CIRCULAR

Sub: Siting Criteria for Stone Quarries in the State of Maharashtra.

Ref: 1. MPCB’s Circular bearing No.BO/JD(APC)/TB-3/B-1245, Dated 24/03/2017
2. Order dtd.28/02/2020 passed by Hon’ble NGT In Original Application No.304/2019.
3. CPCB’s letter No.CPCB/PCI-II/NGT-OA 304 of 2019/2020 Dated 12/05/2020

The Maharashtra Pollution Control Board has issued Circular dated 24/03/2017 for grant of Consents to Stone Quarries in the State of Maharashtra.

M. Haridasan & Ors. have filed an Original Application No.304/2019 against the State of Kerala & Ors., before the Hon’ble National Green Tribunal for safeguards in operation of stone quarries close to residence and public roads. In the said matter, the Hon’ble NGT vide order dated 28/02/2020 observed that a distance of 50 meters for stone quarry, particularly, when blasts are involved, is highly inadequate and can have deleterious effect on noise and air pollution, environment and public health and accordingly, directed the Central Pollution Control Board to examine and lay down more stringent conditions and appropriately longer distance within one month and convey the same to the State Board.

Accordingly, the CPCB has examined the matter and prepared a report on “Distance Criteria for permitting Stone Quarrying” which is communicated vide letter dtd.12/05/2020 for consideration and adoption by the State Pollution Control Board in consent mechanism.

The Hon’ble NGT vide order dated 21/07/2020 has taken on record the report dtd.09/07/2020 submitted by the Central Pollution Control Board. In compliance of the Hon’ble NGT order dated 21/07/2020 in O.A. No 304/2019, the Maharashtra Pollution Control Board has adopted following siting criteria for stone quarries in the State of Maharashtra:

<table>
<thead>
<tr>
<th>Mining Type</th>
<th>Minimum Distance</th>
<th>Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100 m</td>
<td>Residential/Public buildings, inhabited sites, Protected monuments, Heritage sites, National / State Highway, District Roads, Public Roads, Railway Lines/Area,</td>
</tr>
<tr>
<td>B</td>
<td>200 m**</td>
<td></td>
</tr>
</tbody>
</table>
**Note**: The Regulations for danger zone (500 m) prescribed by the Directorate General of Mines Safety also have to be followed scrupulously and necessary measures should be taken to minimize the impact on environment.

In addition to the above conditions, the stone quarries shall follow the Source wise pollution control measures as under:

A. **AIR POLLUTION**

i. **DRILLING**
   a. Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
   b. Deep wetting of drilling zones shall be done by water sprinkling before starting drilling.
   c. During the drilling operations the efforts shall be made to reduce dust generation by taking appropriate measures.

ii. **BLASTING**
   a. Proper blasting hole geometry shall be designed.
   b. Blast site shall be wetted before and after blasting operations are completed.
   c. Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation.
   d. Blasting shall be conducted only during favorable weather conditions and only during the daytime and permissible hours.
   e. The blasting operations shall be given publicity in the local area through Davandi and other available media so that local people become aware of the blasting activities being undertaken in the area.
   f. The vibrations should be monitored periodically in consultation with the local Mining authorities.
   g. The storage of the explosives and its transfer to and from the quarry area shall be strictly in accordance with the conditions listed in the permission granted by & Mining authority and Explosives Department

iii. **Heavy Earth moving Machinery (HEMM)**:
   a. The operator/transporter shall carry out regular maintenance of the machinery and vehicles.
   b. The speed limit shall be adhered to.
   c. Operator’s cabin of the HEMMs should preferably be air conditioned
at least airtight.

d. The smoke emission should conform to the standards notified in Motor Vehicle Act.

e. The trucks carrying the mined products shall be covered with tarpaulin so that there are no fugitive emissions during transportation.

f. The transportation should not through the busy roads in the City/towns/ villages if bypass roads are available

iv. HAUL ROADS:

a. All the haul and service roads shall be metalled and well maintained.

b. Un- metalled haul roads shall be free of dust and potholes.

c. All haul roads and surface roads shall be regularly sprayed with water to control dust emission.

d. Plantation alongside haul roads (avenue plantation) shall be carried out done.

e. Mined material receiving pits are shall be located close to the quarry to reduce the haul length of the dumper

v. OVERBURDEN:

a. Non-operative dumps shall be subjected to technical and biological reclamation.

b. Plantation over and around over burden dumps shall be carried out to ensure stability of slopes, prevention of dust by wind action and soil erosion during the runoff.

c. Wetting of surface of O. B. dump shall be regularly practiced.

