

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH AT NEW DELHI
O.A. NO. 304 OF 2019

IN THE MATTER OF:

M. Haridasan & Ors

Versus

.... Petitioner

The State of Kerala & Ors.

.... Respondents

IN THE MATTER OF:

Madhulal MG

.... Applicant

Paalattu KRWA-231C
Kuthirakkadu Lane,
Vattiyoorkkavu P.O,
Thiruvananthapuram.

**REPLY TO THE REPORT FILED BY THE JOINT COMMITTEE FORMED IN
PURSUANCE OF THE DIRECTIONS IN ORDER DTD 09.12.2021 PASSED BY THIS
HON'BLE TRIBUNAL IN O.A. NO. 304 OF 2019**

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Place: New Delhi

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MOST RESPECTFULLY SHOWETH:

1. The abovementioned OA was registered on the basis of a copy of a PIL letter sent by the Petitioner in the OA.
2. The Applicant herein was impleaded in the O.A.No.304 of 2019 by order dated 05.10.2023. Applicant had filed MA No. 660/2023 seeking modification to the order dtd 21.07.2020 passed by this Hon'ble Tribunal in O.A. 304 of 2019; and raising contentions in the matter, consequent to

the order and directions of the Hon'ble Supreme Court dated 25.10.2021, in several Civil Appeals. This Hon'ble Tribunal was pleased to allow for the Applicant to be impleaded in the abovementioned OA, granted liberty to file objections/reply and eventually disposed of MA 660/2023.

3. By order dated 09.12.2021, this Hon'ble Tribunal was pleased to constitute a Joint Committee (hereinafter referred to as “**Committee**”), which after scientific study, submitted a report (hereinafter referred to as “**Report**”) dated 28.02.2023 to this Hon'ble Tribunal. This Applicant seeks to submit its objections to the said Report, before any order/direction premised on this Report, is passed by this Hon'ble Court in OA. No. 304 of 2019.

PRELIMINARY SUBMISSIONS

4. At the outset, it is humbly submitted that the Committee has failed to comply with the specific directions of this Hon'ble Tribunal. During preparation of the said Report, the Committee has not studied the impact of blasting in different soil strata/earth profile, which was one of the mandates envisaged on the Committee by the Hon'ble Tribunal. The Committee conducted the blasting study only in nine (9) quarries situated in nine (9) districts of the State of Kerala. It has omitted to conduct blasting study in Kannur, Malappuram, Kozhikode and Thrissur, which are the districts in the State of Kerala, where majority of the quarries are functioning. As of 2022-2023, 497 granite (building stone) quarries were functional at Kerala, having different soil strata/ earth formation/disturbances. Standard sampling with an acceptable margin of error of +/-20% requires a minimum of 23 samples to represent the data set of 497 quarries. A careful appreciation of the Report indicates it clearly that representation of the sampling locations certainly does not justify the entire scenario of Kerala.
5. It is apposite to state that these few quarries in number do not and cannot be taken to represent hundreds of other quarries operational in Kerala or

other states. Since any order passed by this Hon'ble Tribunal will be applicable uniformly to all the States in our country, any such study on quarries or their operations ought to be conducted nationally. Even otherwise, the Report of the Committee is not representative as the Report omits studying other districts which constitute about 1/3 of the total land area of the State; thereby defeating the core purpose of the Committee's research. The terrain and geological implementation of the recommendations arrived out of the blasting study conducted in nine out of the 497 quarries in Kerala is illegal, incomplete, and highly unreliable.

6. Order dtd 09.12.2021 mentioned hereinabove, mentions the entire state of Kerala which has a cumulative landmass of 38,863 sq.km. In this aspect too, the Committee's Report falls short of a complete evaluation of the situation as it exists, since the study was not conducted in four districts having a land area of 11.898 sq.km, whereby majority of granite quarries are operational. At the very least, to study the impact of blasting in quarries having different soil strata/earth profile, terrain and geological formation/disturbances, a concerted attempted ought to have been made to conduct blasting study in three quarries of each district. The recommendation of distance criteria by conducting a study in just nine quarries in a state is, by no means, a reasonable method of fixation of a criterion to be implemented throughout the territory of India.
7. In fact, even vide its Report, the Committee avers that the impact of blasting in different area depend on the nature and characteristics of each land. Despite noting the relevance of selecting diverse sites for an in-depth evaluation of different geotechnical profiles, the same has not been done. Expert study was conducted only at 9 stone quarries each in 3 zones which is the northern, central, and southern zones of Kerala as mentioned in the Report. There are no such authorized distinct geographical zones made by any authority regarding different soil strata / earth profile. The selection of

