

Correspondence from an interested party

I hope you could bring the attached letter to the attention of the Petition Committee considering the matter concerning boundary limits for quarry operations. I note that the current regulations stipulate 200 meters and would remind the committee that, at CraigrHesg, the quarry operations will be within 165 meters of schools and homes. I'd also point out that silica dust doesn't recognize boundaries and the wind direction and strength at the junction of two valleys (Taff and Rhondda) is somewhat different that what may occur in the safe confines of, let's say, Cardiff Bay.

There is also a perverted trust in the safety guidance given by the single air monitor situated far from the quarry operations - much further from the boundary than homes, childcare facilities and shops. In addition, analysis of weather patterns indicate that the wind generally travels in the opposite direction to the wind monitor. Dust has been collected from window sills on the edge of the boundary and have indicated levels of up to 51% silica dust. In addition, R-C-T's own studies in 2014 demonstrated 2.4 times more dust in the community at sites closer to the quarry than those several hundred meters away. Although this didn't seem to deter them from hastily agreeing to sell the 27 acres needed for the quarry extension for just £4k in that same year.

Finally, R-C-T have refused to investigate this further (as have PHW) both indicating that they rely primarily on a single air monitor to satisfy themselves on the safety of the air breathe - R-C-T have also stated that they are not legally obligated to evaluate the risks from PM2.5 sized dust particles (the most dangerous kind) and that's the responsibility of the Welsh Government. They have also suggested that anyone who believes they have suffered ill-health for the effects of the dust should report this to their health professionals. When you consider that these illnesses include kidney failure, COPD, cancer and heart failure - that's asking the local population to act as canaries - do we have to wait a generation before taking action ?

Regards,

Rob Peterson

The Glyncoch Quarry and Community Health Crisis

The situation in Glyncoch exemplifies how vulnerable and underrepresented communities are often overlooked when it comes to holding local and national authorities accountable for public health concerns. Despite mounting evidence of health risks, regulatory bodies have failed to provide adequate oversight, leaving residents exposed to potential harm.

Pennant stone is undeniably a valuable resource, prized for its skid-resistant properties and its proximity to markets in South England. However, this stone contains approximately 70% silica, a substance known to pose severe health risks when airborne in fine particulate form.

Evidence confirms that silica dust from the quarry is infiltrating nearby homes. A 2014 study by the University of the West of England found that silica-based dust concentrations were nearly 2.4 times higher in homes close to the quarry boundary compared to those situated several hundred meters away. A 2024 dust analysis further revealed that up to 50% of dust samples collected near residential areas consisted of silica dust.

Regulatory Indifference

Despite the overwhelming evidence, the seriousness of this risk is in question. The Health and Safety Executive (HSE) maintains workplace exposure limits using time-weighted averages, yet does not consider monitoring general population exposure its responsibility. Quarry workers operate with protective measures, and facilities are strategically distanced from rock-crushing activities—yet many homes bordering the quarry are positioned closer than these protected facilities.

Public Health Wales presented a favorable air quality assessment during the appeal process but has since admitted to not retaining the data that supported their conclusions. The agency relied on local authorities for their information and has declined further involvement in evaluating the health risks.

Rhondda Cynon Taf (R-C-T) Council approved the sale of land for the quarry's expansion in 2014, despite being aware of the high silica dust concentrations near homes. In the 2022 appeal hearing, neither silica nor silicosis were even mentioned. The council now claims its hands are tied, deferring any health-related concerns from the 2024 study to public health professionals. Furthermore, R-C-T asserts that ensuring compliance with PM2.5 particulate matter regulations falls under the jurisdiction of the Welsh Government.

The **Welsh Government**, in turn, approved the quarry expansion while shifting regulatory oversight back to R-C-T. This bureaucratic deflection has left residents in a cycle of inaction, with no authority willing to take responsibility for comprehensively safeguarding public health.