B. WATER POLLUTION

a. Effluent coming out of workshop shall be treated in a plant containing and Oil/ grease trap (if required) and sedimentation tank. The treated water shall be stored and reused in the workshop itself as far as possible. The treated wastewater shall not find its way to the streams, lakes or any other water bodies.

b. Mine water shall be treated in sedimentation tank before discharging.

C. NOISE POLLUTION

Stone quarrying mine shall comply with the provisions of the Noise pollution (Regulation and Control) Rule 2000 and as amended thereof to control Noise Pollution.

D. MISCELLANEOUS:

1. The project proponent shall strictly comply National Ambient Air Quality Standards,2009.

2. The project proponent shall provide adequate water treatment and disposal facility for generated effluent from their activity. They shall
comply with the provisions of the Water (Prevention and Control of Pollution) Act, 1974.

3. The project proponent shall provide adequate Air pollution control arrangement at the source. They shall comply with the provisions under the Air (Prevention and Control of Pollution) Act, 1981.

4. The remediation and restoration measure shall be taken by the project proponent in case of any environmental pollution in the surrounding area due to emission/effluent in excess of the standards being emitted/discharged into the environment and violation of consent conditions and thereby causing environmental pollution.

5. Statutory Regulations and guidelines of the Director General of Mines Safety and Department of Explosives shall be strictly followed.

6. The project proponent shall comply Maharashtra Minor Mineral Extraction (Development and Regulation) Rules 2013 and as amended thereof.

The other conditions stipulated in Circular dated 24/03/2017 are remain unchanged.

The above distance criteria will be in force with immediate effect.

( E. Ravendiran, IAS )
Member Secretary

Encl: as above.

Copy submitted for information to:
1. Hon'ble Chairman, MPCB, Mumbai.
2. Hon'ble Principal Secretary, Environment Department, Govt. of Maharashtra, Mantralaya, Mumbai-32.
3. Hon'ble Principal Secretary(Industry), Govt. of Maharashtra, Mantralaya, Mumbai-32.
4. Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110 032.
5. All Divisional Commissioners, Govt. of Maharashtra.
6. All District Collectors, Maharashtra State.
7. Director, Geology and Mining, Civil Lines, Nagpur.
8. Director(Ore Dressing) & Controller General, Indian Bureau of Minies, 2nd Floor, Indira Bhawan, Civil Lines, Nagpur-440 001.

Copy to:
1. PSO/JD(WPC)/JD(APC)/AS(T)/RO(HQ)/LO(P&L Divn.I & II), MPCB, Mumbai – for information.
2. All Regional Officers/All Sub-Regional Officers, MPCB – for information and necessary action. They are directed to circulate the said circular to all Divisional Commissioners and District Collectors as per your jurisdiction.
3. ASO/EIC-for uploading on MPCB website.
No. CPCB/IPC-II/NGT-OA 304 of 2019/2020/  

May 12, 2020

To,

The Member Secretary,  
State Pollution Control Boards / Pollution Control Committees,
(As per list enclosed)


SIR/Ma’am,

Hon’ble NGT in its order dated-09.10.2019 in OA No. 304/2019 observed that the Kerala SPCB has permitted stone quarrying beyond 50 m from residence and public roads, and directed the SPCB to revisit the existing criterion based on an appropriate study. Further, in its order dated-28.02.2020 the NGT noted that “a report has been filed by the Kerala State PCB on 17.12.2019 reiterating the distance criteria of 50 mtrs. and mentioning that no study is available with the CPCB”, and the NGT expressed that “We are of the view, as earlier observed that the distance of 50 mtrs. for stone quarry, particularly when blasts are involved, is highly inadequate and can have deleterious effect on noise and air pollution, environment and public health.”, and directed CPCB to examine and lay down more stringent conditions and appropriately longer distance within one month and convey the same to the State Boards.

