

**JOINT INSPECTION REPORT OF PURANPUR KISAN SAHKARI CHINI  
MILLS LIMITED, PURANPUR, PILIBHIT  
(UTTAR PRADESH)**

In the matter of

**M/s Kisan Sahkari Chini Mills Ltd.**

**Vs**

**Member Secretary, U.P. Pollution Control Board & Ors.  
(Appeal No. 29/2020)**

**1.0 Background**

In compliance of Hon'ble NGT order dated 12.04.2021 in the matter of M/s Kisan Sahkari Chini Mills Ltd. Vs Member Secretary, U.P. Pollution Control Board & Ors. (Appeal No. 29/2020), inspection of M/s Kisan Sahkari Chini Mills Limited, Puranpur, Pilibhit, UP (hereafter referred as "the unit") was carried out by a joint team of CPCB, Regional Directorate, Lucknow and UPPCB, Regional Office, Bareilly on 09.12.2021. Salient details, observations and recommendations made during the inspection are summarized as under:

**2.0 Salient Details:**

A: General Information		
1.	Name of the unit and Address	M/s Kisan Sahkari Chini Mills Limited, Puranpur, Pilibhit, UP-262122
2.	Name of the Proprietor/ Contact person – Designation Contact No.	Sh. Assim Mishra General Manager 7880888966
3.	Year of Comm.	1985
4.	Sector	Sugar (co-operative)
5.	Cane crushing capacity	2500 TCD (Ton Cane Crushed Per Day)
6.	Cane crushed	276800 Quintals (from 24.11.2021 to 07.12.2021)
7.	Sugar produced	17235 Quintals (from 24.11.2021 to

*SD/*  
*AEE*

*RMS*

		07.12.2021)
8.	Molasses generation	12470 Quintals (from 24.11.2021 to 07.12.2021)
9.	Press Mud generation	8945 Quintals (from 24.11.2021 to 07.12.2021)
<b>B: Water Pollution and its Control:</b>		
1.	Water Supply Source Water Consumption (KLD)-As reported <ul style="list-style-type: none"> <li>&gt; Industrial</li> <li>&gt; Domestic</li> </ul>	Tube wells (02 nos.)  (Avg. from 24.11.2021 to 09.12.2021)  339 125
2.	Waste Water Generation (KLD)- As reported <ul style="list-style-type: none"> <li>&gt; Industrial</li> <li>&gt; Domestic</li> </ul>	(Avg. from 24.11.2021 to 09.12.2021)  Approx.339 Approx.100
3.	Waste water treated (KLD)- As reported <ul style="list-style-type: none"> <li>&gt; Industrial</li> <li>&gt; Domestic</li> </ul>	(Avg. from 24.11.2021 to 09.12.2021)  Approx.339 Discharged into Barwa Nalla, which meet to Jugni River. Jugni River meet River Gomti, which ultimately meet River Ganga.
4.	Details of ETP	ETP comprises of following units:  a. Oil and Grease Trap b. Equalization Tank c. Primary Clarifier d. Aeration Tank-1& 2 e. Secondary Clarifier f. Multi Grade Filter, g. Activated Carbon Filter and h. Sludge Drying Beds. i. Treated effluent storage lagoon-6000 m <sup>3</sup>
5.	Mode of disposal of treated effluent	Agricultural Use /on land As informed, treated effluent is collected in lagoon for irrigation.
6.	Flow measuring device installed at	"Yes"

