

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
WESTERN ZONE BENCH, PUNE**

ORIGINAL APPLICATION NO.198/2023(WZ)

Narayan Shivaji Gund

.... Applicant

Versus

MPCB & Ors

.... Respondents

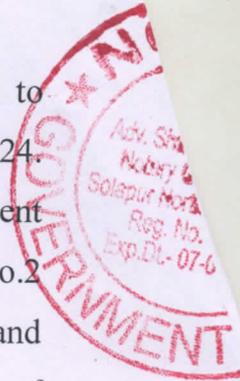
**AFFIDAVIT IN REPLY ON BEHALF OF MAHARASHTRA
POLLUTION CONTROL BOARD i.e RESPONDENT NO. 1.**

I, Nikhil Jalindar More, aged about 35 years, occupation – Service, the Sub-Regional Officer of the Maharashtra Pollution Control Board at Solapur having office 4/B, Bali Block, Civil Lines, Opp. Government Milk Scheme, Saat Rasta, Solapur – 413 003, do hereby state on solemn affirmation as under :-

- (1) I am filing this Affidavit in Reply in compliance of the Order dated 12/2/2024 passed by this Hon'ble Tribunal on behalf of the Respondent No.1-Maharashtra Pollution Control Board.
- (2) I say and submit that the present application is filed by the Applicant alleging that Respondent No.2-Jakraya Sugar Ltd. is discharging untreated effluent from their sugar factory situated at Gat No.61/1/A, 64/1 of Village: Watwate, Taluka: Mahol, District: Solapur.
- (3) I say and submit that the Respondent MPC Board has granted Renewal of Consent dated 26/10/2023 to the Sugar unit of



Page No. 01 Dt. 19/04/2024
Adv. Shivanand V. Ganji
Advocate / Notary Reg. No. 16205



Respondent No.2 for 4900 TCD and 11 MW, subject to certain terms and conditions, which is valid up to 31/07/2024.

The Respondent MPC Board has granted Renewal of Consent dated 23/11/2023 to the Distillery unit of Respondent No.2 for 200 KLPD Distillery, subject to certain terms and conditions, which is valid up to 31/8/2024. Copies of Renewal of Consent dated 26/10/2023 to the Sugar Unit and Renewal of Consent dated 23/11/2023 to the Distillery Unit are attached herewith and marked as an **Annexure I & II respectively**.

(4) I say and submit that in order to verify the compliance of the Consent Conditions, the Officials of Respondent MPC Board at Solapur along with representative of Respondent No.2- PP Industry visited to the Sugar, Co-Gen and Distillery Units of M/s. Jakrya Sugar Ltd. on 15/4/2024 and observed as follows:

(I) **Sugar & Cogen Unit:-**

- 1) The industry completed the crushing season of sugar unit on 29/02/2024. Total crushing completed by the industry is 2,67,713.716 Ton. The average crushing done for the current crushing season 2023-24 is about 2300 Ton/day. The total power generation for the current season is about 20,765 MW.
- 2) During the visit sugar and Cogen unit was not in operation, due to stoppage of crushing season.
- 3) Industry has provided ETP cum CPU of capacity 2 MLD comprising of primary, secondary and tertiary treatment. The treated effluent is partly used in process and

remaining used for land irrigation. During visit ETP/CPU found in operation. The effluent from mill washing and maintenance activity collected in the ETP for treatment. Industry has provided an online monitoring system at ETP outlet and found connected with MPCB/ CPCB servers. The JVS sample was collected at ETP outlet and sealed in the presence of industry representative.

- 4) Industry has provided HDPE paper lined impervious storage tank as 15 days storage capacity for sugar unit.
- 5) Industry is using 70 TPH bagasse fired boiler for both sugar and distillery unit. Industry has provided wet scrubber followed with stack height of 72 meter attached to it.
- 6) Industry is having 2 Nos. of diesel fired DG set of capacity 625 KVA each and provided acoustic enclosure with stack height of 5 meter attached to it. Industry having bagasse fired HAG (Hot Air Generator) with stack common with the boiler.
- 7) Industry instructed to extend Bank guarantee of Sugar of Rs. 25 lakh as per consent to operate.

(II) Distillery: -

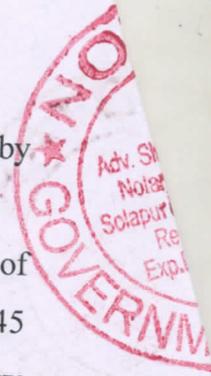
- 1) During visit distillery unit found in operation. For the current season total distillation made by industry is RS (Rectified spirit) 14,968 KL.
- 2) Industry has provided 2 Nos of biodigester with capacity 11000 m³ & 18000 m³ followed with MEE for volume reduction. Industry has provided 2 Nos of dryer of capacity 6m³/hr and 9m³/hr for potash powder

generation. The potash powder sold to the nearby farmers.

- 3) Industry has provided 5 days spent wash storage tank of capacity 25 X 25 X 5 mtr, 30 days storage of capacity 45 X 40 X 5 mtrs as per the information provided by industry representative during the visit. All the storage lagoons are impervious with RCC lining.
- 4) Industry is using steam from existing sugar boiler for distillery unit. Industry has provided online monitoring system at stack and connected with CPCB/ MPCB server.
- 5) Industry instructed to extend the bank guarantee as per consent to operate condition.

A copy of the visit report dated 15/4/2024 is enclosed herewith and marked as an **Annexure-III**.

- (5) I say and submit that in compliance of the Order dated dtd.29/11/2023 passed by this Hon'ble Tribunal, the Joint Committee submitted its report before this Hon'ble Tribunal on 05/02/2024, which was taken on record.
- (6) I say and submit that the Joint Committee suggested that an expert opinion of Agronomist from reputed Agricultural University may require for evaluating the crops damage of the applicant due to pollution caused by the industry. Also, it is recommended the involvement of expert agency like IIT/ NEERI for assessment of environmental damage cost.
- (7) I say and submit that as per the recommendation of the Joint Committee, the Respondent-Board vide letter dated



01/03/2024 has requested to IITB to study environmental damage, suggest remediation measures and to check the adequacy of pollution control equipment installed and operated by M/s Jakraya Sugar Ltd. A copy of the Request Letter dated 01/03/2024 is attached as **Annexure-IV**.

(8) I say and submit that in response to the Board's request letter dated 1/3/2024, IIT Bombay has submitted the detailed technical proposal vide letter dated. 18th March 2024. A Copy of the IIT Bombay Proposal Letter is attached as **Annexure V**.

