



E-mail/Speed post

B-19004/WQM-II/CPCB/TPA/2021-22/

14724

Date - 21.03.2022

To

Member Secretary  
Uttar Pradesh Pollution Control Board,  
Building No. TC-12V, Vibhuti Khand,  
Gomti Nagar, Lucknow - 226 010  
Uttar Pradesh

**DIRECTION UNDER SECTION 18(1)(b) OF THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974 REGARDING YELLOW COLOR IN RIVER GANGA**

**WHEREAS**, the Central Pollution Control Board, has delegated powers vested under Section 18 (1) (b) of the Water (Prevention & Control of Pollution) Act, 1974 to the Chairman, Central Pollution Control Board vide its resolution made in 133<sup>rd</sup> Board meeting item no. 3.12 dated 24<sup>th</sup> March, 2005 to issue directions under Section 18 (1) (b) of the Water (Prevention & Control of Pollution) Act, 1974 to the State Pollution Control Board(s); 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 and Control of Pollution) Act, 1974 is to coordinate activities of the State Pollution Control Boards & Pollution Control Committees 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 Government has notified the standards for discharge of environmental pollutants from various categories of industries, Common Effluent Treatment Plants (CETPs) and Sewage Treatment Plants (STPs) under the Environment (Protection) Act, 1986 and the rules framed there under; and

**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)/Pollution Control Committees, constituted under the Water (Prevention and Control of Pollution) Act, 1974, is to plan a comprehensive programme for the prevention, control and abatement of pollution of stream and wells in the State/UT and to secure the execution thereof; and

**WHEREAS**, Uttar Pradesh Pollution Control Board (UPPCB) issued directions dated 08.05.2019 under section 33A of The Water (Prevention and control of pollution), 1974 to textile units for implementation of charter prepared by CPCB; and

**WHEREAS**, appearance of slightly yellowish coloured water in River Ganga at Nagwa Ghat, Varanasi in Uttar Pradesh was reported in various local newspapers on Feb 12<sup>th</sup> & 13<sup>th</sup> 2022; and

**WHEREAS**, Uttar Pradesh Pollution Control Board (UPPCB) carried out water quality monitoring of river Ganga in the stretch of Mirzapur (Uttar Pradesh) to Varanasi (Uttar Pradesh) on Feb 12<sup>th</sup> & 13<sup>th</sup>, 2022 and following observations were made:

- a. In the stretch of river Ganga from Vindhyachal to Chhota Mirzapur in Mirzapur, the Dissolved Oxygen (DO) in river Ganga water was found 12.9 to 13.7 mg/l, pH 8.77 to 8.92 and Colour 15 Hazen units.
- b. In the stretch of river Ganga from Assi Ghat to Raj Ghat in Varanasi, the Dissolved Oxygen (DO) in river Ganga water was found 11.6 to 13.7 mg/l, pH 8.55 to 8.92 and Colour 15 Hazen units.
- c. All seven (07) STPs in Varanasi were found operational.
- d. Drains discharging into river Ganga were physically verified and Nagwa drain, Nakkha drain and Raj Ghat outfall were found partially tapped and other 19 drains were found completely tapped. Five trans-drains meeting river Ganga from Ramnagar were found completely tapped.
- e. No smell was observed in river Ganga and higher colour was observed in river water in comparison to earlier days, which prevailed from upstream of Mirzapur (Vindhyachal).

**AND WHEREAS**, field survey and water quality monitoring was also carried out by teams of CPCB authorized technical institutes, namely Motilal Nehru National Institute of Technology (MNNIT), Allahabad and Harcourt Butler Technical University (HBTU), Kanpur from Kanpur till Prayagraj and following observations were made:

#### **River Ganga**

- a. Yellowish color was observed at Rosoolabad Ghat in Prayagraj and its upstream for about 40-50 km till Dalmau Ghat in Raebareli.
- b. Water quality in terms of color improved/ was observed normal in upstream stretches from Dalmau Ghat in Raebareli.
- c. Colour and DO at Rasoolabad Ghat, Prayagraj were found as 30 Hazen (against desirable value of 10-15 Hazen) and 8.77 mg/l, respectively.
- d. Colour and DO at Sandeepan Ghat, Kaushambi were found as 25 Hazen (against desirable value of 10-15 Hazen) and 7.73 mg/l, respectively.
- e. Colour and DO at Kada Dham Ghat, Kaushambi were found as 40 Hazen (against desirable value of 10-15 Hazen) and 8.3 mg/l, respectively.
- f. Colour and DO at Dalmau Ghat, Raebareli were found as 20 Hazen (against desirable value of 10-15 Hazen) and 8.2 mg/l, respectively.
- g. On Feb 14, 2022, the colour of samples collected from river confluence, upstream of river Pandu and Nawabganj (upstream Prayagraj) was found light yellowish and hazy in appearance.

## **River Pandu**

- a. At the entry of Kanpur city, the colour of river Pandu was observed sandy with lean flow.
- b. At railway bridge, considerable flow and very light brown colour was observed in river Pandu with a smell of sewerage.
- c. After confluence of COD Nala, black colour and highly foul smell was observed in river Pandu and overall flow appeared more than the upstream point.

**AND WHEREAS**, CPCB carried out water quality monitoring of river Ganga in the stretch of Kanpur-Varanasi on Feb. 13<sup>th</sup> & 14<sup>th</sup>, 2022 and following observations were made:

- a. In river Ganga before confluence of river Pandu at Dhondiya Khera, Fatehpur, pH was 8.72, Temperature-17<sup>o</sup> C, DO-8.9 mg/l and Colour-10 Hazen.
- b. In river Ganga after confluence with river Pandu at Lahangi Village, Fatehpur pH was 8.5, Temperature-17<sup>o</sup> C, DO-7.9 mg/l and Colour-15 Hazen.
- c. Yellowish colour in river Ganga was observed at Kuresar Ghat, Prayagraj; Chunar downstream, Mirzapur; Ramnagar upstream Varanasi; Dashawamedh Ghat and Malviya Bridge, Varanasi and at these locations DO ranged 8.5-10.2 mg/l and pH ranged 7.5-8.82.

**AND WHEREAS**, such an incidence of color river water was also reported in the month of May'2021 and beginning of June'2021 in River Ganga in the stretch of Prayagraj to Varanasi-Ghazipur in Uttar Pradesh, which was gradually washed-out; and

**WHEREAS**, CPCB in consultation with Uttar Pradesh Pollution Control Board (UPPCB) has inventoried 499 Grossly Polluting Industries (GPIs) located in the catchment area of river Ganga from Kanpur to Varanasi Upstream. Textile and other grossly polluting industries (GPIs) located in Panki and Dada Nagar areas, discharge effluent through ICI drain into river Pandu which ultimately confluence with river Ganga in district Fatehpur; and

**WHEREAS**, 73 Textile GPIs located in Kanpur Dehat (6), Panki (22) and Dada Nagar (10), Rooma (12), Kanpur city (2) areas of Kanpur, Magarwara Unnao (12), Fatehpur (3) and Mirzapur (6) on upstream of Vindhyachal carry out dyeing process using various dyes (reactive, sulphur, direct and acid class) and auxiliary chemicals; and

**WHEREAS**, manufacturing of dyes and special chemicals, processing of textile material focussed at scouring, dyeing & printing, use of low exhaustive dyes, soaping/removal of unfixed dyes to excess chemicals, improper selection of dyes & chemicals in processing are probable source of heavy metals generation in textile industries; and

**WHEREAS**, significant portion (25% to 40% of input quantity) of dyes remain unutilized due to limitation of fixation efficiency of dyes. Dyes and chemicals are discharged in dye bath effluent and also get released during the subsequent washing

process. Since such dyes are not completely removed by Effluent Treatment Plant (ETP) of the textile units; partial treated effluent imparts colour into receiving water body and posing potential threat to surface water and ground water quality; and

**WHEREAS,** Textile units having potential to discharge dye bearing effluent should adopt following suggestive cleaner technologies and waste minimization practices besides other pollution control measures to curtail the pollution load in effluent:

- a. To use high exhaustion/fixation rate dyes in the dyeing process to minimize residual dye in the dye bath effluent.
- b. To carry out complete treatment of effluent, using physio-chemical and biological process to ensure complete removal of color and other pollutants so as to comply with the treated effluent standards prescribed for discharge into the surface water.
- c. To adopt intra-process reuse of spent bath to curtail discharge of chemicals into effluent.
- d. To use enzyme in scouring instead of conventional caustic boiling.
- e. Selection of proper dyes during coloration of textile material to stop consumption of Azo dyes by implementing Chemical Management System (CMS).
- f. To select correct dyes & chemicals including selection of non-hazardous chemicals & ensure efficient use in production activity.
- g. Testing of presence of heavy metals and ensure proper adsorption media for easy removal of heavy metals by adsorption process.

