



**SONA SATI ORGANICS PVT. LTD.**

(Distillery Division)

CIN No. : U00064BR2004PTC010527

**Factory & Reg. Office :**

Rajapatti Kothi, Baikunthpur

Distt. - Gopalganj-841420, Bihar (INDIA)

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o/c

Ref : .....

Date : .....

NO:SSOPL/PAT/EC/2021-22

Dated:-02.06.2021

To

The Additional Principal Chief Conservator of Forest,  
Ministry of Environment, Forest and Climate Change,  
Government of India  
Regional Office (ECZ)  
Bungalow No- A-2, Shyamli Colony,  
Ranchi-834002

**Sub: Submission of Six-Monthly report on the status of compliance of the stipulated Environmental Clearance Conditions- for the period of April 2020 to September 2020**

Sir,

This has to reference to Environmental Clearance accorded by MOEF&CC, Gol to M/S Sona Sati Organics (P) Ltd, at village Rajapatti Kothi, Baikunthpur, Dist- Gopalganj(Bihar).

(2) MOEF&CC , Gol accorded Environmental clearance for establishment of new distillery plant of capacity of 45 KLD rectified spirit/ENA/AA vide ref. no. file no- J-11011/25/2007-1A-11(I) dated 8<sup>th</sup> June 2007 with conditions mentioned there in including specific conditions No(ii) mentioned as the company " the company shall adopt continuous and semi-continuous fermentation technology depending upon the quality of molasses. The spent wash generation shall not exceed 450M3/day. The spent wash after anaerobic treatment in the bio-methanation plant shall be composted with press-mud. No effluent shall be discharged outside the factory premises and zero discharge shall be strictly followed. Land and other requirements for treatment of spent wash with press-mud shall be as per the CPCB guidelines. The company shall earmark an area of 17.73acres for bio-composting, storage of press-mud and finished products. The compost yard shall be made impervious as per the CPCB guidelines.

(3) MOEF&CC, GOI, vide it's letter no.- J-11011/25/2007-1A-11(I) dated 13<sup>th</sup> April 2009 amended the specific condition no ii (as mentioned above) of environmental clearance dated 8<sup>th</sup> June 2007 as hereunder;

"The spent wash generation shall not exceed 450M3/day. The spent wash with or without bio-methanation shall be concentrated in the MEE and concentrated spent wash shall be

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incinerated in the boiler. The storage of spent wash shall not be more than 5 days. The unit may operate more than 300 days. The company shall comply with all the other conditions stipulated in the EC dated 8<sup>th</sup> June 2007."

(4) MOEFF&CC, GOI, vide its letter no- J-11011/25/2007-1A-11(I) dated 18<sup>th</sup> January 2019, further accorded environmental clearance to the project for the expansion of molasses based distillery from 45 to 75 KLPD and setting up grain based distillery of capacity 125KLPD by M/S Sona Sati Organics (P) Ltd, at village Rajapatti Kothi, Baikunthpur, Dist-Gopalganj(Bihar) with the conditions mentioned therein.

**(5) Status of Compliance of the Stipulated Environmental Clearance Conditions dated 8<sup>th</sup> June 2007, amended dated 13<sup>th</sup> April 2009,**

(i) We have installed ETP for maintaining Zero Liquid Discharge(ZLD) as per requirements and conditions stipulated in EC. The ETP consist of integrated evaporation plant in the distillation, MEE(1&2), rotary drier, incineration boiler and CPU. The CPU consists of collection tank, line dosing system, buffer tank, up-flow anerobic sludge blanket (UASB), diffused aeration tank, clarifier, activated carbon filter(ACF), sand filter/multi-media filter, ultra-filtration system and two-stage RO system (1&2). The spent wash is subjected for concentration through MEE. The concentrated spent wash is incinerated in the boiler directly as well as by blending with rice husk. We have also installed a rotary drier for blending of MEE concentrated spent wash with rice husk. The condensate from MEE is treated with CPU. The treated condensate is reused in the plant/process for dilution of molasses, cooling system etc. There is one pucca holding lagoon with impervious base for holding the spent wash for emergency. As per CPCB protocol/guidelines holding capacity of concentrated spent wash may be kept at 7 days equivalent to spent wash generation.

(ii) We have an incineration boiler of 22 TPH steam generation capacity attached with MS stack of 45-meter height through dust collection system (multi-cyclone and weight scrubber). The stack is having port hole and platform to facilitate stack emission monitoring. Online continuous stack emission monitoring system has been installed and connected with CPCB server. Stack emission is also carried out manually through recognized laboratory under E(P) ACT.

