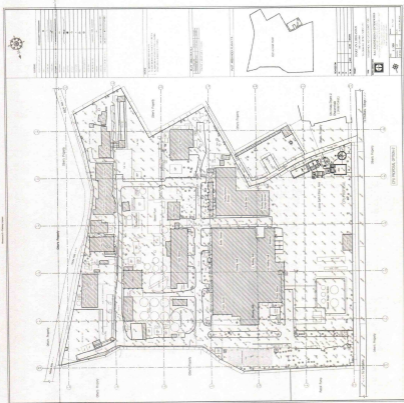
15 KLD STP

DATED	INITIAL READING	FINAL READING	FLOW PER DAY	REMARK
01/05/24	1466.3	1479.3	13 m <sup>3</sup>	
02/05/24	1479.3	1491.8	12.5 m <sup>3</sup>	
03/05/24	1491.8	1503.8	12 m <sup>3</sup>	
04/05/24	1503.8	1516.3	12.5 m <sup>3</sup>	
05/05/24	1516.3	1527.8	11.5 m <sup>3</sup>	
06/05/24	1527.8	1540.3	12.5 m <sup>3</sup>	
07/05/24	1540.3	1553.3	13 m <sup>3</sup>	
08/05/24	1553.3	1566.8	13.5 m <sup>3</sup>	
09/05/24	1566.8	1578.8	12 m <sup>3</sup>	
10/05/24	1578.8	1591.3	12.5 m <sup>3</sup>	
11/05/24	1591.3	1603.3	12 m <sup>3</sup>	
12/05/24	1603.3	1614.3	11 m <sup>3</sup>	
13/05/24	1614.3	1625.8	11.5 m <sup>3</sup>	
14/05/24	1625.8	1638.3	12.5 m <sup>3</sup>	
15/05/24	1638.3	1651.8	13.5 m <sup>3</sup>	
16/05/24	1651.8	1663.8	12 m <sup>3</sup>	
17/05/24	1663.8	1676.8	13 m <sup>3</sup>	
18/05/24	1676.8	1689.3	12.5 m <sup>3</sup>	
19/05/24	1689.3	1701.3	12 m <sup>3</sup>	
20/05/24	1701.3	1714.8	13.5 m <sup>3</sup>	
21/05/24	1714.8	1726.8	12 m <sup>3</sup>	
22/05/24	1726.8	1739.3	12.5	
23/05/24	1739.3	1752.8	13.5 m <sup>3</sup>	
24/05/24	1752.8	1765.8	13 m <sup>3</sup>	
25/05/24	1765.8	1777.8	12 m <sup>3</sup>	
26/05/24	1777.8	1789.3	13.5 m <sup>3</sup>	
27/05/24	1789.3	1801.8	12.5 m <sup>3</sup>	
28/05/24	1801.8	1814.8	13 m <sup>3</sup>	
29/05/24	1814.8	1827.3	12.5 m <sup>3</sup>	
30/05/24	1827.3	1839.3	12 m <sup>3</sup>	
31/05/24	1839.3	1851.8	12.5 m <sup>3</sup>	

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DATE	INITIAL READINGS	15 KLD		REMARK
		FINAL READ	W PER DAY	
1/06/024	1851.8	1865.3	13.5 m <sup>3</sup>	
2/06/024	1865.3	1878.3	13 m <sup>3</sup>	
3/06/024	1878.3	1890.8	12.5 m <sup>3</sup>	
4/06/024	1890.6	1901.3	13.5 m <sup>3</sup>	
5/06/024	1901.3	1913.3	13 m <sup>3</sup>	
6/06/024	1913.3	1924.8	12.5 m <sup>3</sup>	
7/06/024	1924.8	1943.3	13.5 m <sup>3</sup>	
8/06/024	1943.3	1956.1	12.8 m <sup>3</sup>	
9/06/024	1956.1	1970.1	14 m <sup>3</sup>	
10/06/024	1970.1	1983.6	13.5 m <sup>3</sup>	
11/06/024	1983.6	1996.6	13 m <sup>3</sup>	
12/06/024	1996.6	2009.1	12.5 m <sup>3</sup>	
13/06/024	2009.1	2021.1	12 m <sup>3</sup>	
14/06/024	2021.1	2033.6	12.5 m <sup>3</sup>	
15/06/024	2033.6	2047.1	13.5 m <sup>3</sup>	
16/06/024	2047.1	2060.3	13.5 m <sup>3</sup>	
17/06/024	2060.3	2072.6	12.8 m <sup>3</sup>	
18/06/024	2072.6	2088.1	13.5 m <sup>3</sup>	
19/06/024	2088.1	2099.1	13 m <sup>3</sup>	
20/06/024	2099.1	2111.6	12.5 m <sup>3</sup>	
21/06/024	2111.6	2124.1	12.5 m <sup>3</sup>	
22/06/024	2124.1	2137.1	13 m <sup>3</sup>	
23/06/024	2137.1	2150.6	13.5 m <sup>3</sup>	
24/06/024	2150.6	2163.1	12.5 m <sup>3</sup>	
25/06/024	2163.1	2176.6	13.5 m <sup>3</sup>	
26/06/024	2176.6	2189.1	12.5 m <sup>3</sup>	
27/06/024	2189.1	2202.1	13 m <sup>3</sup>	
28/06/024	2202.1	2215.6	13.5 m <sup>3</sup>	
29/06/024	2215.6			
30/06/024				

635



636

3

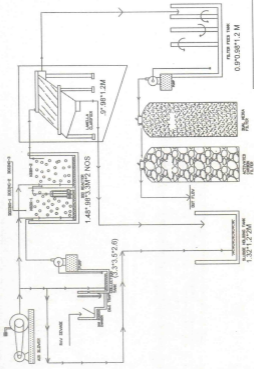
## STP DETAIL

	LENGTH (mm)	WEDTH(mm)	DEPTH (mm)	VOLUME(m3)
COLLECTION /SCREENING SUMP	3300	3500	2600	30.03
MBBR-I	1480	980	3300	4.79
MBBR-II	1480	980	3300	4.79
TUBE SETTLER	900	980	1200	1.06
COLLECTING PIT	900	980	1230	1.08
	DIA	LENGTH		
MGF	350	1400		0.14
ACF	350	1400		0.14

DETAILS	CAPACITY	HEAD	HP	MAKE
FEED PUMP-I	4.4 to 1.5 (L/S)	11.5 MTR	0.75	KIRLOSKER
FEED PUMP-II	4.4 to 1.5 (L/S)	11.5 MTR	0.75	KIRLOSKER
MGF FEED -I	1.7 TO 0.6( L/S)	25 MTR	0.75	KIRLOSKER
MGF FEED -II	1.7 TO 0.6( L/S)	25 MTR	0.75	KIRLOSKER
SLUDGE FEED PUMP-I	4.4 to 1.5 (L/S)	11.5 MTR	0.75	KIRLOSKER
SLUDGE FEED PUMP-II	4.4 to 1.5 (L/S)	11.5 MTR	0.75	KIRLOSKER
BLOWER-I	120 M3/hr	-	5	KIRLOSKER
BLOWER-II	120 M3/hr	-	5	KIRLOSKER



FLOW DIAGRAM OF STP



PROJECT: SEWAGE TREATMENT PLANT

TITLE: SCHEMATIC DIAGRAM



# Envirochem Testing & Consultancy LLP

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(GOVT. APPROVED LAB)

(An ISO 9001 : 2015, ISO 14001 : 2015, ISO 45001 : 2018 Certified Lab)

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Email : envirochemtestinglab@gmail.com

Web : www.aticr.com



TC-6015

## TEST REPORT

Report No & IRLR No.	ETL/ PNP/7671&TC60152490001158F	Report Date	17.06.2024	Doc No.	ETL/QF/7.801
Issue to	M/s Haryana Organics (A Unit of Globus Spirits Ltd.) Samalkha, Panipat	Party's Ref No/Nil	Week Order No:7991		
		Period of Testing:12.06.2024-17.06.2024			

### SAMPLE PARTICULARS

1.	Type of sample	: WATER SAMPLE
2.	Point of Sample Collection	: STP Inlet
3.	Date & Time of sample collection/ received	: 12.06.2024 (12:45 PM)
4.	Purpose of analysis	: Monitoring purpose
5.	Sample collected/ supplied by	: By Lab Representative (Mr. Anuj)
6.	Quantity of Sample	: 5 Litre each
7.	Method of Sampling	: IS 3025 (P - 1) 1987

### TEST RESULTS

Sr. No.	Parameters	STP Inlet	Protocol used
1.	pH	6.91	IS 3025 (P-11) 1983
2.	COD, mg/L	459	IS 3025 (P-58) 2023
3.	BOD at 27°C for 3 Days, mg/L	191	IS 3025 (P-44) 2023
4.	Total Suspended Solids, mg/L	342	IS 3025 (P-17) 2022
5.	Total Dissolved Solids, mg/L	1924	IS 3025 (P-16) 2023
6.	Total Phosphorous as P, mg/L	15.8	IS 3025 (P-31) 2021
7.	Total Hardness (as CaCO <sub>3</sub> ), mg/l	545	IS 3025 (P-21) : 2009
8.	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l	29	IS 3025 (P-23) : 2023
9.	Electrical Conductivity, µmhos/cm	2835	IS 3025 (P-14) : 1984
10.	Chloride (as Cl), mg/l	331	IS 3025 (P-32) : 1988
11.	Fluoride (as F), mg/l	0.29	APHA Method
12.	Sulphate (as SO <sub>4</sub> ), mg/l	158	IS 3025 (P-24) : 1922
13.	Nitrate Nitrogen (as NO <sub>3</sub> -N), mg/l	21.9	IS 3025 (P-34) : 2023
14.	Potassium (as K), mg/l	41.2	IS 3025 (P-45) : 1992

Verified By

Neha Singh

\*\*\*\*\*End Report\*\*\*\*\*

Reviewed By  
Bilal

Authorised By  
Dr. Rajendra Kumar

- N 1. Samples shall be discarded after 15 days issue of test report unless specified.  
O 2. Results listed above related to the tested samples. Enforcement of the same is neither inferred nor implemented.  
T 3. The test report shall not be reproduced full or in part & can't be used as proof in the court of law.  
E 4. The test report should not be used in any advertising agency/media without the written approval of laboratory.



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 (GC 639 ISO LAB)

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Web : www.etrc.com



## TEST REPORT

Report No & ULR No.	ETL/ PNP/7672&TC60152400001159F	Report Date	17.06.2024	Doc No.	ETLQ6/7.8/01
Issue to	Mix Haryana Organics (A Unit of Global Spirits Ltd.) Suzalkha, Panipat	Party's Ref No/Nil	Work Order No:7992	Period of Testing:12.06.2024-17.06.2024	

### SAMPLE PARTICULARS

1.	Type of sample	: WATER SAMPLE
2.	Point of Sample Collection	: STP Outlet
3.	Date & Time of sample collection/ received	: 12.06.2024 (01:00 PM)
4.	Purpose of analysis	: Monitoring purpose
5.	Sample collected/ supplied by	: By Lab Representative (Mr. Anuj)
6.	Quantity of Sample	: 5 Litre each
7.	Method of Sampling	: IS 3025 (P - 1) 1987

### TEST RESULTS

Sr. No.	Parameters	STP Outlet	Standard Limit	Protocol used
1.	pH	7.23	5.5-9.0	IS 3025 (P-11) 1983
2.	COD, mg/l	40.1	50	IS 3025 (P-58) 2023
3.	BOD at 27°C for 3 Days, mg/L	9.3	10	IS 3025 (P-44) 2023
4.	Total Suspended Solids, mg/l	14	20	IS 3025 (P-17) 2022
5.	Total Dissolved Solids, mg/L	1488	2100	IS 3025 (P-16) 2023
6.	Total Phosphorus as P, mg/L	4.8	5.0	IS 3025 (P-31) 2023
7.	Total Hardness (as CaCO <sub>3</sub> ), mg/l	421	-	IS 3025 (P-21) : 2009
8.	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l	25.7	-	IS 3025 (P-23) : 2023
9.	Electrical Conductivity, $\mu$ mhos/cm	1990	-	IS 3025 (P-14) : 1984
10.	Chloride (as Cl), mg/l	258	-	IS 3025 (P-32) : 1988
11.	Fluoride (as F), mg/l	0.34	-	APHA Method
12.	Sulphate (as SO <sub>4</sub> ), mg/l	311	-	IS 3025 (P-24) : 1922
13.	Nitrate Nitrogen (as NO <sub>3</sub> -N), mg/l	15.6	-	IS 3025 (P-34) : 2023
14.	Potassium (as K), mg/l	18.9	-	IS 3025 (P-46) : 1993

Verified By  
Neha Singh

\*\*\*\*\*End Report\*\*\*\*\*  
 Reviewed By  
Bilal

Authorized By  
Dr. Rajendra Kumar

N 1. Samples shall be disposed off after 15 days issue of test report unless specified.  
 O 2. Results listed above related to the tested samples. Endorsement of the same is neither inferred nor implemented.  
 T 3. This test report shall not be reproduced full or in part & can't be used as proof in the court of law.  
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## TEST REPORT

Report No. & ULR No.	ETL/ PNP/7673&TC60152400001160F	Report Date	17.06.2024	Doc No.	ETL/QF/7.8/01
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Issue to  
 M/s Haryana Organics  
 (A Unit of Globus Spirits Ltd.)  
 Samalkha,  
 Panipat

Party's Ref No: Nil  
 Work Order No: 7993  
 Period of Testing: 12.06.2024-17.06.2024

### SAMPLE PARTICULARS

1.	Type of sample	: EFFLUENT WATER
2.	Point of Sample Collection	: Aeration (STP)
3.	Date & time of sample collection	: 12.06.2024 (01:15 PM)
4.	Purpose of analysis	: Monitoring purpose
5.	Sample collected/ supplied by	: By Lab Representative (Mr. Anuj)
6.	Quantity of Sample	: 2 Litre

### TEST RESULTS

Sr. No.	Parameters	Results	Protocol used
1.	MLSS, mg/L	1779	ETL/SOP/W11-2014
2.	MLVSS, mg/L	1203	ETL/SOP/W52-2014

\*\*\*\*\*End Report\*\*\*\*\*

*Neha Singh*  
 Verified By  
 Neha Singh

Reviewed By  
 Bilal *Bilal*

Authorised By  
 Dr. Rajendra Kumar  
*17-6*

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 Fax : (020) 26902244  
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 Web site : www.vvisugar.com



**VASANTDADA SUGAR INSTITUTE**  
 Manjari (Bk.) Tal. : Haveli, Dist. : Pune - 412 307, Maharashtra, India.

VSI/Env. Sci. / 04149- /2024-25

August 27, 2024

28 AUG 2024

To,

**President - Technical & Operation**

**M/s. Haryana Organics, A unit of Globus Spirits Limited**

4 KM, Chulkana-Samalkha Road, Samalkha,

District Panipat, Haryana 132101

**Subject:** Visit report of technical visit for the compliance of 20 KLPD Sewage Treatment Plant (STP) adequacy report

Dear Sir,

This letter refers to the visit of Mr. Kapil Upadhye to your site on August 16-17, 2024. This visit was conducted in response to your work order for a technical review of the compliance of Sewage Treatment Plant (STP) adequacy report.

During the visit, the visiting person and the staff from your unit assessed the compliance with the suggestions and recommendations provided in the adequacy report, including both fabrication work and electromechanical components of the STP. It was found that the suggestions and recommendations outlined in the STP adequacy report have been successfully implemented by your unit.

The detailed pointwise compliance report attached below.

Yours faithfully,

(Dr. D S Nandalkar)

Sr. Scientist & Head

Dept. of Environmental Sciences

# 642

## Report on the compliance of the suggestions and recommendations given in Adequacy Assessment Report of Sewage Treatment Plant (STP)

**Name of industry:** M/s. Haryana Organics, A unit of Globus Spirits Limited

**Industry type:** Distillery unit

**Capacity of plant:** 140 KLPD

**STP capacity:** 20 KLPD

**Allied units:** NA

**Address:** 4 KM, Chulkana-Samalkha Road, Samalkha, District Panipat, Haryana 132101

**Contact person:** Mr. Amitabh Singh (President - Technical & Operation)

**Contact no:** 7496844480

**E-mail:** [mpsingh@globusgroup.in](mailto:mpsingh@globusgroup.in)

### Interacting Officials

1. Mr. M P Singh (Vice President)
2. Mr. Akhil Kumar G.M. (HR & Admin.)
3. Mr. Navin Kumar Sharma (Production Head)
4. Mr. Nirmal Singh (Production Lead)

### Visiting VSI representative:

1. Mr. Kapil Upadhye (Scientific Officer),  
Department of Environmental Sciences, Vasantdada Sugar Institute

**Site visit date:** August 16-17, 2024

# 643

## Pointwise Compliance of the suggestions given in the adequacy report of the sewage treatment plant of capacity 20 M<sup>3</sup>/Day

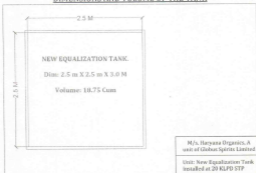
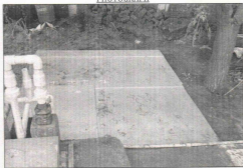
#	Suggestions as per adequacy report	Compliance
1	Complete retention time should be provided to the septic tank and equalization tank to allow heavier solids to settle at the bottom.	The unit has ensured a proper retention time of 48 hours by constructing an additional new equalization tank with a capacity of 18.75 m <sup>3</sup> . <b>A photograph of the tank is attached as Annexure 1.</b>
2	A new equalization tank with a retention time of 6-8 hours should be installed, and the overflow from the existing equalization tank should be directed into this new tank.	The unit has installed a new equalization tank with dimensions of 2.5 m x 2.5 m x 3.0 m and a volume of 18.75 m <sup>3</sup> , which provides an additional retention time of 22.5 hours. <b>The dimensions, volume, and photograph of the tank are attached as Annexure 1.</b>
3	Sewage feed pumps should be installed on the new equalization tank.	The sewage feed pump has been relocated to the new equalization tank, and the flow rate is maintained between 0.7 and 0.9 m <sup>3</sup> /hr. <b>Photographs of the setup and flow meter are attached as Annexure 2.</b>
4	The STP should be operated continuously for at least 20 hours/day to maintain appropriate flow and batch type operation should be avoided	The unit operating the STP continuously for at least 20 hours per day by maintaining an inlet flow between 0.7 and 0.9 m <sup>3</sup> /hr. According to the STP inlet logbook, the average inlet flow is 0.8 m <sup>3</sup> /hr. <b>The STP operation record of the August month is attached as Annexure 3.</b>
5	Replace the MBBR media with new media to promote better growth of microbial culture.	The unit has replaced the MBBR media in the aeration tank to promote better growth of microbial culture. <b>Photographs of the new media addition are attached as Annexure 4</b>

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6	Add isolated cultures to the aeration tank at regular intervals to maintain MLSS and the Food to Microorganism (F/M) ratio.	The unit is using isolated culture and nutrients as needed to maintain the MLSS in the aeration tank. A separate logbook for daily chemical consumption is maintained and <b>it is attached as Annexure 5.</b>
7	Implement recirculation of activated sewage in aeration tanks.	The unit is maintaining sludge recirculation by operating the sludge recirculation pump for a minimum of 2 to 4 hours or as needed. <b>Photographs of the sludge recirculation pump is attached as Annexure 5.</b>
8	Ensure adequate retention time for the tube settler, and adjust the inlet flow from the upward side installing a baffle wall to maintain a proper laminar flow pattern and proper distribution of water within the settler which helps settling solid particles in the conical bottom	The unit has modified the existing tube settler to increase retention time. After the modification, the dimensions of the tube settler are 1.6 m x 1.8 m x 1.4 m, with a volume of 4.03 m <sup>3</sup> and a retention time of 4.8 hours. Additionally, the unit has installed a baffle wall and adjusted the inlet flow to maintain a laminar flow pattern <b>The photographs of the modifications are attached as annexure 6</b>
9	Continuously monitor and analyze the inlet and outlet of the STP.	The unit continuously monitors the inlet and outlet parameters through regular sample analysis. Additionally, third-party analyses are conducted on the STP inlet, outlet, and aeration tank to ensure the quality of sewage treatment. <b>The third party analysis reports are attached as Annexure 7.</b>

The unit has implemented all suggestions and recommendations from the adequacy report. Additionally, the unit has done the third-party analyses of the STP inlet and outlet, and the results indicate that the parameters are within acceptable norms and comply with the limits specified in the consent to operate.