site and limiting it to nine quarries was arbitrary and illegal. Therefore, the report of the Joint Committee is arbitrary, unreasonable, and unreliable since the Report lacks findings of blast study in different areas and the Report does not provide any impression on the impact of the blasting study in different soil strata/ earth profile.

8. The online survey regarding stone quarries in Kerala conducted by the Joint Committee was open for public response by online from 09-08-2022 to 26-08-2022 and a total of 6734 responses were recorded. Out of the total responses (6734) received, 65.3 % of the participants were living near stone quarries. But 74.7% of the responses indicated that they have no grievances related to stone quarries. Hence, this crucial fact that majority of the public had no grievance against stone quarries has not been considered in the final recommendation of the Committee while increasing the existing statutory safety distance from 50M to 150M arbitrarily. When the recommendation is opposed to the statutory rule in force in Kerala, the Committee ought to have given cogent evidence, technical details and reasons which was evidently not done.

SUBMISSIONS ON MERITS

9. That the Committee has monitored Peak Particle Velocity (PPV) caused by the blasting and described PPV as a ‘good index of damage to structure due to vibration’. The Report expressly states that maximum permissible value of PPV in blasting more than 25 hertz is 15 mm/s for domestic houses/ structures; a standard fixed as per Technical Circular No. 7 of 1997 issued by the DGMS, which is the standard approved and published by Government of India after several field studies, which is also the approved National Standard (Ref: Pg 33 of the Report). Considering this value, it is interesting to note that not even in one blasting trial conducted by the Committee, PPV was exceeding the permissible value of 15mm/s. As per the standards fixed by DGMS, the maximum safe value for historically

important or sensitive structures is 10mm/sec and whereas all structures near the mines, where the studies were conducted falls in the category of domestic houses/structures, the category in which the permissible value is up to 15mm/s as earlier mentioned. The number of holes and total explosive charges were increased because of the human response received by the Committee, wherein some of the people claiming to live near quarries vicinity of quarries exaggerated without any basis like damage to building or injury to humans etc., that the normal practice of blasting by the mine management had a bigger size (higher intensity) than the blasting conducted on the experimental day. Therefore, the experiments were designed in a way to study the influence even under the worst scenario. The Committee had, in fact, conducted blasting study in the peak level and even then, the values of PPV were within the desirable limit. The Committee too, in its report had stated that the value of vibration in all the blasting trials were within the safe levels as per DGMS ground vibration standards.

10. However, without any prior deliberation with the parties likely to be affected, the Committee without any authority, considering the human response at different quarries arbitrarily fixed the PPV Value of 5 mm/s as the safe level. It is pertinent to mention here that the Committee is vested with no such powers to modify a standard fixed by the Government of India after a detailed study and due deliberations with all stakeholders. The standard fixed by the central government remains final and conclusive and it cannot be overlooked, on the sole basis of vocal opinions of a few individuals. The Committee without any authority or material has altered the vibration value fixed by the DG MS, Govt. of India and the same is illegal. At best, the Committee conducting blasting study at the peak level (as the was the case scenario) to evaluate the impact of blasting, can consider the human response but not alter the vibration value based on this

response alone. Said alteration goes against the mandate of the Committee itself.

