

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA
ORIGINAL APPLICATION NO. 73 OF 2024 / EZ**

Mantu Das

...Applicant

VERSUS

Odisha of Odisha & Others

...Respondents

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SPCB Odisha, R.No.2

Through

Sri Dipanjan Ghosh,
Advocates for the Respondent No.2
(State Pollution Control Board, Odisha)
e-mail: dpnjnghsh0@gmail.com
Phone No.:9903080977

Kolkata
Date:

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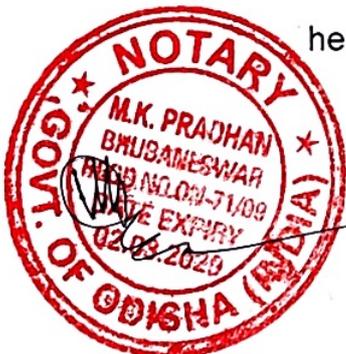
Odisha of Odisha & Others

...Respondents

**ADDITIONAL AFFIDAVIT ON BEHALF OF THE
STATE POLLUTION CONTROL BOARD,
ODISHA, RESPONDENT NO.2 IN COMPLIANCE
TO ORDER DTD.26.08.2025 OF THIS HON'BLE
TRIBUNAL.**



I, Smt. Uma Nanduri, IFS, wife of Sri Prem Kumar Jha, IFS aged around 58 years, at present working as Member Secretary, State Pollution Control Board, having my office at Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, P.O. Nayapalli, Bhubaneswar, Dist – Khurda, Odisha-751012, do hereby solemnly affirm and state as under:



1. That I am the Member Secretary of the Respondent No.2 Board and, as such, am well-acquainted with the facts and circumstances with the case and competent to swear this affidavit.
2. That the Hon'ble Tribunal in their order dtd.26.08.2025 at para-3 directed the R-2 Board to file its response to the affidavit dtd.11.08.2024 filed by the Central Ground Water Board. But it appears from the order dtd.16.08.2024 of this Hon'ble Tribunal that in the affidavit dt.11.08.2024, the Central Ground Water Board (R-3) stated that it has taken up a study in Sukinda Mining area to examine the extent of chromium concentration in ground water and the study will be completed by March-2025. Subsequently, the said report was filed by the R-3 in their affidavit dtd.10.07.2025.
3. That in view of the above, the Board is submitting its response / comments to the affidavit dtd.10.07.2025 of the R-3 in the present affidavit, which are given below:



- a) Sukinda Valley in Jajpur District, Odisha, hosts one of the most significant chromite belts in India, extending approximately 20 km and accounting for nearly 97% of the country's chromite reserves. Seventeen chromite mines are located within the valley, of which eleven are currently operational. These are open cast mines, and to facilitate mining operations, strata water accumulated in the mine pits is often pumped out as mine drainage water. Further, surface runoff from overburden dumps, haul roads, and stackyards also goes out, especially during rains. All the mines have their own ETPs for treatment of the mine drainage water, which is ultimately discharged to Damsala nalla.
- b) Due to geogenic presence of chromium in the Sukinda valley, the mine drainage water and surface runoff contains chromium in hexavalent (Cr^{6+}) form and therefore minimisation of Cr^{6+} in the discharge water has been the main



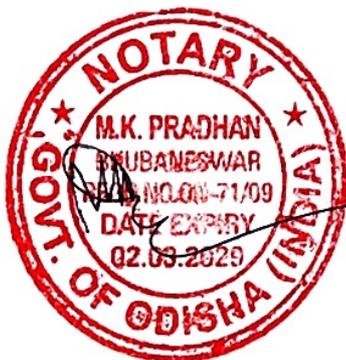
environmental concern. Under the Environment (Protection) Rules, 1986, the discharge standard for Cr^{6+} in mine drainage water is set at 0.1 mg/l. Recognizing the elevated health risks, the R-2 Board revised this standard to a more stringent 0.05 mg/l effective from 09.03.2015 and communicated the same to all the operating Mines of Sukinda Valley vide Board's letter No.3720 (10) dtd.09.03.2015. Copy of the letter dtd.09.03.2015 is annexed to this affidavit and marked as ANNEXURE – R2/2.