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**ANNEXURE 1: DETAILS OF NEW EQUALIZATION TANK AND PHOTOGRAPH  
DIMENSIONS AND VOLUME OF THE TANK****PHOTOGRAPH**

**646**
**ANNEXURE 2: RELOCATION OF SEWAGE PUMP AND FLOW METER  
 FEED PUMP INSTALLED AT NEW EQUALIZATION TANK**

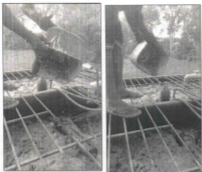
**FLOW METER AT INLET TO MAINTAIN THE FLOW OF SEWAGE**

**OUTLET FLOW METER**




# 648

ANNEXURE 4 - NEW MBBR MEDIA INSTALLATION IN AERATION TANK



ANNEXURE 5 - SLUDGE RECIRCULATION PUMP



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**ANNEXURE 7- PHOTOGRAPHIC DOCUMENTATION IN TUB SETTLER**
**TUBE SETTLER: BEFORE MODIFICATION**

**TUBE SETTLER: AFTER MODIFICATION**


# ANNEXURE 7- THIRD PARTY ANALYSIS REPORT



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Email : envirochemtestinglab@gmail.com

Web : www.etrllp.com



### TEST REPORT

Report No	ETL/ PNY/ 53382	Report Date	20.08.2024
Issue to	M/s Haryana Organics (A Unit of Globus Spirits Ltd.) Sonahra, Panipat	Party's Ref No	Work Order No: 20234
		Period of Testing	16.08.2024-20.08.2024

#### SAMPLE PARTICULARS

1.	Type of sample	WATER SAMPLE
2.	Point of Sample Collection	STP Inlet & outlet
3.	Date & Time of sample collection/ received	16.08.2024
4.	Purpose of analysis	Monitoring purpose
5.	Sample collected/ supplied by	By Lab Representative (Ms. Anuj)
6.	Quantity of Sample	5 Litre each
7.	Method of Sampling	IS 3025 (P - 1) 1987

#### TEST RESULTS

Sr. No.	Parameters	STP Inlet	STP Outlet	Standard Limit	Protocol used
1.	pH	7.42	7.81	3.5-9.0	IS 3025 (P-1) : 1987
2.	CO <sub>2</sub> , mg/L	332	35.8	50	IS 3025 (P-98) : 2023
3.	BOD at 21°C for 3 Days, mg/L	172	7.6	10	IS 3025 (P-64) : 2023
4.	Total Suspended Solids, mg/L	330	13	20	IS 3025 (P-47) : 2022
5.	Total Dissolved Solids, mg/L	1472	1200	2100	IS 3025 (P-56) : 2023
6.	Total Phosphorus as P, mg/L	16.2	3.9	5.0	IS 3025 (P-31) : 2021
7.	Total Hardness (as CaCO <sub>3</sub> ), mg/l	493	482	-	IS 3025 (P-21) : 2000
8.	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l	43	20.5	-	IS 3025 (P-23) : 2023
9.	Electrical Conductivity, $\mu$ mhos/cm	2022	1758	-	IS 3025 (P-14) : 1986
10.	Chloride (as Cl), mg/l	312	236	-	IS 3025 (P-32) : 1988
11.	Fluoride (as F), mg/l	0.19	0.38	-	APHA Method
12.	Sulphate (as SO <sub>4</sub> ), mg/l	133	182	-	IS 3025 (P-24) : 1922
13.	Nitrite Nitrogen (as NO <sub>2</sub> -N), mg/l	20.5	14.5	-	IS 3025 (P-34) : 2023
14.	Potassium (as K), mg/l	40.2	16.4	-	IS 3025 (P-45) : 1983

Verified By  
Saurav

\*\*\*\*\*End Report\*\*\*\*\*

Authorized By  
Neha Singh

- H. 1. Samples shall be disposed off after 15 days unless otherwise specified.  
C. 2. Results listed above related to the tested samples. Enforcement of the same is neither intended nor implemented.  
T. 3. The test report shall not be reproduced full or in part & can't be used as proof in the court of law.  
B. 4. The test report should not be used in any advertising agency/media without the written approval of laboratory.



**CENTRAL POLLUTION CONTROL BOARD**  
**Water Quality Management-II**  
**INDUSTRY INSPECTION FORMAT (Distillery Grain Based)**

**A. General section**

Date of inspection: 04.07.2024

1.	Name of the unit with complete postal address:	HARYANA ORGANICS, 4 KM STONE, CHULKANA ROAD, SAMALKHA, PANIPAT
2.	Unit code	Y- 1458
3.	Spatial Co-ordinates (Latitude & longitude) in Decimal format only	Latitude: 29.217953 Longitude: 76.996752
4.	Industry Operational status	Operational Contact Person: Mr. Amitabh Singh (President Technical & Operation) Mobile No- 8527644277 Email: <a href="mailto:amitabh@globusgroup.in">amitabh@globusgroup.in</a> & Mr. Mahendra Pratap Singh (GM Distillery) -7496844480 <a href="mailto:mpsingh@globusgroup.in">mpsingh@globusgroup.in</a>
5.	Standalone/Integrated with Sugar	Standalone Distillery
6.	Dual feed (Type of feedstock used)	Only Grain Based: Maize/Rice
7.	Consent status	Air & Water Consent valid up to 30.09.2027, attached as annexure 1

**B. Production process and infrastructure**

8.	<b>Process</b>	Manufacturing of Grain based distillery (Maize/Rice)
9.	<b>Raw material</b>	
	Consented value, MT/day	296 MT/day
	Actual consumption, MT/day (as per logbook)	198.80 MT/day (Total - 180908.6 Qtls for 91 days.) Raw material data attached as annexure-4
	Estimated daily consumption, MT/day	220 MT/day
10.	Process (Line diagram)	Process flow chart attached as annexure 5
11.	Type of fermentation technology	Semi Continuous Fed Batch
12.	Type of distillation technology	MPR
13.	Integrated MEE with Distillation (Yes/No)	Yes
14.	<b>Production</b>	
	Consented value (KLPD)	140 KLPD ( 70 KL X 2 )
	Excise approved (KLPD)	140 KLPD
	Actual Production (KLPD) (as per logbook)	Ethanol= 91.13 KLD Total production - 8292.555 KL Attached as annexure -4
	Estimated daily production (KLPD)	Ethanol- 100 KLD

	Alcohol Yield (Lit/MT)	652 58.38 Liter/MT		
15.	<b>Fresh water consumption</b>			
	NOC from CGWA/other authorized body	Expired on 18.06.2022. Unit had applied for renewal Renewal application copy & Expired NOC attached as annexure- 6A & 6 B respectively.		
	Details of borewell (Number)	04		
	Type of flow meter installed: (mechanical/electromagnetic/digital etc.)	Yes, Electromagnetic. Readings are as under B-1 : Flow 0.0 M <sup>3</sup> /hr. & Totalizer: 16898 M <sup>3</sup> B-2 : Flow 17.64 M <sup>3</sup> /hr. & Totalizer: 18829 M <sup>3</sup> B-3 : Flow 0.0 M <sup>3</sup> /hr. & Totalizer: 90.0 M <sup>3</sup> B-4 : Flow 6.73 M <sup>3</sup> /hr. & Totalizer: 21963 M <sup>3</sup>		
	Common borewell with Sugar mill, if any? (Details)	No		
	Reusing treated water from attached Sugar Mill (If reused)	Sugar mill not attached with the distillery		
	Permitted withdrawal quantity M <sup>3</sup> /Day	522 M <sup>3</sup> /day		
	Estimated daily withdrawal quantity M <sup>3</sup> /Day	500 M <sup>3</sup> /day		
	Actual withdrawal quantity M <sup>3</sup> /Day (as per logbook)	436.54 M <sup>3</sup> /day Log book attached as annexure-7		
	Recycle of CPU treated waste water M <sup>3</sup> /Day	For Process Application- 386.91 M <sup>3</sup> /Day  For non-process application- NA		
	Specific fresh water consumption, KL/KL	6.0 KL/KL		
	Actual fresh water consumption KL/KL	4.79 KL / KL		
	16.	<b>Effluent Management (DDGS route)</b>		
		Mass flowmeter installed on whole stillage generation:	Yes	
		Grain Route	Disposal/Utilization point	
Actual whole stillage generation M <sup>3</sup> /Day		493	Feed to decanter	
Recycling of Thin slop after decanter for slurry preparation (M <sup>3</sup> /Day)		92	Liquification	
Actual whole stillage generation after recycles (M <sup>3</sup> /Day)		401	Feed to MEE	
Spent lees generation (M <sup>3</sup> /Day)		72	Use in process	
Fermenter washing (M <sup>3</sup> /Day)		5	(Feed to stillage feed tank)	
Process condensate (M <sup>3</sup> /Day)		468	CPU	
Floor washing (M <sup>3</sup> /Day)		-		
Cooling tower blow down (M <sup>3</sup> /Day)		10	CPU	
Boiler blow down (M <sup>3</sup> /Day)		3	CPU	
DM plant reject (M <sup>3</sup> /Day)		10	CPU	
Others (CPU/RO reject etc.) (M <sup>3</sup> /Day)		20	Refeed to CPU	
The above data is provided by the industry, no support document and log book provided.				
17.	<b>Verification of ZLD</b>			
	ZLD Scheme installed	Whole stillage-Decantation- evaporation → Mingler (DWGS) – DDGS Dryer - DDGS		
	<b>Decantation Process</b>	Design	Actual	
	Number of decanters installed	05	05	
	Feed capacity of decanter, M <sup>3</sup> /hr	80	80	

Inlet feed of decanter, M <sup>3</sup> /day	653	22.5
Thin slop generation, M <sup>3</sup> /day	-	401
Wet cake generation, MT/day	-	46
Mode of disposal of Thin slop	MEE feed to get the concentrated syrup	
Mode of disposal of wet cake, MT/day	Dryer, 46 MT/day	
Flow meter installed inlet & outlet	Yes	
<b>Remarks</b>		
<b>Multiple Effect Evaporator</b>	<b>Design</b>	<b>Actual</b>
MEE thin slop Feed TPD	960	540
Inlet Brix	5	5.73 %
MEE concentrated (Thick slop) TPD	128	72
Outlet of concentrated Thick slop Brix	35	30 %
Process condensate generation, TPD	720	468
Number of effects (mention Number of standby bodies & degasser provided, if any?)	03 effects 03 Finisher and 01 standby	
Type of technology	Forca recirculation and falling film	
Evaporation rate of MEE (%)	85 %	
MEE Inlet Mass Flow meter Installed	Yes	
Totalizer Reading	Reading during visit – Flow: 11000 LPH Totalizer: 18637.38 M <sup>3</sup>	Final: NA
MEE Outlet Mass Flow meter Installed	Yes	
Totalizer Reading	Reading during visit – Flow: 0.0 Totalizer: 6.06967 M <sup>3</sup>	Final: NA
MEE process condensate Flow meter installed	Yes	
Totalizer Reading	Reading during visit – Flow: 14.153 M <sup>3</sup> / hr. Totalizer: 177440.87 M <sup>3</sup>	Final: NA
CPU reject recycled	Yes	
Mode of disposal of thick slop, TPD	Feed to DDGS	
Mode of disposal of process condensate, M <sup>3</sup> /day	Feed to CPU	
Mass flowmeter with totalizer connected with CPCB/SPCB server	Yes	
<b>Remarks</b>	The above data is provided by the industry, no support document and log book provided.	
<b>Mingler for mixing of wet cake &amp; Thick slop</b>		
Thick slop feed to mingler, TPD	66	
Solid content in thick slop	30 %	
Wet cake feed to mingler, TPD	46	
DWGS production, TPD	46	
Moisture content in DWGS	65-70%	
Mode of utilization of DWGS	Feed to Dryer	
<b>Remarks</b>		

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<b>DDGS Dryer</b>			
Dryer capacity TPD	16 ton/day		
Type of Dryer	Rotary tube bundle dryer		
	Design	Actual	
DWGS Feed to dryer TPD	122	110	
Moisture content in DWGS feed to dryer, %	70	30%	
Final DDGS production TPD	60	37	
Moisture content in DDGS %	9-12	9-12	
DDGS weighing and bagging system installed	Yes		
Mode of disposal of DDGS	Sold to Cattle Feed Processor.		
<b>Remarks</b>			
<b>Conventional boiler</b>			
	Design	Actual	
Boiler capacity	25 TPH & 10 TPH	25 TPH & 10 TPH	
Type of Boiler	Water tube	Water tube	
Name of Fuel used	Bio Mass	Bio Mass	
Daily fuel consumption TPD	300 TPD for both	105 MT/ day approx in June	
Steam production TPH	24 TPH	9.0 TPH	
Steam Pressure & temperature	67 Kg/cm <sup>2</sup>	490° C Both	
Estimated steam requirement TPD	33 TPD		
Daily ash generation TPD	20.8 TPD		
Ash generation w.r.t of fuel consumed (%)	20%		
Disposal of ash generated	No detail provided by the industry.		
<b>Remarks</b>			
12	<b>Effluent treatment plant (ETP)</b>		
	<b>CPU Plant installed</b>		
	Yes		
	<b>Type of CPU Technology</b>		
	Conventional followed by UV		
	<b>Conventional</b>		
	Given below data provided by the industry, neither support documents nor log book provided.		
	Design	Actual	
Installed capacity	600	558	
Feed to CPU (M3/day)	600	550	
CPU outlet (M3/Day)	540	520	
CPU Reject (M3/Day)	-	0	
UV plant installed	Yes		
Use of CPU outlet/treated water	In Process/ Cooling Tower makeup		
Mode of disposal of Reject	Recycle to MEE feed		
<b>Effluent Characteristics</b>			
Parameter	CPU inlet Annexure-9 D	CPU outlet	CPU reject
pH	5.11	-	-
BOD (mg/l)	1250	-	-
COD (mg/l)	2750	-	-
TSS (mg/l)	145	-	-
TDS (mg/l)	1220	-	-
TS (mg/l)	1365	-	-
<b>RO Based</b>	<b>No RO Treatment only UV treatment</b>		

<b>655</b>		Design	Actual		
Installed capacity			-		
Feed to RO (M3/Day)		-	-		
RO outlet/permeate (M3/Day)		-	-		
RO Reject (M3/Day)		-	-		
Use RO permeate water		-			
Mode of disposal of RO Reject		-			
Parameter		RO inlet	RO outlet/ Permeate	RO reject	
pH		No RO sample	No RO sample	No RO sample	
BOD (mg/l)		No RO sample	No RO sample	No RO sample	
COD (mg/l)		No RO sample	No RO sample	No RO sample	
TSS (mg/l)		No RO sample	No RO sample	No RO sample	
TDS (mg/l)		No RO sample	No RO sample	No RO sample	
TS (mg/l)†		No RO sample	No RO sample	No RO sample	
OCEMS at ETP outlet		Yes			
<b>Remarks: U V outlet log book attached as annexure-8</b>					
<b>Effluent Characteristics</b>					
Parameter	ETP inlet/ Equalization Tank Annexure- 9 D	ETP outlet/ U V Treated Annexure- 9 E	Norms as per consent	Norms as per charter	Compliance w.r.t. consent
pH	5.11	8.11	5.5-9.0		Complying
BOD (mg/l)	1250	25	30		Complying
COD (mg/l)	2750	65	250		Complying
TSS (mg/l)	145	25	100		Complying
TDS (mg/l)	1220	1450	2100		Complying
TS (mg/l)	1365	1475	-		-
Aeration Sample Test results: <b>MLSS : 2518 mg/l &amp; MLVSS : 1640 mg/l ( Annexure- 9 F)</b>					
<b>ETP Sludge generation</b>					
Biological sludge generation MT/day (as per logbook)		No detail provided by the industry.			
Biological sludge generation MT/day (estimated)		No detail provided by the industry.			
Sludge Management & disposal		No detail provided by the industry.			
<b>Remarks</b>					
13	<b>Air Pollution management</b>				
	Boiler Capacity		25 TPH & 10 TPH		
	Stack details		-		
	Chimney Height		44 M & 42 M		
	APCD installed		ESP & Bag filter		