(iii) We are not discharging effluent outside premises and ZLD is strictly followed.

(iv) Particulate matter emission has been observed within norms. *The related report for the period of October 2019 to March 2020 is enclosed as **Annexure-I**.*

(v) We have installed piezometers (6 nos) for ground-water monitoring. One piezometer is having digital water level recorder. Ground water analysis is done on monthly basis at two locations within factory premises. *The related report for the period of April 2020 to September 2020 is enclosed as **Annexure-II**.*

(vi) Distillery is operated more than 300 days as per amended EC dated 13<sup>th</sup> April 2009. The total operational day during for the period April 2020 to September 2020 was 163 days.

(vii) We have developed green belt in 10 acres of land within factory premises.

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(viii) We have developed rainwater harvesting system for recharging ground water.

**(6) Status of Compliance of the Stipulated Environmental Clearance Conditions dated 18<sup>th</sup> January 2019, amended dated 13<sup>th</sup> April 2009,**

Condition No.	Condition	Compliance
6	After expansion, total water requirement is estimated to be 4579 cum/day, of which freshwater requirement of 1700 cum/day will be met from Ground Water. Permission ground water withdrawal of 1800 cum/day has been obtained from the Central Ground Water Authority vide letter dated 31 <sup>st</sup> May, 2018.	We have expanded molasses-based distillery from 45 to 75 KLPD. Total freshwater/groundwater requirement is not more than 1700 cum/day (after aforesaid expansion of molasses-based distillery and setting up grain-based distillery(125KLPD). Accordingly, permission for groundwater withdrawal of 1800 cum/day has been obtained from central ground water authority vide its letter dated 31 <sup>st</sup> May, 2018.
	Effluent of 1334 cum/day (688 cum/day from molasses based operation and 646 cum/day from grain based operation) estimated to be generated after the proposed expansion, will be treated through CPU with two stage RO System and MEE, and recycled/reused in the plant. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge	Presently, we are operating molasses-based distillery to produce Ethanol(75KLPD). Grain-based distillery is being set up to produce 125KLPD. But, we will restrict production of alcohol only 100KLPD from grain-based. Moreover, it is clarified that the distillery shall be operated either on molasses-based or grain-based. By the above, effluent generation shall be approximately 650 to 675 cum/day and in accordance with the conditions of EC. Our ETP system is adequate for treatment and disposal of 688 cum/day effluent/spent wash and for maintaining ZLD. The details of the ETP system is already described above which includes MEE, incineration boiler, rotary drier, CPU, Two stage RO system and pucca impervious lagoon for holding the effluent.
	Power requirement after expansion will be 4 MW proposed to be met from own co-generation plant. Existing unit has 1 DG set of 750 KVA capacity, three more DG sets of 62 KVA, 380 KVA &	Presently, power requirement is met out by the existing co-generation plant of 1.9MW/hr. We will expand captive power generation to 4MW in future. We have supporting DG set of 1000KVA, 380KVA and 100KVA with acoustic enclosure as stand by

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	1000 KVA will be used as standby during power failure. Stack height of 15m will be provided as per CPCB norms to the proposed DG Sets.	arrangement for power.
	Existing unit has one concentrated spent wash/rice husk/bagasse fired boiler of 22 TPH capacity. To cater to the proposed expansion, one more boiler (rice husk/bagasse/coal/blended fuel fired) of 36 TPH shall be installed with electrostatic precipitator and stack of 51m to control particulate emissions within the statutory limit of 50mg.Nm3.	Presently, we are operating molasses-based distillery to produce Ethanol(75KLPD). Grain-based distillery is being set up to produce 125KLPD. But, we will restrict production of alcohol only 100KLPD from grain-based. Moreover, it is clarified that the distillery shall be operated either on molasses-based or grain-based. By the above, effluent generation and power requirement shall be approximately 650 to 675 cum/day and 1.9MW/hr respectively in accordance with the conditions of EC. We will install one more boiler of 36 TPH along with stack of 51 meter and E.S.P. to control particulate matter emission once the plant will be in position to produce alcohol 75KLPD from molasses and 125 KLPD from grain.
7	Dried Distiller's Grain with Soluble (DDGS) will be used as cattle feed, poultry feed/fisheries etc. Yeast sludge will be mixed with we cake. Ash from the boiler is being/will be supplied to brick manufactures or given to farmers for soil amelioration. ETP sludge is being/will be used a manure after sun drying. Used oil generated from the plant machinery/gear boxes as hazardous waste is being/will be sold out to authorized recyclers.	Committed for compliance. Related infrastructure is being installed to ensure Dried Distillers Grain with Soluble (DDGS) as cattle feed/poultry feed. CPU/ETP sludge is used as manure. Used oil is stored in drums and used as lubricant for plant machinery. Excess shall be sold to authorized recyclers.
11 (a)	Consent to Establish/Operate for the project shall be obtained from the SPCB as required under the Air	We have obtained CTE for expansion of molasses-based distillery from 45 KLPD to 75 KLPD and setting up grain-based distillery of capacity 125 KLPD in the