**WHEREAS,** as per the office order dated 14.12.2021 (F.No.81-7099/586/2020-07) issued by Government of Uttar Pradesh, these units were allowed to operate as per roster issued by the State Government, from 6-12<sup>th</sup> February 2022 and to close down their operation from 3-5<sup>th</sup> February and 13-16<sup>th</sup> February 2022; and.

**WHEREAS,** Online Continuous Effluent Monitoring System (OCEMS) installed at outlet of ETPs of these GPIs are connected to CPCB server. As per roster these GPIs should be operational from 9-11<sup>th</sup> February 2022, but effluent data was not transmitted to CPCB portal some of these GPIs. This indicates Effluent Treatment Plants (ETPs) of these GPIs were not in operation during this period and possibility of discharge of untreated/partially treated effluent from these units could not be ruled out; and

**WHEREAS,** as per OCEMS data available at CPCB portal, 11nos GPIs were found operational on 13<sup>th</sup> February 2022 against the roster for closure of operations and discharge of untreated/partially treated effluent from these units could not be ruled out. OCEMS data of the GPI units available at CPCB portal indicates that these units were not following the roster of operation schedule issued by the State Government; and

**It is evident that textile units discharging untreated/partially treated effluent containing dyes have potential to impart colour in the recipient drains and tributaries/rivulets and to cause incident of colour in river water.**

**NOW THEREFORE**, in view of the above referred observation and in exercise of powers delegated to the Chairman, Central Pollution Control Board under Section 18 (1) (b) of Water (Prevention & Control of Pollution) Act, 1974, you are hereby directed to take appropriate measures for compliance of following: -

- i. Issuance of directions under section 33A of the Water (Prevention & Control of Pollution) Act, 1974, to 73 GPIs operating in catchment of river Pandu and river Ganga in Kanpur-Varanasi stretch (as per the list attached) to submit action plan within 30 days for implementation of cleaner technology, waste minimization practices and Charter to stop incidence of colour water.
- ii. Uttar Pradesh Pollution Control Board (UPPCB) along with concerned state agencies and district administration shall constitute teams to identify industrial units disposing coloured and untreated/ partially treated effluent into river Ganga through adjoining drains/rivulets/tributaries which affect the water quality of river Ganga in Kanpur-Varanasi stretch.
- iii. To ensure 24 x 7 OCEMS connectivly and data transmission to CPCB portal.

UPPCB shall acknowledge receipt of these directions immediately and the action taken report shall be submitted to CPCB within 30 days.

13<sup>21</sup> 22/3/22  
(TANMAY KUMAR)  
CHAIRMAN

**Copy to:**

1. **Director General** : For kind information and necessary action, please.  
National Mission for Clean Ganga (MoWR, RD & GR)  
1<sup>st</sup> Floor, Major Dhyan Chand National Stadium,  
India Gate, New Delhi - 110002
2. **Additional Secretary (CP Division)** : For kind information, please.  
Ministry of Environment Forests & Climate Change  
Indira Paryavaran Bhawan, Jor Bagh Road,  
New Delhi - 110003
3. **Regional Director** : For kind information, please.  
Regional Directorate, Lucknow  
Central Pollution Control Board  
PICUP Bhawan, Ground Floor, Vibhuti Khand,  
Gomti Nagar, Lucknow - 226010

4. **In-charge**, WQM-II Division, CPCB

For kind information,  
please.

✓ 5. **In-charge**, IT Division, CPCB

: For uploading on  
CPCB website, please.

  
(PRASHANT GARGAVA)  
MEMBER SECRETARY