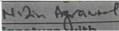
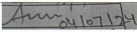
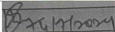
	Actual steam requirement TPD	656	292 TPD
	Estimated steam requirement TPD	656	132 TPD
	Daily ash generation TPD		20.8 TPD
	Ash disposal		No detail provided by the industry.
	OCEMS installed		Yes
	Remarks		
14	<b>Hazardous waste management</b>		
	a. Authorization status	Valid up to 30.09.2027, attached as annexure-3	
	b. Copy of agreement with recyclers /TSD/	Yes, attached as annexure- 12 Form -4 & 10 attached as annexure- 13 A & 13 B respectively.	
	c. Hazardous waste generated	Waste used oil	
	Remarks		
15	<b>Spent wash lagoon</b>	No	
	No. of lagoon	-	
	Each lagoon capacity	-	
	Volume observed during visit	-	
	Estimated sludge generation, MT	-	
	Disposal of lagoon sludge	-	
	Remarks		
16	<b>STP Plant Installed</b>	Yes	
	Type of CPU Technology		
		Design	Actual
	Installed capacity	20 KL	15 KL
	Feed to STP (M3/Day)	20	Approx. 13.5
	STP outlet (M3/Day)	18	Approx. 12
	Mode of disposal of STP treated water	Horticulture	
	OCEMS installed	NO	
	<b>Effluent Characteristics</b>		
	Parameter	STP inlet (Annexure- 9 G)	STP outlet (Annexure- 9 H)
	pH	6.5	6.8
	BOD (mg/l)	120	10
	COD (mg/l)	265	38
	TSS (mg/l)	280	25
	TDS (mg/l)	650	739
	T S ( mg/l)	930	764
	Remarks		

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17	Ground water Analysis Report: Year of Dig: 1994 Depth (m) – 100 m & 150 m Ground water sample test result attached as annexure- 9 I													
	Quality of Groundwater is compared with Bureau of Indian Standard (BIS) drinking water – specification (Second Revision) IS 10500: 2012.													
	Parameter	pH	Color	Total Alkalinity	Total Hardness	COD	TDS	Cl-	F-	NO3	SO <sub>4</sub>			
	Location		(PC U)											
	Standard values	6.5-8.5	15	600	600	-	2000	1000	1.5	45	400			
	Value	7.05	<5	324	729	10	1317	225	0.89	0.8	122			
Quality of Groundwater is compared with Bureau of Indian Standard (BIS) drinking water – specification (Second Revision) IS 10500: 2012. (Heavy Metal)														
Parameter	As	Cd	Cr	Cu	Fe	Pb	Mn	Hg	Ni	Zn	Sb	C o	Se	V
Permissible limits														-
Tested Values	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.01	<0.01	<0.01	<0.001	<0.01	<0.01
18	<b>Recipient drain</b>													
	Recipient drain characteristics : <b>Drain No 6 ( Unit is running on ZLD basis, however sample is collected)</b>													
	Parameter	pH	BOD (mg/l)	COD (mg/l)	TSS (mg/l)	TDS (mg/l)	Total Solid (mg/l)							
	Location													
Upstream Annexure- 9 K	6.99	96	300	1640	1810	3450								
Downstream Annexure- 9 L	6.92	88	263	1560	1720	3280								
19	Installation Status of													
	(1) OCEMS											Yes		
	(2) Web Camera											Yes   NO		
	(3) Flow meter											Yes   NO		
(4) Connected with CPCB/SPCB Server:											Yes			
20	<b>Major observation &amp; Key issues</b>													
	<ul style="list-style-type: none"> <li>Joint Inspection of Unit were carried out by IIT Team &amp; representative of HSPCB Panipat RO member. During Inspection Grain Based Distillery unit having Capacity of 140.0 KLD (2 x 70 KL) was found operational.</li> <li>Distillery Unit is having facility of producing Ethanol.</li> <li>Unit has Grain storage godown with grain precleaning facility.</li> <li>Unit has obtained valid Excise clearance to run Distillery.</li> <li>Unit has valid consent for Air, Water and Hazardous waste authorization.</li> </ul>													

	<p style="text-align: center; font-size: 2em; font-weight: bold;">658</p> <ul style="list-style-type: none"> <li>• For fresh water requirement unit has installed well in premises, NOC is expired on 16.06.20222, unit had applied for renewal of permission.</li> <li>• Unit is operating on ZLD basis and for treatment of Raw spent wash generated unit has adopted following route: Raw Spent Wash----- Decantation-----Integrated Multi Effect Evaporation- (IMEE)----- Steam Tube Bundle Dryer-----DDGS sold as cattle feed.</li> <li>• For treatment of IMEE Process Condensate, Spent Lease, Cooling Tower Blowdown etc. distillery has installed conventional CPU of capacity 800 m<sup>3</sup>/day flowed by filters and then U V treatment Plant. CPU was operational at the time of inspection.</li> <li>• CPU final outlet treated water through UV is recycled for Cooling tower makeup and in process.</li> <li>• Flow meters are installed at UV Outlet, but due to some fault not working during inspection.</li> <li>• Unit has 05 No of Centrifuge Decanters to separate DDGS from spent wash and further fed to 02 no Steam Tube Bundle Dryer to produce DDGS which is sold as cattle feed.</li> <li>• Flow meters are installed at IMEE inlet, outlet &amp; Condensate and connected with HSPCB/ CPCB server. Reading during visit are as under Raw Spent Wash Flow Meter: Flow: 19.63 m<sup>3</sup>/hr &amp; Totalizer: 707430.99 m<sup>3</sup> MEE Feed: Flow- Flow : 11000 LPH &amp; Totalizer: 18637.38 m<sup>3</sup> MEE Concentrate: Totalizer: 6.0897 m<sup>3</sup> (Reading during visit meter was reset daily in morning at 10.00 am as told by industry personal) MEE Condensate : Flow- 14.153 m<sup>3</sup>/hr &amp; Totalizer: 177440.872 m<sup>3</sup></li> <li>• To meet out steam requirement for grain-based distillery unit has 02 tube Boilers</li> <li>• ETP generated sludge is used as manure in gardening.</li> <li>• Unit has installed CPU/ETP energy meter separately reading during visit was 217050 KWH</li> <li>• <b>Industry had not provided MEE Feed, MEE concentrate, process condensate and ETP energy consumption log book.</b></li> <li>• <b>House keeping near to ETP area is poor it should be clean.</b></li> <li>• One Drain (Drain no -6), is flowing near to unit, drain sample was collected for analyses, however Unit is operation on ZLD mode and no bye pass observed.</li> <li>• ETP lab equipment are kept in Electrical panel room, separate ETP lab is to maintained.</li> </ul>
21	<p><b>Best Practices adopted by Unit-</b></p> <ul style="list-style-type: none"> <li>• During producing Ethanol unit has installed conventional effluent treatment system to treat waste generated such as process condensate, spent lease, cooling tower blowdown etc followed by UV treatment and then further RO treatment.</li> <li>• UV treated water is partially used in fermenter for dilution and in Cooling Tower makeup.</li> </ul>
22	<p><b>Compliance Status</b> As per Discharge norms: <b>Complying (Operating on ZLD Mode)</b> Overall compliance status: <b>Complying</b></p>
23	<p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>• <b>Industry should maintained proper MEE Feed, MEE concentrate, Process condensate and ETP energy consumption log book and it should be provided.</b></li> <li>• <b>ETP adequacy and mass balance study is to be done by approved agency and report to be submitted.</b></li> </ul>
24	<p><b>Overall Compliance Status: Complying</b></p>
25	<p>Date of report submission <span style="float: right;">18.08.2024</span></p>

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26 Inspection team details:					
27	Sr. No.	Name of TPA Inspection team	Designation	Organisation	Signature with date
	1	Dr. Suresh Panwar	Advisor	IIT Delhi	
	2	Nitin Agrawal	Research Scholar	IIT Delhi	
	3	Arun Kumar	Sr. Const.	IIT Delhi	
	Sr. No.	SPCB/PCC/SMCG officials	Designation	Organisation	Signature with date
	1	Mr. Kuldeep Singh	AEE	HSPCB RO Panipat	

## 28. Photographs

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Pic-1: Grain Storage Shed and Silos



Pic-2: Fermentation Section



Pic-3: Distillation Unit



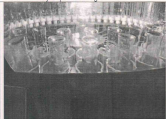
Pic-4: MEE Plant



Pic-5: IMFL Bottling Section



Pic-6: Country Liquor Bottling Section



Pic-7: Borewell flow meter-1



Pic-8: Borewell flow meter- 2



Pic-9: Borewell flow meter- 3



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Pic-10: Raw Spent wash flow meter



Pic-11: MEE concentrate mass flow meter



Pic-12: Process Condensate flow meter



Pic-13: Effluent collection tank



Pic-14: Aeration tank



Pic-15: MEE Feed sampling (Thin Slop)



Pic-16: MEE Concentrate sampling

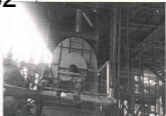


Pic-17: Decanter



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Pic-18: Dryer



Pic-19: Water Softening unit for Bottling



Pic-20: Sludge Drying Beds



Pic-21: OCEMS



Pic-22: CPU /ETP energy meter



Pic-23: Boiler



Pic-24: Boiler Stack Monitoring Device



Pic-25: ETP Lab Equipment



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Pic-26: Drain View



Pic-27: Drain sampling



Pic-28:



Pic-29: Green Belt



Pic-30: Inspection Team



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FORM I

(See rule 7 of the E (P) Rules, 1986)

Notice of intention to have sample analyzed

To, Mr. Haryana Organics  
(A unit of State Organics Co.)  
4 km. Chukkara Road,  
Sarakka, Panipat, Haryana.

Take this notice that it is intended to have analyzed the samples of waste water  
which has been taken today, the

day of 01-07-2024 20 from MS Haryana Organics 4 km  
Chukkara Road, Sarakka, Panipat, Haryana

(Name and designation of the person who takes the sample)

Dr. S. Panwar Arjun Nitin Agrawal  
Advisor, ISS, Delhi 04107124 Arjun Mittal  
IST, Delhi ISS, Delhi

Locations of the place where the sample were taken.

1. Spent Wash
  2. Tank Slag
  3. Aeration Lene
  4. Bone wall
  5. Equalization Lene (ESP Inlet)
  6. MSE Ammoniacal (Drier feed)
  7. ESP Outlet (Removal water)
- (Duplicate samples were given to the unit)
8. Spent lvs. ASE, HSA/B
  9. STP inlet
  10. STP Outlet

(SEAL)

M  
M P & Co

DATE

M

Copy Received



Signature: Vivek Kumar  
Name: VIVEK KUMAR  
Professor  
Center for Rural Development & Technology  
Indian Institute of Technology Delhi  
Designation: Prof., New Delhi-110016, INDIA

From Excise and Taxation Commissioner,  
Haryana, Panchkula

To The Dy. Excise and Taxation Commissioner (Excise),  
Panipat.

Memo No. H/T-1- JX-II  
Panchkula, dated 27.02.2024

Subject: Renewal of Distillery License in Form D-2 of M/s Haryana Organics (A unit of Globus Spirits Ltd.), Samalkha.

Reference: Your office Memo No. 2120/Ex, dated 20.01.2024

Memo: The Distillery license in form D-2 held by M/s Haryana Organics (A unit of Globus Spirits Ltd.), Samalkha district Panipat is hereby renewed for the period from 01.04.2024 to 31.03.2025, subject to outcome of breach cases. Further, you are also directed to ensure that any NDC undertaking/appeal [including First NDC] as required under relevant the Acts and Rules shall be obtained before issuing the copy of license. You are further directed to recover the differential license fee, if any, for D-2 license fee if enhanced in the Excise Policy for the year 2024-25.

The D-2 license duly renewed is sent herewith, it may be delivered to the licensee under proper receipt.

Collector (Excise)-cum-  
Jl. Excise and Taxation Commissioner,  
for Excise & Taxation Commissioner,  
Haryana, Panchkula.

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## Annexure-2: Air &amp; Water Consent



**HARYANA STATE POLLUTION CONTROL BOARD**  
 SCO-55, Sec.25, HUDA, Panipat Ph. 0180-2672037  
 Email- hspcbprp@gmail.com  
 E-mail: hspcb@hry.ark.in



No. HSPCB Consent / 31100525P/TC/03884947

Date: 20/09/2017

To,

M/s HARYANA ORGANICS A Unit of Globus Spirits Ltd  
 4 KM, Chalkana Road, Saranbhu, Panipat

Subject: Grant of consent to operate to M/s HARYANA ORGANICS A Unit of Globus Spirits Ltd.

Please refer to your application no. 39884947 received on dated 2017-08-24 in regional office Panipat. With reference to your above application for consent to operate, M/s HARYANA ORGANICS A Unit of Globus Spirits Ltd is here by granted consent as per following specification/Terms and conditions.

Consent Under	BOTH
Period of consent	13/08/2017 - 30/09/2017
Industry Type	Distillery (mushroom / grain / yeast based)
Category	RED
Investment(In Lakh)	15967.691
Total Land Area(Sq meter)	72136.0
Total Building Area(Sq meter)	15000.0
<b>Quantity of effluent</b>	
1. Trade	554.0 KL/Day
2. Domestic	15.0 KL/Day
Number of outlets	03
<b>Mode of discharge</b>	
1. Domestic	STP then use for Horticulture
2. Trade	23.0 CPU/MEP
<b>Domestic Effluent Parameters</b>	
1. BOD	10 mg/l
2. COD	50 mg/l
3. TSS	20 mg/l
4. pH (5.5-9.0)	5.75-8
5. Faecal Coliform (MPN/100 ml)	100 MPN/100ml
6. TOTAL NITROGEN	10
<b>Trade Effluent Parameters</b>	
1. BOD	30 mg/l
2. TSS	100 mg/l

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3. pH (5.5-9.0)	5.500
4. All Applicable Standards as per EP Act/Rules/Notifs	
Number of stacks	3
<b>Height of stacks</b>	
1. S T A C K ATTACHED TO 10 TPH BOILER	42.67 m
2. S T A C K ATTACHED TO 25 TPH BOILER	44.2 m
3. S T A C K ATTACHED TO DG SET (above roof level)	10.9 m
<b>Emission parameters</b>	
1. SO <sub>2</sub>	80 mg/m <sup>3</sup>
<b>Product Details</b>	
1. IMFL	10000 Cases/day
2. COUNTRY LIQUOR	12000 Cases/day
3. RECTIFIED SPIRIT, ENA, ETHANOL	140 Kilo Liters/Day
<b>Capacity of boiler</b>	
1. BIOMASS FIRED BOILER	25 Tons/hr
2. BIOMASS FIRED BOILER	18 Tons/hr
<b>Type of Furnace</b>	
1. NA	
<b>Type of Fuel</b>	
1. BIOMASS	300 TON/DAY
2. Diesel	2.4 KL/day
<b>Raw Material Details</b>	
DISCARDED GRAIN, NANKU, RAJRA, MAIZ E.	286 Metric Tonne/Day
RAW WATER	135 Kilo Liters/Day

Regional Officer, Punjab  
 Haryana State Pollution Control Board

**Terms and conditions**

- The applicants shall maintain good house keeping both within factory and in the premises. All hose pipelines, valves, storage tanks etc. shall be leak proof. In plant allowable pollutants levels, if specified by State Board should be met strictly.
- The applicant/company shall comply with and carry out directives/orders issued by the Board in this consent order at all subsequent times without negligence of his/its part. The applicant/company shall be liable for such legal action against him as per provision of the

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law/act in case of violation of any order/directives, issued at any time and/or non compliance of the terms and conditions of his consent order.

3. The applicant shall make an application for grant of consent at least 90 days before the date of expiry of this consent.
4. Necessary fee as prescribed for obtaining renewal consent shall be paid by the applicant alongwith the consent application.
5. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above required variation (including the change of any control equipment) effect to whole or in part, this Board shall after giving the applicant an opportunity of being heard vary all or such condition and there upon the applicant shall be bound to comply with the conditions so varied.
6. The industry shall provide adequate arrangement for fighting the accidental leakages, discharge of any pollutants gas/liquids from the vessels, mechanical equipment etc. which are likely to cause environment pollution.
7. The industry shall comply noise pollution (Regulation and control) Rules, 2000.
8. The industry shall comply all the directions/Rules/Instructions as may be issued by the MOEF/CPCB/HSPCB from time to time.
9. The industry shall ensure that various characteristics of the effluents remain within the tolerance limits as specified in EPA Standard and as amended from time to time and at no time the concentration of any characteristics should exceed these limits for discharge.
10. The industry would immediately submit the revised application to the Board in the event of any change in the raw material in process, mode of treatment/discharge of effluent. In case of change of process at any stage during the consent period, the industry shall submit fresh consent application alongwith the consent to operate fee, if found due, which may be on any account and that shall be paid by the industry and the industry would immediately submit the consent application to the Board in the event of any change during the year in the raw material, quantity, quality of the effluent, mode of discharge, treatment facilities etc.
11. The officer/official of the Board shall reserve the right to access for the inspection of the industry in connection with the various process and the treatment facilities. The consent to operate is subject to review by the Board at any time.
12. Permissible limits for any pollutants mentioned in the consent to operate order should not exceed the concentration permitted in the effluent by the Board.
13. The industry shall pay the balance fee, in case it is found due from the industry at any time later on.
14. If the industry fails to adhere to any of the conditions of this consent to operate order, the consent to operate so granted shall automatically lapse.
15. If the industry is closed temporarily at its own, they shall inform the Board and obtain permission before restart of the unit.
16. The industry shall comply all the Directions/ Rules/Instructions issued from time to time by the Board.

