BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

EASTERN ZONAL BENCH KOLKATA

IN

Original Application No.187/2025/EZ (earlier O.A. 479/2025/PB)

IN THE MATTER OF

News Item titled "Alarming levels of fluoride contamination found in surface water of Arunachal Pradesh raising health concerns" appearing in Down to Earth dated 26.08.2025.

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Shantanu Dutta

(Dr. Shantanu Kr Dutta)
Regional Director
Central Pollution Control Board

Filed through Counsel

Dr. Shantanu Kr. Dutta
Regional Director
Central Pollution Control Board
(Ministry of Environment, Forest & Climate Change, Govt. of India)
Regional Directorate - Shillong
BSNL NE - 1 Telecom Circle, CTO Building, Shillong-793001

Dated: 10.11.2025

Place: Shillong

SI/Instrument No 23
Date 10.11.2025

NOTARY
MELARIKA LYNGDIH
EAST KHASI HILLS DISTRICT
REGD 699
10/11/2025
GOVT OF MEGHALAYA

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REPLY ON BEHALF OF RESPONDENT NO. 1 i.e. CENTRAL POLLUTION CONTROL BOARD

1. That the Hon'ble National Green Tribunal Eastern Bench vide order dated 17.09.2025 in Original Application No. 187/2025/EZ (earlier 479 of 2025 (PB), has directed Central Pollution Control Board (hereinafter referred to as "CPCB") to file Reply in the instant matter. Thereby, the reply is made in this instant Original Application in succeeding paragraphs.
2. That, CPCB is constituted under Section 3 of the Water (Prevention and Control of Pollution) Act, 1974. It performs the functions under the Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, and the Environment (Protection) Act, 1986.
3. That, the suo-motu matter is related to the alleged high fluoride contamination in Tawang District, Arunachal Pradesh, with studies reporting levels far above the WHO limit.

The preliminary report is enclosed herewith as Annexure- I.

Shantanu Kr Dutta

(Dr. Shantanu Kr Dutta)
Regional Director
Central Pollution Control Board

NOTARY
MEHARIA ANGMA
EAST KHASI HILLS DISTRICT
REGD. 009
10/11/2025
GOVT OF MEGHALAYA

Dr. Shantanu Kr. Dutta
Regional Director
Central Pollution Control Board
(Ministry of Environment, Forest & Climate Change, Govt. of India)
Regional Directorate - Shillong
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Annexure-I

Central Pollution Control Board
Regional Directorate, Shillong

Progress Report in the matter of 187/2025(EZ)
(Earlier O.A. No. 479/2025 (PB)

News Item titled "Alarming levels of fluoride contamination found in surface water of Arunachal Pradesh raising health concerns" appearing in Down to Earth dated 26.08.2025

Introduction:

The O.A. No.: 479/2025 was registered suo-motu by the hon'ble Principal Bench of NGT based on a news item appeared in 'Down to Earth' magazine dated 26.08.2025 with the title "Alarming levels of fluoride contamination found in surface water of Arunachal Pradesh raising health concerns". The case was transferred to Eastern Zone of NGT vide order of the PB dated 17.09.2025 and subsequently listed as O.A. No. 187/2025(EZ). Discovery of alarming level fluoride contamination in the surface water of various water bodies located in the Tawang district of Arunachal Pradesh was reflected in the O.A. based on reports published by Defence Research Development Organisation (DRDO), Tezpur, which reported fluoride concentration as high as 21.86 mg/l in the year 2022. In the year 2024, the North Eastern Regional Institute of Science and Technology (NERIST), Itanagar reported high fluoride concentration (7.11 mg/l) at Shungester lake (Madhuri lake).

The CPCB has been impleaded as Respondent No.1 in the case and it was desired that reply of the response would be submitted by CPCB by way of affidavit.

Field visit and sampling:

A team of CPCB, Shillong has undertaken a preliminary field study to Tawang districts of Arunachal Pradesh during November 4-5, 2025. Water samples from various surface water bodies, viz., high altitude lakes, river, water falls, etc were collected. Besides, it was observed that the Public Health Engineering Department (PHED), Govt. of Arunachal Pradesh supplied treated water to the residential houses, commercial places and various agencies, mostly non-civilian defence agencies like SSB, Indian Army, etc. The PHED has a water filtration system, which treats the spring water before supplying to various residential and commercial places and other agencies in Tawang. The raw water sample was collected to analyse the fluoride concentration in the untreated form. It was also reported by Army professional available at Shungester lake (Madhuri lake) that Indian Army installed water treatment and supply scheme to its various installations in the area. However, the water treatment plant installed by Indian Army could not be visited without prior permission.

During the ed and other associated parameters. The fluoride concentration in all the samples have already been tested by deploying Testing method: APHA 24th Edition, 4500-F, SPADNS Method (Colorimetric test) while other relevant water polluting parameters are being analysed. Samples have already been analysed with respect to.