(9) I say and submit that Board vide letter dated 02/04/2024 has communicated the work order to IITB for study of Environmental Damage and Adequacy of Pollution Control Equipment for M/s Jakraya Sugar Ltd. A Copy of the Work Order Dated 02/04/2024 is attached as **Annexure-VI**.

(10) Hence this Affidavit.

19 APR 2024

Solemnly affirmed on this ... 19th day of April 2024 at Solapur.

Explained and Identified by I know the affiant

For and on behalf of Maharashtra. Pollution Control Board i.e. Respondent No. 1.

Noted & Registered	
Serial No	941
Date	19 APR 2024

Ganji
Adv Ganji Sr V.

Nikhil

(Nikhil More)

Sub-Regional Officer,
Solapur

Page No. 05 Dt. 19/04/2024
Adv. Shivanand V. Ganji
Advocate / Notary Reg. No. 16205

Solemnly Affirmed before me by

Name Nikhil Jalindar More being as The Sub-Regional officer of the Maharashtra Pollution Control Board at Solapur who is identified by Shri Self Whom / personally know Date:- 19/04/2024

BEFORE ME

Ganji
SHIVANAND V GANJI
Advocate / Notary
Notary Solapur North (Mah. State)
Notary Govt. of India
Reg. No.-16205



Annexure I

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
 Fax: 24023516
 Website: <http://mpcb.gov.in>
 Email: cac-cell@mpcb.gov.in



Kalpataru Point, 2nd and 4th
 floor, Opp. Cine Planet
 Cinema, Near Sion Circle, Sion
 (E), Mumbai-400022

No:- Format1.0/CAC/UAN No.MPCB-
 CONSENT-0000176372/CR/2310001922

Date: 26/10/2023

To,
 Jakraya Sugar Limited,
 70,71,72,73,74,Watwate
 Mohol,Solapur.



Sub: Renewal of Consent for 4900 TCD and 11 MW.

- Ref:**
- 1. Renewal of consent granted by the Board vide no. Format-1.0/CAC/UAN No MPCB- CONSENT-0000093384/CR-2010000721 dated 21.10.2020, Valid up to 31.07.2023.**
 - 2. Environmental Clearance vide no. . F. No. J-11011/314/2012-IA II (I) dtd. 14.07.2020.**
 - 3. Minutes of CAC Meeting dtd. 26.09.2023.**

Your application No.MPCB-CONSENT-0000176372 Dated 18.07.2023

For: grant of Consent to Renewal under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 and Rule 18(7) of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

- 1. The Consent to Renewal is granted upto: 31.07.2024**
- 2. The capital investment of the industry is Rs.143.9820 (Existing - Rs. 137.5365 Crs.) Crs. (As per C.A Certificate submitted by industry).**
- 3. Consent is valid for the manufacture of:**

Sr No	Product	Maximum Quantity	UOM
1	Sugar	15750	MT/M
2	Molasses	5880	MT/M
3	Bagasse	44100	MT/M
4	Pressmud	5880	MT/M
5	Electric power (Co-generation)	11	MW

- 3. The Cane crushing capacity of Sugar unit shall not exceed 4900 TCD**
- 4. Conditions under Water (P&CP) Act, 1974 for discharge of effluent:**

Sr No	Description	Permitted in CMD	Standards to	Disposal
1.	Trade effluent	425	As per Schedule -I	60 CMD is recycled and 365 CMD on land for irrigation

Sr No	Description	Permitted in CMD	Standards to	Disposal
2.	Domestic effluent	5	As per Schedule - I	

5. **Conditions under the Air (P& CP) Act, 1981 for air emissions:**

Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
01	Boiler (70 TPH)	1	As per Schedule -II
2	D.G.Set (625 KVA X 2 No.)	1	As per Schedule -II

6. **Conditions about Non Hazardous Wastes:**

Sr No	Type of Waste	Quantity	UoM	Treatment	Disposal
1	Boiler Ash	14	MT/M	Stored in ash yard	Sale to Brick manufacture
2	ETP Sludge	3	MT/M	Compost	Use as manure

7. **Conditions under Hazardous & Other Wastes (M & T M) Rules 2008 for treatment and disposal of hazardous waste:**

Sr No	Type of Waste	HW Category.	Quantity & UoM	Treatment	Disposal
1	5.1 Used or spent oil	5.1	10 Lit/Day	Recycle	Sale to authorized recycler

The applicant shall ensure disposal to the Actual user having permissions under Rule 9 of Hazardous and other Waste (M & TM) Rules, 2016.

a. The applicant shall properly collect, transport & regularly dispose of the hazardous waste to CHWTSDf, in compliance of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 and keep proper manifest thereof.

8. The Board reserves the right to review, amend, suspend, revoke etc. this consent and the same shall be binding on the industry.
9. This consent should not be construed as exemption from obtaining necessary NOC/permission from any other Government authorities.
10. Industry shall connect online CMS data as per CPCB guidelines to CPCB & MPCB Servers.
11. Industry shall stop production activity voluntarily in case of failure of operation and maintenance of the ETP system as preventive measures.
12. This consent is issued as per the Consent Appraisal Committee meeting dated 26.09.2023.
13. PP shall not discharge treated / untreated effluent in any water body.

SCHEDULE-I**Terms & conditions for compliance of Water Pollution Control:**

- 1) **A] As per your application, you have Provided Effluent Treatment Plant (ETP) of designed capacity of 500.00 CMD consisting of Primary, Secondary, Tertiary for the treatment of 425.00 CMD industrial effluent.**
- B] Industry shall provide CPU for recycle/reuse of treated effluent.**
- C] The Applicant shall operate the effluent treatment plant (ETP) to treat the trade effluent so as to achieve the following standards prescribed by the Board or under EP Act, 1986 and Rules made there under from time to time, whichever is stringent.**

Sr. No.	Parameters	Limiting concentration not to exceed in mg/l, except for pH
(1)	pH	5.5-9.0
(2)	Oil & Grease	10
(3)	BOD (3 days 27 ^o)	100
(4)	Sulphate	1000
(5)	Suspended Solids	100
(6)	COD	250
(7)	Chloride	600
(8)	Total Dissolved Solids	2100