	outlet of ETP	Electromagnetic Flow meter																
7.	Status of Consent under the Water Act- 1974	Valid upto 31.12.2020. Applied for renewal on 26.12.2020.																
<b>B (I) Information regarding irrigation:</b>																		
1.	Details of treatment of effluent before ferti-irrigation	Effluent is treated in ETP																
2.	Command area for irrigation (available land area)	21 Acre (as reported)																
3.	System of transportation of treated effluent upto field.	Through Pipeline																
4.	Formal agreements with farmers for using treated effluent	Yes (as reported)																
5.	Storage facility available for treated effluent during low demand period	"Yes" Treated effluent storage lagoon-6000 m <sup>3</sup>																
<b>C: Air Pollution and its Control</b>																		
1.	Sources of Air Pollution	Boilers (03 Nos.)																
2.	<ul style="list-style-type: none"> <li>➤ Type of Fuel used</li> <li>➤ Stack details with APCS</li> </ul>	Bagasse- 800 TPD  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sl. No.</th> <th>Boiler Capacity</th> <th>APCS</th> <th>Stack Height</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>20 TPH</td> <td>Wet</td> <td>30 m</td> </tr> <tr> <td>2.</td> <td>20 TPH</td> <td>Scrubber</td> <td></td> </tr> <tr> <td>3.</td> <td>30 TPH</td> <td>Wet Scrubber</td> <td>30 m</td> </tr> </tbody> </table>	Sl. No.	Boiler Capacity	APCS	Stack Height	1.	20 TPH	Wet	30 m	2.	20 TPH	Scrubber		3.	30 TPH	Wet Scrubber	30 m
Sl. No.	Boiler Capacity	APCS	Stack Height															
1.	20 TPH	Wet	30 m															
2.	20 TPH	Scrubber																
3.	30 TPH	Wet Scrubber	30 m															
3.	Status of Consent under the Air Act-1981	Valid upto 31.12.2020. Applied for renewal on 26.12.2020.																
<b>D: Waste Management</b>																		
1.	Type of Waste Generated	ETP sludge, Press mud, Boiler ash & Used oil																
2.	Facility of Storage/ Disposal (as reported)	<b>ETP Sludge-</b> ETP sludge is being used as manure.  <b>Press Mud-</b> Given to farmers for use as manure  <b>Boiler ash-</b> Boiler Ash is being used in filling of low land area on demand of farmers.																

*DMV*

		Used oil- mixed with bagasse and fired in boiler.
3.	Disposal of waste	As above
4.	Status of Grant of authorization	Valid upto 01.06.2025.

### 3.0 Observations:

1. The unit has infrastructure for production of Sugar using Sugar cane as major raw material with consented capacity of 2500 TCD. During the inspection, the unit was in operation. The unit has started its cane crushing on 24.11.2021 for the current crushing season 2021-22.
2. The unit was granted Consent to Operate under the Water (PCP) Act, 1974 and the Air (PCP) Act, 1981 by UPPCB, which was valid upto 31.12.2020. The unit has applied for renewal on 26.12.2020, which violates the Water (PCP) Act, 1974 and the Air (PCP) Act, 1981 to apply Consent to Operate 90 days before expiry of consent. The unit is presently operated without consent to operate from SPCB.
3. The unit has presently two (02) bore wells to meet its fresh water requirement. Electromagnetic water meter is installed in one bore well, which was non-functional. As informed by the unit representative, one borewell is not in use. The unit has obtained NOC from CGWA, which was valid upto 19.03.2020. The unit has not applied for renewal of NOC.
4. The unit has established Effluent Treatment Plant (ETP), which comprises of following:
  1. Equalization Tank
  2. Primary Clarifier
  3. Aeration Tank- 1 & 2

4. Secondary Clarifier
5. Multi Grade Filter,
6. Activated Carbon Filter,
7. Sludge Drying Beds and
8. Treated effluent storage lagoon-6000 m<sup>3</sup>

5. During inspection, effluent is received to ETP and ETP was in operation. Sample was collected from Equalization Tank, Aeration Tank-1 & 2, and outlet of ETP.

