

**From:** PhilBest313@gmail.com  
**Sent:** Monday, 10 December 2018 11:40 AM  
**To:** 'CLARKE Liz'; 'Mailbox Investigations'; 'Maiwar Electorate Office'; 'directorgeneral@des.qld.gov.au'; 'environment@ministerial.qld.gov.au'  
**Cc:** 'Roy Saint'; 'Bronwyn Bell'; 'Juanita Williams'; 'convenor@earthlaws.org.au'; 'Isobel.Roe@abc.net.au'; 'slove@seven.com.au'; 'brendan.omalley@news.com.au'; 'investigations@abc.net.au'  
**Subject:** RE: CTS 32131/18 Mt Coot-tha - Allegation of Gross BCC Data Corruption by the Mt Coot-tha Local Residents  
**Attachments:** Blast Notification - Thursday 6 December 2018 (10.2 KB); DefinitionOfParticle.jpg; BCC-MCQ-SussexStreetBlastVibrationMonitorAfterBlast-6-Dec-2018.jpg; BCC-MCQ-SussexStBlastVibrationMonitorBeforeBlast-6-Dec-2018.jpg; BCC-MCQ-SussexStBlastVibrationMonitorEquipmentLabel-6-Dec-2018.jpg; BCC-MCQ-SussexStBlastVibrationTransducerGroundAfterBlast-6-Dec-2018.jpg; EHP-DES-EM2402-Version3-Page2-BlastVibMeasurement.jpg; EHP-DES-EM2402-Version3-BlastVibrationLimits.pdf; 300609: Mt Coot-tha; PersonalInjuryComplaintAugust2015.jpg; PollutionHotlineApril2016-NotUsingConcreteBlockMonitoring.jpg

Dear Ms Clarke,

Thank you for all your work and assistance so far.

We provide a second email as a considered response to your earlier scope email, as well as the information provided by Mr Roy Saint RPEQ, plus relevant photographic evidence.

In a further response to your 30<sup>th</sup> November 2018 letter regarding our Mt Coot-tha Quarry (MCQ) operations, we note your specified departmental jurisdiction limit is restricted to only considering environmental nuisance (EP Act 1994 s15) and human comfort.

- Our understanding is that your department is responsible for administering Environmental Authority (EA) compliance issues, and as such should investigate and rectify all reported EA breaches.
- Also when the BCC Aggregates Dept Manager responds to your written blast vibration reduction request saying in writing AS2187.2 Appendix J statement/s, which are obviously untrue, it seems strange to us that you have not corrected this.

In your 30<sup>th</sup> November 2018 CTS 32131/18 response, we note that:

1. You have decided to ignore gross data corruption and breaches before 2016, but you have not given any reason for this.
  - a. Even though we (the local residents) have invested 2 years of our time establishing and proving beyond all possible doubt, that grossly corrupted blast footprint reporting has occurred for more than a decade or c600 blasts.
2. FYI: The US Bureau of Mines standard establishes an incapability of buildings to withstand high numbers of blasts, which they refer to as “fatigue” and which reduces the ability of a building to withstand further blast vibrations by as much as 50%.
  - a. Because the huge numbers of MCQ blasts, this is very applicable to homes in Mt Coot-tha and possibly also Toowong or Indooroopilly (we get complaints from there).
3. Your reference to the EP Act 1994.
  - a. We advise that we have established beyond doubt that the maximum EA limits and the EP Act s440ZC limits have been grossly violated, especially when the USBM 50% fatigue factor is taken into account.
  - b. Plus the ability of the BCC MCQ to counter this using their non-compliant and unsupervised blast vibration monitoring is questionable.

Subsequent to RPEQ civil engineer Mr Roy Saint providing some statements (which he sent directly to you and is attached to this email), we wish to advise that new information is available, plus we have recent photographic monitoring point evidence.