**Specific Conditions :**

1. The unit shall keep all the parameters within the prescribed limits and shall comply with all the Norms and Rules as prescribed in the Acts. 2. That the unit will comply with all the provisions of Hazardous Waste Rules and maintain agreement with Authorized recycler of the Board for scientific disposal of Hazardous Waste. 3. That unit will use only business fuel as per

direction of CAQM. 4. That the Unit will run APCM regularly and maintained log books properly. 5. That the unit will provide inter locking arrangement of DG set with APCM and shall have adequate D.G. set to ensure regular and effective running of pollution control devices. 6. That the unit will not generate Trade effluent more than permission granted without prior permission from the board. 7. That the unit will not add any air polluting process/ machinery and also not add any process which increases the water pollution load. 8. That the unit will follow the directions issued from HSPCB, CPCB, NGT and CAQM. 9. That the unit will deposit the balance consent fee as per schedule, if any. 10. The unit will run and maintain its MEI and APCM regularly & effectively and will keep all the parameters within limit, it will dispose off its boiler ash in scientific method. 11. That the unit should obtain/renew the NOC from HWRRA for extraction of ground water. 12. Unit will Hand over the waste oil of the D.G set only to the authorized recycler and will timely renew their agreement. 13. That the CTO so granted shall become invalid in case of violation of any of the above / any law of the land if the unit fails in complying of above said conditions. 14. That this CTO is issued in supersession of earlier CTO issued vide no- HSPCB/Consent/ 313106522/PTE/2007/67 Dated-13/07/2023. 15. That the unit will submit the compliance of conditions of CTO each year.

Regional Officer, Panipat  
Haryana State Pollution Control Board

HARYANA STATE

POLLUTION CONTROL BOARD



Annexure-3: Hazardous Waste Authorization **670**

Application no. 6950958  
Industry id: JAFIT/182154  
Date: 20/10/2022



**Haryana State Pollution Control Board**  
SCO-85, Sec.25, HUDA, Panipat Ph. 0180-2672037 Email-  
hspcbopr@gmail.com



No.: HWM/PIT/2022/6998998

DT: 20/10/2022

To

M/s HARYANA ORGANICS A Unit of Globus Spirits Ltd  
4 KM, Chulkara Road, Samalkha, Panipat  
Panipat

**Grant of Authorization under Hazardous and Other Wastes(Management & Transboundary Movement) Rules, 2016**

- Reference of application 6350398 dated: 20/10/2022
- Dr Bhaskar Roy of HARYANA ORGANICS A Unit of Globus Spirits Ltd is hereby granted an authorization for generation, collection, storage, transportation on the premises situated at 4 KM, Chulkara Road, Samalkha, Panipat

**HARYANA STATE**  
Details of Authorization

S.No.	Name of process and Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorized mode of disposal or recycling or utilization or co-processing, etc.	Quantity
1	Industrial operations using mineral/synthetic oils as lubricants in hydraulic systems or other applications. (Used spent oil)	SENT TO M/s UNIVERSAL HYDROLUBES	600 KL/Annually

- The authorization shall be valid for a period of 01/10/2022 to 30/09/2027
- The authorization is subject to the following general and specific conditions :-

Regional Officer Panipat  
For Haryana State Pollution Control Board

Conditions of Authorization:

- The authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
- The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.
- The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other waste except what is permitted through this authorization.

Any unauthorized change in personnel equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of this authorization.

The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.

6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty".
7. An application for the renewal of an authorization shall be made as laid down under these Rules.
8. Any other conditions for compliance as per the guidelines issued by the Ministry of Environment, Forest and Climate Changes or Central Pollution Control Board from time to time.
9. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.

Regional Officer Panipat

Haryana State Pollution Control Board

HARYANA STATE

Annexure-4: Raw Material & Production Data **672**



TO WHOM IT MAY CONCERN

This is to certify that we have used the following quantity of raw material discarded grain and produced the following quantity of spirit for the month of April, May and June, 2024.

Raw Material Used in QIL	
April, 2024	76455.91
May, 2024	60805.45
June, 2024	43647.24

Production of spirit in BL	
April, 2024	3505524
May, 2024	2896242
June, 2024	1890789

Vice President (Works)

**HARYANA ORGANICS**  
(A Unit of Globus Spirits Ltd.)  
4th K.M. Stone, Chulhana Road  
Samalkha-132101

**Globus Spirits Limited**  
(Corporate Identity Number: L14899DL190PL052177)  
**Registered & Corporate Office:**  
P.O. Ground Floor, The Bika Corporate Suite, Plot No. 1 & 2, Gheer Nagar, Mathura Road, New Delhi-110085 Tel: +91-88424402  
(Works) Village: Srayambur, Taluk: Bahadur, PIN: 701701 Dist: Jharkhand (Jharkhand) Tel: +91-9800358209

**Work(2):** Haryana Organics (A Unit of Globus Spirits Limited), 4 KM, Chulhana Road, Samalkha-132101 Dist: Panipat (Haryana) India. Tel: +91-180-2573122  
**Work(3):** Associated Distilleries (A Unit of Globus Spirits Limited) Hajar Eye Pass, National Highway Hwar, 120044 (Haryana) Tel: +91-0999296187  
**Work(4):** Village: Dhandu, Taluk: Jamsheda, Hajar: 844505 Dist: West Bengal (India) Tel: +91-8911423425  
**Work(5):** Plot No. D-7, Panagari Industrial Park, Panagari-713425 Dist: Bardhaman (West Bengal) Tel: +91-9800297177  
**Work(6):** Village: Olda Block Baharagora, Taluk: Dhanbada, Post: Haraori Dist: East Singhbhum, Jharkhand India. Tel: +91-9117844359

E-Mail: [corpoff@glbusspirits.com](mailto:corpoff@glbusspirits.com) or [PR@glbusspirits.com](mailto:PR@glbusspirits.com)





## Annexure-6 A : Application for Ground Water Extraction NOC renewal

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Government of Haryana  
Haryana Water Resources Authority  
Applications for Issue of Permission to Extract Ground Water

## Application for Permission to Extract Ground Water for Industrial Use

Application No. HWA/REG/1/052/197	
General Information	
Application Type Category/ Type of Application	
(1) Name of Applicant	PANVEER CHANLA
(2) Project Type	Drilling Location
(3) Project no.	W2020400002
(4) Project Document	Download
(5) Designation of Applicant	AUTHORIZED SIGNATORY
(6) Name of Industry	ARYANA ORGANICS A UNIT OF GLOBUS SPIRITS LTD
(7) Registration number of Industry	8114
(8) Location Details of the Industrial Unit	
Industrial Unit Address	HARYANA ORGANICS A UNIT OF GLOBUS SPIRITS LTD 4 KM CHUKHRA, SAMALKHA, PANCHUK
State	Haryana
District	PANIPAT
Tehsil	Saraksha
Block	SAMALKHA
Village/EC	Chukra
Region	panipat
(9) Correspondence Address	
Complete Postal Address	ARYANA ORGANICS A UNIT OF GLOBUS SPIRITS LTD 4 KM CHUKHRA, SAMALKHA, PANCHUK
Mobile Number	91060057
E-Mail of Industry	panveer19@gmail.com
(10) Nature Features of the Industrial Activity	
Type of Industry	Beverages
Industry fall under	Large
Is Water Intensive	No
Purpose of Abstraction	Other Use - Industrial use
Generator utilization for	Energy Facility
Ground for Operation	2500000
Size of water requirement	2000000
Description	MANUFACTURING OF EXTRAMETRAL ALCOHOL, FROM FROM DISCHARGED GRAINS, BOTTLING OF DOMESTIC LIQUOR AND EXPORT MADE FOREIGN LIQUOR, BTL.
(11) Location details of the existing/previous industrial unit premises	
Ownership of the land/lease documents of premises	Disputed

# 676

Latitude	Longitude	29.218705	N. 9358216
Location Map		Download	
Total Land area (sq. m)			72716.47
Roofing area of buildings (m <sup>2</sup> ) (sq. m)			2990.90
Asphalted area (sq. m)			17514.32
Green belt (m <sup>2</sup> ) (sq. m)			10017.36
Open Land (sq. m)			16672.00
Source of availability of surface water for industrial use, if any	Yes		
Towns/villages within 2 km radius of the Industrial unit	Yes	ORAWAKA	

Source of recycled water: ETP

2) Detail of water requirement/ recycled water + water requirement of water at each stage (Please enclose flow chart of activities and

Flow Chart of activities and requirement of water	Download
Quality of groundwater	Fresh Water
Name of NABL/Under Valid Certificate	ENVISIGN TECH LABORATORIES
Upload test report of groundwater quality from NABL, attached file	Download
Total water required (m <sup>3</sup> /day)	982.00
Ground Water required (m <sup>3</sup> /day)	552.00
Recycled Water (m <sup>3</sup> /day)	1.00
Proposed/recycled water supply from any other (m <sup>3</sup> /day)	0.00

3) Breakup of Water Requirement and Usage

Activity	Existing Requirement (m <sup>3</sup> /day)	Proposed Requirement (m <sup>3</sup> /day)	Total Requirement (m <sup>3</sup> /day)	No. of Operational Days in a Year	Annual Requirement (m <sup>3</sup> /year)
Industrial Activity	632.00	0.00	632.00	330	208560.00
Residential/ Domestic	5.00	0.00	5.00	330	1650.00
Sanitary Development/ Environment Maintenance	45.00	0.00	45.00	330	14850.00
Other Use	0.00	0.00	0.00	0	0.00
<b>Total</b>	<b>682.00</b>	<b>0.00</b>	<b>682.00</b>		<b>230010.00</b>

3a) Breakup of Recycled Water Usage

	(m <sup>3</sup> /day)	(Days)	(m <sup>3</sup> /year)
3a) Total Recycle Water Consumed	194.00	330	64020.00
3a) Quantity of Treated Water Available	170.00	330	56100.00

# 677

1. Revise to Industrial Activity	35.00	300	28000.00
2. Revise to Green-Belt Development	45.00	370	14000.00
3. Any other use	0.00	0	0.00
4. Total Treated Water Required	135.00		
5. Quantity and mode of disposal of untreated effluent	0.00		42000.00

3. Details of existing and/or proposed groundwater abstraction structures

(a) Groundwater Abstraction Structure Existing

SNo.	Typical Year of construction	Depth (meter) / Diameter (mm)	Depth to water level (meters below ground level)	Discharge (m <sup>3</sup> per hour)	Operation (No. hours/ days) (approx)	Mode of lift	Horse Power of pump	Whether fitted with water meter or not	Water permission/ registered with MRCWA / If no Details of permission
1	June 1981	130.00 / 230.00	30.00	24.00	120	4	15	No	No
2	June 1984	100.00 / 230.00	25.00	24.00	120	4	10	Yes	No
3	June 1983	175.00 / 300.00	30.00	32.00	120	4	35	Yes	Yes
4	June 1984	150.00 / 250.00	24.00	24.00	120	4	15	Yes	No

- Quantity of ground water recharge (per year) [Download](#)
- NDC for water supply from Local Authority [Download](#)
- Details of recharge for existing and artificial recharge necessary for groundwater recharge in the premises. If the recharge outside the industrial unit premises, then separate NDC from the relevant authority/agency where the recharge is proposed. If already implemented, details may be furnished. (Attach report on construction & formulae for recharge from existing recharge proposal) [Download](#)
- Water Balance Chart with water requirement at each stage [Download](#)
- Have you applied for the groundwater clearance from Government Agency. If so, give details thereof with status [Download](#)
- Water Efficient Technology will be adopted [Download](#)
- Consent of agencies issued by MRCWA/CTD [Download](#)
- Impact Assessment Report Proposed Extraction [Download](#)
- Certificate regarding total partial availability of fresh water treated water supply from the local government water supply agency [Download](#)
- Proof of Large Industry [Download](#)

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Any Other Documents/Information Download

I shall comply with all the terms and conditions of the Permission Yes

It is to certify that the details and information furnished above are true to the best of my knowledge and belief and I am aware that if any part of the above information submitted is found to be false or misleading at any stage the application will be rejected on its merits.

Date

Place

Name of Authorized Person:

Designation of Authorized Person:

Authorization Letter:

Signature of Applicant with Office Seal

a) Information of payment for Application Fee

Total Amount	
Mode of Payment	
Online	
Reference No.	Transaction No.
147694800005611123456	689210120
b) Information of payment for Tariff Fee	
Total Amount	
Mode of Payment	

Date	Amount	Status
10/06/2022	50000	Success

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ग्रहण अर्जा  
ग्रहण विज्ञापन अर्जा  
Government of Haryana  
Haryana Water Resources Authority

### PERMISSION CERTIFICATE FOR GROUND WATER EXTRACTION

Project Name: HARYANA ORGANICS (A UNIT OF GLOBUS SPIRITS LTD)

Project Address: HARYANA ORGANICS (A UNIT OF GLOBUS SPIRITS LTD, 4 KM CHULKANA, SAMALKHA, PANIPAT

Village/MC: Chulkana, Tehsil: Samalkha

District: PANIPAT, State: Haryana

Pin Code: \_\_\_\_\_

Communication Address: HARYANA ORGANICS (A UNIT OF GLOBUS SPIRITS LTD, 4 KM CHULKANA, SAMALKHA, PANIPAT

Address Regional Office: Sonaha (Newa), Sector-6, Panchkula

1. NCC No.: HWR/ANCC/PAN/2021/134

2. Application No.: 150/015445/HWWD/2021, 3. Category: \_\_\_\_\_, Industry: \_\_\_\_\_

4. Project Status: New, 5. NCC Type: \_\_\_\_\_, New

6. Ground Water Extraction Permitted:

Ground Water For	m <sup>3</sup> /day	m <sup>3</sup> /year	Valid From	Valid Upto
Fresh Water	00.00	182160.00	18/05/2021	18/06/2022
Total	00.00	182160.00	---	---

7. Details of Ground Water Extraction, Total Existing No. & Total Proposed No.:

Abstraction Structure	DW	OCB	BW	TW	DW	OCB	BW	TW
	---	---	4	---	---	---	---	---

8. Quantity of ground water recharged (year)

9. Number of Piezometers (Observation wells) to be constructed, installed & Monitoring mechanism

No. of Piezometers	Monitoring Mechanism		
	Manual	Auto	Telematics
1	0	1	1

\* Terms & conditions are at the back of this page



Note: This is a computer generated certificate. It can be validated by scanning QR code.

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Validity of this NOC shall be subject to compliance of the following mandatory conditions

1. The NOC for abstraction of ground water, shall be subject to the following terms and conditions:
  1. NOC is granted to the applicant on the condition that he or she shall provide or cause supply system not just able to supply the desired quantity of water, but also of quality (including) purity. The applicant shall immediately submit WQA and within the stipulated time.
  2. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC. The applicant shall also submit the following details:
    - a. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
    - b. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
    - c. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  3. Construction of abstraction wells is to be carried out in accordance with the provisions and conditions of appropriate water level monitoring system shall be done by the applicant. The construction of abstraction wells shall be carried out at a maximum distance of 25 meters from the boundary of the plot. The applicant shall also submit the following details:
    - a. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
    - b. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
    - c. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  4. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  5. Information of abstraction of groundwater shall be submitted to the concerned authority on ground water obtained by him, at the time of application for NOC.
  6. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  7. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  8. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  9. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  10. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  11. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  12. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  13. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  14. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  15. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  16. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  17. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  18. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  19. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  20. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  21. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  22. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  23. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  24. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  25. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  26. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.
  27. The applicant shall submit latest water analysis report to the concerned authority on ground water obtained by him, at the time of application for NOC.

