

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH AT NEW DELHI**

**IN O.A. 298 OF 2023**

**IN THE MATTER OF:**

Dr. Raja Singh

.....Applicant

**Vs.**

Union of India, Through the Secretary, Ministry of Environment,  
Forests and Climate Change and Ors.

.....Respondents

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**Response to Sur-Rejoinder by Respondent No. 4 dated 17 September 2024 under principles of natural justice, as new material has been placed on record and short, limited reply to affidavit by MoEFCC dated 24 September 2024, and praying for directions of the Hon'ble National Green Tribunal for phasing out asbestos roofing in schools under Air (Prevention and Control of Pollution) Act 1981 read along with Environmental Protection Act, 1986 and read along with Precautionary Principle as in Section 20 of the National Green Tribunal Act, 2010.**

The humble applicant Most Respectfully Showeth:

1. At the outset, the humble applicant states that this matter is non-adversarial in nature and linked only to non-occupational exposure to asbestos in schools and phasing out of asbestos cement roofs in schools in larger public interest and in good faith for health and well-being of children who are a vulnerable

section of the society. It is not about any banning, especially of asbestos in general in India.

2. The humble applicant most respectfully denies the contents of the Sur-Rejoinder by Respondent Number 4 dated 17<sup>th</sup> September 2024 and reiterates the contents in the Rejoinder dated 2<sup>nd</sup> May 2024 except when specifically accepted, and the applicant craves leave to refer to the contents of the Rejoinder dated 2<sup>nd</sup> May 2024 for the correct interpretation at the time of hearing.
3. The humble applicant, in order to assist the Hon'ble Tribunal begs to rebut the new contents of the Sur Rejoinder dated 17<sup>th</sup> September 2024, **as new material, previously not submitted has been placed on record by the Respondent No. 4.**
4. The Respondent number 4 has placed on record a Non-Indian, Sri Lankan study on 17 September 2024 (Annexure-A, running pages 1389-1478) titled 'Air Quality Study on Concentrations and Significance of Chrysotile Asbestos Fiber in Household Ambient Environment in Sri Lanka' as a new material,

previously not filed, to which the applicant begs to place highlights and objections to assist the Hon'ble Tribunal.

5. In order to assist the Hon'ble Tribunal, the applicant begs to bring to light the highlights and objections to the said Sri Lankan study, The study first of all acknowledges the following points:

- a. The study acknowledges the fact that chrysotile asbestos fibres are released from asbestos cement roofing in some quantity and assertions made about the non-releasability of asbestos fibres from and “lock-in” may be untrue.
- b. The study brings to light the standards for asbestos fibres in non occupational standards as 0.0009 fibres/cc according to US-EPA levels and lifetime exposure levels as 0.0005 fibres/cc as per WHO (where smoking use is also taken into consideration).
- c. The study highlights the higher number of fibre levels in the indoors as compared to the ambient environment, which highlights that it is an indoor air quality issue.

- d. The study highlights the need for incorporation of asbestos fibre measurements in national air quality monitoring programmes, to consider asbestos as one parameter for air quality standards, which enables it to be considered an indoor pollutant.
  - e. The study recommends further research, studies and assessments on asbestos usage, fiber concentration, as there may be some shortcomings in this study.
  - f. The study also brings to light an altogether new issue of asbestos fibres being released from automotive parts like linings (which though not directly relevant to this current issue, may be an environmental hazard for India too.)
6. As the highlights have been presented, at the same time, the said Sri Lankan Study has the following shortcomings and the objections are listed below:
- a. The most important issue, with respect to exposure to asbestos, i.e. the latency period of diseases may not be

addressed in this study. Asbestos Related diseases, especially mesothelioma, can have a latency period from 10/15-40 years or more after first exposure. Mesothelioma being a cancer also means that the limit of exposure may not be conclusive and small levels may also cause the same. The safe permissible levels for exposure to carcinogens may not be defined.

- b. The absence of actual medical investigations in the said Sri Lankan study, in comparison to the Indian study by NIOH, where end-users have been subjected to medical checks means the study, may not show the complete picture.
- c. It is not clear in the study whether the criteria as to whether there was weathering and degradation in the roofs in the study, was included, specifically.
- d. The issue of asbestos fibres released from asbestos cement roofing, entering soil and water may not have been addressed in the said Sri Lankan study.

7. With respect to the Document titled 'Environmental Health Criteria 203: Chrysotile asbestos' (Annexure B, running pages 1479-1572) in order to assist the Hon'ble Tribunal, the following main points are brought to the kind attention of the Hon'ble Tribunal.

a. In the conclusions and recommendations section of the said report, the following is stated:

*i. 'Exposure to Chrysotile asbestos poses increased risks for asbestosis, lung cancer and mesothelioma in a dose-dependent manner. No threshold has been identified for carcinogenic risks.'*

*(Page 1543)*

*ii. 'Where safer substitute materials for chrysotile are available, they should be considered for use.'*

b. The report being old, published in 1998, has the basic lack of newly performed studies on the issue of asbestos fibre release from asbestos cement roofing.

SHORT REPLY TO AFFIDAVIT FILED BY MoEFCC DATED 24<sup>TH</sup>  
SEPTEMBER 2024 LIMITED TO THE NON-OCCUPATIONAL

PORTION OF THE STUDY WHERE EFFECTS ON END-USERS  
OF ASBESTOS ROOFING HAVE BEEN STUDIED.