- D] The treated effluent 365.00 CMD shall be disposed on land for irrigation on 20.23 hectares of own land /as per the bilateral agreement with farmers. In no any case treated/untreated effluent shall find its way outside the factory premises directly or indirectly.**
- E] Industry shall operate Online Continuous Emission Monitoring System (OCEMS) and shall transmit Online Continuous Emission Monitoring System (OCEMS) data to Board's server directly through the data logger without any intermediate server.**
- F] Trade effluent of 60.00 CMD generated from Co-gen shall be 100% recycle in process.**
- G] CREP conditions for Sugar Factory**
- i. Operation of ETP shall be started at least one month before starting of cane crushing to achieve desired MLSS. So as to meet prescribed standards from day one the operation of mill.
 - ii. Waste water generation shall be reduced to 100 liters per tone of cane crushed.
 - iii. Industry shall achieve zero discharge into in land surface water bodies.
 - iv. 15 days' storage capacity tank shall be provided for treated effluent to take care during no demand for irrigation.
- H] Industry to make necessary arrangement to cover the effluent collection system and to avoid the ingress of Bagasse and other material.**

I] The unit shall operate ETP even after completion of the crushing season so that any effluent generated during washing & maintenance activity is to be discharged after proper treatment.

J] The unit shall optimize water use in industrial process & maintain records.

2) **A] As per your application, you have provided septic tank and soak pit for the treatment of 5.00 CMD sewage.**

B] The applicant shall operate sewage treatment system to treat sewage so as to achieve the following standards/ prescribed under EP Act 1986 and rules made under time to time, whichever is stringent.

1	Suspended Solids	Not to exceed	100 mg/l
2	BOD 3 days (27°C)	Not to exceed	100 mg/l

C] The treated sewage shall be 100% reused/recycled for gardening purpose within premise. In no any case, sewage shall find its way outside Company's premises.

- 3) The industry shall have bilateral agreement with the farmers on whose land the treated effluent is used for irrigation purposes and a copy of the agreements with validity shall be submitted to the Regional/Sub- Regional Office of the Board.
- 4) The industry shall create Environmental Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and irrigation field where treated effluent is used for irrigation.
- 5) **CONDITIONS FOR MOLASSES STORAGE:**
 - (i) The molasses shall be properly collected and stored in steel tanks which shall be leak proof. At no stage of handling of molasses, there shall be leakage or spillage.
 - (ii) The capacity of tanks for storage of molasses shall be such that it will take care of bumper production of sugar, non-lifting of molasses etc.
 - (iii) All the area on which molasses are stored and handled should be provided with drain for diverting the spills to the treatment plant/ molasses tank. Suitable arrangements for accidental discharges of molasses from the tanks shall be provided to contain the same within factory premises.
 - (iv) Destruction of molasses and its disposal shall not be done without specific permission in writing from the authorized officer of the Board. Intimation of intention to destroy or dispose of the molasses shall be given to the Board at least 15 (fifteen) days in advance by registered post under intimation to the Sub-Regional officer and Regional officer of the Board under whose jurisdiction the factory is situated.
 - (v) The storage tanks shall be kept in good conditions all the year round with adequate maintenance. The tanks size and capacity per cm, height, total capacity in tonnes shall be displayed prominently near /on the tank.
 - (vi) The above conditions shall be in addition to and not in derogation of the provisions contained in the "Bombay Molasses Rules, 1955" and "Maharashtra Molasses Storage and Supply Regulation, 1965".
- 6) The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines if applicable.

- 7) The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
- 8) The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
- 9) The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters, and other provisions as contained in the said act:

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, spraying in mine pits or boiler feed	50.00
2.	Domestic purpose	22.00
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	225.00
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00
5.	Grandening	10

- 10) The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance/ CREP guidelines.

SCHEDULE-II

Terms & conditions for compliance of Air Pollution Control:

- 1) **As per your application, you have provided the Air pollution control (APC) system and erected following stack(s) and observe the following fuel pattern-**

Stack No.	Stack Attached To	APC System	Height in Mtrs.	Type of Fuel	Quantity & UoM	S%	SO₂
01	Boiler (70 TPH)	ESP	72	Bagasse	840 MT/Day	0.20	3360.00
01	DG Set (625 KVA X 2 No,)	Accoustic enclosure	5	HSD	100 Lit/Day	1.00	2.00

- 2) **The Applicant shall provide Specific Air Pollution control equipments as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines.**

- 1 The Applicant shall provide ESP/ Bag filter/ Wet scrubber to the Bagasse fired boiler and Dust Collector to Sugar bagging section as an Air Pollution control equipments OR as per the conditions of EP Act, 1986 and rule made there under from time to time / Environmental Clearance / CREP guidelines.

- 2 The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards:

Total Particulate matter	Not to exceed	150 mg/Nm ³
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- 3 The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
- 4 The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
- 5 Industry should not use auxiliary fuel more than 15 % (as per amendment in EIA Notification 2009, power plant upto 15 MW based on Bio-mass and using auxiliary fuel as coal upto 15% are exempt.) as co-gen capacity is below 15 MW.
- 3) The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.**
- 4) The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).**

SCHEDULE-III

Details of Bank Guarantees:

Sr. No.	Consent(C2E/C2O/C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	C to R	25 lakh	15 days/extended	Towards compliance of Consent conditions & O & M of pollution control system.	31.07.2024	31.03.2025

BG Forfeiture History

Srno.	Consent (C2E/C2O/C2R)	Amount of BG imposed	Submission Period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
NA						

SCHEDULE-IV

General Conditions:

- The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
- The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.

- 3 Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipment, the production process connected to it shall be stopped.
- 4 The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
- 5 The firm shall submit to this office, the 30th day of September every year, the Environmental Statement Report for the financial year ending 31st March in the prescribed Form-V as per the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- 6 The industry should comply with the Hazardous & Other Wastes (M & TM) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous & Other Wastes (M & TM) Rules, 2016 for the preceding year April to March in Form-IV by 30th June of every year.
- 7 An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
- 8 The industry shall constitute an Environmental cell with qualified staff/personnel/agency to see the day to day compliance of consent condition towards Environment Protection.
- 9 The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
- 10 The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
- 11 The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
- 12 Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly.
- 13 The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the H&OW(M&TM) Rules 2016, which can be recycled/processed/ reused/ recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/ reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment.
- 14 Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act,1981 and Environmental Protection Act,1986 and industry specific standard under EP Rules 1986 which are available on MPCB website(www.mpcb.gov.in).
- 15 Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.

