



Speed Post

B-190198/NGRBA(RG)/CPCB/Distillery/21/2017-18

Dated: May 16<sup>th</sup>, 2019

To,

May 17<sup>th</sup>, 2019

M/s Radico Khaitan Ltd.,  
Bareilly Road Rampur,  
(A Unit of Radico Khaitan),  
Rampur- 244901, (U.P.)

**DIRECTION UNDER SECTION 5 OF THE ENVIRONMENT (PROTECTION) ACT, 1986**

**WHEREAS**, the Central Government has notified the standards for discharge of environmental pollutants from various categories of industries under the Environment (Protection) Act, 1986 and the rules framed there under; and

**WHEREAS**, the Ministry of Environment & Forests, Govt. of India, vide notification S.O.157(E) of 27.02.1996 has delegated powers vested under Section 5 of the Environment (Protection) Act, 1986 (29 of 1986) to the Chairman, Central Pollution Control Board (CPCB), to issue direction to any industry, Municipal Corporation, Municipal Council, Cantonment Board to any local or other Authority for the violation of emission and effluent standards notified under the Environment (Protection) Rules, 1986; and

**WHEREAS**, it is obligatory on the part of industries to install effluent treatment plants (ETPs) to comply with the effluent discharge standards as notified under the Environment (Protection) Act, 1986 and the Rules framed there under and also to meet the consent conditions granted by State Pollution Control Board (SPCBs) / Pollution Control Committees (PCCs); and

**WHEREAS**, M/s Radico Khaitan Ltd., (Distillery Division), Bareilly Road, Rampur, U.P. (hereinafter referred as 'the Unit') is involved in the production of extra neutral alcohol and rectified spirit using molasses as raw material; and

**WHEREAS**, CPCB issued direction dated 07.12.2015 under section 18(1)(b) of Water Act, 1974 to Uttar Pradesh Pollution Control Board for ensuring that the molasses based distilleries including yeast manufacturing Units in the state of U.P shall achieve zero liquid discharge, as per the options specified in the direction; and

**WHEREAS**, in compliance with Hon'ble NGT order (O.A No. 316 of 2017) dated 30<sup>th</sup> May 2017, teams from CPCB carried out sampling of River Kosi, from Almora in Uttarakhand up to its confluence with river Ramganga in District Rampur in Uttar Pradesh, during the period June 13<sup>th</sup> to 21<sup>st</sup>, 2018; and

**WHEREAS**, the Unit has been identified as a grossly polluting industry operating in catchment area of Rampur drain & River Kosi in Uttar Pradesh; and

**WHEREAS**, analysis of water samples collected from river Kosi at downstream of confluence of Rampur drain at village Madarpur showed Colour 929 Hazen, DO-zero, BOD-55 mg/l, COD-153mg/l, which are indicative of industrial pollution; and

**WHEREAS** analysis of water samples collected from Shahbad Highway, after confluence of river Kosi in Ramganaga, showed Colour 827 Hazen, DO-zero, BOD-60 mg/l, COD-180mg/l, which are indicative of industrial pollution; and

**WHEREAS**, the Unit, M/s Radico Khaitan Ltd., (Distillery Division), is the only 17 categories of highly polluting industry, operating in catchment area of Rampur drain, U.P and the possibility of discharging spent wash by the Unit cannot be ruled out; and

**WHEREAS**, CPCB issued Show Cause Notice dated 18.9.2018 under Section 5 of Environment (Protection) Act, 1986 to the unit; and

**WHEREAS**, public complaints dated 15.10.2018, 03.12.2018 & 11.12.2018 were received against M/s Radico Khaitan Ltd. Rampur; and

**WHEREAS**, teams of CPCB officials carried out the inspection of M/s Radico Khaitan Limited Bareilly Road, Rampur (U.P.), along with monitoring of Rampur drain, River Kosi & River Ramganga, on November 15<sup>th</sup> and 16<sup>th</sup>, 2018 and following observations were made;