The fluoride concentration analysis result in all the samples is tabulated below (Table 1)

Table 1: Fluoride Concentration in various water samples

SL NO	Sample Code	Sample Location	Date of Sampling	Fluoride Conc. (mg/L)
1	S1	Sela Lake (Lat 27.507097, Long 92.103596), Photo 1	4.11.2025	0.045
2	S2	Stream downstream Sela pass (Lat 27.530442, Long 92.057472), Photo 2		0.391
3	S3	Jung Falls (Nunanrang Falls) (Lat 27.589825, Long 91.982167), Photo 3		0.064
4	S4	River upstream confluence to Jung Falls (Lat 27.589823, Long 91.982176), Photo 4		0.160
5	S5	Sangetsar Tso lake (Madhuri Lake) (Lat 27.718914, Long 91.829094)		0.058
6	S6	Inlet stream of Sangetsar Tso lake (Madhuri Lake)		0.058
7	S7	Supply water (Teesri Udasi Gurudwara sahib)		0.019
8	S8	Supply water (Forest Guest House)	05.11.2025	0.083
9	S9	Supply water (SSB Guest House)		0.096
10	S10	Stream water inlet, PHED water treatment plant (Raw water inlet)	4.11.2025	0.128
11	S11	Supply water (Mon Paradise Hotel, Kipti)		0.128

Testing method: APHA 24th Edition, 4500-F, SPADNS Method (Colorimetric test)

It is observed that the Fluoride concentration has been found in the range of 0.045 mg/l to 0.391 mg/l in the lakes or other surface water bodies, as occurred naturally. In the treated water, the fluoride concentration was detected in the range 0.019 mg/l to 0.128 mg/l.

Remark:

Contrary to the high level of fluoride concentrations reported by DRDO, NERIST and other researchers, as reflected in the report published by 'Down To Earth' magazine dated 26.08.2025 and included in O.A.187/2025(EZ) (Earlier O.A. No. 479/2025 (PB), CPCB found the fluoride concentration in less than 1mg/l in various natural water sources and treated water samples. The observed concentrations of fluoride in all these sources, whether treated or untreated, were within the World Health Organisation (WHO) prescribed safe limit of 1.5mg/l.

Other associated water quality parameters are being analysed and shall be reported in the final report.

Photographs showing water sources in Tawang district, Arunachal Pradesh

Photo1: Water sampling at Sela Lake

Photo2: Stream originating in Sela pass

Photo 3: Jung Fall, Arunachal Pradesh

Photo 4:

Photo 4: River upstream confluence to Jung Falls

Central Pollution Control Board
Regional Directorate, Shillong

Photo 5: Sangetsar Tso lake (Madhuri Lake)

(Dr. Shantanu Kumar Dutta)
Regional Director
Central Pollution Control Board

Date: 10.11.2025
Place: Shillong

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EASTERN ZONAL BENCH KOLKATA

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AFFIDAVIT

I, Shantanu Kr Dutta, Son of (L) Lalit Chandra Dutta, aged 53 years, having office at the Regional Directorate- Shillong, Central Pollution Control Board (CPCB), CTO Building (BSNL), Shillong 793 001 do hereby solemnly affirm and sincerely state as follows: -

1. That the deponent is authorized representative to represent the Respondent CPCB in the present case, and as such, I am well conversant with the facts and circumstances of the present case on the basis of the information derived from the official records, and hence, I am competent and authorized to verify, sign and swear this affidavit on behalf of the Respondent CPCB.
2. That the accompanying reply may be read part and parcel of the present affidavit as I am competent to swear this affidavit.
3. That the accompanying reply has been drafted and filed under my instructions and authority the contents thereof are true and correct on the basis of the record maintained during ordinary course of business of CPCB and available records and documents and the contents of the same are read over and explained to me and are not repeated herein for the sake of brevity.

IDENTIFIED BY ME

Shantanu Dutta

DEPONENT

ADVOCATE

NOTARY GOVT OF MEGHALAYA
M. LAMARIKA LYNGWA
EAST KHASI HILLS DISTRICT
REGD. NO. 09

Dr. Shantanu Kr. Dutta
Regional Director
Central Pollution Control Board
(Ministry of Environment, Forest & Climate Change, Govt. of India)
Regional Directorate - Shillong
BSNL NE - 1 Telecom Circle, CTO Building, Shillong-793001

VERIFICATION

Verified at Shillong on this day of 10th November, 2025 that the contents of the above reply are correct and true on the basis of the record of the cases as mentioned in the day-to-day affairs of the CPCB. Nothing has been concealed therefrom or mis-stated.

Verified at Shillong on this the 10th Day of November, 2025.

IDENTIFIED BY ME

DEPONENT

ADVOCATE

Dr. Shantanu Kr. Dutta
Regional Director
Central Pollution Control Board
(Ministry of Environment, Forest & Climate Change, Govt. of India)
Regional Directorate - Shillong
BSNL NE - 1 Telecom Circle, CTO Building, Shillong-793001

NOTARY
GOVT OF MEGHALAYA
MELARIKA LYNGWA
EAST KHASI HILLS DISTRICT
REGD. 009
10/11

MELARIKA LYNGWA
NOTARY
East Khasi Hills District
Government of Meghalaya