- 16 Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
17. Conditions for D.G. Set
- a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
 - b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
 - c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
 - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
 - e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
 - f) D.G. Set shall be operated only in case of power failure.
 - g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
 - h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.
- 18 The industry should not cause any nuisance in surrounding area.
- 19 The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
- 20 The applicant shall maintain good housekeeping.
- 21 The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
- 22 The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipment provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
- 23 The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
- 24 The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification dtd. 16.11.2009 as amended.

This certificate is digitally & electronically signed.

Annexure II

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
 Fax: 24023516
 Website: <http://mpcb.gov.in>
 Email: cac-cell@mpcb.gov.in



Kalpataru Point, 2nd and
 4th floor, Opp. Cine Planet
 Cinema, Near Sion Circle,
 Sion (E), Mumbai-400022

RED/L.S.I (R60)
**No:- Format1.0/CAC/UAN No.MPCB-
 CONSENT-0000176871, 183015 &
 183000/CR/2311001861**

Date: 23/11/2023

To,
Jakraya Sugar Ltd
61/1/A, 64/1, Watwate, Mohol, Solapur.



Sub: Renewal of Consent for 200 KLPD Distillery

- Ref:**
1. Renewal of Consent granted by the Board vide No. Format-1.0/CAC/UAN No MPCB-CONSENT-0000145411/CR-2211000822 dated 11.11.2022, Valid up to 31.08.2023.
 2. Minutes of CAC Meeting dtd. 26.09.2023 & 06.11.2023.

Your application No.MPCB-CONSENT-0000176871 Dated 20.07.2023

For: Consent to Renewal under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. **The consent to renewal is granted for a period up to 31/08/2024**
2. **The capital investment of the project is Rs.132.9554 (Potash powder plant- 1.50 Crs + CBG plant - 2.20 Crs = Total - = Rs. 136.6554 Crs.) Crs. (As per C.A Certificate submitted by industry)**
3. **Consent is valid for the manufacture of:**

Sr No	Product	Maximum Quantity	UOM
Products			
1	ENA / RS	200	KL/D
2	Anhydrous Alcohol	27	KL/D
3	Ethanol (By using RS/SDS)	150	KL/D
4	Fusel Oil	13.6	KL/D
5	Granulated Potash & Powder Potash (PDM)	4500	Kg/Hr
6	Compressed Biogas	20000	Kg/Day

Distillery Capacity shall not exceed 200 KLPD.

4. **Conditions under Water (P&CP), 1974 Act for discharge of effluent:**

Sr No	Description	Permitted (in CMD)	Standards to	Disposal Path
1.	Trade effluent	1600	As per Schedule-I	MEE and Dryer.
2.	Domestic effluent	12	As per Schedule-I	On land for irrigation.

5. **Conditions under Air (P & CP) Act, 1981 for air emissions:**

Sr No.	Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
1	1	Steam is taken from sugar unit.	1	As per Schedule -II

6. **Non-Hazardous Wastes:**

Sr No	Type of Waste	Quantity	UoM	Treatment	Disposal
NA					

7. **Conditions under Hazardous & Other Wastes (M & T M) Rules 2016 for Collection, Segregation, Storage, Transportation, Treatment and Disposal of hazardous waste:**

Sr No	Category No./ Type	Quantity	UoM	Treatment	Disposal
NA					

- The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding on the industry.
- This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
- This consent is issued pursuant to the decision of the Consent Appraisal Committee Meeting held on. 26.09.2023 & 06.11.2023.
- The applicant shall comply with the conditions of the Environmental Clearance granted vide letter No. S F . NO. J-11011/314/2012- IA II (I) dtd. 14.07.2020.
- The applicant shall operate pollution control system scientifically to strictly achieve consented norms and Zero liquid discharge.
- The applicant shall submit Bank Guarantee of Rs. 50 lakh towards O & M of pollution control system and compliance of consent conditions.
- The applicant shall make an application for renewal of consent 60 days prior to date of expiry of the consent. (Operate/Renewal)



Avinash
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Signed by: **Dr. Avinash Dhakne**
Member Secretary
For and on behalf of,
Maharashtra Pollution Control Board
ms@mpcb.gov.in
2023-11-23 13:22:38 IST

Received Consent fee of -

<i>Sr.No</i>	<i>Amount(Rs.)</i>	<i>Transaction/DR.No.</i>	<i>Date</i>	<i>Transaction Type</i>
Rs. 2,65,911/- are utilized from Balance payment of Rs. 310230/- as per consent dtd. 11.11.2022 for this consent. Rs. 15,000/- paid as per UAN No. 0000183015 and Rs. 15,000/- paid as per UAN No. 0000183000 is adjusted to this consent , as issued combine consent. Now Rs. 44,319/- are kept balance and shall be adjusted to next renewal of consent.				

Copy to:

1. Regional Officer, MPCB, Pune and Sub-Regional Officer, MPCB, Solapur
- They are directed to ensure the compliance of the consent conditions.
2. Chief Accounts Officer, MPCB, Sion, Mumbai
3. CC/CAC desk - for record & website updation purposes.



SCHEDULE-I**Terms & conditions for compliance of Water Pollution Control:****1. Conditions for Trade effluent:**

- A] You have provided comprehensive treatment i.e Effluent treatment plant for trade effluent 1600 CMD including Bio-digester, followed by MEE for volume reduction and ATFD for achieving zero discharge. In no any spent wash shall discharge outside the factory premises/ on land / into stream directly or indirectly.
- B] Industry shall operate Online Continuous Emission Monitoring System (OCEMS) and shall transmit Online Continuous Emission Monitoring System (OCEMS) data to Board's server directly through the data logger without any intermediate server

2. Conditions for Sewage/ Domestic effluent:

- i. You shall provide sewage treatment plant for the treatment of 12 CMD sewage generation due to expansion and provide including disinfection facility.
- ii. The industry shall operate sewage treatment system to treat the sewage/ domestic effluent so as to achieve the standards as prescribed by the board/under EP Act, 1986 and rules made thereunder from time to time whichever is stringent.

