



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

CPCB/IPC-V/Directions _Rice/2020

September 24, 2020

To

The Chairman
Punjab Pollution Control Board
Vatavaran Bhawan, Nabha Road
Patiala 147 001

Sub: Directions Under Section 18(1) (b) of The Water (Prevention and Control of Pollution) Act, 1974 in compliance with the NGT order, dated 27.07.2020 in the Matter of OA no. 437 of 2019: Lakhwinder Singh Vs State of Punjab.

WHEREAS, among others, under section 17 of the Water (Prevention and Control of Pollution) Act, 1974, one of the functions of the State Pollution Control Board (SPCB)/ Pollution Control Committee (PCC), constituted under the Water (Prevention and Control of Pollution) Act, 1974, is to plan a comprehensive programme for prevention, control and abatement of pollution of streams and wells located in the State / Union Territory and to secure the execution thereof, and

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 thereunder, and

WHEREAS, CPCB and PCBs/PCCs have been pursuing the polluting industries to install and operate effluent treatment plant (ETP) to comply with the effluent discharge standards as notified under the Environmental (Protection) Act, 1986 and Rules framed thereunder, and

WHEREAS, the PCBs/PCCs can further stipulate stringent standards for discharge of environmental pollution from various categories of industries other than those notified by the Central Government, under the Environmental (Protection) Act, 1986 and Rule framed thereunder, and

WHEREAS, in the matter of violation of environmental norms by M/s K.R.B.L. Ltd., Bhasaur, Tehsil Dhuri, District Sangrur, Punjab, the NGT vide its order, dated 05.02.2020 directed as under:

"Let the CPCB and the Punjab State Pollution Control Board jointly visit the site and give an independent report within two months by email at judicial-ngt@gov.in. CPCB may be the nodal agency in this matter. CPCB may be at liberty to engage any other expert in this matter.

List again on 27.05.2020."

WHEREAS, in compliance of the direction of the NGT, a **Joint Team** comprising Regional Director, CPCB, Chandigarh, Officials from, Regional Office, PPCB, Sangrur, and Technical

Expert (Shri N. K. Verma, Ex-Additional Director, CPCB) engaged by CPCB has inspected the industry and its vicinity during March, 18-19, 2020.

WHEREAS CPCB has filed its report dated, 22.05.2020 before the NGT. The observations of the report are summarized as under:

1. The ETP installed by the industry for treating effluents generating from various production processes such as parboil plant, solvent extraction plant and furfuryl alcohol plant was found inadequate as the outlet quality of effluent leading to clear water tank consist of BOD 355 mg/l and COD 737 mg/l.
2. The ETP was found to be operated unscientifically as equalization tanks were made to function as aerobic biological treatment system by circulating bio-sludge (return sludge) into it, rather to work for homogenization effluent to have uniform feed for effective aerobic treatment in the system.
3. The flow in second stage aerobic treatment system was reduced substantially compared to first stage and whereas in first stage it reduced drastically as received in raw sump well. It was also noted that at places, pipe connections were leading underground.
4. The effluent passing from filter media system following clear water tank found to have BOD 39 mg/l and COD 89 mg/l. This reduction in BOD from 355 mg/l and COD from 737 mg/l is primarily due to mixing of discharges received as blow down and rejects from cooling tower and demineralisation plant respectively. The analytical results of effluents suggest that the industry has deliberately attempted to show the compliance with respect to disposal of effluent on land by mixing nearly 8,000 kld water in the name of blow-down and rejects as against the consented discharges of 320 kld together from cooling tower and demineralisation plant.
5. The treated effluent to the tune of 1440 kld is disposed on land using **Karnal Technology** over an area of 30 acres. No detailed scheme for treated effluent utilization as land application seems to have been designed and put in place. The land size, soil characteristics, effluent quality and quantity, annual weather and other associated parameters such as eva-transpiration rate were not taken into consideration while the effluent was disposed on land. This has resulted in effluent stagnation or over dosing and underutilization of land as well. Further, in absence of properly designed pipe network, the effluent utilization on land remains far from satisfactory as no monitoring system found in place.
6. The raw water requirement is met by abstracting it from ground to the tune of 2800 kld using four tube wells. However, no permission for groundwater withdrawal has been obtained from Central Ground Water Authority.
7. The groundwater quality of tube wells of Mr Jagar Singh and Mr Jagtar Singh near the industry premises and close to land application has shown presence of BOD and COD indicating organic contamination.

The concentration of TDS in the groundwater samples drawn from the tubewells of Mr. Jagar Singh is 812 mg/l, Mr. Jagtar Singh is 804 mg/l & 884 mg/l and from Mr. Jagrail Singh is 1114 mg/l which are higher than the drinking water specification of 500 mg/l prescribed by BIS 10500:2012. The higher concentration of TDS indicates the possible impact of unscientific effluent disposal on land resulted in percolation reaching groundwater aquifer could not be ruled out.

