



केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
CENTRAL POLLUTION CONTROL BOARD  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार  
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

Speed post/Email

F. No. PJ-14014(12)/1/2022-PRJT-NGRBA-RD-Kolkata

Nov 22, 2022

To

6319

**The Member Secretary**

West Bengal Pollution Control Board  
Paribesh Bhavan,  
Sector-III, Bidhannagar,  
Kolkata 700 106, West Bengal

**Directions issued under Section 18 (1)(b) of the Water (Prevention and Control of Pollution) Act, 1974 regarding the discharge of untreated effluents into Ramkrishna ghat drain, Howrah.**

**WHEREAS**, amongst others, under Section 17 of the Water (Prevention and Control of Pollution) Act, 1974, one of the functions of the State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs), constituted under the Water (Prevention & Control of Pollution) Act, 1974 is to plan a comprehensive programme for prevention, control or abatement of pollution of streams and wells in the State and secure the execution thereof; and

**WHEREAS**, amongst others, under Section 16 of the Water (Prevention and Control of Pollution) Act, 1974, one of the functions of the Central Pollution Control Board (CPCB) constituted under the Water (Prevention & Control of Pollution) Act, 1974 is to coordinate activities of the SPCBs/PCCs and to provide technical assistance and guidance to SPCBs/PCCs and to promote cleanliness of streams and wells in different areas of the States; and

**WHEREAS**, the Central Board, has delegated powers vested under Section 18 (1)(b) of the Water (Prevention & Control of Pollution) Act 1974 to the Member Secretary, Central Pollution Control Board vide its resolution made on 196<sup>th</sup> Board meeting held on dated 29<sup>th</sup> March, 2022 to issue direction under Section 18 (1) (b) of the Water & Prevention & Control of Pollution) Act, 1974 to State Board; and

**WHEREAS**, water quality of river Ganga and its tributaries has been adversely affected due to disposal of untreated sewage and sullage from drains and discharge of untreated/partially treated effluents from industries which are mixed with the wastewater of drains and reaching to Ganga directly or through its tributaries; and

**WHEREAS**, CPCB along with West Bengal Pollution Control Board (WBPCB) carried out monitoring of drains joining with river Ganga and its tributaries in the State of West Bengal on half-yearly basis; and

Contd.

‘परिवेश भवन’ पूर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030 22305792 वेबसाइट/Website : www.cpcb.nic.in

**WHEREAS**, Ramkrishna ghat drain, Howrah, WB (22.573083 N, 88.336972 E) draining directly into river Ganga at Ramkrishna ferry ghat, Howrah was monitored by officials of CPCB and WBPCB jointly during post monsoon monitoring of drain in the year 2019 and 2020 and samples were collected before the confluence of drain with river Ganga. The analysis results of wastewater samples collected from drain were examined and following observations were made:

- i. pH was found in acidic range (4.7 in 2019 and 2.9 in 2020)
- ii. High metal concentration was observed w.r.t Iron (276 mg/l in 2019 & 1423 mg/l in 2020), Zinc (73 mg/l in 2019 & 544 mg/l in 2020) and Cadmium (156 mg/l in 2019 & 1064 mg/l in 2020).

However, the drain was also monitored by CPCB during national lockdown period in 2020 on May 31<sup>st</sup> when most of the industrial units were not operational. From the analysis result of wastewater samples collected from drain it has been observed that the pH (7.2) and metal concentrations were within the desired level (Fe- 1.3 mg/l, Zn-1.59 mg/l & Cd- 0.004 mg/l); and

**WHEREAS**, CPCB vide letter dated February 23, 2021 requested WBPCB to take necessary action on the following:

- to identify the source (s) of acidic effluent into Ramkrishna ghat drain, Howrah.
- to issue directions as per applicable procedure under Section 33A of the Water (Prevention and Control of Pollution) Act, 1974 to all concerned industries /activities to take remedial measures to ensure restoration of water quality of said drain.
- to obtain and time bound action plan from responsible units and ensure its implementation for restoration of water quality of the drain
- to conduct joint monitoring.

However, so far, no action taken report has been received from WBPCB regarding the abatement of pollution of Ramkrishna ghat drain; and

**WHEREAS**, CPCB monitored Ramkrishna Ghat drain on 21.04.2022 along with time series sampling during 7:00 AM to 2:00 PM. Samples were collected at an interval of one to two hours before the confluence of drain with river Ganga and following observations are made:

- The pH of Ramkrishna ghat drain varied from 4.7-7 during the monitoring period.
- Low pH (4.7) was observed along with an increase in concentration of COD (341 mg/l), TDS (6181 mg/l), Chloride (596 mg/l), Nitrate (1274.1 mg/l), Sulphate (89 mg/l) and trace metals (Cd-687.226 mg/l, Cu-60.16 mg/l, Fe-1161.49 mg/l, Pb-0.38 mg/l, Mn-6.41 mg/l, Ni-10.02 mg/l and Zn-409 mg/l) in the sample collected at 12:00 PM.
- In association with low pH, a sudden fall in Coliform count (less than 1.8 MPN/100 ml) was also observed.