8. Respondent No. 1, MoEFCC has submitted an affidavit dated 24 September 2024 in compliance of NGT order dated 18 July 2024, where the study by NIOH, or National Institute of Occupational Health titled ‘Study of Health Hazards/Environmental hazards resulting from use of Chrysotile variety of asbestos in the country’ has been submitted. The applicant requests to highlight some facts.
  
9. It must be kindly and respectfully noted that R-4 had also submitted a version of the same study in reply filed before this Hon’ble Tribunal on 2<sup>nd</sup> April 2024 (Running Page number 762 to 884), but that study version seems different as there was some difference in content and changed results. But the applicant will only rely on the study that has been submitted by MOEFCC in affidavit dated 24 September 2024.
  
10. It may kindly be noted that only a small portion of the study deals with non-occupational exposure by end-users of asbestos roofing in chapter titled ‘Asbestos workers, end-users and

community in the vicinity of asbestos factory, Hyderabad' (Running page 1680-1686). The rest is denied. In the highlights section at the conclusion of the chapter it is mentioned that *'In end-users 12.6% were having restrictive disorder, and 1.5% were having combined type of abnormality.'*

11. It may be kindly noted that lung issues are either obstructive type or restrictive type, or a combination. The use of tobacco and smoke are linked to obstructive type of disease and restrictive disorders are attributed to mineral dusts like asbestos, etc. Therefore, end users of asbestos sheets having only restrictive disorder must be kindly noted and considered.

12. It is also humbly and respectfully highlighted that a study on the non-occupational exposure to asbestos, especially in schools, even though requires a perspective of Precautionary Principle, but also requires the following parameters to be considered:

- a. The consideration of the long latency of disease caused by exposure to asbestos, as some exposed today may get manifestations of the disease only after 10/15-40 or more years, and this may require one to see cases from other

geographies where such similar use has happened and there mesothelioma (a cancer caused by asbestos) cases have peaked decades after use.

- b. The inclusion of sampling of soil in and around the premises, as soil gets airborne and soil particles with asbestos fibres can enter the lungs.
- c. The condition of the roofing sheets, whether new brand or weathered and degraded are considered. It is on weathering that asbestos fibres are of concern.
- d. The check of levels of airborne fibres as well as medical checks of past users.
- e. The permissible limit of carcinogenic materials like chrysotile under which cancers like mesothelioma may not be caused, may be specified.

13. It is also humbly and respectfully reiterated that R-1, MoEFCC has on record already admitted the following in the affidavit dated 26 December 2023 that:

*'7. That it is most humbly submitted that Asbestos in the building does not spontaneously release fibres, **but it can enter the air, water, soil from the weathering, renovation, or demolition of manufactured asbestos products. People***

*are likely to be exposed to asbestos through inhalation of airborne fibres.'*

**PRAYER**

Therefore, the humble applicant prays for the following:

1. This response to the new materials in Sur-Rejoinder by R-4 and short reply to affidavit by MoEFCC dated 24.09.2024 may kindly be considered and be placed on record.
2. Suitable directions that the Hon'ble Tribunal may deem fit and appropriate.

For the above, the humble applicant shall forever be grateful.



(Applicant: Dr Raja Singh)  
Date: 18<sup>th</sup> November 2024  
Place: New Delhi

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AFFIDAVIT

I, Dr. Raja Singh, S/o Sh. Gurmit Singh, aged 32 years, R/o E 205/206,  
GF, Amar Colony, Lajpat Nagar 4, New Delhi 110024, do hereby  
solemnly affirm and state as follows:

1. That I am the Applicant in the above document and as such fully conversant with the facts of the present case and hence competent to swear the present affidavit.
2. That I have gone through the contents of the accompanying document and has been drafted by me.
3. That I have understood the meaning thereof and the content of the accompanying document is true and correct to the best of my knowledge.

*af*  
I identified the Deponent who has signed/thumb impression before me  
Verification

18 NOV 2024

*Raj*  
DEPONENT

Verified at New Delhi on this 18<sup>th</sup> day of November 2024 that the contents of the above affidavit are true and correct to the best of my knowledge. No part of it is false and nothing material has been concealed therefrom.



CERTIFIED THAT THE CONTENTS EXPLAINED TO THE DEPONENT EXECUTANT WHO IS SEEMED PERFECTLY TO UNDERSTAND AND AFFIRMED & DEPOSED BEFORE ME AT NEW DELHI

IDENTIFY THE EXECUTANT/DEPONENT WHO HAS SIGNED IN MY PRESENCE  
VINOD KUMAR TIWARI, Advocate, Reg. No. 21/18/2020  
NOTARY PUBLIC (NEW DELHI)

*Raj*  
DEPONENT

18 NOV 2024

## Service of Response to new materials in Sur Rejoinder and Short reply to affidavit in OA 298/2023

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From Dr. Raja Singh <dr.rajasingh@proton.me>

To danubeconsulting@gmail.com, Ankit Virmani<ankit@virmani.in>, Hrithik Sharma<hrithik@virmani.in>, Vaibhav Bhadana<vaibhav.bhadana@virmani.in>, office@virmani.in

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Date Tuesday, 19 November 2024 at 4:12 AM

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BEFORE THE NATIONAL GREEN TRIBUNAL

Principal Bench at New Delhi

OA 298 of 2023

Dr Raja Singh vs Union of India & Ors

Most Respectfully,

Please find attached Response to new material in Sur-Rejoinder by Respondent No. 4 dated 17 September 2024 and short reply to affidavit by MoEFCC dated 24 September 2024.

Kindly confirm the receipt of the same.

Thanks and regards,

Dr Raja Singh

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**540.33 KB** 1 file attached

response\_to\_surrejoinder\_181124\_paged.pdf 540.33 KB