11. It is significant to mention here that there is no approved national standard for human response index. Human response is an emotional factor as per perception to any activity or circumstances by individuals and this perception will vary from person to person and this cannot be standardized. Hence the substantial reduction of the permissible PPV limit from 15 mm/sec. to 5mm/sec. is against the officially recognized standard and therefore illegal. The recommendation to fix the distance from blasting zone as 150 meters after limiting the vibration value to 5 mm/s is in the circumstances vitiated by illegality and is arbitrary and unreasonable, it is respectfully submitted.
12. It is of paramount importance to note that the other impacts of blasting which is the air over pressure and fly rock are safe within the distance of 50 meters in all the blasting study conducted by the Committee. To this regard, the observations made in the Report on fly rocks is that out of 91 blasting rounds, only in 2 cases there were fly rocks which was again limited up to 25 M, that is well within the existing safe distance of 50 M statutorily fixed after a detailed study. The Air Over Pressure (AOP) values reported are also well within the permissible standards approved by Government of India. The Report also goes on to state that as per CPCB standard AOP is permissible to 140 dB and as per standards of United States Bureau of Mines it is 134 dB. The recorded AOP in the study conducted by the Committee are well within the permissible limits. The recommendation arrived at by the Committee by adopting precautionary principle rather than not relying on the values arrived by them during the blasting study, is impermissible. The scope of the Committee was to assess the general impact of granite quarrying on the environment, habitation in its neighbourhood and suggest appropriate recommendations for distance

criteria depending on the studies. Unfortunately, the Committee while making recommendations has not considered the fact that the outcome of all the blasting trials were well within the permissible value; but instead relied on human response which is impermissible.

13. The Report states that it is the impact of the noise which is considered as the primary factor in suggesting 150 meters as safe for blasting. By virtue of the order notified by the Central Government under Noise Pollution (Regulation and Control) Rules 2000, published in Gazette of India, Extraordinary, Part II - Section 3(ii) vide SO 123(C) dated 14.02.2000, mining activity falls in the category of Industrial Area and the permissible day time noise level is 75 db (A). As per this Rule, any increase in ambient noise by 10 d B (A) alone shall be deemed as a violation. Hence the noise level in a quarry operation needs to be limited within 85 d B(A) for safety. However, as per the Report (Ref: Pg 36) it is mentioned that the maximum noise recorded during the operation in 50m was 74.49 dB(A) at Palakkad, in 100m was 75.05 d B (A) at Kallam and in 200m was 64. 24 d B (A) at Pathanamthitta. Referring to the said statement, 50m is near the mining operations. The Committee has failed to consider the said values while suggesting the final recommendations which is patently arbitrary and unreasonable.
14. It is relevant that, as a property of sound, the magnitude of sound decreases with distance, unless there is any amplifier used. Hence the value of noise recorded at greater distances than 50 metres cannot be more than value recorded within 50 meters. A careful perusal of the value of noise in the Report will reflect that, the value of noise had increased in greater distance which is evidently incorrect.
15. The recorded value at 50m distance is again well within the permissible limits as per Indian Standards. The same Report also acknowledges the likelihood of influence from the roads, traffic and public places

contributing to the overall ambient noise in few locations which are far away from the site of mining operations. Therefore, it may be considered that the safe noise level does not exceed beyond 50m distance from the mining location. Unlike the PPV and AOP monitoring equipment the readings from noise level monitoring equipment are manually recorded on sheets. Hence chances of human errors are high, which ought to be considered. In these circumstances, it is respectfully submitted that the procedure adopted, and the consequential study undertaken by the Committee is prone with errors and therefore, legally untenable.

16. The findings of the Committee regarding the impact of dust too arise out of improper appreciation of material, as it exists. It is pertinent to mention here that the Report itself states the accepted practice of dust monitoring is to record it on 24 hours average basis. But in the study conducted by the Committee, the time duration was reduced to 12 hours average. This is a deviation from the prescribed procedure of ambient air quality analysis since when time is reduced by half, the value of intensity gets doubled. Said crucial fact was ignored by the Committee and any recommendation contrary to the notified standard, is liable to be rejected.
17. Upon detailed analysis of the report, it is found that the highest PM 2.5 value recorded at 50m was 82.73 $\mu\text{g}/\text{m}^3$ (Ref: Pg 38 of Report). But on the table of values plotted in Pg 1092 of the same Report indicate that the maximum PM 2.5 value is just 62.10 $\mu\text{g}/\text{m}^3$ Whereas, the permissible value of National Ambient Air Quality Standard mentioned in Schedule VII framed under Rule 3(3 B) of The Environment Protection Rule is 60 $\mu\text{g}/\text{m}^3$. There are errors that have crept in while recording the values and the Committee has ignored to consider the marginal rise in dust value, which too can be reduced with modern techniques. Moreover, the Committee in its report failed to provide cogent reasons for suggesting the

distance of 150m as safe for blasting, when even in 50 meters the value of dust was at the desirable level.