Analysis results are presented below:

Sampling location	Parameters							
	pH	SS (mg/L)	TDS (mg/L)	BOD (mg/L)	COD (mg/L)	O & G (mg/L)	MLSS (mg/L)	MLVSS (mg/L)
Equalization Tank	4.09	185	1918	1860	3406	-	-	-
Aeration Tank-1	-	-	-	-	-	-	1654	1401
Aeration Tank-2	-	-	-	-	-	-	1492	1292
Outlet of ETP	7.01	16.1	665	38.2	52.6	5.12	-	-
OCEMS Value	--	30.4	--	22.7	113.2	--	--	--
Standards as per GSR 35(E), dated 14.01.2016.(For disposal on land)	5.5- 8.5	100	2100	100	--	10	--	--

6. The unit has installed OCEMS at the outlet of ETP and it was informed that OCEMS data is connected with UPPCB and CPCB server. During inspection, flow meter and pH Sensor in OCEMS was not working.

*Shil*  
AEB

7. Significant variation was observed with OCEMS value and characteristics of the sample collected during inspection with respect of TSS, BOD and COD parameters. It indicates that the unit is not calibrating its OCEMS.
8. The unit has provided electromagnetic flow meter at the inlet and ultrasonic flow meter and V-Notch at the outlet. The unit has maintained log book of discharge of effluent through V-Notch. Treated effluent from the unit on 07.12.2021(as per log book) was observed as 172 litre per ton of cane crushed as against stipulated norms of 200 litre per ton of cane crushed.
9. As per Performance assessment of ETP carried out by VSI, Pune 11.01.2020, treated effluent storage capacity is 17 days as against norms of 15 days.
10. During inspection, several effluent leakages were observed in Primary Clarifier, Aeration Tank, Secondary Clarifier.
11. During inspection, flooding in Pressure Sand Filter was observed.
12. The unit has provided a bypass drain at the inlet of ETP. Effluent is partially sent to ETP for treatment and remaining is bypassed through drain. Effluent is stagnated at low lying area outside factory and overflow from low lying area leads to drain. Sample was collected from bypass drain, low lying area and final drain. Analysis results are presented below

Sampling location	Parameters					
	pH	Colour	SS (mg/L)	TDS (mg/L)	BOD (mg/L)	COD (mg/L)
Bypass Drain (Near Electric Poles)	4.23	-	280	1828	2685	4138
Ponding Area of Unit	4.95	150	183	1093	628	1132
Drain d/s of Unit (main road side)	4.57	150	70	1822	1162	1939

*Handwritten signature/initials*

*Handwritten signature*

13. It is evident from the results that the unit is bypassing highly polluted effluent into drain, which may cause pollution problem in drain as well as River.
14. During inspection, it was observed that effluent drain to ETP is damaged at several place. Due to this, overflow effluent is found stagnant near ETP.
15. The unit has provided separate energy meter for ETP.
16. The unit has Installed Sulphur Recovery Plant for treatment of spray pond overflow, which was found operational.
17. During inspection, it was observed that the unit has provided kacha lagoon for storage of molasses. It is informed that kacha lagoon is not in use. But, coloured effluent was observed. Sample was collected from kacha lagoon. Analysis results are presented below:

Sampling location	Parameters				
	pH	SS (mg/L)	TDS (mg/L)	BOD (mg/L)	COD (mg/L)
Kacha Lagoon of Unit	5.64	335	21,214	16,565	27,974

18. It is evident from above results that highly polluted effluent is stored in kacha lagoon, which may pollute ground water.
19. Sample of ground water is also collected to check the quality of ground water.

Analysis results are presented below:

Parameters	pH	Turbidity (NTU)	Colour (Hazen)	EC ( $\mu$ S/cm)	TDS (mg/L)	Total Hardnes (mg/l)	Sulphate (mg/l)	Nitrate (mg/L)	COD (mg/L)	BOD (mg/L)	T. Cr (mg/L)	Cu (mg/L)	Pb (mg/l)	Zn (mg/l)
Hand pump Near Canteen	7.0 1	6. 0	5	630	396	330	137	BDL (<2.2)	BDL (<5)	BDL (<1.0)	BDL (<0.05)	0.01	BDL (<0.05)	0.34
BIS Drinking water Standards as per IS 10500:	6.5-8.5	1	5	--	500	200	200	45	--	--	0.05	0.05	0.01	5.0



11. The unit should strictly comply with the new standards notified G.S.R. 35 (E), MoEF & CC, January 14, 2016 for sugar industry such as notified standards for effluent disposal, waste water conservation and pollution control management.