8. The analytical results of groundwater samples drawn from tube well installed at the residential colony of industry and piezometer well installed at plantation area used for land application indicate concentration of Nitrate (as Nitrogen) of 0.5 mg/l to 3.5 mg/l respectively. The maximum Nitrate (as Nitrogen) concentration of 4.9 mg/l in groundwater found at tube well of Mr. Jagtar Singh. The variation (from below detectable limit to 4.9 mg/l and averaging of 1.9 mg/l) in Nitrate (as Nitrogen) concentration across groundwater is estimated to be large given the geo distances among the tube wells and no other noticeable discharge in vicinity.
9. The analytical results of all seven groundwater (tube wells) samples do not exhibit any linear relation between total alkalinity and total hardness. Three groundwater samples found with total alkalinity higher than total hardness showing natural groundwater formation but remaining four ground water samples have recorded concentration of total hardness higher than total alkalinity indicating Calcium and Magnesium carbonates formation and transportation of the same in ground water, probably due to effluent disposal on land. The concentration of Calcium (112 mg/l) and Magnesium (121 mg/l) in groundwater sample drawn from tube well of Mr. Jagrail Singh is also suggesting the same.

WHEREAS the on-going observations clearly confirm that in the vicinity of industry, groundwater has been contaminated deep up to aquifer due to disposal of effluent on land for plantation using Karnal Technology, and

WHEREAS the NGT on the CPCB report has further passed an order, dated 27.07.2020 which read as under:

"We find that the unit is clearly violating environmental norms in discharging pollutants and drawing groundwater in overexploited area without any permission. Such violations need to be immediately stopped and accountability fixed for past violations. CPCB may issue appropriate observations/directions to the State PCB, after considering the report of the State PCB dated 02.07.2020 filed before this Tribunal on 26.07.2020.

An action report may be filed jointly by CPCB and State PCB before the next date by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.

List for further consideration on 09.02.2021."

WHEREAS the comments of PPCB received vide letter, dated 02.07.2020 were duly considered while finalizing the report as filed before the Tribunal, and

NOW, THEREFORE, in compliance with the said order and in exercise of the powers conferred under section 18 (1) (b) of The Water (Prevention and Control of Pollution) Act, 1974, following directions are issued to Punjab Pollution Control Board in respect of M/s KRBL Ltd., Village – Dhuri, Sangrur, Punjab:

- (i) To seal all tube wells being used to draw groundwater for industrial production until (a) grant of permission from Central Ground Water Authority, and (b) satisfactory completion of pollution control measures are adopted in compliance of the direction.
- (ii) To levy Environmental Compensation on account of unauthorised drawal of groundwater for industrial use and having caused damage to land environment (soil and groundwater) due to effluent disposal.

- (iii) To develop and place a mechanism to recover the Environmental Compensation in a time bound manner.
- (iv) To revise the consents issued under the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 and to incorporate all such conditions required to comply with these directions and the order passed by the NGT.
- (v) To ask the industry to submit a time-bound Action Plan and work scheme for compliance of the directions and that Punjab Pollution Control Board (PPCB) shall examine the submission of the industry before allowing its implementation.
- (vi) To allow production only for seven days to have trial run of the scheme adapted by the industry to comply with the directions after ensuring the satisfactory accomplishment of approved Action Plan.
- (vii) That Punjab Pollution Control Board shall further issue directions under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 to M/s KRBL Ltd :
 - a) To stop immediately its production processes generating effluents and shall not resume production until necessary steps are taken to comply with environmental norms and permission is obtained from PPCB.
 - b) To upgrade the ETP installed for treating its effluents generating from production processes to achieve Zero Liquid Discharge norms.
 - c) To provide an independent system of achieving Zero Liquid Discharge norms for cooling tower blow-down and demineralisation plant rejects.
 - d) To stop disposing any effluent on land using Karnal Technology for utilization of the same.
 - e) To obtain permission from Central Ground Water Authority for abstracting required quantity of groundwater using tube wells.
 - f) To provide electromagnetic flow meters at all sections generating effluent and at those points required to monitor performance of ETP.
 - g) To undertake an environmental audit, to determine minimal raw water requirement for the given set of technology adapted in *production process vis-à-vis effluent treatment* besides efficacy and adequacy of effluent treatment.
 - h) To engage scientific and skilled personnel for operating ETP as per the standard operating procedure and to maintain records of design parameters monitored.
 - i) To establish a groundwater quality monitoring network in consultation with Central Ground Water Board and Punjab Pollution Control Board to decide number, location and depth of tube wells, and parameters and frequency of monitoring.
 - j) To submit the data of groundwater quality monitoring to PPCB for its examination and to take mitigation measures in the event of any further contamination found.


(viii) That Punjab Pollution Control Board shall forward a compliance report to CPCB before the next date of hearing but not later than 10.01.2021.

Punjab Pollution Control Board shall acknowledge the receipt of direction within 15 days from the date of issue.

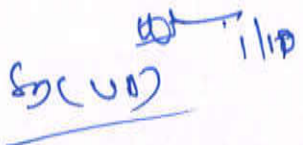
(SHIV DAS MEENA)
Chairman

Copy to:

1. The Joint Secretary (CP Division)
Ministry of Environment, Forests and Climate Change
Indira Paryavaran Bhavan
Jorbagh Road
New Delhi
2. The Regional Director,
Central Pollution Control Board
Regional Directorate
Chandigarh
3. The Divisional Head,
Law Cell
CPCB, Delhi
- ✓ 4. The Divisional Head,
IT Division,
CPCB, Delhi


Dr. Prashant Gragava
Member Secretary




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