1. The Unit was in operation during the inspection. The Unit is engaged in production of alcohol using molasses and grains as raw materials in two processing Units in the same premises.
2. The Unit is having installed capacity of 200 KLD for molasses based distillery and 100 KLD for grain based distillery Unit.
3. The Unit is having a combined license for molasses based distillery and grain based distillery Units for production of 1024 Lac Bulk Litres/annum.
4. ZLD system for treatment of spent wash comprises of IMEE (3 stage), Bio-Digesters (06 nos.), clarifiers, dissolved air floatation, (DAF), followed by RO (3 nos.) and 6 stage evaporator.
5. The Unit has installed mass flow meters at outlet of fermenter, inlet of IMEE, outlet of IMEE, and at inlet and outlet of 6 stage evaporator. All the mass flow meters are connected to CPCB server.
6. The Unit has installed two piezometers at Bio-compost yards at Hitachi site and Ajeetpur site.
7. The Unit has installed a new 6 stage evaporator since May 2018 for concentration of RO reject from 3 stage RO system.

8. The Unit is having consent to operate under Water Act, 1974 and Air Act, 1981 with validity up to 31.12.2019.
9. The production record of ten months (Jan 2018 to Oct 2018) shows average production of 4848 KL of Alcohol /month which indicates that Unit has operated at 56.8% of the installed capacity.
10. Effluent samples were collected during inspection from various points in the production process and spent wash treatment system. The analysis results are presented below:

S. No.	Sample Description	pH	Total Solids (mg/l)	COD (mg/l)	BOD (mg/l)
1.	Raw Spent Wash from Analyser Bottom	4.61	155008	120392	45846
2.	MEE Condensate	3.08	BDL(<10)	2879	
3.	MEE Concentrate	4.52	2,60,744	1,65,963	58,146
4.	Inlet of storage pond of ETP (Feed to bio-digesters)	4.50	2,65,768	2,17,190	107042
5.	Lamella Inlet (outlet of Digester after degassing)	8.02	1,05,032	-	-
6.	DAF Inlet (Outlet of final Clarifier)	7.99	96,128	81,366	26601
7.	DAF Outlet discharging into R.O Feed tank	8.03	92,136	72,720	29733
8.	3 <sup>rd</sup> R.O Permeate	6.54	396	180	80
9.	R.O Reject (feed to new evaporator)	7.22	1,46,352	1,15,706	40899
10.	New evaporator (6 stage) Outlet Concentrate (pumped to lagoon )	8.55	1,70,784	1,30,896	44210
11.	Spent wash Spray Hitachi Site	7.82	1,17,752	1,11,989	-
12.	Spent wash Spray Ajeetpur Site	7.60	1,04,344	77,891	-

12. MEE condensate, with pH 3.08 and COD 2879 mg/l requires treatment before reuse in production process, such as fermentation dilution and cooling tower make up water, which could be achieved through Condensate Polishing Unit (CPU). Use of MEE condensate without treatment system is not feasible and possibility of discharge of condensate could not be ruled out.
13. Analysis of spent wash samples collected from different locations of ZLD system comprising of IMEE, Bio-digesters, clarifiers, RO, 6 stage evaporator system and lagoons at two bio-composting sites indicate that spent wash being utilised for bio-composting contain pH-7.6 to 7.82, Total solids- 104344 to 117752 mg/l and COD – 77891 to 1,11,989 mg/l, as against concentrated spent wash at IMEE outlet containing pH-4.52, Total solids 2,60,744 mg/l COD-1,65,963 mg/l, Bio-methanated spent wash at DAF outlet containing pH-8.03, total solid 92,136 mg/l , COD-72,720 mg/l and concentrated spent wash at outlet of final 6 stage MEE containing pH-8.55, Total solids- 1,70,784 mg/l, COD-1,30,896 mg/l.
14. It appears that the Unit is utilising bio-methanated spent wash (after bio-digesters) with % Total solids- 10 to 11% as against desired 30% solid concentration (as per CPCB directions dated 7/12/2015) for bio-composting with possibility of bypassing of downstream RO and 6 stage MEE treatment systems/dilution of spent wash at storage lagoons.