**Inspection Team:**

1. Sh. Runa Oraon, Sc. 'D', CPCB, RD(N), Lucknow
2. Sh. Jitendra Lal, AEE Regional Office, UP PCB, Bareilly

*Runa*  
*30/12/2021*  
*Jal*

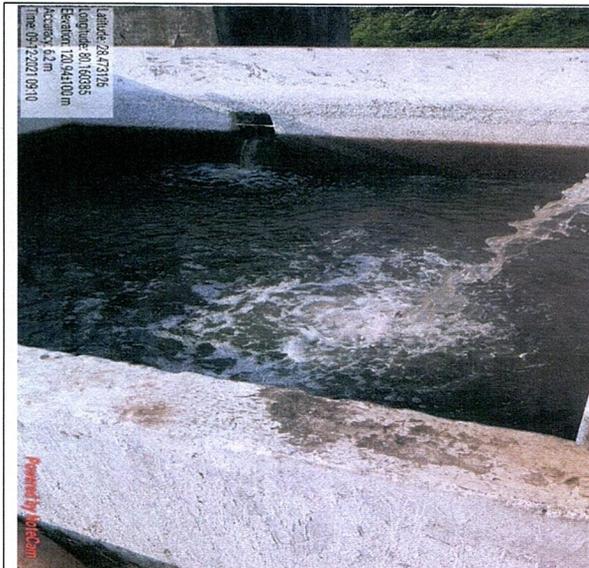


Figure 1- Equalization Tank

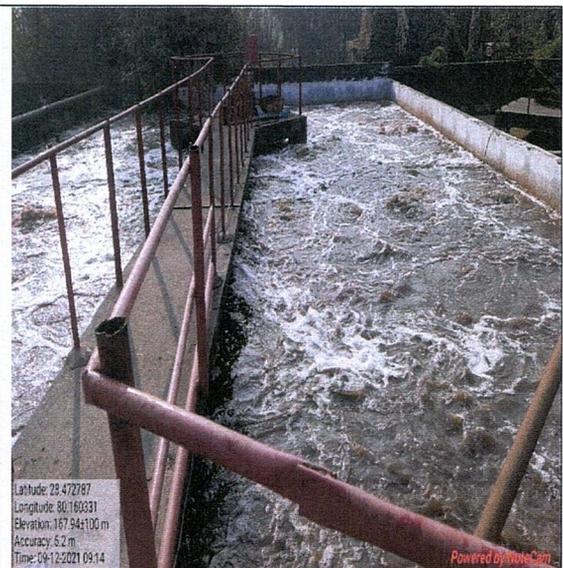


Figure 2- Aeration Tank-1

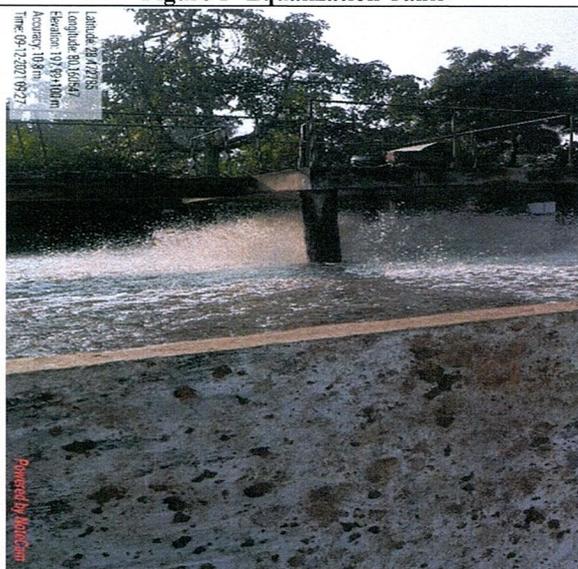


Figure 3 Aeration Tank-2