Sr.No	Parameter	Concentration not to exceed(in mg/l except for pH)
1.	pH	6.5-9.0
2.	BOD	30
3.	TSS	100

- iii. The sewage shall be treated by using septic tank and soak pit and overflow if any shall be used on-land for gardening/irrigation.
4. The operation of distillery should be restricted to 330 days in a year and that it will not operate during rainy season.
5. The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act:

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, spraying in mine pits or boiler feed	633.00
2.	Domestic purpose	8.00
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	1343.00
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00
5.	Gardening	10

6. The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance.

SCHEDULE-II**Terms & conditions for compliance of Air Pollution Control:**

1. As per your application, you have provided the Air pollution control (APC) system and erected following stack (s) to observe the following fuel pattern:

Stack No.	Stack Attached To	APC System	Height in Mtrs.	Type of Fuel	Quantity & UoM	S%	SO ₂
1	Steam is taken from existing sugar unit	NA	72	NA	0 --NA--	0.20	100.00

2. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
3. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
4. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
5. The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards:

Particulate matter	Not to exceed	150 mg/Nm ³
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6. Storage of raw materials, coal etc. shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
7. The industry shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office MPCB.
8. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
9. Industry shall provide Online Continuous Emission Monitoring System (OCEMS) i.e. flow meter and night vision camera to ensure the Zero Liquid Discharge (ZLD) of spent wash and OCEMS for Boiler stack for PM parameter.

SCHEDULE-III**Details of Bank Guarantees:**

Sr. No.	Consent (C2E/ C2O /C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	C to R	50 Lakh	15 days/extended	Towards compliance of Consent conditions & O & M of pollution control system.	31.08.2024	31.03.2025

BG Forfeiture History

Srno.	Consent (C2E/C2O/C2R)	Amount of BG imposed	Submission Period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
NA						

BG Return details

Srno.	Consent (C2E/C2O/C2R)	BG imposed	Purpose of BG	Amount of BG Returned
NA				

SCHEDULE-IV**General Conditions:**

1. The Energy source for lighting purpose shall preferably be LED based
2. The PP shall harvest rainwater from roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial applications within the plant
3. Conditions for D.G. Set
 - a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
 - b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
 - c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
 - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
 - e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
 - f) D.G. Set shall be operated only in case of power failure.
 - g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
 - h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.
4. The applicant shall maintain good housekeeping.
5. The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
6. The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
7. The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding upon you.

8. The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can downloaded from MPCB official site).
9. The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
10. The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated. 18.11.2009 as amended.
11. This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
12. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
13. You shall operate OCEMS installed for source emission round 'O' clock and transmit data online to CPCB and MPCB server. You shall also monitor effluent quality, stack emissions and ambient air quality monthly/quarterly. You shall conduct Dioxin Furan monitoring by third party NABL Accredited agency once in year and submit report to Sub Regional Officer.
14. You shall ensure collection, and segregation of BMW regularly to treat and dispose Off within 48 hrs from generation.
15. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
16. The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
17. The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M & TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment.
18. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
19. You shall not Rent, Lend, Sell, Transfer or Close Down the facility or otherwise transport the Bio Medical waste for any other purpose without obtaining prior written permission of the MPC Board.
20. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
21. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
22. The industry should not cause any nuisance in surrounding area.

23. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
24. You shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the facility premises.
25. The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
26. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto
27. The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
28. The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
29. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions.
30. The firm shall submit to this office, the 30th day of September every year, the Environment Statement Report for the financial year ending 31st March in the prescribed FORM-V as per the provisions of Rule 14 of the Environment (Protection) (second Amendment) Rules, 1992.
31. You should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly. You shall conduct Dioxin Furan monitoring by third party NABL Accredited agency once in every year and submit report to Sub Regional Officer.
32. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
33. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
34. You shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.

35. You shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website (www.mpcb.gov.in).
36. You shall create the Environmental Cell by appointing an Environmental Engineer and Chemist for looking after day-to-day activities related to compliance of CCA.
37. You should comply with the Hazardous and Other Wastes (M & TM) Rules, 2016 , Bio Medical Waste Management Rules,2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous and Other Wastes (M & TM) Rules, 2016 for the preceding year in Form-IV by 30th June of every year

This certificate is digitally & electronically signed.



Annexure III

MAHARASHTRA POLLUTION CONTROL BOARD
SUB REGIONAL OFFICE, SOLAPUR.

Tel. No. 0217-2319850
 Visit us at: <http://mpcb.gov.in>
 Email: srosolapur@mpcb.gov.in



4/B, Bali Block, Civil Lines,
 Opp. Govt. Milk Dairy,
 Saat Rasta, Solapur-
 413003.

VISIT REPORT

- 1) **Name of Industry and address** :- M/s. Jakraya Sugar Ltd.
 Watwate, Tal- Mohol, Dist- Solapur
- 2) **Date of Visit** :- 15/04/2024
- 3) **Visited By** :- Nikhil More, SRO MPCB
 Abhijeet Lohiya, FO MPCB
- 4) **Industry Representative :-** Datta Ganpatil, Environmental Incharge
 Mob- 9404691518, Email- jakrayamfg@gmail.com
- 5) **Consent Status** :- Sugar- 31/07/2024, Distillery- 31/08/2024
- 6) **Observations** :- Observations made during visit are as under

This is an existing sugar, distillery & cogen, CBG plant. The visit of the industry conducted for verification of consent conditions. The observations made during the visit are as follows:-

(I) Sugar & Cogen Unit:-

- 1) The industry has completed the crushing season of sugar unit on 29/02/2024. Total crushing completed by the industry is 2,67,713.716 Ton. The average crushing done for the current crushing season 2023-24 is about 2300 Ton/day. The total power generation for current season is about 20,765 MW.
- 2) During visit sugar and cogen unit was not in operation, due to stoppage of crushing season.
- 3) Industry has provided ETP cum CPU of capacity 2 MLD comprising of primary, secondary and tertiary treatment. The treated effluent partly used in process and remaining used for land irrigation. During visit ETP/CPU found in operation. The effluent from mill washing and maintenance activity collected in the ETP for treatment. Industry has provided online monitoring system at ETP outlet and found connected with MPCB/CPCB servers. The JVS sample collected at ETP outlet and sealed in presence of industry representative.

- 4) Industry has provided HDPE paper lined impervious storage tank as 15 days storage capacity for sugar unit.
- 5) Industry is using 70 TPH bagasse fired boiler for both sugar and distillery unit. Industry has provided wet scrubber followed with stack height of 72 meter attached to it.
- 6) Industry is having 2 Nos. of diesel fired DG set of capacity 625 KVA each and provided acoustic enclosure with stack height of 5 meter attached to it. Industry having bagasse fired HAG (Hot Air Generator) with stack common to boiler.
- 7) Industry instructed to extend Bank guarantee of Sugar of Rs. 25 lakh as per consent to operate.