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	(Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.	existing premises vide BSPCB letter no 403 dated 20/3/2019. CTOs under the Water Act, 1974 and the Air Act, 1981 have been granted by BSPCB for operation of molasses-based distillery on expanded capacity that is 75KLPD vide letter no- 2269 dated 22/5/2019 and 2268 dated 22/5/2019 respectively.
(b)	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.	Complying. We are maintaining Zero Liquid Discharge through MEE, incineration boiler, rotary drier, CPU, two stage RO system and pucca impervious lagoon for holding the effluent. Concentrated spent wash is incinerated in the boiler and condensate after treatment is used in the plant/process. No waste/ treated water is discharged outside the premises.
(c)	Necessary authorization required under the Hazardous and other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.	Complying. We have obtained authorization under the Hazardous and other Wastes (Management and Trans-Boundary Movement) Rules, 2016, vide BSPCB letter no.HW/B-49 dated 05.12.2018. Authorization under the Solid waste management rule 2016 is not required.
(d)	To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQs. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.	We have installed multi-cyclone and weight scrubber to control particulate matter emission from boiler of 22TPH steam generation capacity attached with MS stack of 45-meter height. Water spraying and green vegetation have been developed to control fugitive emissions and maintain ambient air quality norms. The stack height of 45 meter is adequate for dispersion of gaseous pollutants at the higher level.

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(e)	Total fresh water requirement shall not exceed 1700 m <sup>3</sup> /day proposed to be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.	We have expanded molasses-based distillery from 45 to 75 KLPD. Total freshwater/groundwater requirement is not more than 1700 cum/day (after aforesaid expansion of molasses-based distillery and setting up grain-based distillery(125KLPD). Accordingly, permission for groundwater withdrawal of 1800 cum/day has been obtained from central ground water authority vide its letter dated 31 <sup>st</sup> May, 2018.
(f)	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.	Complying. The product of the distillery (Ethanol) has been identified as hazardous chemical under the manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989. We have obtained license from Petroleum & Explosives Safety Organization (PESO) in compliance with EC. The copy is enclosed as <b>Annexure III</b> .
(g)	Process organics residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.	Spent wash, the organic residue after distillation of fermented wash is let out as the distillery effluent which is treated/concentrated and disposed through MEE followed by incineration. Only used oil from DG sets has been identified as hazardous waste which is recyclable in nature and hence shall be sold to authorized recycler.
(h)	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989	Complying. The product of the distillery (Ethanol) has been identified as hazardous chemical under the manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989. We have obtained license from Petroleum & Explosives Safety Organization (PESO) in compliance with EC. The copy is enclosed as <b>Annexure III</b> .
(i)	The company shall undertake waste minimization measures as below:	Complying. We have installed mass flow meters at MEE inlet and MEE concentrate. We have also installed

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	<p>i. Metering and control of quantities of active ingredients to minimize waste.</p> <p>ii. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.</p> <p>iii. Use of automated filling to minimize spillage.</p> <p>iv. Use of Close Fee system in batch reactors.</p> <p>v. Venting equipment through vapour recovery system.</p> <p>vi. Use of high pressure hoses for equipment clearing to reduce wastewater generation</p>	<p>flow meters at wastewater generation and water intake point. We have also installed piezometers (6nos) for ground water monitoring including one with digital water level recorder.</p> <p>Other conditions are complying as best practices for operation of distillery including maintaining ZLD.</p>
(j)	<p>The green belt of 5-10m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.</p>	<p>Complying.</p> <p>We have developed green belt in 10 acres of land within factory premises.</p>
(k)	<p>All the commitments made regarding issues raised during the public hearing/consultation meeting shall be satisfactorily implemented.</p>	<p>Implemented in true spirit.</p>