A Known Hazard Ignored

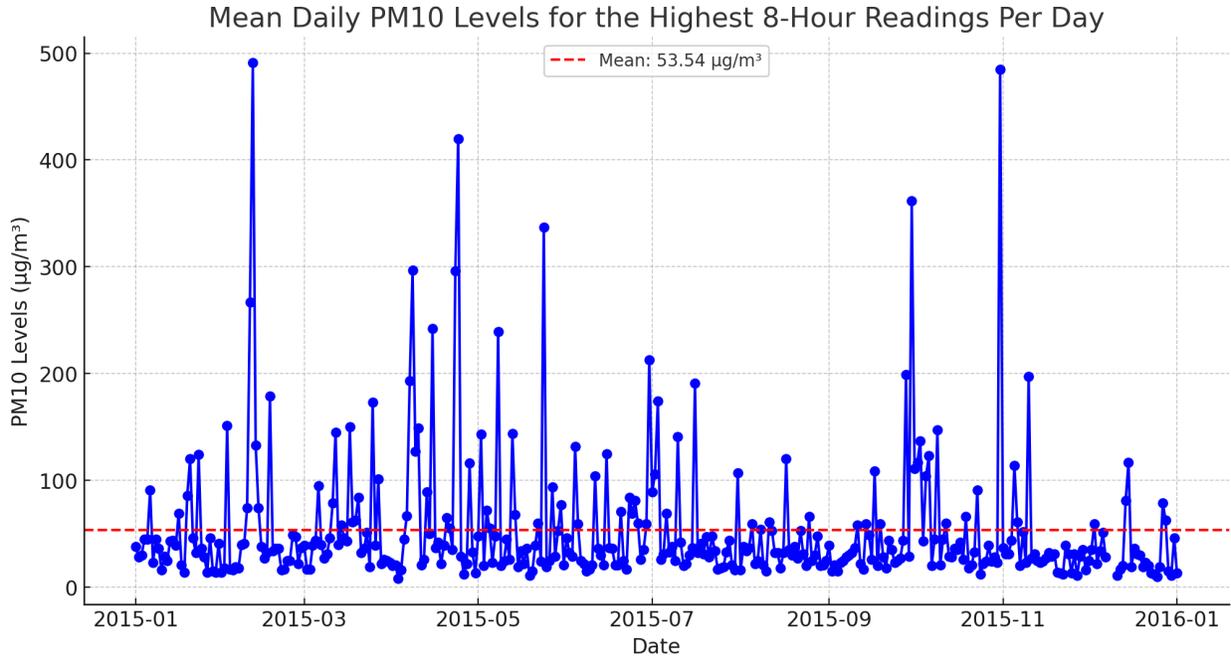
The dangers of silica dust exposure have been recognized for decades. The first recorded quarry-related silicosis fatality occurred at the quarry in 1947. Many nations, including Canada, Australia, India, Nigeria, and the United States, have enacted legislation to protect the general public by regulating proximity to quarry operations. The UK, however, has no such legislation—silicosis is not even classified as a recordable cause of death, meaning the actual mortality rate due to silica exposure remains unknown.

Wales, the world's first industrialized nation, frequently champions its green credentials and commitment to climate action. Yet, just 12 miles from its capital, children are being exposed to a deadly dust known to have afflicted their ancestors. The assumption that such occupational hazards ended with the closure of coal mines has proven dangerously naive.

A Community Under Siege

The residents of Glyncoch have lived alongside quarry operations since the late 1950s. Over time, the quarry has expanded, encroaching ever closer to the community. Officials have long assured the public that dust mitigation measures have improved since the 1990s. However, with no historical data available, the true extent of past exposure remains unknown.

The first recorded dust monitoring data, collected since June 2014 by R-C-T, is unreliable—functional only 50% of the time, lacking PM2.5 measurements until 2023, and positioned upwind of quarry operations and further from the site than affected homes and businesses. It is unsurprising that R-C-T claims the air is safe, given that its monitoring system has been inoperative for significant periods, at times functioning for as little as six weeks in an entire year. The permitted levels of pollution (regardless of source) are also very favourable - keep in mind that the limits are based on a 24 hour average of pollution levels, but the quarry doesn't operate 24 hours a day so they can easily exceed certain limits during peak down but then rely on the remaining 16 hours of the day to allow the average to fall. This is what the maximum levels of dust looks like if only the top 8 hours of each day were recorded in 2015.



The community collected dust from doorsteps and windowsills in late 2024. The results were analyzed by an independent laboratory for silica content. The results are below, please allow yourself to imagine how this would feel if you had such accumulations on your own homes. Doesn't this deserve immediate action - R-C-T's response was less than convincing that they take these matters seriously and rely far too much on the flawed data of the single monitoring station.