Note: This is computer generated certificate, it can be validated by scanning QR code

Annexure- 7: Fresh Water Consumption Log 681

Date	2016-17				2017-18				2018-19				2019-20			
	opening	closing	meter	meter	opening	closing	meter	meter	opening	closing	meter	meter	opening	closing	meter	meter
01-04-16	49454	5341	817	32351	30320	185	90	420	40	0-00	1878	7925	85	587		
02-04-16	5341	5930	589	30320	40373	157	10	40	40	0-00	7925	8151	188	573		
03-04-16	5930	5930	0	40373	40373	0	0	40	40	0-00	8151	8074	123	551		
04-04-16	5930	5930	0	40373	40373	0	0	40	40	0-00	8074	8022	128	552		
05-04-16	5930	6300	370	40373	44580	406	40	40	40	0-00	8022	8522	120	528		
06-04-16	6300	6725	425	44580	47373	193	0	42	42	0-00	8522	8578	67	524		
07-04-16	6725	7065	340	47373	4965	193	0	42	42	0-00	8578	8694	111	548		
08-04-16	7065	7065	0	4965	4965	0	0	42	42	0-00	8694	8783	89	548		
09-04-16	7065	7317	252	4965	5117	119	0	42	42	0-00	8783	8962	179	570		
10-04-16	7317	7317	0	5117	5218	101	0	42	42	0-00	8962	9018	56	573		
11-04-16	7317	7317	0	5218	5411	163	0	42	42	0-00	9018	9108	180	573		
12-04-16	7317	7724	407	5411	5586	175	0	42	42	0-00	9108	9198	400	573		
13-04-16	7724	7955	231	5586	5752	166	0	42	42	0-00	9198	9282	189	573		
14-04-16	7955	8181	226	5752	5943	191	0	42	42	0-00	9282	9353	167	438		
15-04-16	8181	8380	199	5943	6226	133	0	42	42	0-00	9353	9457	168	532		
16-04-16	8380	8560	180	6226	6364	134	0	42	42	0-00	9457	9557	168	532		
17-04-16	8560	8621	61	6364	6543	178	0	42	42	0-00	9557	9657	168	532		
18-04-16	8621	8850	229	6543	6830	193	0	42	42	0-00	9657	10160	145	594		
19-04-16	8850	8785	65	6830	6711	135	0	42	42	0-00	10160	10282	145	578		
20-04-16	8785	7672	113	6711	6923	151	0	42	42	0-00	10282	10592	117	557		
21-04-16	7672	9273	160	6923	7078	156	0	42	42	0-00	10592	10775	210	448		
22-04-16	9273	9698	425	7078	7198	120	0	42	42	0-00	10775	10752	0-00	346		
23-04-16	9698	9598	100	7198	7316	118	0	42	42	0-00	10752	10752	0-00	298		
24-04-16	9598	9598	0	7316	7527	192	0	42	42	0-00	10752	10892	140	492		
25-04-16	9598	9598	0	7527	7527	0	0	42	42	0-00	10892	11085	97	498		
26-04-16	9598	10033	435	7527	7793	199	0	42	42	0-00	11085	11300	115	581		
27-04-16	10033	10450	417	7793	7993	199	0	42	42	0-00	11300	11300	140	579		
28-04-16	10450	10783	333	7993	8149	145	0	42	42	0-00	11300	11530	110	537		
29-04-16	10783	10783	0	8149	8270	172	0	42	42	0-00	11530	11615	80	410		
30-04-16	10783	11210	427	8270	8710	180	0	42	42	0-00	11615	11700	85	329		



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Date	Gross Sales	Net Sales	Gross Profit	Net Profit	Expenses	Balance	Total		Notes
							Profit	Balance	
01-01-20	16230	16230	118	118	118	118	236	118	
01-08-20	16498	16498	0	0	0	118	236	118	
01-15-20	16878	16878	0	0	0	118	236	118	
01-22-20	16998	16998	0	0	0	118	236	118	
01-29-20	16998	16998	0	0	0	118	236	118	
02-05-20	16998	16998	0	0	0	118	236	118	
02-12-20	16998	16998	0	0	0	118	236	118	
02-19-20	16998	16998	0	0	0	118	236	118	
02-26-20	16998	16998	0	0	0	118	236	118	
03-05-20	16998	16998	0	0	0	118	236	118	
03-12-20	16998	16998	0	0	0	118	236	118	
03-19-20	16998	16998	0	0	0	118	236	118	
03-26-20	16998	16998	0	0	0	118	236	118	
04-02-20	16998	16998	0	0	0	118	236	118	
04-09-20	16998	16998	0	0	0	118	236	118	
04-16-20	16998	16998	0	0	0	118	236	118	
04-23-20	16998	16998	0	0	0	118	236	118	
04-30-20	16998	16998	0	0	0	118	236	118	
05-07-20	16998	16998	0	0	0	118	236	118	
05-14-20	16998	16998	0	0	0	118	236	118	
05-21-20	16998	16998	0	0	0	118	236	118	
05-28-20	16998	16998	0	0	0	118	236	118	
06-04-20	16998	16998	0	0	0	118	236	118	
06-11-20	16998	16998	0	0	0	118	236	118	
06-18-20	16998	16998	0	0	0	118	236	118	
06-25-20	16998	16998	0	0	0	118	236	118	
07-02-20	16998	16998	0	0	0	118	236	118	
07-09-20	16998	16998	0	0	0	118	236	118	
07-16-20	16998	16998	0	0	0	118	236	118	
07-23-20	16998	16998	0	0	0	118	236	118	
07-30-20	16998	16998	0	0	0	118	236	118	
08-06-20	16998	16998	0	0	0	118	236	118	
08-13-20	16998	16998	0	0	0	118	236	118	
08-20-20	16998	16998	0	0	0	118	236	118	
08-27-20	16998	16998	0	0	0	118	236	118	
09-03-20	16998	16998	0	0	0	118	236	118	
09-10-20	16998	16998	0	0	0	118	236	118	
09-17-20	16998	16998	0	0	0	118	236	118	
09-24-20	16998	16998	0	0	0	118	236	118	
10-01-20	16998	16998	0	0	0	118	236	118	
10-08-20	16998	16998	0	0	0	118	236	118	
10-15-20	16998	16998	0	0	0	118	236	118	
10-22-20	16998	16998	0	0	0	118	236	118	
10-29-20	16998	16998	0	0	0	118	236	118	
11-05-20	16998	16998	0	0	0	118	236	118	
11-12-20	16998	16998	0	0	0	118	236	118	
11-19-20	16998	16998	0	0	0	118	236	118	
11-26-20	16998	16998	0	0	0	118	236	118	
12-03-20	16998	16998	0	0	0	118	236	118	
12-10-20	16998	16998	0	0	0	118	236	118	
12-17-20	16998	16998	0	0	0	118	236	118	
12-24-20	16998	16998	0	0	0	118	236	118	
12-31-20	16998	16998	0	0	0	118	236	118	

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Harmony Organics Limited, Samakhli - HR  
 CPU Daily Inlet Load Logbook - 2024  
 Month of APRIL-2024 Page No.

DATE	Initial reading	Final reading	Total ml	Residue under Residue influence
01/04/2024	63155	63664	509	509
02/04/2024	63664	64181	517	517
03/04/2024	64181	64678	497	497
04/04/2024	64678	65167	489	489
05/04/2024	65167	65645	478	478
06/04/2024	65645	66110	465	465
07/04/2024	66110	66582	472	472
08/04/2024	66582	67064	482	482
09/04/2024	67064	67567	503	503
10/04/2024	67564	68044	480	480
11/04/2024	68044	68534	490	490
12/04/2024	68534	69019	485	485
13/04/2024	69019	69491	472	472
14/04/2024	69491	69979	488	488
15/04/2024	69979	70434	455	455
16/04/2024	70434	70912	478	478
17/04/2024	70912	71409	497	497
18/04/2024	71409	71918	509	509
19/04/2024	71918	72435	517	517
20/04/2024	72435	72958	523	523
21/04/2024	72950	73456	498	498
22/04/2024	73456	73911	455	455
23/04/2024	73911	74372	461	461
24/04/2024	74372	74824	452	452
25/04/2024	74824	75322	498	498
26/04/2024	75322	75794	472	472
27/04/2024	75794	76259	465	465
28/04/2024	76259	76720	461	461
29/04/2024	76720	77186	466	466
30/04/2024	77186	77639	453	453

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City daily mail lead 1997-2000

City Total Lead Standings - 1997-2000  
 SA - average 619467 Total Leads

Year	Total Leads	Total Leads	Percentage	Percentage	SA	Total Leads	Total Leads	Total Leads	Total Leads
1997	11635	19031	452	491	100%	11635	19031	11635	19031
1998	19001	35551	561	561	100%	19001	35551	19001	35551
1999	15551	35551	555	555	100%	15551	35551	15551	35551
2000	15575	15575	505	505	100%	15575	15575	15575	15575
2001	20575	15071	455	455	100%	20575	15071	20575	15071
2002	20075	20575	455	455	100%	20075	20575	20075	20575
2003	20575	20575	455	455	100%	20575	20575	20575	20575
2004	20575	20575	455	455	100%	20575	20575	20575	20575
2005	20575	20575	455	455	100%	20575	20575	20575	20575
2006	20575	20575	455	455	100%	20575	20575	20575	20575
2007	20575	20575	455	455	100%	20575	20575	20575	20575
2008	20575	20575	455	455	100%	20575	20575	20575	20575
2009	20575	20575	455	455	100%	20575	20575	20575	20575
2010	20575	20575	455	455	100%	20575	20575	20575	20575
2011	20575	20575	455	455	100%	20575	20575	20575	20575
2012	20575	20575	455	455	100%	20575	20575	20575	20575
2013	20575	20575	455	455	100%	20575	20575	20575	20575
2014	20575	20575	455	455	100%	20575	20575	20575	20575
2015	20575	20575	455	455	100%	20575	20575	20575	20575
2016	20575	20575	455	455	100%	20575	20575	20575	20575
2017	20575	20575	455	455	100%	20575	20575	20575	20575
2018	20575	20575	455	455	100%	20575	20575	20575	20575
2019	20575	20575	455	455	100%	20575	20575	20575	20575
2020	20575	20575	455	455	100%	20575	20575	20575	20575
2021	20575	20575	455	455	100%	20575	20575	20575	20575
2022	20575	20575	455	455	100%	20575	20575	20575	20575
2023	20575	20575	455	455	100%	20575	20575	20575	20575
2024	20575	20575	455	455	100%	20575	20575	20575	20575
2025	20575	20575	455	455	100%	20575	20575	20575	20575
2026	20575	20575	455	455	100%	20575	20575	20575	20575
2027	20575	20575	455	455	100%	20575	20575	20575	20575
2028	20575	20575	455	455	100%	20575	20575	20575	20575
2029	20575	20575	455	455	100%	20575	20575	20575	20575
2030	20575	20575	455	455	100%	20575	20575	20575	20575


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Recognized by Ministry of Environment, Forest &amp; Climate Change (MoEF&amp;CC, GOI), under the E (P) Act, 1986

Head Office: P-375, Sector-44, Noida, Gurgaon Road, Noida, U.P. - 201 301

Phone No.: 0120 - 4944670, 4044650; Fax: 0122 - 2943179, 3120 - 4944675

 Website: <https://www.grcindia.com>, E-mail: [lab@grcindia.com](mailto:lab@grcindia.com), [info@grcindia.com](mailto:info@grcindia.com)

**Test Report**
**Report Code: W20240715-594**
**Issue Date: 15.07.2024**
**Issued To: Indian Institute of Technology (IIT)**
**Sample Received on: 05.07.2024**
**Hauz Khas, New Delhi- 110016**
**Analysis Duration: 05.07.2024 to 15.07.2024**
**Sample Description: N-124(A) (Water Sample)**
**RESULTS**  
 (Water Quality Analysis)

**SAMPLING DETAILS**

Date of Sampling : 04.07.2024  
 Sample Collected by : IIT-Delhi Representative  
 Sample Quantity : 1 Liter  
 Sample Packing : Sealed Plastic Bottle

S. No.	Parameters	Units	Results	Test Method
1.	pH Value @ 25 °C	-	7.58	IS 3025 (Part-11): 2022
2.	Biochemical Oxygen Demand (BOD) for 3 days at 2700	mg/l	17000.0	IS 3025 (Part-44): 2023
3.	Chemical Oxygen Demand (COD)	mg/l	84820.0	IS 3025 (Part-58): 2023
4.	Total Solids (TS)	mg/l	62400.0	IS 3025 (Part-15): 2022
5.	Total Suspended Solids (TSS)	mg/l	34500.0	IS 3025 (Part-17): 2023
6.	Total Dissolved Solids (TDS)	mg/l	27900.0	IS 3025 (Part-16): 2023

Note: The customer had only asked for the above test and the sample has been consumed during the test.

\*\* End of Report \*\*

# GRC India

Name &amp; Signature of Sr. Chemist

 Nartinder Singh  
 Sr. Chemist

Name &amp; Signature of Authorized Signatory

 Ajay Kumar Sharma  
 Sr. Quality Manager & Govt. Analyst

Note: 1. The results indicated only refer to the tested samples and listed parameters and do not include any product.  
 2. These results do not constitute a warranty or any other written or verbal assurance of the GRC India Laboratory.  
 3. This certificate should be used only as supporting data in accordance with the scope of the accredited group within the scope of the ISO 14001 laboratory.  
 4. The accreditation shall be discontinued 90 days from the date of issue of this report unless the sample has been retested and found to be satisfactory after 7 days.

**GRC INDIA TRAINING & ANALYTICAL LABORATORY**

(A unit of Grass Roots Research &amp; Creation India (P) Ltd.)

ISO 9001:2015, ISO 14001:2015 &amp; ISO 45001:2018 Certified

NABL Accredited Laboratory (IC 1501 - Chemical &amp; Biological)

Recognized by Ministry of Environment, Forest &amp; Climate Change (MoEF&amp;CC, Govt. of India) under the E (P) Act, 1986

Head Office: F-275, Sector-53, Noida, Gurgaon South Nagar, 3-P - 201 361

Phone No.: 0120 - 4294533, 4294650; Fax: 0120 - 4294529, 8120 - 4844675

Website: <http://www.gri-india.com>, E-mail: [info@gri-india.com](mailto:info@gri-india.com)**Test Report**

Report Code: W20240715-595

Issue Date: 15.07.2024

Issued To: Indian Institute of Technology (IIT)

Sample Received on: 05.07.2024

Hauz Khas, New Delhi- 110016

Analysis Duration: 05.07.2024 to 15.07.2024

Sample Description: N-124(B) (Water Sample)

**RESULTS**  
(Water Quality Analysis)**SAMPLING DETAILS**

Date of Sampling : 04.07.2024  
 Sample Collected by : IIT-Delhi Representative  
 Sample Quantity : 1 Liter  
 Sample Packing : Sealed Plastic Bottle

S. No.	Parameters	Units	Results	Test Method
1.	pH Value @ 25 °C	-	3.52	IS 3025 (Part-11): 2012
2.	Biochemical Oxygen Demand (BOD) for 3 days at 20°C	mg/l	28400.0	IS 3025 (Part-44): 2013
3.	Chemical Oxygen Demand (COD)	mg/l	65800.0	IS 3025 (Part-48): 2013
4.	Total Solids (TS)	mg/l	57300.0	IS 3025 (Part-15): 2012
5.	Total Suspended Solids (TSS)	mg/l	15200.0	IS 3025 (Part-17): 2013
6.	Total Dissolved Solids (TDS)	mg/l	42100.0	IS 3025 (Part-16): 2013

Note: The customer had only asked for the above test and the sample has been consumed during the test.

\*\* End of Report \*\*

# GRC India

Name &amp; Signature of Sr. Chemist

  
Narinder Singh  
Sr. Chemist

Name &amp; Signature of Authorized Signatory

  
Ajay Kumar Sharma  
Sr. Quality Manager & Govt. Analyst

ISO 14001:2015

Rev. 04

New Date: 12.07.2024

- Note: 1. This result is valid only when the tested samples and tested parameters are as per customer's request.  
 2. This certificate shall remain valid only when the sample is not subjected to the report of the analysis prior to the expiry of the GRC India Laboratory.  
 3. The implementation shall be according to the IS 3025 Part 16 of 2013 for the test of water of the report unless specified otherwise and sample for biological testing will be discarded after 7 days.

Annexure-9 C: MEE Concentrate (Thick Slurry) **688** Test Result



**GRC INDIA TRAINING & ANALYTICAL LABORATORY**

[A unit of Grass Roots Research & Creation India (P) Ltd.]

ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified

NABL Accredited Laboratory (TC 7381- Chemical & Biological)

Recognized by Ministry of Environment, Forest & Climate Change (MoEF&CC, GOI), under the E (P) Act, 1986

Head Office: P-275, Sector-68, Roza, Gurgaon Road Nagla, G.P - 201 301

Phone No: 8120 - 404622, 404680; Fax: 0123 - 2436219, 8120 - 404675

Website: <http://www.grcindia.com> E-mail: [info@grcindia.com](mailto:info@grcindia.com), [lab@grcindia.com](mailto:lab@grcindia.com)



**Test Report**

Report Code: W20240715-599

Issue Date: 15.07.2024

Issued To: Indian Institute of Technology (IIT)

Sample Received on: 05.07.2024

Hazrat Nizam, New Delhi- 110016

Analysis Duration: 05.07.2024 to 15.07.2024

Sample Description: N-124(F) (Water Sample)

**RESULTS**  
(Water Quality Analysis)



**SAMPLING DETAILS**

Date of Sampling : 04.07.2024  
 Sample Collected by : IIT (Delhi) Representative  
 Sample Quantity : 1 Liter  
 Sample Packing : Sealed Plastic Bottle

S. No.	Parameters	Units	Results	Test Method
1.	pH Value @ 25 °C	-	9.49	IS 3025 (Part-11): 2022
2.	Biochemical Oxygen Demand (BOD) for 3 days at 20°C	mg/l	966.00	IS 3025 (Part-4): 2023
3.	Chemical Oxygen Demand (COD)	mg/l	2100.00	IS 3025 (Part-16): 2023
4.	Total Solids (TS)	mg/l	308600.0	IS 3025 (Part-15): 2022
5.	Total Suspended Solids (TSS)	mg/l	36850.0	IS 3025 (Part-17): 2023
6.	Total Dissolved Solids (TDS)	mg/l	271750.0	IS 3025 (Part-16): 2023

Note: The customer had only asked for the above test and the sample has been consumed during the test.

\*\* End of Report \*\*

**GRC India**

Name & Signature of Sr. Chemist

Narinder Singh  
Sr. Chemist

Name & Signature of Authorized Signatory

Ajay Kumar Sharma  
Sr. Quality Manager & Govt. Analyst

Note: 1. The results indicated are only for the stated samples and labels and are not to be used for any other purpose.

2. The certificate shall not be re-usable without the consent of the laboratory.

3. The certificate shall not be used as any supporting evidence or available in the court of law without prior written consent of the laboratory.

4. The certificate shall be valid for 15 days from the date of issue of the report. After this period, the sample shall be destroyed unless otherwise specified.

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Annexure-9 D : MEE Condensate Sample Test Result ( CPU inlet)



## GRC INDIA TRAINING &amp; ANALYTICAL LABORATORY

[A unit of Grass Roots Research &amp; Creation India (P) Ltd.]

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NABL Accredited Laboratory (TC 7505 - Chemical &amp; Biological)

Recognized by Ministry of Environment, Forest &amp; Climate Change (MoEF&amp;CC, Govt.) under the E (P) Act, 1986

Head Office: F-375, Sector-43, Noida, Gautam Budh Nagar, UP - 201 301

Phone No: 0120 - 4044630, 4044640, Fax: 0120 - 2406019, 0120 - 4044675

Website: <https://www.gri-india.com>, E-mail: [lab@gri-india.com](mailto:lab@gri-india.com), [info@gri-india.com](mailto:info@gri-india.com)

## Test Report

Report Code: W20240715-598

Issue Date: 15.07.2024

Issued To: Indian Institute of Technology (IIT)

Sample Received on: 05.07.2024

Hauz Khas, New Delhi - 110016

Analysis Duration: 05.07.2024 to 15.07.2024

Sample Description: N-124(R) (Water Sample)

## RESULTS

(Water Quality Analysis)



## SAMPLING DETAILS

Date of Sampling : 04.07.2024  
 Sample Collected by : IIT-Delhi Representative  
 Sample Quantity : 1 Liter  
 Sample Packing : Sealed Plastic Bottle

S. No.	Parameters	Units	Results	Test Method
1.	pH Value @ 25 °C	-	5.13	IS 3025 (Part-11): 2012
2.	Biochemical Oxygen Demand (BOD) for 3 days at 27°C	mg/l	12500	IS 3025 (Part-44): 2013
3.	Chemical Oxygen Demand (COD)	mg/l	27500	IS 3025 (Part-52): 2013
4.	Total Solids (TS)	mg/l	1363.0	IS 3025 (Part-15): 2012
5.	Total Suspended Solids (TSS)	mg/l	145.0	IS 3025 (Part-17): 2013
6.	Total Dissolved Solids (TDS)	mg/l	1218.0	IS 3025 (Part-16): 2013

Note: The customer had only asked for the above test and the sample has been consumed during the test.