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(l)	At least 0.75% of the project cost shall be allocated for Corporate environment responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	Complying.
(m)	For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.	Complying. Online continuous stack emission monitoring system has been installed and connected with CPCB server. Emission monitoring from stack and DG sets are also carried out manually through recognized laboratory under E(P) ACT. DG set of 1000KVA, 380KVA and 100KVA with acoustic enclosure as stand by arrangement for power. All the DG sets are fitted with acoustic enclosures. <i>The related report for the period of April 2020 to September 2020 is enclosed as <b>Annexure-IV</b>.</i>
(n)	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.	We have complete firefighting system as per norms.
(o)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Complying. We have a suitable dispensary within the premises and health surveillance records are maintained as per the Factories Act, 1948.
(p)	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.	We have adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking is allowed outside on public places.
(q)	Storage of raw materials shall be either stores in silos or in	Molasses is stored in MS tanks. Rice husk is stored under covered area to

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	covered areas to prevent dust pollution and other fugitive emissions.	prevent dust and other fugitive emissions.
(r)	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants, concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	Online continuous stack emission monitoring system has been installed and connected with CPCB server. Mass Flow meters have been installed at MEE inlet and MEE concentrate. Web camera also have been installed at spent wash incineration boiler and at lagoon in compliance with EC condition and as well as direction of CPCB/ BSPCB.
(s)	CO <sub>2</sub> generated from the process shall be bottled/made solid ice and sold to authorized vendors.	Place is proposed for plant construction.
(t)	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.	We have adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking is allowed outside on public places.
11.1 (i)	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SBCB), State Government and/or any other statutory authority.	We are strictly adhering the directions/consent conditions of the BSPCB including other statutory authority.
(ii)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a	Committed for compliance.

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	fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	
(iii)	The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Ambient air quality monitoring is carried out at three locations inside the plant taking consideration of up wind and down wind direction as well as expected/anticipated maximum ground level concentration of pollutants. Ambient air quality has been observed within the prescribed norms under NAAQS 2009. <i>The related report for the period of April 2020 to September 2020 is enclosed as <b>Annexure-V(a)</b>.</i>
(iv)	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R.No.826 dated 16 <sup>th</sup> November, 2009 shall be complied with.	Complying. <i>The related report for the period of April 2020 to September 2020 is enclosed as <b>Annexure-V(a)</b>.</i>
(v)	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 Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time)	Complying. <i>The related report for the period of April 2020 to September 2020 is enclosed as <b>Annexure-V(b)</b>.</i>
(vi)	The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the	We have installed five numbers rain water harvesting system in factory premises for recharge of ground water.

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	same for different industrial operations within the plant.	
(vii)	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis.	Complying.
(viii)	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, risk mitigation measures and public hearing shall be implemented.	We are complying with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
(ix)	The company shall undertake all measures for improving socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villagers, administration and other stake holders. Also eco-developmental measures shall be undertaken for overall improvement of the environment.	We have done many medical camp, Flood relief camp and are involved in day to day in CSR.
(x)	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Complying. We have a sperate environmental management cell with full-fledged equipped laboratory.
(xi)	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of	We have allocated requisite funds for both recurring and nonrecurring expenditure to implement the conditions stipulated by MOEF as well as state government along with the implementation schedule for all the conditions stipulated. The funds so

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	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.	provided is not diverted for any other purpose.
(xii)	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parishad/ Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal.	We have not received any suggestions & representations from Panchayat, Zila Parishad/ Municipal Corporation, Urban local Body and the local NGO
(xiii)	The project proponent shall also submit six monthly report 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.	We have been regularly submitting Six-Monthly report on the status of compliance of the stipulated Environmental Clearance Conditions.
(xiv)	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	Complying. We have been submitting environmental statement of previous financial year ended 31th March in time. A copy of the environmental statement for year ended 2019-20 is enclosed as <b>Annexure-VI</b>

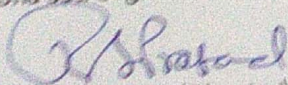
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	under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional offices of MOEF&CC by e-mail.	
(xv)	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at <a href="http://moef.nic.in">http://moef.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least two local news papers 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	We have already inform to CPCB & B5PCB

Thanking You.

Yours faithfully,  
Sona Sati Organics Pvt. Ltd.

  
(Director)

Copy to:-

1. The Central Pollution Control Board, Parivesh Bhawan, Maharshi Valmiki Marg, East Arjune Nagar, Vishwas Nagar Extension, Shahdara, Delhi-110032.
2. The Bihar Pollution Control Board, Mall Road, Patliptra Industrial Area, Digha, Patna, Bihar-800010.

बिहार राज्य प्रदूषण नियंत्रण पर्षद  
राष्ट्रीय औद्योगिक क्षेत्र, पटना-10

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