18. It is important to highlight that the final recommendation of the Committee fixing 150 meters as distance criteria for safe blasting, is not only illegal but also against the findings of the blast study conducted by the Committee itself. The PPV and AOP values are within the permissible limit within 50 meters. The fly rock ejections were less than 25 meters the particulate matter emissions (dust) were only up to 100 meters and the assessment of noise beyond 100 meters were admittedly influenced by extraneous noise from other sources which is noted by the Committee. However, ignoring all these considerations/values and the norms prescribed by the Government., the Committee has now recommended 150 meters as safe blasting distance criteria, which is inexplicable, since even within 50 meters all the parameters were within the permissible limit. The Report is therefore liable to be set aside. The Report is full of factual errors, and it is not reliable. For instance, a perusal of Pg 1069 would reveal the results of the blasting study related to M/s Cochin Blue Metal quarry. However, under clause 1.1 General Information, the information provided is that of M/s Parackal Granites, which is a separate unit where the blast study was conducted. Therefore, the general information pertaining to Ms Cochin Blue Metal quarry unit is missing. Such factual errors caused by non-application of mind and the manner of compiling the study, have vitiated the Report, apart from the other reasons mentioned hereinabove, regarding overruling of prescribed standards stipulated by the government of India.

19. The Committee has recommended procedures and methods for safe blasting within 50 to 100 meters but erroneously shied away from fixing distance criteria implementing such procedures and methods within such distance and has recommended arbitrary distance without any material on record. The recommendation to maintain 150 meters in the periphery/

boundary of the quarry lease area is not reasonable for the mere reason that adopting a radial distance of 150 meter from the blasting zone in the periphery of the quarry lease, will lead to wastage of minerals and land. The Committee has not considered the optimization of minerals; rather the suggestions of the Committee will only lead to wastage of national wealth in minerals.

20. It is further submitted that as per Section 83 of the Kerala Land Reforms Act, 1963 no person shall be entitled to own or hold or to possess under a mortgage land in the aggregate, more than the ceiling area. Initially the legal position was that quarrying is a commercial operation involving a process of manufacture and hence quarry comes within the exemption provision of commercial site provided in Section 81(q) read with Section 2(5) of the Land Reforms Act. However, as per the Full Bench judgment of Hon'ble High Court of Kerala in Mathew K Joseph & Another Vs District Environment Impact Assessment Authority [2018 (5) KHC 487], it was held that usage of land by excavating soil or quarrying granite stones therefrom does not make the piece of land a commercial site to qualify from exemption from ceiling limit. If the distance recommendations are implemented as is, a quarry operator must have at least 90 Acres of land, which is far more than the prescribed ceiling limit and the same would result in closure of about 90% of the quarries in the State of Kerala. This will invariably lead to closure of small quarries, resulting in an astronomical rise in price of the granite stones (mandatory for most of the construction activities in the state of Kerala) and the same would have disastrous consequences.

21. It is submitted that as per the land ceiling rule in Kerala, it is onerous to acquire land for mining purpose. As an illustration, if 50 meters is kept as the distance criterion for 1.68 hectares of mining lease area, then the minimum land that needs to be held is 7 acres. Therefore, if the present

distance criterion is sustained and enforced, it would become mandatory for an entity to be in possession of 28 acres of land to satisfy the 200-metre distance criterion, which is practically impossible for a mining purpose.

22. That certain natural challenges are imposed by the State's unique topography. Kerala's topography is more linear than it is wide; a geographical feature that makes it difficult to adhere to the quarrying distance criteria recommended herewith. The lay of the land is such that it does not possess a widespread landmass. Aside from the geographical handicap, factors like prohibition of quarrying under the ecologically sensitive zones marked for wildlife sanctuaries (almost 20-25 in number), prohibition of quarrying on assigned lands etc. have resulted in the land available for quarrying, decidedly minimal. Resultantly, running a quarry is virtually impossible in the State which in turn, will prove to be ruinous to the industrial machinery.
23. Furthermore, the Committee overlooked the crucial fact that when radial distance of 150 meters from blasting zone is maintained (as has been recommended by the Committee,) even in an ideal square plot having a lease area of 15 acres (the maximum extent of land holdings under the Kerala land Reforms Act) no mining can be done.
24. The distance criteria for safe blasting is site specific. It can be fixed considering the nature and other factors of each Quarrying site. Fixing a general Distance criterion is not proper and it will lead to wastage of land and minerals. Mining is an engineering subject which can be safely done by implementing scientific methods. The methods by which safe blasting can be done within 50 to 100 meters are laid down in the Report but the Committee had failed to provide the appropriate recommendation as per their findings.
25. The present Applicant is in possession of a Letter of Intent and intends to apply for a quarrying lease based on the said letter. He has also applied for