- In the samples collected during 7:00 AM to 11:00 AM and 1:00 PM to 2:00 PM the pH varied 6.7-7.1, BOD 71-108 mg/l, COD 175-268 mg/l, TSS 89-171 mg/l, TDS 641-1022 mg/l, Nitrate 0.012-0.084 mg/l, Sulphate 2-22 mg/l, Cd 1.47-4.7 mg/l, Cu 1.02-2.87 mg/l, Fe 5.2-13.49 mg/l, Mn 0.36-0.45 mg/l, Ni 0.04-0.1 mg/l, Pb 0.06-0.16 mg/l, Zn 1.04-3.43mg/l, Total Coliform  $49 \times 10^4$ - $16 \times 10^9$  MPN/100 ml and Fecal Coliform  $11 \times 10^4$ - $92 \times 10^7$  MPN/100 ml.
- The analysis results of the samples collected from Ramkrishna ghat drain are annexed.

It is evident that industrial units are discharging untreated effluent into the drain which ultimately meets to river Ganga and poses threat to river water quality and its ecosystem.

**AND NOW THEREFORE**, in view of the above and in exercise of the powers conferred under section 18(1) (b) of the Water (Prevention and Control of Pollution) Act, 1974, you are hereby directed to take appropriate measures including issuance of directions to ensure implementation of the following pollution control measures in a time bound manner:


1. WBPCB shall identify the source of discharge of high metal bearing acidic effluent into Ramkrishna Ghat drain and take necessary action to stop discharge of untreated effluent.
2. WBPCB shall also prepare an action plan for interception and, diversion and treatment of Ramkrishna ghat drain.

WBPCB shall acknowledge receipt of these directions, immediately. The action taken report shall be submitted to CPCB within 30 days from the date of issuance of these directions.

/ )  
(PRASHANT GARGAVA)  
Member Secretary

**Copy to:**

1. **Director General** : For kind information, please  
National Mission for Clean Ganga  
(MoWR, RD& GR),  
1<sup>st</sup> floor, Major Dhyan Chand National Stadium,  
India Gate, New Delhi-110 002
2. **Joint Secretary (CP Division),** : For kind information, please  
Ministry of Environment, Forest & CC,  
Prithvi Block, Indira Paryavaran Bhawan,  
Jorbagh Road, New Delhi-110 003
3. **District Magistrate,** : For information and necessary  
3<sup>rd</sup> floor, New Collectorate building,  
6, Rishi Bankim Chandra Road,  
Howrah -711 101, West Bengal  
action, please
4. **Regional Director,** : For follow-up and ensure  
Regional Directorate,  
Central Pollution Control Board,  
5<sup>th</sup> Floor Southend Conclave,  
Rajdanga Main Road, Kolkata- 700 107,  
West Bengal  
compliance
5. **In-charge, IT Division, CPCB** : To upload on the website of  
CPCB
6. **Master file**