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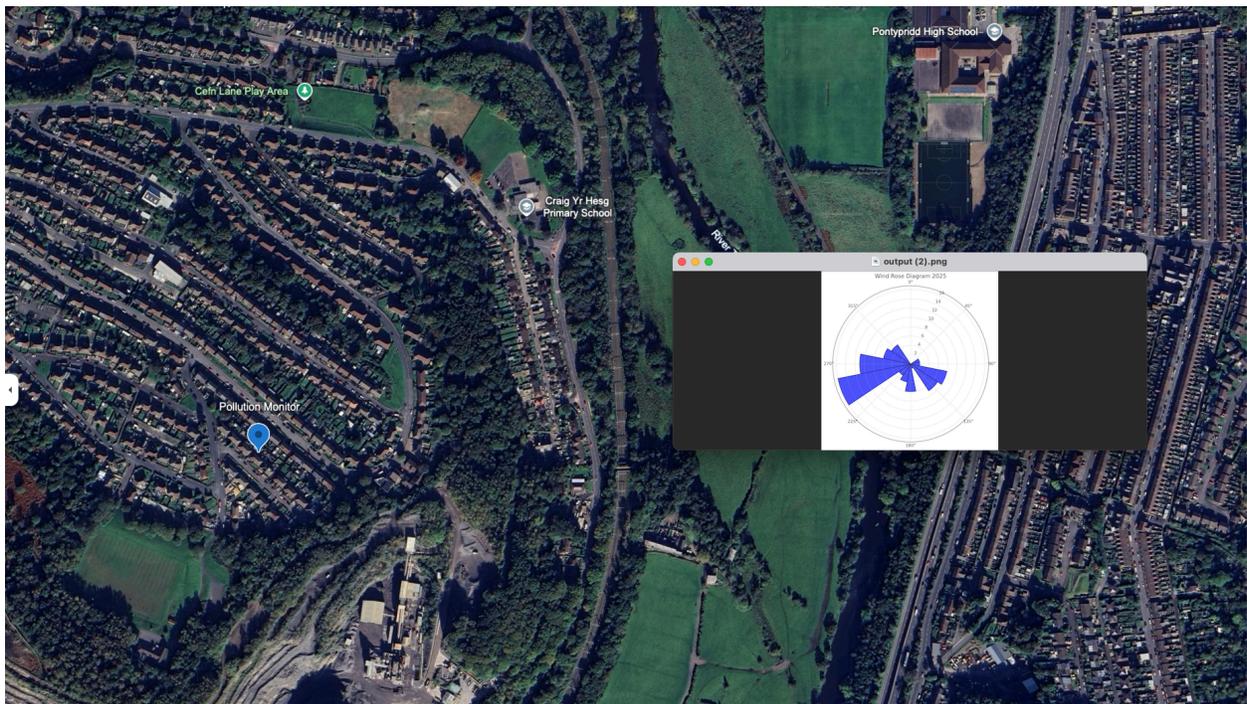
RESULTS:

Sample Number	Quartz %	Cristobalite %
MP5 – 5 & 6 Darren Court, Glyncoch	51.0	<0.3
MP6 – 113 Garth Avenue, Glyncoch	24.4	<0.3
MP7 – 129 & 133 Garth Avenue, Glyncoch	40.3	<0.3

Our detection limit for quartz and cristobalite in bulk samples by XRD is 0.3%.

Wind Direction

Based on samples collected from local weather stations it appears that the wind is predominantly traveling to the east - that is away from the single pollution monitor - the one heavily relied upon to give the green thumbs up on the air quality in the area. In fact, it's traveling directly towards the site of the new "super" school, regardless of the risk to the children.



View of Dust from Quarry operations (moving away from single pollution monitor)