an environmental clearance certificate and other necessary documents stipulated by the authority for the purpose of obtaining a quarrying lease. The Applicant is further ready to implement the scientific methods as recommended and is ready to submit an undertaking on the same, if so directed by this Hon'ble Tribunal. Presently, there are other scientific systems and methods to control, contain or limit the spread of dust particle at the source itself, which are also scientifically designed for the purpose. Additionally, existence of various online ambient air quality equipment to regularly monitor the air quality and for real time reporting can also be employed by the Applicant if the need so arises.

26. In the said circumstances, it is most respectfully submitted that the Report filed by the Joint Committee is liable to be set aside as it is neither sustainable in law, nor in facts. The final recommendation of the Report is illegal and contrary to the findings of the blast study. Several glaring errors have occurred in the study and therefore the Report is unreliable and erroneous, and resultantly its final recommendations ought to be rejected.

Place: New Delhi

Date: 02/01/2024



Drawn and Filed by:

(SMRITHI SURESH AND ARSH KHAN)

Advocate for the Petitioner/ Applicant

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

O.A. NO. 304 OF 2019

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.... Petitioner

Versus

The State of Kerala & Ors.

.... Respondents

AFFIDAVIT

I, Madhulal. M.G, S/o. K.P. Madhusoodanan Nair, aged 36 years, Paalattu KRWA-231C Kuthirakkadu Lane, Vattiyoorkkavu P.O, Thiruvananthapuram, Kerala, do hereby solemnly affirm and state as follows:

1. That I am the Respondent in the above Application. I am fully conversant with the facts and proceedings of the case.
2. I state that the accompanying Reply has been drafted by my counsel as per my instructions, the contents of which are true and correct and the same may kindly be read as part and parcel of the present affidavit which are not reproduced herein to avoid repetition.
3. That the Annexures filed with the accompanying Reply are true and correct copies of the originals.

Solemnly affirmed and signed
before me by the deponent who
is personally known to me
on this the 5th day of December
2022 in my office at Ernakulam

Madhulal

DEPONENT

VERIFICATION:

I, the abovenamed deponent do hereby verify that the contents made in Para Nos. 1 to 3 of the above affidavit are true and correct to the best of my knowledge and belief. Nothing material has been concealed therefrom.

Verified by me at _____ on this _____ day of December, 2023



Registration No. 7065
Ernakulam Dist., Kerala State
Validity: 03-11-2028

Madhulal

DEPONENT

AMBILY K.
ADVOCATE & NOTARY
KARTHIKA HOUSE
MAZJID LANE, PUTHUKKALAVATTOM
ELAMAKKARA, KOCHI-682026

Madhulal
5/12/2023



Service of Reply to Report in Original Application No. 304/2019 [M. Haridasan vs. State of Kerala & Ors.]

A Karthik <aor@aklawoffice.in>

2 January 2024 at 09:08

To: nishtha@nklaw.co.in, 56chamber@gmail.com, Nishe Shonker <nrshonker@gmail.com>, Jogy Scaria <advjogy@gmail.com>, Salvador Rebello <rebello.salvador@gmail.com>, rengimint@hotmail.com, advnandini@rediffmail.com, abhijeet@shrivastavalaw.com, "Abhilash M.R." <2abhilashmr@gmail.com>

Dear all,

Please find attached copies of the Reply on behalf of Petitioners/Applicants to the Report in the above-captioned matter.

Thank you.

Regards,

A. Karthik

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Please spare a thought for the environment. Print this mail only if necessary.

3 attachments

 **Madhulai MG Reply.pdf**
1293K

 **Plakkattu Granite Industries reply to report .pdf**
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