\*\* End of Report \*\*

GRC India

Name &amp; Signature of Sr. Chemist

  
Nirmala Singh  
Sr. Chemist

Name &amp; Signature of Authorized Signatory

  
Ajay Kumar Sharma  
Sr. Quality Manager & Govt. Analyst

GRC LAB/02/24

Rev: 01

Issue Date: 15/07/2024

- Note: 1. This report is valid only when the report is generated based on the sample analysis as indicated by product.  
 2. This report is valid only for the reported analysis and is not valid for any other analysis unless otherwise stated.  
 3. This report is valid only for the analysis as performed. No liability is attached to the report of use without or after the intended use of the test results.  
 4. This report is valid only for the reported analysis and is not valid for any other analysis unless otherwise stated.

Page 1 of 1

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## Annexure-9 E: UV Treated Final Outlet Sample Test Result



## GRC INDIA TRAINING &amp; ANALYTICAL LABORATORY

[A unit of Grass Roots Research &amp; Creation India (P) Ltd.]

ISO 9001:2015, ISO 14001:2015 &amp; ISO 45001:2018 Certified

ANRI Accredited Laboratory (TC-7181 - Chemical &amp; Biological)

Recognized by Ministry of Environment, Forest &amp; Climate Change (MoEF&amp;CC, GOI), under the E (P) Act, 1986

Head Office: P-175, Sector 63, Noida, Gautam Buddha Nagar, E.P. - 201 301

Phone No. 0120 - 4046000, 4046600; Fax: 0120 - 2436119, 6120 - 4046675

Website: <https://www.grc-india.com>; E-mail: [info@grc-india.com](mailto:info@grc-india.com)

## Test Report

Report Code: W20240715-600

Issue Date: 15.07.2024

Issued To: Indian Institute of Technology (IIT)

Sample Received on: 05.07.2024

Hauz Khas, New Delhi- 110016

Analysis Duration: 05.07.2024 to 15.07.2024

Sample Description: N-124(G) (Water Sample)

RESULTS  
(Water Quality Analysis)

## SAMPLING DETAILS

Date of Sampling : 04.07.2024  
 Sample Collected by : IIT-Delhi Representative  
 Sample Quantity : 1 Liter  
 Sample Packing : Sealed Plastic Bottle

S. No.	Parameters	Units	Results	Test Method
1.	pH Value @ 25 °C	-	8.11	IS 3025 (Part-11): 2022
2.	Biochemical Oxygen Demand (BOD) for 5 days at 20°C	mg/l	85	IS 3025 (Part-44): 2023
3.	Chemical Oxygen Demand (COD)	mg/l	85	IS 3025 (Part-44): 2023
4.	Total Solids (TS)	mg/l	1475.0	IS 3025 (Part-15): 2022
5.	Total Suspended Solids (TSS)	mg/l	25.0	IS 3025 (Part-17): 2023
6.	Total Dissolved Solids (TDS)	mg/l	1450.0	IS 3025 (Part-16): 2023

Note: The customer had only asked for the above test and the sample has been consumed during the test.

\*\* End of Report \*\*

GRC India

Name &amp; Signature of Sr. Chemist

  
Narender Singh  
Sr. Chemist

Name &amp; Signature of Authorized Signatory

  
Alay Kishan Sharma  
Sr. Quality Manager & Govt. Analyst

GRC/INDIA/024

Rev. 01

Rev. 01 of 01

- Note: 1 The results indicated only when the tested samples and their parameters are used as indicated on the product.  
 2 The certificate should be read in conjunction with the general conditions of sale of the IIT - India laboratory.  
 3 The certificate should not be used as any other thing, except as mentioned in the scope of our contract and our accreditation of the IIT, India laboratory.  
 4 The sample received shall be retained under the above mentioned time of retention unless otherwise stated on the certificate and sample for re-testing and re-analysis after 7 days.

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## Annexure-9 F: Aeration Tank Sample Test Result



## GRC INDIA TRAINING &amp; ANALYTICAL LABORATORY

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ISO 9001:2015, ISO 14001:2015 &amp; ISO 45001:2018 Certified

NABL Accredited Laboratory (TC 1501 - Chemical &amp; Biological)

Recognized by Ministry of Environment, Forest &amp; Climate Change (MoEF&amp;CC, GOI), under the E (P) Act, 1986

Head Office: F-275, Sector-63, Noida, Greater Noida, U.P. - 201 301

Phone No.: 0120 - 4044630, 4044640. Fax: 0120 - 2406619, 0120 - 4044675

Website: <http://www.grc-india.com> E-mail: [info@grc-india.com](mailto:info@grc-india.com), [sales@grc-india.com](mailto:sales@grc-india.com)

## Test Report

Report Code: W20240715-596

Issue Date: 15.07.2024

Issued To: Indian Institute of Technology (IIT)

Sample Received on: 05.07.2024

Hauz Khas, New Delhi- 110016

Analysis Duration: 05.07.2024 to 15.07.2024

Sample Description: N-124(C) (Water Sample)

## RESULTS

(Water Quality Analysis)

## SAMPLING DETAILS

Date of Sampling : 04.07.2024  
 Sample Collected by : IIT-Delhi Representative  
 Sample Quantity : 1 Liter  
 Sample Packing : Sealed Plastic Bottle



S. No.	Parameters	Units	Results	Test Method
1.	Fixed Residue- Mixed Liquor Suspended Solids (MLSS)	mg/l	2518.0	IS 3025 (Part-18): 2022
2.	Volatile Residue- Mixed Liquor Volatile Suspended Solids (MLV5)	mg/l	1699.0	IS 3025 (Part-18): 2022

Note: The customer bill only include for the above content the sample into both containers during the test.

\*\* End of Report \*\*

GRC India

Name &amp; Signature of Sr. Chemist

  
Narinder Singh  
Sr. Chemist

Name &amp; Signature of Authorized Signatory

  
Ajay Kumar Sharma  
Sr. Quality Manager & Govt. Analyst

Note: 1. This certificate is valid only when the sample analysed under the conditions and do not extend any product.

2. This certificate shall include responsibility on the part of the client to provide correct information.

3. This certificate shall not be used as any advertising means or as evidence in the court of law or other legal matters of the GRC India laboratory.

4. The customer consent must be through after the signature of the client on the date of issue of the report unless specified otherwise in the report.

Page 1 of 1

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## Annexure-9 G: STP Inlet Sample Test Result



### GRC INDIA TRAINING & ANALYTICAL LABORATORY

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 Head Office: P-375, Sector-63, Noida, Greater Noida Nagar, U.P. - 201 301  
 Phone No. 0122 - 4044630, 4044640, Fax: 0122 - 2436519, 0122 - 4044675  
 Website: <https://www.gri-india.com>, E-mail: [info@gri-india.com](mailto:info@gri-india.com), [tech@gri-india.com](mailto:tech@gri-india.com)



### Test Report

Report Code: W20240715-601

Issue Date: 15.07.2024

Issued To: Indian Institute of Technology (IIT)

Sample Received on: 05.07.2024

Hauz Khas, New Delhi - 110016

Analysis Duration: 05.07.2024 to 15.07.2024

Sample Description: N-124(H) (Water Sample)

### RESULTS

(Water Quality Analysis)



#### SAMPLING DETAILS

Date of Sampling: 04.07.2024  
 Sample Collected by: IIT-Delhi Representative  
 Sample Quantity: 1 Liter  
 Sample Packing: Sealed Plastic Bottle

S. No.	Parameters	Units	Results	Test Method
1.	pH Value @ 25 °C	-	6.5	IS 3025 (Part-11): 2022
2.	Biochemical Oxygen Demand (BOD) for 3 days at 20°C	mg/l	1000	IS 3025 (Part-44): 2023
3.	Chemical Oxygen Demand (COD)	mg/l	2800	IS 3025 (Part-58): 2023
4.	Total Solids (TS)	mg/l	950.0	IS 3025 (Part-15): 2022
5.	Total Suspended Solids (TSS)	mg/l	280.0	IS 3025 (Part-17): 2023
6.	Total Dissolved Solids (TDS)	mg/l	650.0	IS 3025 (Part-16): 2023

Note: The customer had only asked for the above test and the sample has been consumed during the test.

\*\* End of Report \*\*



Name & Signature of Sr. Chemist

Narinder Singh  
 Sr. Chemist

Name & Signature of Authorized Signatory

Ajay Kumar Sharma  
 Sr. Quality Manager & Griid Analyst

Note: 1. The results are valid only in the stated manner and under parameters and do not have any warranty.  
 2. The certificate shall not be reproduced, copied or in any form without prior approval of GRC India Laboratory.  
 3. This certificate shall not be used in any advertising matter or presented to the court of law without prior written consent of GRC India Laboratory.  
 4. The customer is advised to check the date and time of the test and ensure that the sample is not tampered after 7 days.

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## Annexure-9 H : STP Outlet Sample Test Result



## GRC INDIA TRAINING &amp; ANALYTICAL LABORATORY

[A unit of Grass Roots Research &amp; Creation India (P) Ltd.]

ISO 9001:2015, ISO 14001:2015 &amp; ISO 45001:2018 Certified

NABL Accredited Laboratory (TC 1201: Chemical &amp; Biological)

Recognized by Ministry of Environment, Forest &amp; Climate Change (MoEF&amp;CC, GOI), under the 8 (P) Act, 1986

Head Office: P-275, Sector-62, Noida, Gurgaon Bypass, UP - 201 301

Phone No: 0120 - 4044635, 4044656; Fax: 0120 - 2494019, 0120 - 4044675

Website: <https://www.grii.in>; E-mail: [lab@grii.in](mailto:lab@grii.in), [info@grii.in](mailto:info@grii.in)

## Test Report

Report Code: W20240715-602

Issue Date: 15.07.2024

Issued To: Indian Institute of Technology (IIT)

Sample Received on: 05.07.2024

Haaz Khan, New Delhi- 110016

Analysis Duration: 05.07.2024 to 15.07.2024

Sample Description: N-124(1) (Water Sample)

## RESULTS

(Water Quality Analysis)



## SAMPLING DETAILS

Date of Sampling : 04.07.2024  
 Sample Collected by : IIT-Delhi Representative  
 Sample Quantity : 1 Liter  
 Sample Packing : Sealed Plastic Bottle

S. No.	Parameters	Units	Results	Test Method
1.	pH Value @ 25 °C	-	6.8	IS 3025 (Part-11): 2022
2.	Biochemical Oxygen Demand (BOD) for 3 days at 20°C	mg/l	10.0	IS 3025 (Part-44): 2023
3.	Chemical Oxygen Demand (COD)	mg/l	18.0	IS 3025 (Part-54): 2023
4.	Total Solids (TS)	mg/l	794.0	IS 3025 (Part-15): 2022
5.	Total Suspended Solids (TSS)	mg/l	25.0	IS 3025 (Part-17): 2023
6.	Total Dissolved Solids (TDS)	mg/l	729.0	IS 3025 (Part-16): 2023

Note: The customer had only asked for the above test and the sample has been consumed during the test.

\*\* End of Report \*\*

GRC India

Name &amp; Signature of Sr. Chemist

  
Narinder Singh  
Sr. Chemist

Name &amp; Signature of Authorized Signatory

  
Ajay Kumar Sharma  
Sr. Quality Manager & Govt. Analyst

- NOTE: 1. The results mentioned in this report are valid only for the sample received and do not include any trend.  
 2. This report is valid only for the purpose stated and is not valid for any other purpose unless otherwise stated.  
 3. This report is valid only for the sample received and is not valid for any other sample unless otherwise stated.  
 4. The sample received should be kept in a cool, dry place and should be analyzed within the specified time.

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## Annexure-9 I : Ground Water Sample Test Result



## GRC INDIA TRAINING &amp; ANALYTICAL LABORATORY

[A unit of Grass Roots Research &amp; Creation India (P) Ltd.]

ISO 9001:2015, ISO 14001:2015 &amp; ISO 45001:2018 Certified

NABL, Accredited Laboratory (TC 750 - Chemical &amp; Biological)

Recognized by Ministry of Environment, Forest &amp; Climate Change (MoEF&amp;CC, Govt), under the E (P) Act, 1986

Head Office: P-175, Sector-03, Noida, Gurgaon Road, U.P. - 201 301

Phone No: 0120 - 4044000, 4044000, Fax: 0120 - 2304314, 0220 - 4044075

Website: <https://www.gri-india.com>, E-mail: [info@gri-india.com](mailto:info@gri-india.com), [sales@gri-india.com](mailto:sales@gri-india.com)

## Test Report

Report Code: W20240715-597

Issue Date: 15.07.2024

Issued To: Indian Institute of Technology (IIT)

Sample Received on: 05.07.2024

Haaz Khas, New Delhi- 110016

Analysis Duration: 05.07.2024 to 15.07.2024

Sample Description: N-124(D) (Water Sample)

RESULTS  
(Water Quality Analysis)

## SAMPLING DETAILS

Date of Sampling : 04.07.2024  
 Sample Collected by : IIT-Delhi Representative  
 Sample Quantity : 1 Liter  
 Sample Packing & Marking : Sealed Plastic Bottle

S. No.	Parameters	Units	Results	Test Method
1.	Color	Hazen	<5.0	IS 3025 (Part-4): 2011
2.	pH Value @ 25°C	-	7.05	IS 3025 (Part-1): 2022
3.	Total Alkalinity (as CaCO <sub>3</sub> )	mg/l	324.0	IS 3025 (Part-3): 2023
4.	Total Hardness (as CaCO <sub>3</sub> )	mg/l	722.0	IS 3025 (Part-3): 2023/IS 3025/ISA 2019
5.	Chemical Oxygen Demand (COD)	mg/l	16.0	IS 3025 (Part-5): 2023
6.	Total Dissolved Solids (TDS)	mg/l	1317.0	IS 3025 (Part-3): 2023
7.	Chlorides (as Cl)	mg/l	225.0	IS 3025 (Part-3): 1988, RA 2019
8.	Fluoride (as F)	mg/l	0.89	4500P(0), APHA 2450 B, 2023
9.	Nitrate (as NO <sub>3</sub> )	mg/l	0.8	IS 3025 (Part-3A/Sec-1): 2023
10.	Sulphate (as SO <sub>4</sub> )	mg/l	123.0	IS 3025 (Part-3A/Sec-1): 2023
11.	Arsenic (as As)	mg/l	<0.01	3120 B, APHA 2450 B, 2023 (ICP-OES, VGA)
12.	Cadmium (as Cd)	mg/l	<0.01	3120 B, APHA 2450 B, 2023 (ICP-OES)
13.	Total Chromium (as Cr <sup>6+</sup> )	mg/l	<0.01	3120 B, APHA 2450 B, 2023 (ICP-OES)
14.	Copper (as Cu)	mg/l	<0.01	3120 B, APHA 2450 B, 2023 (ICP-OES)
15.	Iron (as Fe)	mg/l	<0.01	3120 B, APHA 2450 B, 2023 (ICP-OES)
16.	Lead (as Pb)	mg/l	<0.01	3120 B, APHA 2450 B, 2023 (ICP-OES)
17.	Manganese (as Mn)	mg/l	<0.01	3120 B, APHA 2450 B, 2023 (ICP-OES)
18.	Mercury (as Hg)	mg/l	<0.001	3120 B, APHA 2450 B, 2023 (ICP-OES, VGA)
19.	Nickel (as Ni)	mg/l	<0.01	3120 B, APHA 2450 B, 2023 (ICP-OES)
20.	Zinc (as Zn)	mg/l	<0.01	3120 B, APHA 2450 B, 2023 (ICP-OES)
21.	Azotous (as NO <sub>2</sub> )	mg/l	<0.01	5120 B, APHA 2450 B, 2023 (ICP-OES)
22.	Cobalt (as Co)	mg/l	<0.01	3120 B, APHA 2450 B, 2023 (ICP-OES)
23.	Selenium (as Se)	mg/l	<0.01	3120 B, APHA 2450 B, 2023 (ICP-OES, VGA)
24.	Vanadium (as V)	mg/l	<0.01	3120 B, APHA 2450 B, 2023 (ICP-OES)

Note: The customer had only asked for the above test and the sample has been consumed during the test.

Name &amp; Signature of Sr. Chemist

Nartender Singh  
Sr. Chemist

Name &amp; Signature of Authorized Signatory

Ajay Kumar Sharma  
Sr. Quality Manager & Govt. Analyst

NOTE: 1. The entire information refers to the methodology used and based on standard and is for reference only.  
 2. The results shall not be reported unless it is not within the scope of the IIT-Delhi Laboratory.  
 3. The results shall not be used for any other purpose than the one mentioned in the report unless otherwise specified.  
 4. The entire report shall be valid only if the date of issue of the report is after the date of sample collection and analysis.

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## Annexure -9 J : Spent Leese Sample Rest Result



## GRC INDIA TRAINING &amp; ANALYTICAL LABORATORY

[A unit of Grass Roots Research &amp; Creation India (P) Ltd.]