4. Please note that Mr Saint has several decades of relevant experience and is thus regarded as one of the most experienced and highly respected senior RPEQ Civil Engineers in Queensland.
  - a. RPEQ engineers work strictly in an environment of accuracy and fact, to maintain critical endurance and safety.
5. As the 3 Sir Samuel Griffith Drv project engineer, he has been very concerned for several years regarding the situation for homes and historic buildings in the undefined KRA-42 Separation Zones, immediately to the north of the Mt Coot-tha Quarry (MCQ).
  - a. In consideration of the excessive non-compliant MCQ blast vibrations which are repeatedly being experienced in this undefined area.
    - Mr Saint's reference to over-zealous charging refers to the excessively powered MCQ explosives charges, causing sensitive receptor blast vibrations to exceed the BCC MCQ SR0041 [Environmental Authority Schedule F \(EA\)](#) , as well as the [EP Act S440ZC](#).
  - b. For some years, Mr Saint has considered that blast vibration monitoring using spikes or tent pegs in loose uncompacted soil, is an extremely inaccurate transducer coupling method, often resulting in reduced reported numeric data.
    - We have complained about this inaccurate practice before.
    - For the Mt Coot-tha homes which are founded in the same rock seam as that being blasted, he has stated that the monitoring should always be done on either the same rocky or embedded concrete surface.
    - Because of the hilly nature and a general lack of topsoil, most of the Mt Coot-tha homes are founded in the same bedrock seam as that being blasted.
      - However we believe that no MCQ blast vibration monitoring has ever been done on the actual domestic bedrock zone.
6. The decision by the quarry manager (Mr Bell) to order the Heilig Technicians not to use the pre-existing concrete block and never to use concrete blocks at other locations, can only be described as further corrupting and decreasing the accuracy of the blast vibration monitoring process and outcome.
  - a. We have been advised by the Heilig Monitoring Technician (Nathan Russell) that the BCC MCQ Manager (Mr Bell) stipulates where and how the Heilig Technicians must conduct their blast vibration monitoring operations.
    - They must only measure at the much further away Sussex St and Richer St Locations and they must only use a soil-spike or tent-peg transducer mounting method.
    - In addition to this the MCQ is withholding the locally measured values.
    - Regarding the above, we were advised by Mr Russell that Mr Bell had directed Mr Russell to stop using the existing concrete block Outside 3 Sir Samuel Griffith Drv (3SSGD) (aka 159 Mt Coot-tha Rd)(159MCR) and to only use a spike or peg.
      - Sometime afterwards we discovered this malpractice by accident and thus we complained strongly about it.
      - Hence the use of the existing concrete block transducer mounting at 3SSGD resumed.
  - b. Regarding the photographs taken on the 6th December 2018, at the Sussex Street monitoring location, you can clearly see that the transducer monitoring point is "spiked".
    - The concrete block is not visible and is clearly not being used.
    - Approximately one metre from this point, there are some pre-existing embedded concrete blocks which could be used, but have apparently been ignored.
      - Alternatively, it is a simple matter to install a new concrete block as the size is not excessive, and this once-only process only takes 10 minutes.
  - c. In discussions with local residents, we are advised that the favoured Richer St monitoring site is very soft loose soil.
    - The soil spike is always used and simply pushed into the same piece of uncompacted dirt every time (see attached photo).
      - This soil is extremely soft and would thus have reduced capability of correctly engaging the transducer measurement components.

- The transducer housing is rugged and thus relies upon very good coupling to correctly get a reading.
    - In addition, this location is also totally unmanned.
    - All unmanned monitoring sites could be disturbed by any curious person or possibly a ground-foraging animal such as a common brush turkey.
  - d. It is a fact that all the monitoring done by ourselves was either in a locked secured area or was manned.
    - Additionally the components of a sensitive receptor home are all valid and well coupled "particles".
  - e. However this is not at all the case for the majority of all MCQ monitoring.
    - It is therefore possible to conclude that the local residents internal home blast vibrations to be superior in both quality and reliability, to those done by the BCC.
7. Further to this, we believe that the EHP/DES EM2402 Version 3 (22<sup>nd</sup> Jan 2016) document clearly defines the Outdoor Measurement of Ground Vibration.
- a. It states that the measurement transducer must be attached to a mass of at least 30kg to ensure good coupling with the ground.
    - A semi-buried 30kg concrete block is commonly used.
  - b. I believe that this is also stipulated in other relevant standard documents, for permanent monitoring points.
    - It is well known that a lack of density, and in this case uncompacted loose soil, greatly decreases acoustic energy transmission and transducer coupling.
    - Hence blast vibration monitoring best practice requires the best possible EM2402-V3 compliant vibration connection.
8. Hence we submit that: All of the long term "spiked" BCC MCQ blast vibration measurements were and continue to be non-compliant, unsupervised and poorly connected.
- a. They would possibly have been under-reading the correct blast vibrations.
  - b. Plus being unmanned in an urban environment, the data could easily have been corrupted simply by walking or jumping near the sensor.
    - Heavy trucks or other machinery would also cause false vibrations.
    - Lifting up the transducer to inspect what it was would ruin the partial ground connection.
  - c. All Sussex St, Richer St (and indeed some Mt Coot-tha Rd) readings not created using the 30kg block should be discarded or disregarded.