15. Before mixing with Radico Khaitan drain, Rampur drain water quality shows BOD, COD and colour as 71 mg/l, 228 mg/l and 67 Hazen, respectively & River Kosi before confluence with Rampur drain shows the BOD, COD, and colour value of 21 mg/l, 70 mg/l and 64 Hazen, respectively. After mixing with Rampur drain and before confluence with River Ramganga, river Kosi water quality shows BOD, COD, and colour value as 44 mg/l, 102 mg/l and 78 Hazen, respectively. After mixing with Radico Khaitan industrial drain the value of different parameters like BOD, COD and colour of Rampur drain water quality increased i.e 123 mg/l, 369 mg/l, and 87 Hazen, respectively.
16. Analysis of water samples collected from Rampur drain at village Nawabganj near bridge (before confluence with river Kosi) river shows Colour 389 Hazen, BOD-113 mg/l, COD-370 mg/l.
17. Intense odour of spent wash was observed in River Kosi before confluence with Ramganga. The colour at bed of Kosi River at this location is also indicating possibility of spent wash disposal in the past. Odour and colour of spent wash was also observed at Shahabad Road Bridge on River Ramganga after Patwai town.

**AND WHEREAS,** CPCB issued closure direction dated 24.12.2018 under Section 5 of Environment (Protection) Act, 1986, to the Unit to close down all its manufacturing operations with immediate effect and report the same to CPCB immediately and not to restart manufacturing operations till the compliance of following directions:

1. The Unit shall immediately stop by-passing spent wash treatment systems such as RO, MEE and shall ensure volume reduction to minimum 40% with 30% solid concentration before bio-composting.
2. The Unit shall stop dilution at lagoon at compost site and shall ensure that only spent wash with 30 % solid concentration should be used in bio-composting.
3. The Unit shall provide treatment to condensate for reuse in process and shall submit a time bound action plan for the installation of condensate polishing Unit (CPU).
4. The Unit shall provide adequate compost yard as per standard operating procedure (SOP).
5. To install CCTV Cameras at the entrance /exists gate of ETP system.
6. The Unit shall take necessary measures for restoration of water quality of Rampur drain & River Kosi and shall submit a time bound action plan. The action plan shall consists of following measures besides other necessary measures.
  - a) The Unit shall install wire net/geo-net at confluence point of Rampur drain with river Kosi.
  - b) The Unit shall submit an action plan for in-situ treatment of Rampur
  - c) The Unit shall carry out de-sludging/ disilting of Rampur drain & river Kosi of following locations;
    - ✓ From D/s of Radico khaitan to confluence with river Kosi.
    - ✓ River Kosi- after confluence with Rampur drains up to 2 kms towards river Ramganga.

7. The Unit shall deposit an Environment compensation amount of Rs. 27,00,000/- from the date of issue of Show cause notice dated 18<sup>th</sup> September, 2018 under section 5 of Environment(Protection) Act, 1986 for causing potential damage to water quality of Rampur drain, River Kosi & Ramganga as per Environmental Compensation policy framed in compliance of NGT order dt. 31.08.2018 in OA no. 593/2017.
8. The Unit shall seek permission from CPCB before restart of manufacturing operations after compliance of the above directions.

**AND WHEREAS**, as per Hon'ble NGT order dated 21.12.2018 in the matter of Shailesh Singh Vs State of UP & Ors, in OA no. 324/2016, CPCB and UPPCB were directed to conduct a joint inspection of the Unit and submit the inspection report by 15th January, 2019; and

**WHEREAS**, CPCB vide letter dated 02.01.2019, conveyed abeyance of Closure Direction dated 24.12.2018 till further order for carrying out joint inspection; and

**WHEREAS**, in compliance with Hon'ble NGT order dated 21.12.2018, joint inspection of the Unit was carried out on 10<sup>th</sup> & 11<sup>th</sup> January, 2019 by teams comprising of officials from CPCB and UPPCB. and following observations were made:

1. Effluent samples were collected during inspection from various points in the production process and spent wash treatment system. The analysis results are presented below:

S. No.	Sample Description	pH	Total Solids (mg/l)	COD (mg/l)	BOD (mg/l)	TSS (mg/l)	TDS (mg/l)
1.	Raw spent wash (before 3 stage MEE)	4.56	123700	130535	50018	-	
2.	IMEE concentrate	4.54	241810	196911	105159	-	
3.	IMEE condensate	3.04	90	2824	789	BDL(<10)	
4.	Fermenter Cleaning(Lees+ condensate + vacuum pump sealing water)	9.87	1640	1668	871	-	1190
5.	Molasses Lees	7.90	210	2868	1608	BDL(<10)	32
6.	ETP Sump tank Inlet	4.37	146030	149120	50653	-	
7.	ETP sump tank outlet (feed to bio-digesters)		4.29	155290	164000	47709	-
8.	Lamella inlet	7.99	96720	84753	18954	-	
9.	Lamella Outlet	8.18	73790	67327	13542	-	
10.	Lamella outlet+ Clarifloculator outlet	8.07	81710	65901	16703	-	
11.	DAF inlet	7.96	61990	76198	21617	-	
12.	DAF outlet	8.04	64870	66931	17495	-	
13.	RO-1 Permeate	8.19	7755	3292	1451	151	5124
14.	RO-2 Permeate	7.15	5545	1645	642	82	5060



15.	RO-3 inlet (RO-1 Permeate +RO-2 Permeate + other effluent from grain based units)	7.64	7855	2648	560	-	
16.	RO-3 Permeate	7.12	555	183	87	BDL(<10)	
17.	Reject of RO-1+RO-2 and RO-3	7.75	131550	152555	60939	-	
18.	BMSW (MEE-2) feed	7.65	132000	116911	30796	-	
19.	MEE-2 evaporator reject (concentrate) Sample dated 10.01.2019	8.57	224320	203089	69967	-	
20.	MEE-2 outlet Sample dated 11.01.2019	8.60	291430	247446	89924	-	
21.	MEE-2 condensate	10.03	1150	715	159	-	650
22.	Spent wash incoming into Hitachi Site lagoon	7.61	113020	145920	32340	-	
23.	Spent wash spraying on compost in Ajeetpur site	7.84	79820	223200	54111	-	
24.	Digester Inlet (Grain Based other effluent)	9.63	130	2698	1660	53	
25.	Digester (Grain Based other effluent) Outlet	9.63	330	2984	1778	178	
26.	Digester Outlet (Grain Based other effluent)	9.63	330	2984	1778	178	
27.	Cooling tower inlet (MEE-2 condensate + 3 stage MEE condensate)	9.69	1110	2116	1194	-	530

2. Analysis of samples collected from various points during the production of grain based alcohol indicated satisfactory production performance. Analysis result is as follows:

S. No.	Sample Description	pH	Total Solids (mg/l)	COD (mg/l)	BOD (mg/l)
1.	Thin stillage from decanter	3.43	18320	37703	8797
2.	Thick syrup from Evaporator	3.44	129120	166337	88613
3.	Evaporator to cooling tower	3.16	640	1750	874
4.	Combination of Lees+ condensate + Thin slop	5.32	785	66	34
5.	Lees	6.63	320	2168	730
6.	Cooling tower blow down	7.48	1615	859	237

3. Characteristics of waste water samples collected from Sewage Treatment Plant (STP) is as follows:

S. No.	Sample Description	pH	Total Solids (mg/l)	COD (mg/l)	BOD (mg/l)	TSS (mg/l)	Nitrate (NO <sub>3</sub> -N)	Cl-
1.	Inlet of STP	7.03	640	91	17	195	27	52
2.	Outlet of STP	6.88	445	09	02	13	09	27

4. Water/wastewater samples were collected from the municipal drain, along the road to bio-compost site and joining Rampur drain. The analysis result is represented below:

S. No.	Sample Description	Colour	pH	Total Solids (mg/l)	COD (mg/l)	BOD (mg/l)	TDS (mg/l)
1.	Drain outside main gate of the industry	BDL	6.99	400	07	02	-
2.	Groundwater within unit premises	-	7.2	356	7	BDL	354
3.	Ground Water Ajeetpur Site	-	6.9	881	12	BDL	876
4.	Ground Water Hitachi Site	-	5.6	946	14	1.2	932
5.	Drain outside Ajeetpur side	30	5.91	1100	350	187	860
6.	Drain on Ajeetpur road before Ajeetpur site	09	5.28	675	75	30	516

5. Water samples were collected from various points at Rampur drain, River Kosi and River Ramganga. The analysis result of the samples is represented below:

S. No.	Sample Description	Colour (Hz)	COD (mg/l)	BOD (mg/l)
1.	Rampur drain before mixing with municipal drain from Unit	85	332	156
2.	Rampur drain at confluence with municipal drain	54	320	132
3.	Rampur drain after mixing with municipal drain d/s of Unit	72	366	146
4.	Rampur drain d/s of Unit	97	185	73
5.	Rampur drain before confluence with River Kosi	117	187	84
6.	River Kosi before confluence with Rampur drain	BDL	17	2
7.	River Kosi after confluence with Rampur drain	18	49	12
8.	River Ramganga before confluence with River Kosi	BDL	19	3.2
9.	River Ramganga after confluence with River Kosi	12	32	5.8

6. Analysis of spent wash samples collected from different locations of ZLD system comprising of IMEE, Bio-digesters, clarifiers, RO, 6 stage evaporator system (MEE-2) and lagoons at two bio-composting sites indicate that spent wash being utilised for bio-composting contain pH-7.61 to 7.84, Total solids- 79820 to 113020 mg/l, COD – 145920 to 223200 mg/l and BOD-32340 to 54111 mg/l, as against concentrated spent wash at IMEE outlet containing pH-4.54, Total solids

2,41810 mg/l, COD-1,96,911mg/l, and BOD 105159 mg/l, Bio-methanated spent wash at DAF outlet containing pH-8.04, Total solid 64870 mg/l, COD-66931 mg/l, BOD-17495 mg/l, Reject of RO 1, RO2 and RO3 containing pH-7.75, total solid 131550 mg/l, COD-152555 mg/l, BOD-60939 mg/l and concentrated spent wash at outlet of MEE-2 containing pH-8.60, Total solids- 2,91430 mg/l , COD-247446 mg/l and BOD-89924 mg/l.

7. It appears that the Unit is utilising spent wash from the RO reject with percentage Total solids- 7.9 to 11.3% as against desired 30% solid concentration (as per CPCB directions dated 7/12/2015) for bio-composting with possibility of bypassing of MEE-2 treatment systems/dilution of spent wash at storage lagoons.
8. IMEE condensate has low pH-3.04 and high COD-2804 mg/l thereby requiring treatment before reuse in cooling tower. As informed by the unit, chemicals are being used in cooling tower to utilize the condensate; however same could not be verified during inspection. The unit is required to install proper CPU for treatment of IMEE& MEE-2 condensate. The inspection team has verified that CPU is under construction and as per the information it will be completed by February 2019.
9. For utilization of concentrated spent wash generated from 200 KLD molasses based distillery unit, the total area available is 56.88 acres (at Bio-compost yard site Hitachi land area= 33.688 acre and Ajeetpur site 23.2 acres) which has been found adequate.
10. The unit has 3 lagoons having total capacity of 90433 m<sup>3</sup> for storage of concentrated spent wash. As per CPCB direction dated 7<sup>th</sup> December, 2015, maximum allowed storage capacity in the lagoon is equivalent for 30 days' storage of concentrated spent wash ie. 25824 m<sup>3</sup>. This implies that the unit has excess storage capacity of lagoons. Hence, the unit should restrict its storage capacity of the lagoons upto 30 days of concentrated spent wash. The Regional Office of UPPCB, Moradabad has restricted the storage capacity by putting red strips inside the lagoons and the provisions of web cameras are also there to monitor the activities around the lagoons and bio-compost area.
11. The drain sample collected from outside the main gate is the discharge of treated sewage from STP, however the quality of inlet and outlet of the STP indicate dilution of sewage with fresh water.
12. Rampur Drain was found carrying city waste water and no discharge of spent wash was observed. The BOD-146 mg/l, COD-366 mg/l and color-72 Hazen confirm to sewage characteristics.
13. No odour and colour of spent wash was observed at the downstream of the Rampur drain before confluence with river Kosi and also on the stretch of river Kosi and river Ramganga.
14. The water sample characteristics BOD-5.8 mg/L, COD-32 mg/L, color-32 Hazen unit and DO-5.87 mg/l at the downstream of river Ramganga indicate absence of any industrial effluent discharge into monitored stretch of river Ramganga.