Accordingly, in compliance of Hon’ble NGT Order dt.-28.02.2020 in OA No. 304/2019, CPCB has examined the matter and prepared a report on Distance Criteria for Permitting Stone Quarrying, which is enclosed for consideration and adoption by SPCB in consent mechanism.

Yours faithfully,

(Nazimuddin)  
Additional Director &  
Divisional Head – IPC - II

Encl.: As above
DISTANCE CRITERIA FOR PERMITTING STONE QUARRYING

1.0 Preamble:

Hon’ble National Green Tribunal vide order dated-28.02.2020 in the matter of M. Haridasan & Ors. Vs. State of Kerala in OA No. 304/2019 observed that a distance of 50 metres for stone quarry, particularly when blasts are involved, is highly inadequate and can have deleterious effect on noise and air pollution, environment and public health and accordingly, directed Central Pollution Control Board (CPCB) to examine and lay down more stringent conditions and appropriately longer distance.

2.0 Stone Quarrying:

Stone is classified as minor minerals under Section 3(e) of the Mines and Minerals (Development and Regulations) Act, 1957. As per provisions of MMDR Act, the administrative and legal control over minor minerals vests with State Governments and empowered to make rules to govern minor minerals.

Stone Quarrying / Mining is an activity where extraction of stone is done from hillocks or mountain or ground surface having geological mineral deposits. The stone extracted from stone quarry are used either as construction materials or in stone crushers to produce rori/bajri and dust.

Systematic Mining (formation of benches) is done by blasting and drilling, to loosen up the rock materials followed by fragmentation of large size into smaller size. The reduced size material is then loaded and transferred to stone crushers for further processing in order to obtain necessary sizes required for final use. The blasting and drilling during mining operation have environmental impacts and requires mitigation measures to minimise the impacts on environment and nearby habitations.

3.0 Minor Mineral Concession Rules

As per sub-section (1) of section 15 of the Mines and Minerals (Development and Regulation) Act, 1957 (Central Act 67 of 1957), State Government has to make Rules for regulating the grant of quarry lease, mining lease/permit, mineral concessions and purposes connected in respect of minor minerals.

Accordingly, State Governments have framed rules and defined the criteria of minimum distance of minor mineral mining from different locations based on the type of mining used. (Annexure I).
Minimum distance prescribed by various states is vary with respect to mining operation of minor mineral involved. In general, minimum distance prescribed by states such as Rajasthan, Madhya Pradesh, Punjab, Tamil Nadu, Orissa, Bihar, Uttar Pradesh, Himachal Pradesh, West Bengal, Sikkim, Meghalaya and Manipur are:

- In the range of 45 - 200 m from any reservoir, canal, public works such as public roads and buildings
- In the range of 45 - 100 m from any railway line / area
- In the range of 60 - 100 m from National Highway, State Highway and other roads and 10 m from village roads

Various states have further prescribed minimum distance based on the use of blasting in mining operation of minor mineral, as follow:

**Kerala:**

When blasting is involved, no mining within a range of 50 - 100 m from the boundary line of any railway line, bridges, reservoirs, tanks, residential buildings, Government protected monuments, canals, rivers, public roads having vehicular traffic, any other public works or the boundary walls of places of worship whereas, when no blasting is involved, range of 50-75 m is prescribed as minimum distance.

**Karnataka, Maharashtra, Goa, Gujarat:**

When blasting is involved, no mining within a distance of 200 m from the boundary line of any railway line reservoir, tank bund, canal, or other public works and public structures or any public road or building whereas, when no blasting is involved, minimum distance of 50 m is defined.

**Jammu & Kashmir:**

When blasting is involved, no mining within a distance of 500 m from the outer periphery of the defined limits of a National Highway, Railway line, State Highway, Major District Roads (MDR) and Other District Road (ODRs) whereas, when no blasting is involved, minimum distance of 150 m is defined.

**Assam:**

When blasting is involved, no mining within a distance of 250 m from the outer periphery of the defined limits of any village habitation, National Highway, State Highway and other roads whereas, when no blasting is involved, minimum distance of 50 m is defined.