Thank you also for advising that your scope does not consider the regulatory and/or damage interface between the BCC and the Local Residents.

9. Our legal sources suggest that the EA has never been correctly complied with.
- a. We believe that this long term lack of compliance has resulted in much stronger blast vibrations inside private sensitive receptor homes, than otherwise would have occurred.
  - b. We are advised that the EHP/DES department is responsible for maintaining all EA compliance.
  - c. This is then the heart of the problem.
    - We believe that the BCC MCQ to Mt Coot-tha Local residents (MCLR) interface is merely a symptom of the compliance management issues.
    - The quality of this somewhat abandoned compliance interface appears to be very degraded and virtually non-existent.
  - d. We are advised that the MCQ EA Schedule F text is a copy of the original conditions which were written by the BCC for themselves and transcribed into SR0041 and EPPR00447313 in c1996.
    - It thus seems disloyal for the BCC MCQ to consistently avoid following these conditions as they were written c23 years ago by their own department.
    - The conditions that we written into Schedule F would have been carefully considered and placed there to protect the local residents.
10. Our belief is that it was the role and responsibility of the EHP/DES department to ensure compliance with the conditions as stated in the EA.
- a. If there is repeated non-compliance then surely this would raise this issue with a red flag.

- b. There is definitely home and mental health damage as the result of non-compliance for which we believed that EHP/DES is surely responsible (example attached).
- c. Hence when your claim that home damage is of no consideration, this is invalid if your department actions and policies failed to ensure EA Schedule-F and EM2402-V3 compliance.

The situation that currently concerns the local residents greatly, is the fact that after several years difficult and consistent investigatory work by many local residents, the BCC MCQ has not and is still not complying with their own EA conditions, as they are written.