ISO 9001:2015, ISO 14001:2015 &amp; ISO 45001:2018 Certified

NABL Accredited Laboratory (IC 7507- Chemical &amp; Biological)

Recognized by Ministry of Environment, Forest &amp; Climate Change (MoEF&amp;CC, GOI), under the E (P) Act, 1986

Head Office: P-375, Sector-63, Noida, Gautam Budh Nagar, S.P. - 201 301

Phone No.: 9120 - 4044630, 4044640; Fax: 9120 - 240519, 0220 - 4044575

Website: <https://www.grc-india.com>, E-mail: [lab@grc-india.com](mailto:lab@grc-india.com)

## Test Report

Report Code: W20240715-603

Issue Date: 15.07.2024

Issued To: Indian Institute of Technology (IIT)

Sample Received on: 05.07.2024

Hazir Khan, New Delhi- 110016

Analysis Duration: 05.07.2024 to 15.07.2024

Sample Description: N-124(J) (Water Sample)

## RESULTS

(Water Quality Analysis)

## SAMPLING DETAILS

Date of Sampling : 04.07.2024  
 Sample Collected by : IIT-Delhi Representative  
 Sample Quantity : 1 Liter  
 Sample Packing : Sealed Plastic Bottle



S. No.	Parameters	Units	Results	Test Method
1.	pH Value @ 25 °C	-	3.67	IS 3025 (Part-11): 2022
2.	Biochemical Oxygen Demand (BOD) for 3 days at 20°C	mg/l	16.0	IS 3025 (Part-44): 2023
3.	Chemical Oxygen Demand (COD)	mg/l	35.0	IS 3025 (Part-31): 2023
4.	Total Solids (TS)	mg/l	258.0	IS 3025 (Part-15): 2022
5.	Total Suspended Solids (TSS)	mg/l	60.0	IS 3025 (Part-17): 2023
6.	Total Dissolved Solids (TDS)	mg/l	198.0	IS 3025 (Part-16): 2023

Note: The customer had only asked for the above test and the sample has been consumed during the test.

\*\* End of Report \*\*

GRC India

Name &amp; Signature of Sp Chemist

  
Narinder Singh  
Sr. Chemist

Name &amp; Signature of Authorized Signatory

  
Ajay Kumar Sharma  
Sr. Quality Manager & Govt. Analyst

GRC/IA/SP/019

Rev: 01

Rev: 01/11/2020

- Note: 1. The results indicate only water analytical services and related parameters and do not indicate any process.  
 2. This certificate shall be valid only for the purpose mentioned in the scope of work unless prior written consent of the GRC India laboratory.  
 3. This certificate shall be valid only for the purpose mentioned in the scope of work unless prior written consent of the GRC India laboratory.  
 4. The sample received shall be kept for 10 days from the date of test unless specified otherwise and sample for biological testing will be available after 10 days.

Page 3 of 3

## Annexure-9 K: Drain Up Stream Sample Test Result



### GRC INDIA TRAINING & ANALYTICAL LABORATORY

(A unit of Grass Roots Research & Creation India (P) Ltd.)

ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified

NABL Accredited Laboratory (TC 7181 - Chemical & Biological)

Recognized by Ministry of Environment, Forest & Climate Change (MoEF&CC, GOI), under the E (P) Act, 1986

Head Office: F-375, Sector 42, Noida, Gautam Buddha Nagar, U.P. - 201 305

Phone No. 0120 - 4046630, 4046660, Fax: 0120 - 2405174, 0120 - 4046675

Website: <https://www.grc-india.com>, E-mail: [lab@grc-india.com](mailto:lab@grc-india.com), [info@grc-india.com](mailto:info@grc-india.com)



### Test Report

Report Code: W20240715-604

Issue Date: 15.07.2024

Issued To: Indian Institute of Technology (IIT)

Sample Received on: 05.07.2024

Hauz Khas, New Delhi- 110016

Analysis Duration: 05.07.2024 to 15.07.2024

Sample Description: N-124(0) (Water Sample)

#### RESULTS (Water Quality Analysis)



#### SAMPLING DETAILS

Date of Sampling : 04.07.2024  
 Sample Collected by : IIT-Delhi Representative  
 Sample Quantity : 1 Liter  
 Sample Packing : Sealed Plastic Bottle

S. No.	Parameters	Units	Results	Test Method
1.	pH Value @ 25 °C	-	6.99	IS 3025 (Part-11): 2022
2.	Biochemical Oxygen Demand (BOD) for 3 days at 20°C	mg/l	96.0	IS 3025 (Part-44): 2023
3.	Chemical Oxygen Demand (COD)	mg/l	30.0	IS 3025 (Part-68): 2023
4.	Total Solids (TS)	mg/l	3450.0	IS 3025 (Part-15): 2022
5.	Total Suspended Solids (TSS)	mg/l	1640.0	IS 3025 (Part-17): 2022
6.	Total Dissolved Solids (TDS)	mg/l	1810.0	IS 3025 (Part-16): 2022

Note: The customer had only asked for the above test and the sample has been consumed during the test.

\*\* End of Report \*\*

# GRC India

Name & Signature of Sr. Chemist

*(Signature)*  
 Narinder Singh  
 Sr. Chemist

Name & Signature of Authorized Signatory

*(Signature)*  
 Ajay Kumar Sharma  
 Sr. Quality Manager & Govt. Analyst

ISO 14001:2015  
 Note: 1. The results obtained only refer to the tested samples and tested parameters and do not represent any product.  
 2. This certificate shall not be reproduced without the consent of the laboratory.  
 3. This certificate shall not be used as an advertising media or otherwise in the name of GRC India Laboratory.  
 4. The sample retained shall be disposed after 30 days from the date of issue of this report unless specified otherwise in the sample holding or test report.  
 Page 3 of 3

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## Annexure-9 L: Drain Down Stream Sample Test Result



### GRC INDIA TRAINING & ANALYTICAL LABORATORY

(A unit of Grass Roots Research & Creation India (P) Ltd.)

ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified  
NABL Accredited Laboratory (TC 758): Chemical & Biological  
Recognized by Ministry of Environment, Forest & Climate Change (MoEF&CC, Govt), under the E (P) Act, 1986  
Head Office: F-375, Sector-65, Moha, Gurgaon (Haryana), U.P. - 201 301  
Phone No.: 9120 - 4044630, 4044640; Fax: 9120 - 240519, 0228 - 4044675  
Website: <https://www.grcindia.com>, E-mail: [info@grcindia.com](mailto:info@grcindia.com)



### Test Report

Report Code: W20240715-605

Issue Date: 15.07.2024

Issued To: Indian Institute of Technology (IIT)  
Razvi Khos, New Delhi- 110016

Sample Received on: 05.07.2024  
Analysis Duration: 05.07.2024 to 15.07.2024

Sample Description: N-124(L) (Water Sample)

### RESULTS (Water Quality Analysis)



#### SAMPLING DETAILS

Date of Sampling : 04.07.2024  
Sample Collected by : IIT Delhi Representative  
Sample Quantity : 1 Liter  
Sample Packing : Sealed Plastic Bottle

S. No.	Parameters	Units	Results	Test Method
1.	pH Value @ 25 °C	-	6.92	IS 3025 (Part-31): 2022
2.	Biochemical Oxygen Demand (BOD) for 3 days at 20°C	mg/l	38.0	IS 3025 (Part-44): 2023
3.	Chemical Oxygen Demand (COD)	mg/l	263.0	IS 3025 (Part-50): 2023
4.	Total Solids (TS)	mg/l	3180.0	IS 3025 (Part-15): 2022
5.	Total Suspended Solids (TSS)	mg/l	1560.0	IS 3025 (Part-17): 2023
6.	Total Dissolved Solids (TDS)	mg/l	1720.0	IS 3025 (Part-16): 2023

Note: The customer had only asked for the above test and the sample has been consumed during the test.  
\*\* End of Report \*\*

# GRC India

Name & Signature of Sr. Chemist  
N. Singh  
Sr. Chemist

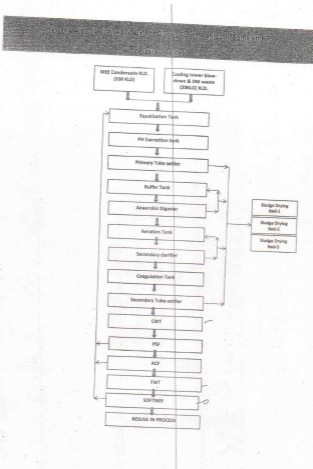
Name & Signature of Authorized Signatory  
Ajay Kumar Sharma  
Sr. Quality Manager & Govt. Analyst

ISO 9001:2015      ISO 14001:2015      ISO 45001:2018      Rev: 01/27/2023

Note: 1. The customer should refer to the test sample and test methodology and do not alter any product.  
2. The customer shall write the approval/objection in a separate document within 10 days of the report.  
3. The report should be used for any administrative, legal or compliance purposes only within the scope of the GRC India laboratory.  
4. The sample received shall be destroyed after 30 days from the date of the report. After 30 days, the sample will be destroyed unless the biological testing is not completed over 7 days.

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## Annexure 10 : ETP Flow Chart





## Annexure-12: Hazardous Waste Membership, Agreement

**UNIVERSAL HYDROLUBES**  
 Village Daraz, Indri Road,  
 Karnal - 132001 (Haryana)  
 Mob. 9992000602  
 E-mail : saurabhcham@gmail.com



### AGREEMENT

This agreement is made in between:-  
**M/s Universal Hydrolubes**, Indri Road, Village Daraz (Karnal)-132001, hereinafter referred to as **First Party**.

AND

**Haryana Organics** A Unit of Globus Spirits Ltd, 4 KM, Chalkana Road, Samalkha, Panipat

hereinafter referred to as **Second Party**.

#### NOW IT IS HEREBY AGREED AS BELOW :-

- 1) Since the First party has been authorized by Haryana State Pollution Control Board vide Regn. No.HSPCB/Consent/329984923/KARCTO36548436 Dated: 06/2/2023 to purchase hazardous waste (used oil ) valid up to 31-3-2027, the second Party has approached to the First Party for sale of Used Oil to the First party depending upon its availability at the rates mutually agreed upon
- 2) That the Second Party has agreed to sell the used oil to the first party on the terms & conditions that the first party shall purchase/transport/store/treat/recycle and dispose of the used oil purchased by it in accordance with Hazardous Waste Management Rules and other applicable pollution control laws/enforced from time to time.
- 3) That the First Party shall comply with the terms and conditions of registration/authorization for purchase/transport and recycling of used oil.
- 4) That both First & Second Party shall be responsible for maintenance of necessary records pertaining to disposal of used oil and showing the same to the inspecting Authority when demanded.
- 5) That the Second Party shall sell Used Oil against payment by NEFT only.
- 6) That the Second Party shall deliver the oil to authorized representative of the First party authorized only by e mail.
- 7) This contract shall remain valid w.e.f.1-4-2023 to 31-03-2025
- 8) First party has agreed to purchase Used Oil @ rate mutually agreed upon.
- 9) Used Oil shall be collected after draining free water if any.
- 10) First party shall take delivery of minimum 5 barrels of used oil meeting specifications prescribed in Schedule under HWM rules.

Second Party

First Party

UNIVERSAL HYDROLUBES

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Annexure-13 A: Form- 4

## FORM 4

(See rules 6(3), 13(8), 16(5) and 20 (2))

## FORM FOR FILING ANNUAL RETURNS

[To be submitted to State Pollution Control Board by 30<sup>th</sup> day of June of every year for the preceding period April-2022 to March-2023]

- Name and address of facility: Haryana Organics (A Unit Of Globus Sports Ltd.) & 44KM Chukana Road Samalkha Paripat. -132101
- Authorisation No. and Date of issue: HMM/PT/2019/0893264 Dt. 16/10/2019
- Name of the authorised person and full address with telephone, fax number and e-mail:  
Mr. Mahendra Pratap Singh  
Haryana Organics  
44KM chukana Road Samalkha  
Email - msingh@globusgroup.in/ hassamkhe@globusgroup.in  
Mobile No - +917406544480
- Production during the year (product wise), wherever applicable:  
In The financial Year 2022-2023  
ENA- 30802405BU/ Annam

## Part A. To be filled by hazardous waste generators

- Total quantity of waste generated category wise  
Used Oil/ Spent Oil - 50kg
- Quantity dispatched
  - to disposal facility- 00kg
  - to recycler or co-processors or pre-processor- NA
  - others- NA
- Quantity utilised in-house, if any -Not Applicable
- Quantity in storage at the end of the year - NIL

Part B. To be filled by Treatment, storage and disposal facility operators  
(Not Applicable)

- Total quantity received - —
- Quantity in stock at the beginning of the year - —
- Quantity treated - —
- Quantity disposed in landfills as such and after treatment - —
- Quantity incinerated (if applicable) - —
- Quantity processed other than specified above - —
- Quantity in storage at the end of the year - —



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Part C. To be filled by recyclers or co-processors or other users  
(Not Applicable)

1. Quantity of waste received during the year -
  - (i) domestic sources ---
  - (ii) imported (if applicable) ---
2. Quantity in stock at the beginning of the year - ---
3. Quantity recycled or co-processed or used - ---
4. Quantity of products dispatched (wherever applicable) - ---
5. Quantity of waste generated - ---
6. Quantity of waste disposed - ---
7. Quantity re-exported (wherever applicable) - ---
8. Quantity in storage at the end of the year - ---

Date :- 30/6/2023

Place :- Panipat

Signature of the Occupier  
Operator of the disposal facility



## FORM-10

(See rule 19 (1))

## MANIFEST FOR HAZARDOUS AND OTHER WASTE

1. Sender's name and mailing address (including Phone No. and e-mail) (77)0805 @RIBI43 Limited } HARYANA CORPAC  
41 MUKH CHUKANA ROAD SAMALKHA  
PANIPAT  
E-MAIL - ROSAMALONA@VISHNUSIRIS LTD

2. Sender's authorization No. HRM/PTI/2019/693244

3. Manifest Document No. \_\_\_\_\_

4. Transporter's name and address : (including Phone No. and e-mail) \_\_\_\_\_

5. Type of Vehicle Truck Trailer Special Vehicle

6. Transporter's registration No. \_\_\_\_\_

7. Vehicle Registration No. DL 12-65413

8. Receiver's name and mailing address (including Phone No. and e-mail) UNIVERSAL HYDROLUBES  
Indi Road, Village Dera, Distt. Karnal  
Distt. 9902000032-03

9. Receiver's authorization No. HRM/KAR/2019/678659a

10. Waste description : 1200L/used oil

11. Total quantity 90. Kg and or MT  
 No. of Containers 5 DRUM Nos. \_\_\_\_\_

12. Physical Form (Solid/Semi) \_\_\_\_\_  
 Solid/Sludge/Oily/Slurry/Slurry/Liquid) \_\_\_\_\_

13. Special handling instructions and additional information : \_\_\_\_\_

14. Sender's Certificate : I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked and labelled in all respects in terms of conditions for transport by road according to applicable national government regulations.

Name and Stamp \_\_\_\_\_ Signature \_\_\_\_\_ Dated 30/6/23

15. Transporter acknowledgement of receipt of Wastes : \_\_\_\_\_

Name and Stamp \_\_\_\_\_ Signature \_\_\_\_\_ Dated \_\_\_\_\_

16. Receiver's certification for receipt of hazardous \_\_\_\_\_  
HRM/KAR/2019/678659a  
 Name and Stamp \_\_\_\_\_ Signature Rohit Dated 30/06/2023  
 Dated \_\_\_\_\_

Annexure-14: Calibration Certificate (Stack SPM) **704**Calibration Certificate**Customer Details:** Haryana Organics Ltd, Samlakhra**Type of Instrument:** Dust Monitor DCEM21XX**Sr. No of Instrument:** 23094**Make:** Forbes Marshall Pvt. Ltd.**Calibrated on:** 14/06/2024**Validity:** 3 Month

This is to certify that instrument has been calibrated at site by the undersigned, with the reference Plant shutdown condition.

Plant Under shutdown	SPM Analyzer result
0	0

**NOTE:**

- The calibration results reported in this certificate are valid at this time and condition of measurement.
- This report should not be reproduced except in full without our prior permission.

Calibrated By- Vivek Srivastava

Date- 17/06/2024

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**Customer Details:** Haryana Organics Ltd, Samlakhia

**Type of Instrument:** Dust Monitor DCEM2100

**Sr. No of Instrument:** 15098

**Make:** Forbes Marshall Pvt. Ltd.

**Calibrated on:** 14/06/2024

**Validity:** 3 Month

This is to certify that instrument has been calibrated at site by the undersigned, with the reference Plant shutdown condition.

Plant Under shutdown	SPM Analyser result
0	0

**NOTE-**

- The calibration results reported in this certificate are valid at this time and condition of measurement.
- This report should not be reproduced except in full without our prior permission.

*Vivek Srivastava*

Calibrated By- Vivek Srivastava

Date- 17/06/2024

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Amended Report dated 04.09.2024

## Form J

(See Rule 36)



Report No-941-A

Type of Sample: Legal

Dated:- 10.09.2024

I hereby, certify that I Neeraj Bala Board Analyst duly appointed under sub section (3) of section 53 of the Water (Prevention and Control of Pollution) Act 1974 (06 of 1974), received a sample on the 28<sup>th</sup> day of August, 2024, collected by Sh. Shivender Singh, Sc.B dated 27<sup>th</sup> day of August, 2024 of M/s Haryana Organics (A unit of Globus Spirits Ltd.) 4 KM, Chulkana road, Panipat for analysis.

Further certify that I have analyzed the above mentioned sample on 28<sup>th</sup> August-2024 to 01<sup>st</sup> -September-2024 and declare the result of analysis to be as follows:

Sr. No.	Parameter Name	Result	Result	Limit	Test Method
1.	Sample Code	1826	1827		
2.	Sample Collected from	Inlet of CPU	*Outlet of CPU		
3.	Color	L.Grey	Colourless	-	
4.	Odour	Bad	Odourless	-	
5.	pH value at 25°C	4.58	6.19	5.5-9.0	APH4500-HH (B)
6.	Biological Oxygen Demand (mg/l)	2400.0	12.0	30	S-3025(Part-44)
7.	Total Suspended Solids mg/l	480.0	22.0	100	APHA 2540 (D)
8.	Conductivity at 25°C (µS/cm)	2780.0	2882.0	-	S-3025(Part-14)

The Conditions of the seals, listening and container on receipt was as follows:

Container had its seal found intact and in order, slip on the container had the signature of the representative of the industry and the Board.

Signed this 10<sup>th</sup> day of September, 2024

Haryana State Pollution Control Board Laboratory,

C-11, Sector-06, Panchkula, Haryana

To

The Member Secretary, HSPCB, Panchkula

CC to Regional Office: Panipat. This test report relate only to the particular sample submitted for testing.