(II) Distillery:-

- 1) During visit distillery unit found in operation. For current season total distillation made by industry is RS (Rectified spirit) 14,968 KL.
- 2) Industry has provided 2 Nos of biodigester with capacity 11000 m³ & 18000 m³ followed with MEE for volume reduction. Industry has provided 2 Nos of dryer of capacity 6m³/hr and 9m³/hr for potash powder generation. The potash powder sold to the nearby farmers.
- 3) Industry has provided 5 days spent wash storage tank of capacity 25 X 25 X 5 mtr, 30 days storage of capacity 45 X 40 X 5 mtrs as per the information provided by industry representative during the visit. All the storage lagoons are impervious with RCC lining.
- 4) Industry is using steam from existing sugar boiler for distillery unit. Industry has provided online monitoring system at stack and connected with CPCB/ MPCB server.
- 5) Industry instructed to extend the bank guarantee as per consent to operate condition.


Industry representative


Field Officer
MPCB


Sub Regional Officer
MPCB

Annexure IV

440
MAHARASHTRA POLLUTION CONTROL BOARD
REGIONAL OFFICE - PUNE

Phone No. 020-25811694
Fax No. 020-25811701
e-mail : ropune@mpcb.gov.in
visit us : www.mpcb.gov.in



"Your Service is our Duty"

Jog Centre, 3rd Floor,
Wakdevadi,
Old-Pune Mumbai Road,
Pune- 411003

MPCB/ROP/NGTOA198/2023/240301-FTS-0283

Date: 01/03/2024

To,

Dr. A. K. Dikshit,

HAG Professor and I/c. Environmental Infrastructure and Clean Tech (EICT), Laboratory GIS Laboratory for Environmental Management and Simulations (GEMS), Environmental Science and Engineering (ESE) Department Indian Institute of Technology Bombay Powai, Mumbai- 400 076

Sub : To study the environmental damages and suggest the remediation measures and check adequacy of pollution control equipment's installed and operated by the M/s. Jakraya Sugar, Ltd., Village Watwate, Tal. Mohol, Dist. Solapur.

Ref : (1) Hon'ble NGT order on 12/02/2024 in the matter OA No. 198/2023 (WZ).
(2) Office Note submitted by Sub Regional Officer, Pune – I vide no. 3169, Dtd. 13/02/2024 and approval received from the Board's competent authority on 18/02/2024.

Respected Sir,

With reference to the above Hon'ble NGT order, the Board's Authority decided to appoint you for the study of environmental damages and suggest the remediation measures and check adequacy of pollution control equipment's installed and operated by the M/s. Jakraya Sugar, Ltd., Village Watwate, Tal. Mohol, Dist. Solapur.

In view of the above, we requested you to kindly guide me as to how to proceed in this matter. Related orders of Hon'ble NGT are attached for your kind perusal please. Submitted, please.

For and Behalf of M. P. C. Board

D. A. : As above

(Ravindra Andhale)
Regional Officer,
M. P. C. Board Pune

Copy submitted to :-

- 1) Hon'ble Member Secretary, MPC Board, Mumbai.
- 2) Joint Director (APC), MPC Board, Pune

Copy for information and follow up :-

- Sub Regional Officer, M.P.C. Board, Solapur

Annexure V



भारतीय प्रौद्योगिकी संस्थान मुंबई
पवई, मुंबई-४०० ०७६, भारत
Indian Institute of Technology Bombay
Powai, Mumbai-400 076, India

दूरभाष/Phone : (+91-22) 2572 2545
फैक्स/Fax : (+91-22) 2572 3480
वेबसाईट/Website : www.iitb.ac.in

Dr Anil K. Dikshit

Professor & In-charge

Environmental Infrastructure & Clean Teach (EICT) Laboratory &
GIS Laboratory for Environmental Management & Simulation (GEMS)
Environmental Science & Engineering (ESE) Department

Phone: + 91-22 -2576-7862

Email: dikshit@iitb.ac.in

March 18, 2024

To,

Dr. Avinash Dhakne, I.A.S
Member Secretary,
Maharashtra Pollution Control Board,
Kalptaru Point, 2nd – 4th Floor
Sion (East), Mumbai- 400922, Maharashtra

Sub: *Proposal for Study of Environmental Damage and Adequacy of
Pollution Control Equipment's for Jakraya Sugar, Ltd.,*
Ref: RO Pune mail vides dated 1st and 11th March 2024

Dear Shri Dhakne,

We have received mail from Regional Officer Pune regarding *Study of Environmental Damage and Adequacy of Pollution Control Equipment's for Jakraya Sugar, Ltd., Solapur*. Hereby We are submitting our proposal for the same. Kindly have a look the attached proposal.

I hope the proposal is in line with your requirements. Kindly do not hesitate to ask for further information/clarifications.

Look forward to having a productive association with your organization on this subject.

Thanking you

Yours sincerely

A. K. Dikshit

A. K. Dikshit
Professor
Environmental Science and Engineering
Indian Institute of Technology, Bombay
Powai, Mumbai - 400076.