**AND WHEREAS,** the Unit's replies vide letter dated 26.12.2018 and 27.12.2018 were examined and it was observed that the Unit has not complied with CPCB direction dated 24.12.2018 except for submission of Environmental Compensation of Rs 27 Lakh vide letter dated 26.12.2018; and



**WHEREAS**, CPCB vide letter dated 18.02.2019 informed withdrawal of letter dated 02.01.2019 conveying abeyance of closure direction dated 24.12.2018 with immediate effect and directed the Unit to comply with CPCB closure direction dated 24.12.2018 issued under Section 5 of Environment (Protection) Act, 1986 including closing down of the manufacturing operations and report to CPCB immediately; and

**WHEREAS**, Unit's replies vide letters dated 20.02.2019 and 01.03.2019 were examined and following observations are made:

1. The unit is continued to be in operation.
2. The stored spent wash (approx. 25,000 m<sup>3</sup>) having solid content of 12% shall be utilized, along with freshly generated spent wash, for bio-composting in two cycles of 60 days each, before onset of monsoon season i.e. July, 2019.
3. The Unit will use an empty lagoon of capacity 12000 m<sup>3</sup> (lagoon 2) for storage of fresh concentrated spent wash with solid concentration of 30% ( $\pm 5\%$ ) through MEE2.
4. All existing treatment systems such as integrated evaporation, biomethanation, RO and MEE will be operated continuously by the Unit. Concentrated spent wash with solid concentration of 30% ( $\pm 5\%$ ) will be stored in lagoon 2 and will be used for bio-composting with pressmud.
5. The CPU technology to be adopted by the Unit consists of equalization, anaerobic digestion, sedimentation, aeration, clarification, multi grade & Activated carbon filtration followed by UV radiation.
6. No dilution of concentrated spent wash will be allowed to take place except rain water and only spent wash with solid concentration of 30% ( $\pm 5\%$ ) will be used for bio-composting.
7. Installation of Condensate Polishing Unit (CPU) is underway and shall be commissioned by 31<sup>st</sup> March, 2019. The Unit has submitted timeline for construction and commissioning of CPU along with details of contract.
8. The present interim condensate treatment facility of the Unit comprises of chemical treatment to maintain pH, BOD and COD so as to make it suitable for use as dilution in fermentation and as make-up water in cooling tower. The specialized chemicals have anti-scalant, anti-algal properties along with pH increasing, chlorination and oxidation properties.
9. The total biocompost area available is 56.88 acres (at Bio-compost yard site Hitachi land area= 33.688 acre and Ajeetpur site 23.2 acres) which is adequate for a 200 KLD molasses based distillery.
10. The Unit has installed CCTV cameras at exit and entry of ETP system and has established connectivity to CPCB/UPPCB servers.
11. Regarding restoration of water quality of Rampur drain and river Kosi, the following action has been taken by the Unit:
  - a. The Unit submitted that a third party has been given contract by NMCG for in-situ treatment of Rampur drain using bioremediation.

- b. Unit has already cleaned Rampur drain upto 15 kms stretch starting from outside the factory premise. The cleaning of remaining stretch will be completed before 30.04.2019. The Unit has provided photographic evidence for the same.
  - c. The Unit has earmarked a substantial amount of their CSR fund towards improvement of water quality of Rampur drain and river Kosi. The Unit has also submitted a time bound action plan for the same.
  - d. Additionally, the Unit is in discussion with an expert, to conduct a feasibility study for construction of a wetland on Rampur drain.
12. The Unit has deposited Rs 27 lakhs as Environmental Compensation in compliance with CPCB direction dated 18.09.2018.
  13. The Unit has submitted that in addition to molasses based distillery, it has a grain based distillery with installed capacity of 100 KLD which has adequate and independent system for spent wash treatment, consisting of decantation and evaporation with recycling of condensate in process activities. The Unit also has a malt spirit plant of 3 KLD capacity having Pot still system with filtration and recycling of spent wash. Both grain based and malt spirit plant have individual production and spent wash treatment facilities with no dependence on molasses based distillery. Additionally, Unit has independent bottling plant having no discharge from it.
  14. Since the grain based distillery, malt plant and bottling plant are independent of molasses based distillery, having individual effluent treatment system, therefore Unit has requested grant of permission to operate these Units without interruption.
  15. Since the Unit has submitted time bound action plan, it has requested for revocation of the closure direction dated 24.12.2018.
  16. The Unit stated that it is a leading supplier of country liquor and IMFL in Uttar Pradesh. Considering the upcoming festival of Holi, the demand for liquor will be high and if there is shortage of liquor supply due to closure of the Unit, it may result in disruption of law and order situation. Also, the possibility of illicit liquor sale leading to Hooch tragedy and multiple deaths cannot be ruled out, therefore the district and state administration have advised the Unit to ensure continuous production to avoid shortage of liquor. In view of the above, the Unit has sought permission to resume manufacturing operations in order to prevent law and order problems in the state.