11. The DES could have acted on this when they were first notified in 2017, but they decided to do nothing which forced the local residents to fight even harder, thus they were forced to complete a further 12 months' of difficult research, investigatory and presentation work.
  - a. All of this in their own time and at their own expense.
  - b. Forcing the Local residents to put their primary life-role on hold yet again.
12. On the 29<sup>th</sup> November 2018, MCQ blasted and recorded 4mm/sec outside 3 SSGD (aka 159 Mt Coot-tha Rd).
  - a. Using the 2.56x (256%) blast vibration upsize parameters that we have measured (with a low variance of only 0.03), extrapolates the 29<sup>th</sup> November blast to 10.24±0.12mm/second, which exceeds the MCQ EA (9 of 10 blasts).
  - b. It also exceeds the Queensland and Australian Maximum blast vibration of 5mm/second and 10mm/second (peak particle velocity).
  - c. The QLD TMR Historic maximum, plus the ANZEC Long Term maximum are both 2mm/second ppv.
13. Surely the DES must rectify the MCQ compliance breeches as a matter of urgency.
  - a. The local residents have an urgent need to restrain the quarry blasting levels to comply with the MCQ EA Schedule F.
  - b. The current conditions in our homes when the current blasting is done, are absolutely inhumane and highly damaging to both [human mental health](#) and [internal home possessions](#).
  - c. These conditions also cause great distress to all domestic and wild animals, just the blast warning siren forces them to run away, as they have learned what follows.
14. We also note your reference to the undefined concept of Human Comfort and wish to advise that due to prolonged repetition effects, actual Human Health limits are more likely to be exceeded.
  - a. By repeatedly referring only to human comfort indicates an abandonment of human health, which can be defined by the medical practitioners and is definitely related to total blast count exposure and perpetual threat levels. (yet another ignored example is attached).
    - Human Comfort is different for each person and cannot ever be defined in terms of set blasting levels and counts.
    - For example a person may be an employee at the same mine that is doing the blasting.
    - Alternatively they may actually be inside the home that they own, or simply only renting or visiting for a short period.
    - Were you ask any home owner if they were "comfortable" with the idea of their home being shaken strongly every one or two weeks, at levels well in excess of the state maximum, the answer would definitely be no.
  - b. We note that the total MCQ blast count since c1995 is approaching 800, whilst the longer term blast count is regarded as several thousand.
    - Both being defined in the USBM standard as building "fatigue" and have a massive effect on human health.
    - The fact that the MCLR have been forced to fight the BCC MCQ for almost 20 years, when they simply want to get on with their lives, indicates a total lack of all human comfort.
    - There are additional issues such as dust, property damage and valuables which totally destroy human comfort, it is not just a simple noise or vibration issue.
    - Damage or even threats to computer or video or data from blast vibrations causes a huge loss of human comfort.
      - It is severely uncomfortable to even have such a threat every week.
      - Being regularly threatened every week degrades mental health and results in a feeling of learned hopelessness.

- c. Please note our psychiatrist report, and also the proposed Qld Human Rights legislation as publicised by the Legal Affairs and Community Safety Parliamentary Committee.

Thank you for advising the difficulty in changing the EA conditions and hence we therefore strongly believe that the existing conditions must therefore be fully enforced by the DES

15. We seek a second verification of the EDO lawyer commercially verified conditions in SR0041 Schedule F.
  - a. We ask that you urgently transmit this to the BCC as a compliance directive.

Consideration for Naked Asbestos Fibre Pollution:

16. We also note that the consideration for internal home asbestos fibre pollution may have been overlooked in your recent letter.
  - a. Having worked in the State Government Electricity Generation Industry and been trained in the Asbestos threats, I firmly believe that many decades of strong home blast vibrations will definitely have released naked asbestos fibres into the home living environment.
  - b. The regularly repeated sheet rubbing action over many decades will remove the semi-protective cement particles from free asbestos fibres, thus allowing tiny naked fibres to drift downwards and on some occasions penetrate deep into the resident's lungs.
  - c. As the MCQ urban home blast vibration exists at levels which we have predicted to have been well in excess of 40mm/second, we firmly believe that relevant warnings should be posted regarding homes in the area, which contain significant amounts of asbestos fibre cement sheeting products.
    - Looking at the 3x misreporting upsize factor and then adding in the 2.6x building resonance amplification, indicate possible asbestos cement sheet extrapolated vibrations into the extremely strong 70mm/second range.
    - Whilst it is well-known that static asbestos fibre cement sheets do not pose a significant threat, we fully appreciate the rubbing effect of several thousand very strong and regular blast vibrations on homes.
  - d. Once an asbestos fibre sheet is moved or relocated, the asbestos threat becomes very real.
    - Very strong MCQ blast vibrations which we have proven to exist, will move these punch-nailed sheets around severely.
    - When you add up all the blast durations for the past 30 years, you are looking at approximately one hour of continuous vibration causing sheet movement.
    - The threat is worse when the sheets are in the building ceiling and/or roof, with the residents living below.

Yours sincerely, Philip Best and all the Mt Coot-tha Local Residents.  
(Third) Chairperson – Mt Coot-tha Local Residents.

Philip Best - Electrical Engineer  
ABN: 64 056 607 713  
3 Sir Samuel Griffith Drive  
Mt Coot-tha  
Toowong Qld 4066  
Australia

p: 0411 123400  
e: [PhilBest313@gmail.com](mailto:PhilBest313@gmail.com)  
L: <https://www.linkedin.com/in/philbest/>