Note: Distance criteria defined by various states, has been defined from the outer edge of the cutting or outer edge of the bank, as the case may be and in the case of a building horizontally from the plinth thereof.
4.0 Criteria of Danger Zone: Directorate General of Mines Safety

As per Directorate General of Mines Safety circular no. - DGMS (SOMA)/ (Tech) Cir No. 2 of 2003 Dt. 31/01/2003 (Annexure II), on subject of Dangers due to blasting projectiles, all places within the radius of 500 m from the place of firing to be treated as danger zone and accordingly, all person in danger zone to take protection in substantially built shelter at the time of blasting.

Further, mine manager to control the throw and to prevent ejection of flying fragments within a safe distance with the use of refined blasting practices as well as developed explosives and accessories such as controlled blasting Technique with milli-second delay detonators / electric shock tubes/ cord relays or use of sequential blasting machines or by adequately muffling of holes etc.

5.0 Criteria of no blasting distance around blast sites: Indiana Department of Natural Resource, USA

(Source: Citizen Guide to Coal Mine Blasting in Indiana)

Indiana Department of Natural Resource, USA has stated that the blasting not to be conducted within 300 feet (~ 91 m) of an occupied dwelling or school, church or hospital, public building, community or institutional building.

6.0 Conclusion:

In view of available information, following minimum distance criteria may be considered for permitting stone quarrying by SPCBs:

<table>
<thead>
<tr>
<th>Mining Type</th>
<th>Minimum Distance</th>
<th>Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. When Blasting is not involved</td>
<td>100 m</td>
<td>Residential/Public buildings, Inhabited sites, Protected monuments, Heritage sites, National / State Highway, District roads, Public roads, Railway line/area, Ropeway or Ropeway trestle or station, Bridges, Dams, Reservoirs, River, Canals, or Lakes or Tanks, or any other locations to be considered by States.</td>
</tr>
<tr>
<td>B. When Blasting is involved</td>
<td>200 m **</td>
<td></td>
</tr>
</tbody>
</table>

**Note: The regulations for danger zone (500 m) prescribed by Directorate General of Mines Safety also have to be complied compulsorily and necessary measures should be taken to minimise the impact on environment.

However, if any states is already having stringent criteria than the above for minor mineral mining (i.e. more prescribed distances than the above), the same shall be applicable.