Name of the Client	Maharashtra Pollution Control Board (MPCB)
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Project Name	Study of Environmental Damages and Adequacy of Pollution Control Equipment's for Jakraya Sugar, Ltd.,
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Principal Investigator	Prof A K Dikshit (Ph. D., Cornell University), HAG Professor, ESE Department, IIT Bombay dikshit@iitb.ac.in
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Project Head	Indra Kant Jha Technical Head SINE-IIT Bombay Company indraashish@gmail.com	Budget (Lac)* *Exclusive of all	58.5 Lac +18% GST
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Project Aims and Objectives	<p>Study of Environmental Damages and Adequacy of Pollution Control Equipment's based on following aims and objective:</p> <ul style="list-style-type: none"> • Assessment of Environmental Damage • Pollution Load Assessment • Air Pollution Control Equipment Adequacy Study • Water Budget Calculation • Performance Evaluation of Existing Effluent Treatment Plant and Sewage Treatment Plant • Solid Waste Assessment • To verify compliance with standards and conditions prescribed by the regulatory bodies under the Water Act, the Air Act and the Environmental (Protection) Act • To review organisational environmental management system
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	<ul style="list-style-type: none"> • Action plan for restoration It will be developed based on the outcome of initial assessment about impact of the said activities on the air, water, soil, noise, ecology and waste environment. • Final Report
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Methodology	<p>Assessment of Environmental Damage in Terms of:</p> <ul style="list-style-type: none"> ▪ Air Environment ▪ Water Environment ▪ Solid Waste (Hazardous & Non-hazardous) ▪ Soil Quality ▪ Noise Environment ▪ Ecological Environment ▪ Impact on Health ▪ Change in Hydrology, if any <p>Pollution Load Assessment and APC Equipment Performance Assessment will include following:</p> <ul style="list-style-type: none"> • Process study • Process material balance • Performance assessment of air pollution control equipment • Recommendation based on the study, if any <p>Process study and material balance: Theoretical material balance for process will be carried out based on the products type, raw material feeding, water & wastewater consumption and generation pattern, fuel consumption pattern, emissions as well as solid waste</p> <p>Performance assessment of air pollution control equipment: Performance evaluation of the existing air pollution control equipment will be done based on the theoretical pollution load and design specifications of the control equipment as provided by the manufacturer. Suggestions on further improvement of the pollution control equipment or current practices will be provided</p> <p>Compliance status: Compliance status with respect to the respective act will be checked</p> <p>Recommendation: Recommendation will be suggested, based on the defined methodology</p> <hr/> <p>Water Budget Calculation:</p> <ul style="list-style-type: none"> • Water mapping: Schematic flow diagram of water and wastewater for each unit process.
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	<ul style="list-style-type: none"> • Water quality analysis: Water sample collection from water intensive process and facility • Water balance Sheet: Based on water supply, consumption, effluent generation and leakage • Compliance status: Compliance status with respect to the respective act will be checked • Recommendations: Based on findings of earlier steps, recommendation for proper management of water in the industry as well as conservation plan will be submitted
	<p>Performance evaluation of Existing Effluent Treatment Plant and Sewage Treatment Plant</p> <ul style="list-style-type: none"> • Design Adequacy: Each unit operation of effluent treatment plant will be examined for acceptable design on basis of organic loading rate and hydraulic loading rate. • Study of existing unit process: All major unit process in effluent treatment plant will be evaluated for their performance based on their design specification, expected removal efficiency and actual efficiency • Operational adequacy and study of existing unit: Wastewater sampling and analysis for physico-chemical parameters will be performed for all the unit operation and status of operation will be established based on the result obtained from the defined activity • Maintenance adequacy: Current maintenance practices will be evaluated; complete bar chart will be provided based on evaluation of current practices • Compliance status Compliance status with respect to the respective act will be checked • Recommendations: Based on the assessment, recommendation will be provided
	<p>Solid waste assessment:</p> <ul style="list-style-type: none"> • Process Study:

	<p>Study of the various activities involved as well as the testing methodology involved</p> <ul style="list-style-type: none"> • Material Balance: Quantification of the raw materials, products & by products generated • Identification of the hazardous waste and non-hazardous waste from the by-products and waste • Quantification of the hazardous and non-hazardous waste • Compliance status Compliance status with respect to the respective act will be checked • Recommendations: Based on the assessment, recommendation will be provided
	<ul style="list-style-type: none"> • Review of Environmental Management Plan: To check the effectiveness of organisational set up of industry with reference to their environmental management plan

Deliverables	Detailed Project Report consist of Study of Environmental Damages and Adequacy of Pollution Control Equipment's and suitable recommendations
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Project Investigator	<p>Prof. Anil Kumar Dikshit Higher Administrative Grade Professor and In-charge Environmental Infrastructure & Clean Tech (EICT) Lab GIS Lab for Environmental Management & Simulation (GEMS) Environmental Science and Engineering (ESE) Department Indian Institute of Technology Bombay, Powai, Mumbai 400076 India</p> <p>dikshit@iitb.ac.in 022-2576-7862 / 7208486792</p>
Team Member	<ul style="list-style-type: none"> - Mr. Indra Kant Jha, Environmental Engineer, IIT Bombay (EEPL-SINE IIT Bombay Company) - Dr. Anju Pant, Environmental Engineer, PhD, IIT Delhi (EEPL-SINE IIT Bombay Company) - Sridhar Godwal, Environmental Engineer (EEPL-SINE IIT Bombay Company) - Mr. Mohit Dhoka, Environmental Engineer, NIT Surat (EEPL-SINE IIT Bombay Company)

	<ul style="list-style-type: none"> - Mr. Akshay Salunke, Environmental Engineer, MTech, NIT Surat (EEPL-SINE IIT Bombay Company) - Mr. Aniket Kumar, Environmental Engineer, MTech, NIT Surat (EEPL-SINE IIT Bombay Company)
Project Duration	<p>Total duration of the project will be 70 working days*. if required, period may be extended by mutual consent in writing. *From the receipt of first payment</p>

Budget	
Total Cost (exclusive of all taxes)	Rs.58.5 lac (plus 18% GST)
Terms of Payment	<p>Term of payment</p> <ul style="list-style-type: none"> • 100% payment to “Registrar, IIT Bombay a/c Consultancy & Research Fund” along with Work Order issued by MPCB/ Proforma Invoice raised by IRCC, IIT Bombay as per following details: Bank Details for Electronic Transfer: <ul style="list-style-type: none"> ○ Beneficiary : Indian Institute of Technology Bombay. ○ Bank Name : State Bank of India, IIT Powai Branch, Mumbai-400076 ○ Bank A/c No : 10725729173 ○ IFSC/RTGS/NEFT: SBIN0001109 ○ MICR no. : 400002034 ○ Branch Code : 1109 ○ Swift Code : SBININBB519 ○ Telephone No. : +91-22-2572-1103 • Amount must be paid in full. No TDS should be deducted. Required IT exempt certificate in the name of MPCB shall be issued in due course of time

	<ul style="list-style-type: none"> • The Representative (Technical Coordinator) (study area specific) from MPCB always be available for guidance and coordination with different stakeholder and shall also provide or arrange all the required assistance during site visit, , and data collection at the site.
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Terms and Conditions	<p>Representative shall be deputed to accompany our team(s) working on this project</p> <ul style="list-style-type: none">• MPCB will provide letter /permission /assistance to conduct any survey and related activities as per the requirement of this project• MPCB will provide all required arrangements for local travel and hospitality to the experts as well as team members during the visits• Any other information available with MPCB and useful for the project shall be shared
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Re: To study the environmental damages and suggest the remediation measures and check adequacy of pollution control equipment's installed and operated by the M/s. Jakraya Sugar, Ltd., Village Watwate, Tal. Mohol, Dist. Solapur.