  
(PRASHANT GARGAVA)  
Member Secretary

## Annexure

Physico-chemical characteristics of Ramkrishna ghat drain

S. No	Parameter	Monitoring period					Discharge standards for Inland surface water
		2019 post-Monsoon	2020 Lockdown period	2020 post-Monsoon	2021 Post monsoon	April, 2022	
1.	Flow (MLD)	0.2	-	0.16	4.63	2.9	-
2.	Color (Hu)	-	-	-	50	Apparent	-
3.	pH	4.7	7.2	2.9	7.2	4.7	5.5-9.0
4.	BOD (mg/L)	44	11	24	250	43	30
5.	COD (mg/L)	150	52	231	357	341	250
6.	TSS (mg/L)	611	28	153	347	182	100
7.	TDS (mg/L)	2352	818	6072	864	6181	-
8.	Cl (mg/L)	346.4	89.7	130	297	596	-
9.	Ammonia- (mg/L)	8	6	16	39	43	50
10.	Nitrate N(mg/L)	7.39	40.14	53	0.05	1274.1	10
11.	Sulphate (mg/L)	-	-	213	27	89	-
12.	Phosphate (mg/L)	-	-	3.57	0.24	0.01	5.0
13.	As (mg/L)	0.0076	0.0030	0.0066	0.0092	0.0071	0.2
14.	Cd (mg/L)	155.85	0.0046	1064.46	2.19	687.22	2.0
15.	Co (mg/L)	0.0396	0.0063	0.075	0.0030	0.0510	-
16.	Cr (mg/L)	0.2953	0.0098	0.7492	0.5441	0.0324	2.0
17.	Cu (mg/L)	10.48	0.37	268.68	4.56	60.16	3.0
18.	Fe (mg/L)	275.6	1.36	1423.19	12.24	1161.49	3.0
19.	Mn (mg/L)	2.58	1.03	10.40	0.6249	6.41	2.0
20.	Ni (mg/L)	3.15	0.0037	13.36	0.1776	10.02	3.0
21.	Pb (mg/L)	0.25	0.06	0.50	0.08	0.38	0.1
22.	Se (mg/L)	0.0027	0.0017	0.0012	0.0034	0.0032	0.05
23.	V (mg/L)	0.0250	0.0058	0.0021	0.0128	0.0019	0.2
24.	Zn (mg/L)	73.2	1.59	543.67	1.61	409	5.0
25.	Total Coliform (MPN/100ml)	< 1.8	$9.4 \times 10^8$	< 1.8	$28 \times 10^7$	< 1.8	-
26.	Fecal Coliform (MPN/100ml)	< 1.8	$1.1 \times 10^5$	< 1.8	$39 \times 10^6$	< 1.8	-



**Physico-chemical characteristics of time series observations at Ramkrishna ghat drain**

Sampling locations	Before confluence							U/s of drain (Kalitala)
	7:00 AM	9:00 AM	10:00AM	11:00AM	12:00 PM	1:00 PM	2:00 PM	8:00 AM
pH	6.9	7.1	7	6.8	4.7	6.7	6.7	7
BOD (mg/L)	71	74	82	108	43	96	82	129
COD (mg/L)	175	244	268	210	341	244	210	306
TSS (mg/L)	89	122	161	171	182	157	134	223
TDS (mg/L)	861	1022	874	727	6181	641	841	587
Cl (mg/L)	278	352	288	228	596	159	268	119
Ammonia (mg/L)	36	36	41	29	43	31	33	36
Nitrate (mg/L)	0.012	0.025	0.016	0.013	1274.1	0.084	0.071	0.026
Sulphate (mg/L)	2	18	14	22	89	12	15	31
Phosphate (mg/L)	0.34	0.37	0.3	0.22	0.01	0.37	0.09	3.66
As (mg/L)	0.0044	0.0050	0.0056	0.0047	0.0071	0.0060	0.0048	0.0063
Cd (mg/L)	1.4710	1.4920	2.4170	4.3600	687.226	2.8380	4.6930	NT*
Co (mg/L)	0.0013	0.0014	0.0016	0.0015	0.0510	0.0017	0.0015	0.0011
Cr (mg/L)	0.0249	0.0287	0.0348	0.0369	0.0324	0.0322	0.0270	0.0222
Cu (mg/L)	1.0220	1.5500	2.8680	2.4920	60.1600	1.8410	2.2550	0.0174
Fe (mg/L)	5.2080	5.7870	9.7530	13.4980	1161.49	12.6350	12.6680	1.6480
Mn (mg/L)	0.3780	0.3980	0.4050	0.3590	6.4180	0.4540	0.4180	0.4200
Ni (mg/L)	0.0447	0.0435	0.0520	0.0950	10.0280	0.0774	0.1053	0.0131
Pb (mg/L)	0.0630	0.0900	0.1380	0.1630	0.3870	0.0960	0.0810	0.0140
Se (mg/L)	0.0048	0.0043	0.0047	0.0043	0.0032	0.0052	0.0054	0.0048
V (mg/L)	0.0022	0.0031	0.0040	0.0028	0.0019	0.0029	0.0022	0.0040
Zn (mg/L)	1.0590	1.0460	1.4420	3.4320	409.000	1.8560	2.5890	0.0980
Total Coliform (MPN/100ml)	$16 \times 10^9$	$39 \times 10^7$	$350 \times 10^7$	$49 \times 10^4$	< 1.8	$17 \times 10^7$	$22 \times 10^6$	$240 \times 10^8$
Fecal Coliform (MPN/100ml)	$92 \times 10^7$	$110 \times 10^6$	$140 \times 10^6$	$110 \times 10^3$	< 1.8	$79 \times 10^6$	$27 \times 10^5$	$1600 \times 10^6$