**AND WHEREAS,** Principal Secretary, Department of Excise, U.P. Government, vide letters dated 23.02. 2019 and 02.04.2019, requested CPCB to allow the Unit to operate along with an undertaking to further bring improvements in the operation of its pollution control systems in a time bound manner. The letters were examined and following salient observations are made:

1. UPPCB is carrying daily monitoring of Rampur drain, River Kosi and River Ramganga since 15.12.2018.
2. As per monitoring report for the period between 15.01.2019 to 23.02.2019, the intensity of colour in Rampur drain was within 10-12 Hz while in River Ramganga, colour was

between 16-19 Hz. As per monitoring data, the Unit has maintained zero liquid discharge during the said period.

3. The Unit is being inspected daily by officials of Regional Office, UPPCB, Moradabad and violation has not been found.
4. The Unit is adhering to ZLD norms as per UPPCB findings.
5. There will be shortage of potable liquor in the State if Unit is closed since it contributes 30% supply of country liquor in the State.
6. Shortage of country liquor in the State will lead to higher possibility of illicit liquor trade and law & order issues during the General Elections in the State.

**AND WHEREAS**, Member Secretary, UPPCB, vide letter dated 01.04.2019, requested CPCB to review the Closure Direction issued to the Unit dated 24.12.2018 and allow manufacturing operation by the Unit. As per UPPCB, it is carrying out daily monitoring of Rampur drain, River Kosi and River Ramganga and there is no trace of industrial effluent in the water bodies. UPPCB reiterated that the Unit is strictly abiding to the ZLD norms and thereby not affecting the water quality of Rampur drain, River Kosi and River Ramganga and assured monitoring of the unit and recipient water bodies; and

**WHEREAS**, the explanation regarding settling and anaerobic digestion of stored spent wash in lagoons resulting in reduction of total solids from 28% to 7-11%, was examined and following observations are made:

- a. COD of spent wash can be of two types based on its degradability namely, easily digestible COD and recalcitrant COD. During bio-methanation, first type of COD is easily digested by microorganisms while the recalcitrant COD cannot be digested despite favourable conditions during bio-methanation. Therefore, the possibility of recalcitrant COD to be reduced through digestion in storage lagoons within a period of one month is not feasible and without reduction in COD during storage, there will be no reduction in solid content of spent wash.
- b. Further, concentrated spent wash after SMEE will be constituted of more than 95% dissolved solids which will not settle down in the storage lagoons. Moreover, as per the adequacy report validated by VSI, Pune and submitted by the Unit vide letter dated 13.03.2019, total suspended solids are reduced from 2.2% to 0.2% in BMSW due to which the performance of RO has improved substantially. Therefore, from this observation it is clear that there is no suspended solid in the concentrated spent wash after SMEE and hence no further reduction in solid content of spent wash will occur through settling in the storage lagoons.

**WHEREAS**, based on the unit's reply, letters from Principal Secretary, Department of Excise, U.P. Government and UPPCB, following observations are made;

1. The unit has adequate effluent/spent wash treatment system such as SMEE to concentrate the stored spent wash in lagoons from 7.9% to 30% at restricted production capacity by June 30, 2019.


2. The unit has adequate compost yard to utilize stored spent wash in lagoons after concentration through SMEE along with concentrated spent wash generated from restricted production by June 30, 2019.
3. UPPCB has assured that it is carrying daily monitoring of recipient water bodies and no traces of industrial effluent observed and the unit is strictly abides to ZLD norms and there by not affecting the water quality.