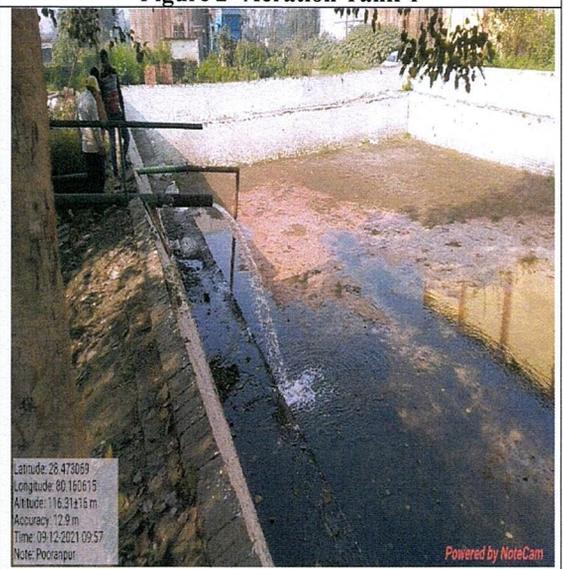


Figure 4 Treated Effluent Storage Lagoon



Figure 5 Bypass drain



Figure 6 Ponding of bypass effluent

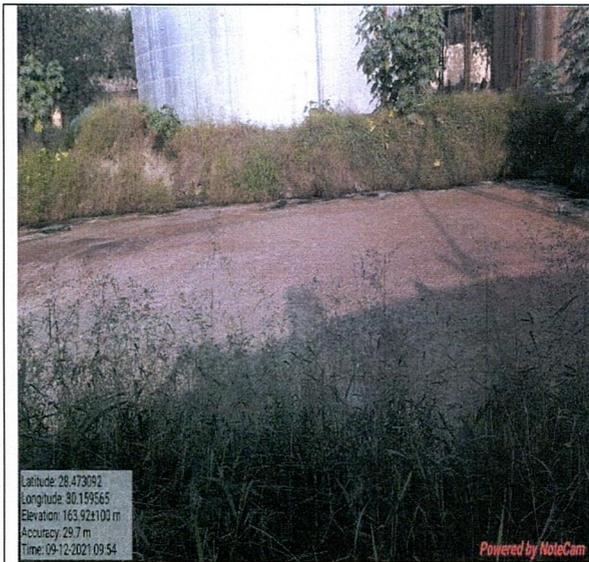


Figure 7 Kacha Lagoon

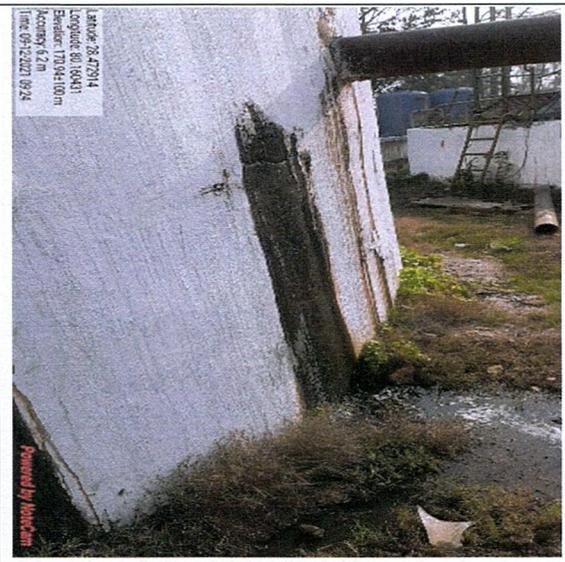


Figure 8 leakage of effluent from clarifier



Figure 9 Sulphur Recovery Plant



Figure 10 Boiler Stack