*Neeraj Bala*  
Board Analyst

\*\*\*End of the Report\*\*\*

\* Due to topographical mistake outlet has been mentioned as inlet at sample code - 1827.

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Amended Report dated 04.09.2024**Form J**

(See Rule 36)



Report No-941-B

Type of Sample: Legal

Dated:- 10.09.2024

I hereby, certify that I Neeraj Bala Board Analyst duly appointed under sub section (3) of section 53 of the Water (Prevention and Control of Pollution) Act 1974 (06 of 1974), received a sample on the 28<sup>th</sup> day of August, 2024, collected by Sh. Shivender Singh, Sr.B dated 27<sup>th</sup> day of August, 2024 of M/s Haryana Organics (A unit of Globus Spirits Ltd.) 4 KM, Chulkana road, Panipat for analysis.

Further certify that I have analyzed the above mentioned sample on 28<sup>th</sup> August-2024 to 04<sup>th</sup> -September-2024 and declare the result of analysis to be as follows:

Sr. No.	Parameter Name	Result	Result	Limit	Test Method
1.	Sample Code	1828	1829		
2.	Sample Collected from	Inlet of STP	*Outlet of STP		
3.	Color	Pale Yellow	Colourless	-	
4.	Odour	Bad	Odourless	-	
5.	pH value at 25°C	6.07	6.26	5.5-9.0	APHA500-H+ (B)
6.	Biological Oxygen Demand (mg/l)	170.0	8.0	10	IS:3025(Part-4)
7.	Chemical Oxygen Demand (mg/l)	520.0	48.0	50	APHA 520 (B)
8.	Total Suspended Solids mg/l	278.0	15.0	20	APHA 2540 (D)
9.	Oil and Grease (mg/l)	14.5	BDL(DL=2)	10	APHA 5520-B
10.	Conductivity at 25°C (µS/cm)	3234.0	2840.0	-	IS:3025(Part-1A)

The Conditions of the seals, listening and container on receipt was as follows:

Container had its seal found intact and in order, slip on the container had the signature of the representative of the industry and the Board.

Signed this 10<sup>th</sup> day of September, 2024  
 Haryana State Pollution Control Board Laboratory,  
 C-11, Sector-06, Panchkula, Haryana  
 To

The Member Secretary, HSPCB, Panchkula  
 CC to Regional Office: Panipat. This test report relate only to the particular sample submitted for testing.

*Neeraj Bala*  
 Board Analyst

\*\*\*End of the Report\*\*\*

\* Due to topographical mistake outlet has been mentioned as inlet at sample code -1828.





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Trn / Value Date	Description	Ref / Cheque No.	Branch Code	Instlt	Credit Balance
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06-Aug-24 106-Aug-2024	TO TRANSFER HARYANA STATE POLLUTION CONTROL BOA INR NEFT UTR NO: SBIN4219396595 - NEFT INB- CNAADDHYA TRANSFER TO 319794044308	NEFT INB- CNAADDHYA TRANSFER TO 319794044308 / HARYANA STATE POLLUTION CONTROL BOA	99922		27,00,000.00
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## HARYANA STATE POLLUTION CONTROL BOARD

### SCO No.55, SECTOR-25, HUDA, PANIPAT

Ph. - (0180) 2672037, Telefax - 2664951, E-mail: [hspcbopro@gmail.com](mailto:hspcbopro@gmail.com)

No. HSPCB/PR/2024/ 1261

Dated 16/09/2024

To

**The Chairman**  
Haryana State Pollution Control Board,  
Panchkula.

Kind Attn: Sh. SEE (Planning Cell)

**Subject: Recommendation for Levying Environmental Compensation on M/s Haryana Organics, 4 KM Stone, Chulkana Road, Samalkha, Panipat.**

Performs for recommendation for environmental compensation by Regional Officer.

1.	Name & address of the unit	M/s Haryana Organics, 4 KM Stone, Chulkana Road, Samalkha, Panipat
2.	Name and designation of the Officer(s) inspected the unit	Joint Committee consisting of CPCB, New Delhi, District Administration, Panipat and HSPCB, Panipat
3.	Product(s) and bio-products	IMFL, COUNTRY LIQUOR, RECTIFIED SPIRIT, ENA and ETHANOL
4.	Manufacturing process	IMFL, COUNTRY LIQUOR, RECTIFIED SPIRIT, ENA and ETHANOL
5.	Status of CTE	Obtained
6.	Status of CTO	Obtained upto 30/09/2027
7.	Date of inspection of the unit	14/03/2024
8.	Date of commissioning	10/06/2011
9.	Detail of violation observed during inspection:	<p><b>A. Effluent Management</b></p> <ol style="list-style-type: none"> <li>i. The Unit should properly operate &amp; maintain the aeration tank and clarifier (secondary) of CPU and accordingly rectify the problem at the earliest.</li> <li>ii. The Unit should properly operate &amp; maintain the CPU and enhance the performance of CPU so as to meet the desired water quality for reuse &amp; recycle of the treated effluent with in the process/cooling tower make up water.</li> <li>iii. The Unit should properly operate and maintain the STP and optimize the performance of its STP so as to meet the prescribed standard.</li> <li>iv. The Unit should provide Environmental Data display board at the entrance of the Gate and regularly update it.</li> <li>v. The Unit should take appropriate steps in cleaning and de-sludging of the Drain(flowing adjacent to the Unit) and should provide the action taken report to SPCB.</li> <li>vi. The Unit should not discharge their effluent into the</li> </ol>

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drain and strictly follow the consent condition of the HSPCB.

- vii. The presence of high concentration of COD, BOD, TSS & TDS in the downstream of the Drain compared to the downstream drain reveals that Unit intermittently discharges its untreated/partially treated effluent into the drain. Therefore, SPCB should ensure strict periodical surveillance of the industry/drain and ensure no industrial waste water discharge into the drain.
- viii. The Unit should maintain proper logbooks regarding raw spent-wash/thin slope generation, Fermenter sludge generation, Boiler ash generation and disposal.

**B. Air Pollution and Control**

- i. The Unit should ensure regular water sprinkling and also take other necessary measures in and around the boiler to minimize the dust /ash dispersion in the ambient environment.
- ii. The Unit should provide easy ladder (spiral /scaffold type) ladder at stack of 25TPH boiler instead of monkey ladder to ensure safe access to sampling port for emission monitoring as per CPCB Emission Regulations Part-III.
- iii. The Unit should provide proper housekeeping at the boiler section.
- iv. The conveyor belt at the boiler should be covered (hood cover) or enclosed so as to control the fugitive emission during the transportation of fuel /rice husk. The Unit should provide adequate measure so as to avoid any fugitive emission /dust emission to the nearby areas/land.
- v. The Unit should pay the compensation to the affected land owner, which may be assessed by the HSPCB in consultation with agriculture department.

**C. Waste Management**

- i. The Unit should maintain proper logbook record of Hazardous and other waste generated and disposed by the industry as per the Hazardous & Other Waste Rules, 2016.

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		ii. The Unit should not store Hazardous waste for period not exceeding 90 days.						
10.	Category of the unit	i. Red ii. Large						
11.	Complaint / Court case, if any.	O.A. No.111/2024 pending before Hon'ble NGT & CM Window Complaints.						
12.	Detail of sampling and analysis of effluent/air emission exceeding the norms.	1. The parameter of STP Outlet found exceeding in TDS (2664), BOD (104), COD (277) and Total Phosphorus (17.40). 2. The value of COD (16) of the borewell (outside the Unit premises) installed at Sh. Ramesh Kumar land. 3. High concentration of BOD (213) and COD (429) in upstream and BOD (4850) and COD (9268) in downstream of the drain passing back side of the unit. 4. CPU outlet found exceeding in BOD-160, COD-458 and TDS-1332 mg/l.						
13.	Reasons for not collection of samples, if not collected.	NA						
14.	Detail of Show Cause Notice for EC issued with date.	SCN for closure and prosecution vide No.266 dated 31/05/2024.						
15.	Reply of Show Cause Notice, if any received.	Yes, unit has submitted the reply of show cause notices on 19/06/2024 and final reply on 05.08.2024 received in the office on 12.08.2024.						
16.	No. and date of closure order issued by the Board	NA						
17.	Compliance of closure order if applicable	NA						
18.	Present status of compliance made by the unit, if any after issue of show cause notice.	The unit was inspected on 27/08/2024 to check the compliance of observations raised by the joint committee constituted by Hon'ble NGT. The compliance status of the observations are as under:- <table border="1" data-bbox="481 939 958 1303"> <thead> <tr> <th>Sr. No.</th> <th>Observations</th> <th>Compliance Status</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><b>A. Effluent Management</b>  i. The Unit should properly operate &amp; maintain the aeration tank and clarifier (secondary) of CPU and accordingly rectify the problem at the earliest.</td> <td>The unit is complying with the observation by operating and maintaining aeration and secondary clarifier as found during visit of IIT Delhi and by the team of HSPCB. The latest sample collected by IIT Delhi and HSPCB are within prescribed limit.</td> </tr> </tbody> </table>	Sr. No.	Observations	Compliance Status	1	<b>A. Effluent Management</b>  i. The Unit should properly operate & maintain the aeration tank and clarifier (secondary) of CPU and accordingly rectify the problem at the earliest.	The unit is complying with the observation by operating and maintaining aeration and secondary clarifier as found during visit of IIT Delhi and by the team of HSPCB. The latest sample collected by IIT Delhi and HSPCB are within prescribed limit.
Sr. No.	Observations	Compliance Status						
1	<b>A. Effluent Management</b>  i. The Unit should properly operate & maintain the aeration tank and clarifier (secondary) of CPU and accordingly rectify the problem at the earliest.	The unit is complying with the observation by operating and maintaining aeration and secondary clarifier as found during visit of IIT Delhi and by the team of HSPCB. The latest sample collected by IIT Delhi and HSPCB are within prescribed limit.						

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	<p>ii. The Unit should properly operate &amp; maintain the CPU and enhance the performance of CPU so as to meet the desired water quality for reuse &amp; recycle of the treated effluent with in the process/cooling tower make up water.</p>	<p>As per VSI Pune report the CPU installed by the unit is adequate to meet out the results for reuse and recycle. The latest analysis report dated 04.07.2024 received from IIT Delhi and analysis report dated 10.09.2024 parameters are within permissible limit. The treated effluent is recycled and reused into cooling tower.</p>
	<p>iii. The Unit should properly operate and maintain the STP and optimize the performance of its STP so as to meet the prescribed standard</p>	<p>The unit has upgraded its STP on the basis of recommendations issued by VSI Pune. The unit has provided one more equalization tank, has increased the retention time and has replaced the membrane of PSF and ACF. The latest analysis report as per inspection on 04.07.2024 received from IIT Delhi and analysis report dated 10.09.2024 parameters are within permissible limit. The treated effluent is reused for gardening purpose.</p>
	<p>iv. The Unit should provide Environmental Data display board at the entrance of the Gate and regularly update it.</p>	<p>The unit has submitted purchase order dated 06.07.2024 for installation of LED Display board at the entrance of the unit but same has not been installed.</p>

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	v. The Unit should take appropriate steps in cleaning and de-sludging of the Drain (flowing adjacent to the Unit) and should provide the action taken report to SPCB.	The unit has submitted request to Irrigation Department for cleaning and de-sludging and the same has been complied by the Irrigation Department in the month of June 2024.
	vi. The Unit should not discharge their effluent into the drain and strictly follow the consent condition of the HSPCB.	During inspection no discharge of trade effluent was found into drain.
	vii. The presence of high concentration of COD, BOD, TSS & TDS in the downstream of the Drain compared to the downstream drain reveals that Unit intermittently discharges its untreated/partially treated effluent into the drain. Therefore, SPCB should ensure strict periodical surveillance of the industry/drain and ensure no industrial waste water discharge into the drain.	The drain has been cleaned by Irrigation Department for free flow of water into drain.
	viii. The Unit should maintain proper logbooks regarding raw spent-wash/fin slope generation, Fermenter sludge generation, Boiler ash generation and disposal.	The unit has start maintaining logbook of spent-wash but not maintained the logbook for Fermenter sludge generation, Boiler ash generation as per suggestion given by the joint committee.
2.	<b>B. Air Pollution and Control</b>	
	i. The Unit should ensure	Regular sprinkling is being

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		regular water sprinkling and also take other necessary measures in and around the boiler to minimize the dust /ash dispersion in the ambient environment.	done by the unit in and around the boiler for dust suppression.
		ii. The Unit should provide easy ladder (spiral /scaffold type) ladder at stack of 25 TPH boiler instead of monkey ladder to ensure safe access to sampling port for emission monitoring as per CPCB Emission Regulations Part-III.	Monkey ladder has been provided by the unit. No step has been initiated by the unit to provide spiral/scaffold type ladder to 25 TPH Boiler
		iii. The Unit should provide proper housekeeping at the boiler section.	The unit has provided covered shed for storage of biomass multi fuel such as rice husk, mustered husk.
		iv. The conveyor belt at the boiler should be covered (hood cover) or enclosed so as to control the fugitive emission during the transportation of fuel rice husk. The Unit should provide adequate measure so as to avoid any fugitive emission /dust emission to the nearby areas/land.	The unit has covered the conveyor belt to control fugitive emissions of fuel.
		v. The Unit should pay the compensation to the affected land owner, which may be assessed by the HSPCB in consultation with agriculture	The unit has intimated that it has taken the 9 acre land adjoining to the unit on lease related to the complainant and his family.

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		department.	
		3. C. Waste Management	
		i. The Unit should maintain proper logbook record of Hazardous and other waste generated and disposed by the industry as per the Hazardous & Other Waste Rules, 2016.	The unit has obtained authorization under HOWM Rules, 2016 valid upto 30/09/2027 for the used oil. The unit has made agreement with authorized service provider for disposal of hazardous waste.
19	Cases for levying environmental compensation:-	1. The parameter of STP Outlet found exceeding in TDS (2664), BOD (104), COD (277) and Total Phosphorus (17.40). 2. The value of COD (16) of the borewell (outside the Unit premises) installed at Sh. Ramesh Kumar land. 3. High concentration of BOD (213) and COD (429) in upstream and BOD (4850) and COD (9268) in downstream of the drain passing back side of the unit. 4. CPU outlet found exceeding in BOD-160, COD-458 and TDS-1332 mg/l.	
20	Date of last inspection and sampling i.e. prior present inspection (Water and/or Air and/or other pollution)	The unit was inspected on 04.07.2024 by IIT Delhi under third party Grossly Polluting Unit (GPI) inspection and as per the inspection report submitted by the IIT Delhi the parameter of effluent after treatment from CPU and STP has been found complying with the permissible limit. Also, the unit was inspected by the team of HSPCB, Panipat dated 27/08/2024 to verify the compliances submitted in the unit reply dated 12.08.2024 and sample of CPU & STP were also collected and sent to HSPCB Laboratory, Panchkula.	
21	Justification of imposing environmental compensation for last five year	NA	
22	Final reasoned recommendations in respect of EC and documents attached to be verified.	The unit is engaged in manufacturing of IMFL, COUNTRY LIQUOR, RECTIFIED SPIRIT, ENA and ETHANOL. The unit has obtained valid CTO vide No. HSPCB/Consent/313106523PITCTO39884947 Dated:20/09/2023 from the board and the same is valid upto 30.09.2027. The unit was inspected under O.A. No.111/2024 pending before Hon'ble NGT by Joint Committee consisting of CPCB, New Delhi, District Administration, Panipat and HSPCB, Panipat and sample of the STP, CPU, Ground Water and Upstream and Downstream of Drain passing backside of the unit was collected and as per the analysis report and Joint inspection report submitted by the committee in the Hon'ble NGT a show cause notice was issued to the unit vide this office letter No.HSPCB/PR/2024/266 dated 31/05/2024. The unit has submitted the interim reply of show cause notice on 19.06.2024 and final reply on 12.08.2024 with the adequacy report of CPU and STP from VSI Pune with all the compliances made by the unit. Thereafter, the unit was inspected by the team of HSPCB, Panipat dated 27/08/2024 to verify the compliances	

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		submitted in the unit and sample of CPU and STP was collected and to HSPCB Lab Panchkula and as per analysis report No.941-A dated 10/09/2024 and analysis report No.941-B dated 10/09/2024 the unit found complying. It is also intimated that the unit was inspected on 04.07.2024 by IIT Delhi under third party Grossly Polluting Unit (GPI) inspection and as per the inspection report submitted by the IIT Delhi the parameter of effluent after treatment from CPU and STP has been found complying with the permissible limit. The pointwise compliance has been mentioned at Sr. No.18. Therefore, it is recommended that Environmental compensation may be imposed on the unit from 14.03.2024 (date of inspection of Joint Committee) to 04.07.2024(date of inspection of IIT Delhi) i.e 113 days.
Environment Compensation to be levied on Industrial Units		
23.	PI - Pollution Index (Red : 80, Orange : 50 and Green : 30)	80
24.	N - No of days of violation	14.03.2024 (date of inspection of Joint Committee) to 04.07.2024(date of inspection of IIT Delhi) i.e 113 days
25.	R - Factor in Rupees	250
26.	S - Factor for scale of operation(0.5 for micro or small, 1.0 for medium and 1.5 for large unit)	1.5
27.	LF - Location Factor (as per census)	1
28.	EC= PI x N x R x S x LF	$80 \times 113 \times 250 \times 1.5 \times 1 = 33,90,000/-$
29.	Total Amount calculated	33,90,000/- (Thirty Three Lac ninety Thousand only)

Documents to be enclosed:

1. Copy of Joint inspection report dated 14.03.2024
2. Copy of SCN dated 31.05.2024
3. Copy of Unit reply dated 19.06.2024 & 12.08.2024
4. Copy of Inspection report of IIT Delhi dated 04.07.2024.
5. Copy of Spot Inspection Report dated 27.08.2024.
6. Copy of Analysis Report dated 10.09.2024.



Ajay Ahlawat, AEE  
Field Officer



Bhupinder Singh,  
Regional Officer, Panipat