**AND WHEREAS,** the Three Member Committee constituted for examination and recommendations for revocation of closure direction issued by CPCB, examined the Unit's replies and letters from Principal Secretary, Department of Excise, UP Govt, as well as Member Secretary, UPPCB in its meeting held on 18.04.2019 and recommended the revocation of closure direction with the conditions proposed by CPCB; and

**NOW THEREFORE,** in view of the above observations and in exercise of the powers delegated to the Chairman, CPCB under section 5 of the Environment (Protection) Act, 1986, the Closure Direction dated 24.12.2018 issued to the unit is hereby revoked and the Unit, M/s Radico Khaitan Ltd. (Distillery Division), Rampur, U.P., is directed to comply with the following directions:

1. The Unit shall resume operations of manufacturing units namely grain based distillery, malt spirit plant and bottling plant as per consent conditions. The Unit shall restrict production capacity of its molasses based plant not more than 77 KLD till the stored spent wash in lagoons having solid content of 7.9-11.3% is treated through Evaporation-Concentration to achieve 30% solid concentration by using appropriate technology such as MEE or RO & MEE. Only concentrated spent wash with solid concentration of 30% shall be used for bio-composting with press mud, complying with the conditions specified in the CPCB direction dated 07.12.2015.
2. The entire stored spent wash (approx. 25000 m<sup>3</sup>) shall be utilized by 30<sup>th</sup> June, 2019 under the supervision of UPPCB and the industry shall submit its report to CPCB on weekly basis along with supporting documents.
3. As per Environmental Compensation Policy framed in compliance of NGT order dated 31.08.2018 in OA no. 593/2017, the Unit shall deposit, within 15 days from the date of receipt of this direction, an additional amount of Rs. 1,18,80,000/- (Rupees one crore eighteen lakh and eighty thousand) as Environment compensation in favour of CPCB, A/c No. 532702050000164 (Bank name: Union Bank of India, IP Extension Branch, Vikas Marg Extn., Delhi; IFSC: UBIN0553271).
4. The unit shall operate its molasses based plant at restricted production capacity of not more than 77KLD till above directions are complied with and written permission from CPCB is obtained to restore its installed capacity of 200 KLD.

In case of default in compliance with the above directions by the Unit, CPCB will be constrained to initiate appropriate action against the Unit, in accordance with provisions of the Environment (Protection) Act, 1986 without any further notice.

  
(S. P. Singh Parihar)  
CHAIRMAN

**Copy to:**

1. **Member Secretary**  
Uttar Pradesh Pollution Control Board,  
Building No. TC-12V, Vibhuthi Khand,  
Gomti Nagar, Lucknow – 226 010
  2. **Joint Secretary (CP Division)**  
Ministry of Environment, Forest & C.C  
Prithvi Block, Indira Paryavaran Bhawan,  
Jorbagh Road, New Delhi – 110 003
  3. **Superintendent Engineer,**  
Paschimanchal Vidyut Vitran Nigam  
Ltd., District Rampur- 250001
  4. **District Magistrate,**  
NH-24, Awas Vikas Rampur,  
Uttar Pradesh- 244901
  5. **Regional Director**  
Regional Directorate  
Central Pollution Control Board  
PICUP Bhawan, Ground Floor,  
Vibhuti Khand, Gomti Nagar,  
Lucknow – 226 010
  6. The In-charge, IT Division, CPCB
  7. Master file/Guard file WQM II, CPCB Delhi
1. UPPCB shall closely monitor the process of concentrating the stored spent wash to 30% solid content as well as its utilization in bio-composting and submit its report to CPCB on weekly basis along with supporting documents and UPPCB will be accountable in case of any lapses.
  2. UPPCB shall undertake daily monitoring of Rampur drain, River Kosi and River Ramganga for a period of 3 months, followed by weekly monitoring and report shall be submitted on weekly basis.
  3. UPPCB shall ensure compliance of the Unit to CPCB direction.

For kind information, please.

To re-connect the power supply for industrial operations.

With request to ensure that the Unit complies with the directions

For follow up and ensuring compliance

For uploading on CPCB website

  
( Prashant Gargava )  
MEMBER SECRETARY