Anil Dikshit <akd.iitb@gmail.com>

Tue 19-03-2024 21:34

To:RO Pune <ropune@mpcb.gov.in>;Dr. Avinash Dhakne <ms@mpcb.gov.in>
Cc:Dr. V. M. Motghare <jdair@mpcb.gov.in>;SRO Solapur <srosolapur@mpcb.gov.in>;indrakant jha <indraashish@gmail.com>

 2 attachments (452 KB)

Cover Letter-MPCB_Study Environmnetal Damage and Adequacy of Pollution Control Equipment's for Jakraya Sugar, Ltd.pdf;
Technical proposal _Environmental Damages and Adequacy of Pollution Control Equipments_Jakraya Sugar, Ltd.,.pdf;

Dear Mr. Andhale

Please find enclosed technical proposal "to Study the Environmental Damages and to Suggest the Remediation Measures and Check Adequacy of Pollution Control Equipments Installed and Operated by the M/s. Jakraya Sugar, Ltd., Village Watwate, Tal. Mohol, Dist. Solapur."

We hope that the proposal is in line with your requirements.

Kindly do the needful to issue the work order so that the study could be started with site survey and data collection at the earliest.

Thanks and best regards
Prof. Anil Dikshit

On Fri, Mar 1, 2024 at 7:34 PM RO Pune <ropune@mpcb.gov.in> wrote:

Sir,

With reference to the above Hon'ble NGT order, the Board's Authority decided to appoint you for the study of environmental damages and suggest the remediation measures and check adequacy of pollution control equipment's installed and operated by the M/s. Jakraya Sugar, Ltd., Village Watwate, Tal. Mohol, Dist. Solapur.

In view of the above, we requested you to kindly guide me as to how to proceed in this matter. Related orders of Hon'ble NGT are attached for your kind perusal please. Submitted, please.

With Regards,

(Ravindra Andhale)
Regional Officer,
M. P. C Board Pune.

Annexure VI

MAHARASHTRA POLLUTION CONTROL BOARD

REGIONAL OFFICE - PUNE

Phone No. 020-25811694
 Fax No. 020-25811701
 e-mail : ropune@mpcb.gov.in
 visit us : www.mpcb.gov.in



Road,
 "Your Service is our Duty"

Jog Centre, 3rd Floor,
 Wakdewadi,
 Old-Pune Mumbai

Pune- 411003

MPCB/ROP/Proposal/

240402-FTS-0921

Date: 02/04/2024

To,

Anil K. Dikshit,
Professor and In charge,
Environmental Science and Engineering (ESE) Department,
IIT, Bombay, Powai, Mumbai- 400076.

Sub : Work Order for Study of Environmental Damage and Adequacy of Pollution Control Equipment's for M/s. Jakraya Sugar Ltd., Solapur

Ref : Proposal received from IIT Bombay vide letter Dtd. 18/03/2024.

Sir,

With reference to above, MPCB is pleased to accept above referred proposal for Study of Environmental Damage and Adequacy of Pollution Control Equipment's for M/s. Jakraya Sugar Ltd., Solapur". The total cost of the project shall be Rs.58.5 Lakhs + additional taxes as applicable.

The Objectives, Scope of the project, deliverables form the project and other terms and conditions shall be as follows:

A. Objectives:

The objectives of the Project are :

Study of Environmental Damages and Adequacy of Pollution Control Equipment's based on following aims and objectives

- Assessment of Environmental Damages.
- Pollution Load Assessment.
- Air Pollution Control Equipment Adequacy Study.
- Water Budget Calculation.
- Performance Evaluation of Existing Effluent Treatment Plant and Sewage Treatment Plant.
- Solid Waste Assessment.
- To verify compliance with standards and conditions prescribed by the regulatory bodies under the Water Act, the Air Act, and the Environmental (Protection) Act.
- To review organisational environmental management system.

- Action plan for restoration : It will be developed based on the outcome of initial assessment about impact of the said activities on the air, water, soil, noise, ecology and waste environment.

B. Scope & Methodology of the study:

- Assessment of Environmental Damage in terms of : Air Environment, Water Environment, Solid Waste (Hazardous & Non- Hazardous), Soil Quality, Noise Environment, Ecological Environment, Impact on Health, Change in Hydrology, if any.
- Pollution load assessment and APC equipment performance assessment will include , process study, process material balance, performance assessment of air pollution equipment, recommendations based on study, if any.
- Water budget calculations : water mapping, water quality analysis, water balance sheet, compliance status and recommendations.
- Performance evaluation of existing effluent treatment plant and sewage treatment plant : Design adequacy, study of existing unit process, operational adequacy and study of existing unit, maintenance adequacy, compliance status and recommendations.
- Solid Waste Assessment : Process study, Material Balance, Identification of Hazardous Waste and Non-Hazardous Waste from by products and wastes.
- Quantification of the Hazardous and Non-Hazardous Waste
- Compliance status and recommendations.
- Review of Environment Management Plan
- Assessment of best possible activities for restoration of air, water, soil, noise, ecology and waste environment and health.
- Restoration plan for all the environmental and ecological factors.

C. Cost of Project :

The total cost of project shall be *Rs 58.5 Lakhs and* additional taxes as applicable.

D. Project Duration

The timeline for this study shall be 70 working days. Final report along with recommendations shall be submitted within 15 days from the date of completion of the whole project.

E. Payment Terms:

- i. 1st Instalment : 70% i.e. Rs.40.95 Lakhs /- + Applicable taxes in advance along with work order to initiate the plan with field studies.

- ii. 2nd Instalment : 30% of remaining project cost, i.e. Rs. 17.55/- will be released after the submission of the draft project report to this office.

F. Deliverable:

- Detailed Project Report consist of Study of Environmental Damages and Adequacy of Pollution Control Equipment's and Suitable recommendations.

G. Inputs from M P C Board:

- Authority / Permission letter shall be provided for site survey and monitoring instruments.
- Co-ordinating officer to facilitate entry to the site.

H. MPCB shall take the review of the project on weekly basis.

Therefore, it is requested to acknowledge the receipt of this work order and submit project execution bar chart to this office within a period of 7 working days.

This Office order issued with the approval of the Competent Authority of the Board.

Yours sincerely,



(Ravindra Andhale)

Regional Officer, MPCB, Pune.

Copy submitted for information to:

1. Hon'ble Member Secretary, MPCB, Sion, Mumbai
2. Joint Director (APC), MPCB, Sion, Mumbai.
3. Chief Accounts Officer, MPCB, Sion, Mumbai – for necessary action as stated above w.r.t payment terms and conditions.

Copy to:

1. Sub Regional Officer, MPCB, Solapur : – You are directed to designate an officer who will co-ordinate with IITB for carrying out the project related activities on site.
