MONTANA STATE UNIVERSITY
College of AGRICULTURE

Department of Microbiology & Cell Biology

Dear Beth Archer, November 30, 2024

This letter is in response to the EPA's Five-Year Review of the Libby Asbestos Superfund Site and the proposed future de-listing of OU4 (Libby residential area) and OU7 (Troy residential area). I write to you as an immunotoxicologist who has worked for over 20 years on the health effects of amphibole asbestos, particularly Libby Asbestos (LA). We have published extensively on the association between LA exposure and autoimmune disease. Because the risk of autoimmune and autoinflammatory disease was not considered in the 2015 Site-Wide Human Health Risk Assessment which established the basis for the selected remedy and action levels for the remediation, **it is not possible at this time to determine whether or not the remedy is protective**. Through this letter, I provide evidence that strongly a) contraindicates the de-listing of the residential operational units, and b) supports extension of the Public Health Emergency that currently supports the only clinic in the US that specializes in asbestos related diseases, that manages an extensive health screening program, and that ensures health coverage for those people with asbestos related diseases through special provisions of the Affordable Care Act. To remove these critical services would be not be in the best interests of these communities nor the general public, which benefit tremendously from the knowledge and resources gained from these programs.

1. Much new information has come to light regarding LA in the last 10-12 years. **These new understandings make it currently impossible to say whether the site is safe.** The critical new information includes the following:

a) The frequency of autoimmune disease diagnoses in the Libby/Troy area is almost triple the expected US prevalence. And the frequency of specific systemic autoimmune diseases, such as systemic lupus erythematosus, is increased 5-10 fold over expected US prevalence values. (Source: CARD/ATSDR Screening Program reports).

b) The EPA established a reference concentration for Libby Amphibole based on pleural disease outcomes that is significantly lower than standards that had previously been based primarily on cancer outcomes. However, no reference concentration has been established for autoimmune disease.

c) The lamellar pleural thickening, the basis of the LA-specific RFC, has been shown over the last 5 years to occur much more frequently than previous believed, due to new technologies for detection. Screening data show that diagnoses of this disease have not significantly declined in the last 5 years.

d) Other newly discovered health outcomes that have not previously been part of the risk assessment for Libby MUST now be taken into account. These include pulmonary hypertension, coronary artery disease, and effects from fibers accumulated in the brain. This requires an entirely new risk assessment before the site can be determined to have been remediated to a safe level.

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2. All of the health outcomes for LA are long-term, with long latency (up to 40 or more years from exposure) and with few or no treatments, making them life-long diagnoses. They can have severe morbidity and mortality, with tremendous health care costs. They are also difficult to diagnose, and this problem has hindered the ability to truly evaluate the magnitude of health impacts because cases are missed or mis-diagnosed, or the link is not made between the exposure and the outcome. Because of these challenges, it is not possible/practical to use simple, rapid health assessment tools.

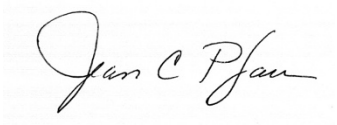
3. It is essential to measure what people are currently breathing. This is partly because we now know that most of the LA fibers are smaller than 5 micrometers in length, making them impossible to see by light microscopy, which is typically used for exposure assessment. It is also now known that these very short fibers contribute substantially to health outcomes throughout the body. Personal monitors must now be implemented for many work and play settings in the Libby/Troy Units, and they must be evaluated by electron microscopy to determine the true exposures that include tiny fibers.

4. A comparison MUST be made between the health of the community before and after remediation. Based on preliminary screening data, health improvement is insignificant. To accurately assess this, two things are required: 1) a registry of data that can be searched by exposure, dates, and health outcomes, and 2) expansion of the Screening Program to include people who arrived in Libby after the remediation.

a) Much of the data needed for this work is available, including serial CT scans, autoimmune screening, coronary artery calcification data, lung disease data: but it is spread out at different institutions. A concerted effort is needed to compile all of the data into a complete LA registry. ATSDR is the perfect site for this valuable and essential tool.

b) A registry would assist in identifying at risk populations, potentially improve treatment with early diagnosis and monitoring, improve delivery of health care to those in need – particularly in those with disease processes that may not yet have been identified as being associated with LA, and determine the need for further intervention at the site.

Sincerely,



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