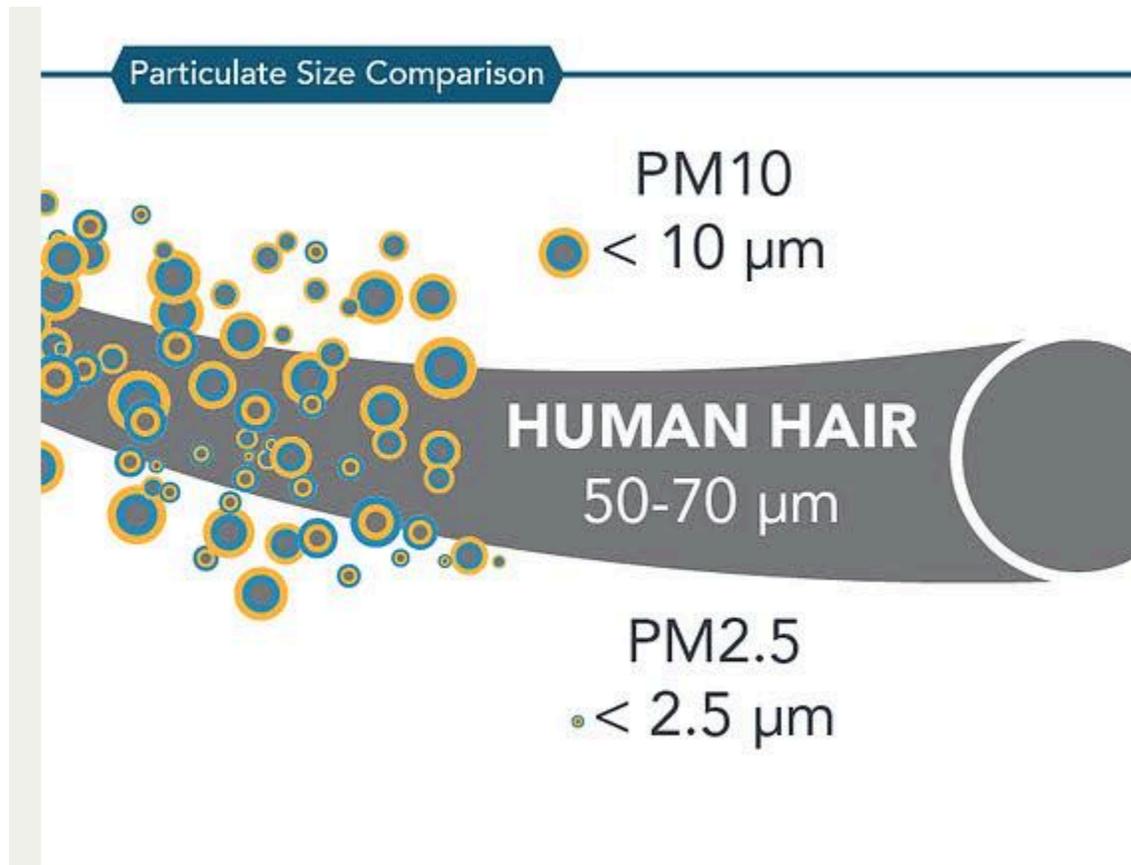
View from Pontypridd High School



Conclusion

The health hazards of silica dust are well-documented, yet Glyncoch residents continue to be exposed to unacceptable risks due to governmental inaction. Regulatory bodies must take immediate steps to monitor and mitigate silica dust exposure before the next generation suffers the same fate as those before them. This quarry has been in operation since 1885 - hasn't this once pristine area given enough ? Incidentally, the quarry was established by the Crawshay family. Perhaps this current Welsh Government will go down in history with the same reputation as that infamous dynasty. Finally, once this situation is resolved, the Welsh Government can investigate the economics of R-C-T agreeing to sell the 27 acres of land for the quarry extension to the quarry company for £4k .

Appendix: The Health Consequences of Silica Dust Exposure



Respirable crystalline silica (RCS) is a hazardous airborne contaminant linked to multiple life-threatening diseases, including:

1. **Silicosis** – A progressive lung disease caused by silica inhalation, leading to lung inflammation and scarring.
 - Chronic Silicosis: Develops over 10–20 years of low to moderate exposure.
 - Accelerated Silicosis: Develops within 5–10 years of heavy exposure.
 - Acute Silicosis: Occurs within months to a few years of extreme exposure.
 - Symptoms: Shortness of breath, coughing, fatigue, chest pain, and respiratory failure.

2. **Chronic Obstructive Pulmonary Disease (COPD)** – Silica exposure increases the risk of chronic lung disease.
 - Symptoms: Persistent cough, mucus production, shortness of breath, wheezing.
3. **Lung Cancer** – Long-term exposure to silica dust is a known carcinogen.
 - Symptoms: Persistent cough, weight loss, chest pain, difficulty breathing.
4. **Tuberculosis (TB)** – Silicosis weakens the immune system, increasing TB risk.
 - Symptoms: Chronic cough, weight loss, night sweats, fever.
5. **Silica-Related Kidney Disease** – Long-term exposure has been linked to kidney failure.
 - Symptoms: Fatigue, swelling, high blood pressure, decreased urine output.
6. **Autoimmune Disorders** – Silica exposure is associated with lupus and rheumatoid arthritis.
 - Symptoms: Joint pain, skin rashes, inflammation-related complications.
7. **Respiratory Infections** – Increased susceptibility due to lung damage from silica dust.
8. **Silica-Related Pneumoconiosis** – A lung disease caused by inhaling mineral dusts.
9. **Chronic Bronchitis** – Long-term exposure leads to inflammation of bronchial tubes.
 - Symptoms: Persistent coughing, mucus production, difficulty breathing.