- c) In response to persistent contamination of Damsala Nallah, SPCB commissioned a study through IIT Kharagpur and recommended upgradation of individual Effluent Treatment Plants (ETPs) at each mine. It was also recommended to divert surface runoff from broken-up lease areas (dumps, roads, stackyards) to the ETPs for treatment prior to discharge. SPCB conducts fortnightly monitoring of inlet and outlet water quality at the operational

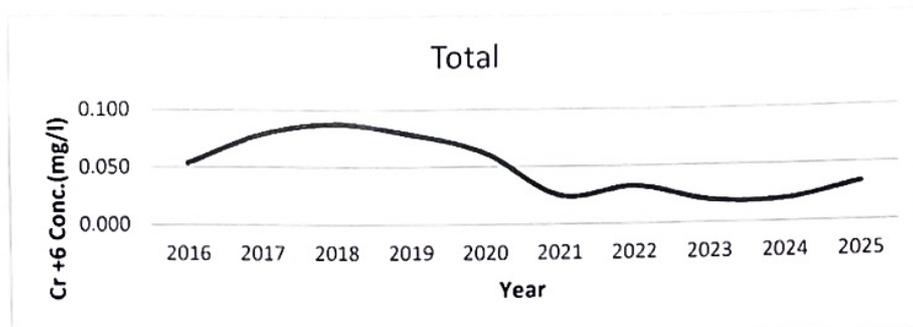


ETPs. The treated effluent consistently conforms to the revised discharge standard of 0.05 mg/l for Cr⁶⁺. The affidavit filed by the Central Ground Water Board (CGWB) also confirms that the discharge quality from each of the mine is confirming the prescribed standards.

- d) Analysis of water samples from Damsala river during 2018 to October 2025 reveals a consistent downward trend in Cr⁶⁺ concentration, both temporally and spatially. The average concentration has reduced from 0.087 mg/l in 2018 to 0.033 mg/l in 2025 (Fig-1), remaining within the tolerance limit prescribed for Class-C rivers under IS 2296:1982. This has been possible due to timely interventions by SPCB and regular monitoring and surveillance. The fact that Cr⁶⁺ in the shallow wells and borewells up to 30 m depth is within acceptable norms as mentioned in the affidavit submitted by CGWB also in agreement with the actions taken up by SPCB.



Average of Hexavalent Chromium (mg/l)



(Fig-1)

- e) It is therefore concluded that through strategic interventions including ETP upgradation, runoff diversion, and rigorous monitoring, SPCB has successfully mitigated the environmental impact of Cr^{6+} in the Sukinda valley. Further, presence of Cr^{6+} in ground water beyond 30 m depth as verified by CGWB is geogenic and SPCB has hardly any role to play. As suggested by CGWB, all the deep bore wells where, Cr^{6+} is observed beyond permissible limits, should be sealed and alternate drinking water supply may be made.



4. That the Respondent No.2 Board craves the leave of this Hon'ble Tribunal to file further affidavit if necessary for effective adjudication of this case.

MANJULA KUMAR PRADHAN
 NOTARY PUBLIC
 BHUBANESWAR
 REGD. NO. ON-71/2009
 PH - 9437627449 (M)

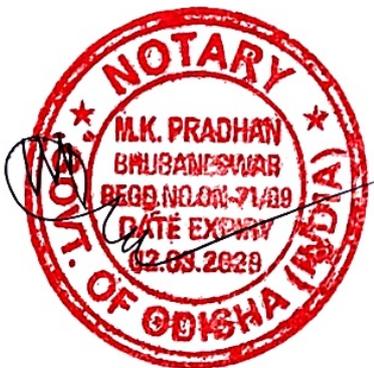
5. That the annexure annexed to the present affidavit is true and correct copy of its original.
6. That the contents of the above paragraphs are true and correct to the best of my knowledge, as derived from the official records, and that nothing material has been concealed therefrom.


DEPONENT
 Member Secretary
 State Pollution Control Board
 Odisha, Bhubaneswar

VERIFICATION:

I, the above named deponent, do hereby verify that the contents of the above affidavit are true and correct to the best of my knowledge, as derived from official records, and that nothing material has been concealed therefrom.

Verified at Bhubaneswar on this the 12th day of November, 2025.



SWORN BEFORE ME


DEPONENT
 Member Secretary
 State Pollution Control Board
 Odisha, Bhubaneswar

MANJULA KUMAR PRADHAN
 NOTARY PUBLIC
 BHUBANESWAR
 REGD. NO. ON-71/2009
 PH - 9437627119 (M)



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STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]
 Paribesh Bhawan, A/118, Nilakantha Nagar, Unit – VIII
 Bhubaneswar – 751 012, INDIA

No. 3720 (W) /Ind. I con. 253(A) vol-3
 To,

Date: 09.03.15

1. Managing Director,
Odisha Mining corporation Limited,
Bhubaneswar, Odisha. PIN-751001
2. The Regional Manager,
Odisha Mining Corporation Limited,
Regional Office, J. K. Road,
Po: F. C. Plant, Dist: Jaipur.
3. The Managing Director,
M/s. IDCOL Ferro Chrome & Alloys Pvt. Ltd.,
Jaipur Road- 755020 (F.C. Project)
Dist: Jaipur.
4. The General Manager,
M/s. Ferro Alloys Corporation Limited ,
At/Po: Kallapani
Dist-Jaipur, PIN-755047
5. The Agent,
M/s. Misrilal Mines Pvt. Ltd.
At/Po: Jaipur Road,
Dist-Jaipur, PIN-755019
6. The Director,
M/s. B.C. Mohanty & Sons Pvt. Ltd.
At: Rajabagicha,
Dist-Cuttack, PIN-753009
7. The Dy. General Manager (Mines),
M/s IMFA Ltd.
Bomikhal, Rasulgarh
Bhubaneswar-751010
8. The Vice President (Mines),
M/s. Balasore alloys Limited, At/Po: Kaliapani,
Dist: Jaipur, PIN-755047
9. The General Manager (Operation),
M/s. TATA Steel Ltd., At/Po: Kalarangiatta,
Dist: Jaipur, PIN-755028

-2-

10. The Mines Manager
M/S. Jindal Stainless Limited
At/Po: Kaliapani, Dist: Jajpur, Pin-755047

Sub: Stipulations of standard for hexavalent chromium in chromite mine discharge water in Sukinda valley.

Sir,

This is to inform that considering the harmful effect of hexavalent chromium (Cr^{+6}) on environment & in order to bring down its concentration limit to 0.001 mg/l in the treated mine wastewater discharged to surface water body, direction was issued by the Board for installation of up-graded ETP as per the conceptual plan suggested by IIT, Kharagpur. Responding to direction of the Board with regard to compliance of the stringent norm of 0.001 mg/l, representation from you were received requesting the Board to relax the stringent limit stipulated for Cr^{+6} . Keeping in view the representations, the Board after a detail examination and deliberation on the subject pleased to stipulate a rationalized limiting standard of 0.05 mg/l for hexavalent chromium. It may be informed that standards for wastewater discharge into inland surface water body are specified in Schedule-VI of Environment (Protection) Act, 1986. However, as per sub-rule (3A) of rule-3 of E(P) Rules, 1986, the Board has got power to stipulate the stringent limiting standard for relevant parameters than those provided in schedule-VI of E(P) Rules, 1986.

The upper limit of concentration of Cr^{+6} in the treated mine wastewater discharged to surface water body is therefore fixed as 0.05 mg/l. This shall be achieved without compromising the concentration limit of Iron (as Fe) as stipulated by the Board for mine discharge water. However, you are requested to put all your efforts to bring down the concentration of Cr^{+6} further i.e. below 0.05 mg/l and at the same time take action, so that the concentration of Fe will not exceed 3 mg/l. It may not be out of place to mention that the sole objective to stipulate the stringent norm is to improve the water quality of recipient water body i.e. Damsal Nalla.

Yours faithfully,


MEMBER SECRETARY

Memo No. _____ / Dated _____ /

Copy to Regional Officer, SPC Board, Kalinga Nagar for information & necessary action. He is requested to collect the treated wastewater of the mines and monitor the parameters such as pH, TSS, O & G, Cr^{+6} , Total chromium & Iron and submit the report.


MEMBER SECRETARY

Memo No. _____ / Dated _____ /

Copy to Sr. Env. Scientist (L) for information. He is requested to take necessary action for monitoring of water quality of Damsal Nalla at more places than that is being done at present and the parameters such as pH, Cr^{+6} , Total Chromium & Iron shall be monitored.


MEMBER SECRETARY