*****
<table>
<thead>
<tr>
<th>State</th>
<th>Type of Mining</th>
<th>Distance</th>
<th>Location</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerala</td>
<td>Quarry</td>
<td>100 m</td>
<td>Minimum distance from boundary of quarry operation area to residential buildings, places of worship, public buildings, public road, river or lake, railway line and bridges.</td>
<td>Quarry distance as per SPCB circular no. PCB/TAC/WP/236/2006 dated 13-6-2007.</td>
</tr>
<tr>
<td></td>
<td>Laterite Quarry</td>
<td>50 m</td>
<td>Minimum distance to residences and other establishments (m)</td>
<td>Laterite Quarry distance as per SPCB circular no. PCB/T4/115/97 dated 20-7-2011</td>
</tr>
<tr>
<td></td>
<td>Quarrying where explosives are used</td>
<td>100 m</td>
<td>Minimum distance from any railway line, bridges, reservoirs, tanks, residential buildings, Government protected monuments, canals, rivers, public roads having vehicular traffic, any other public works or the boundary walls of places of worship</td>
<td>Kerala Minor Mineral Concession Rules 1967</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 m</td>
<td>Minimum distance from any burial grounds or burning ghats or forest lands</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quarrying where explosives are not used</td>
<td>75 m</td>
<td>Minimum distance from any railway line and any bridge on National Highway</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 m</td>
<td>Minimum distance from any reservoir, tanks, canals, rivers, bridges, public roads, other public works, residential buildings, the boundary walls of places of worship, burial grounds, burning ghats or any Government protected monuments or forest lands</td>
<td></td>
</tr>
<tr>
<td>Karnataka</td>
<td>Blasting is involved</td>
<td>200 m</td>
<td>Minimum distance from the boundary line of any railway line reservoir, tank bund, canal, or other public works and public structures or any public road or building.</td>
<td>Karnataka Minor Mineral Concession Rules 1994</td>
</tr>
<tr>
<td></td>
<td>No blasting is involved</td>
<td>50 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maharashtra</td>
<td>Blasting is involved</td>
<td>200 m</td>
<td>Minimum distance from the boundary of any railway line, any reservoir, canal, road, river, nallah, irrigation works or public works or building.</td>
<td>Maharashtra Minor Mineral Extraction (Development and Regulation) Rules 2013</td>
</tr>
<tr>
<td></td>
<td>No blasting is involved</td>
<td>50 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goa and Daman &amp; Diu</td>
<td>Blasting is involved</td>
<td>200 m</td>
<td>Minimum distance from the boundary of any railway line, any reservoir, canal, road or public works or buildings</td>
<td>The Goa, Daman and Diu Minor Mineral Concession Rules 1985</td>
</tr>
<tr>
<td></td>
<td>No blasting is involved</td>
<td>50 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gujarat</td>
<td>Blasting is involved</td>
<td>200 m</td>
<td>Minimum distance from any road, notified reservoirs, canal, national highway, state highway, boundary of any railway line, public works, cities, towns, villages and other approved continuous habitations.</td>
<td>Gujarat Minor Mineral Concession Rules 2017</td>
</tr>
<tr>
<td></td>
<td>No blasting is involved</td>
<td>50 m</td>
<td>Minimum distance from any road (excluding a village road or other district road), notified reservoirs, canal, national highway, state highway, boundary of any railway line, public works, cities, towns, villages and other approved continuous habitations.</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>Description</td>
<td>Distance</td>
<td>Reference</td>
<td></td>
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</tr>
<tr>
<td>Rajasthan</td>
<td>Minimum distance from any railway line, under or beneath any ropeway or ropeway trestle or station or from any public roads (excluding mines approach road or village roads), reservoir, canal or other public place or buildings, pillars of railway and road bridge or inhabited site.</td>
<td>45 m</td>
<td>Rajasthan Minor Mineral Concession Rules 2017</td>
<td></td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>Minimum distance from any railway line or from any reservoir, canal or other public works such as public roads and buildings or inhabited site.</td>
<td>50 m</td>
<td>Madhya Pradesh Minor Mineral Rules 1996</td>
<td></td>
</tr>
<tr>
<td>Punjab</td>
<td>Minimum distance from any railway line or bridges</td>
<td>75 m</td>
<td>Punjab Minor Mineral Concession Rules 1964</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum distance from national highway</td>
<td>60 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>Minimum distance from any reservoir tank canal roads or other public works or buildings or inhabited sites</td>
<td>50 m</td>
<td>Tamil Nadu Minor Mineral Concession Rules 1959</td>
<td></td>
</tr>
<tr>
<td>Orissa</td>
<td>Minimum distance from any railway line, National Highway, late Highway or any reservoir</td>
<td>100 m</td>
<td>Orissa Minor Minerals Concession Rules 2004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum distance from any tank, canal, road (other than a National or State Highway or other public works of buildings or inhabited sites), public roads, public buildings, temples, reservoirs, dams, burial ground, railway track monuments, heritage sites, etc.</td>
<td>50 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chhattisgarh</td>
<td>Minimum distance from sensitive area like radio station, doordarshan kendra, defence establishment etc. of the Central and State Government</td>
<td>300 m</td>
<td>Chhattisgarh Minor Mineral Rules 1996</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum distance from abadi, school, hospital and other public places, buildings and inhabited sites</td>
<td>100 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum distance from any railway line, bridge or highway</td>
<td>75 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum distance from tank, river banks, reservoir, canal</td>
<td>50 m</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Minimum distance from grameen kachcha road</td>
<td>10 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bihar</td>
<td>Minimum distance from any railway line or from any reservoir, public road, canal or other public work or buildings or inhabited site</td>
<td>50 m</td>
<td>Bihar Minor Mineral Concession Rules 1972</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum distance from any village roads</td>
<td>10 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>Minimum distance from any railway line or from any reservoir, canal or other public works, such as public roads and buildings or inhabited site</td>
<td>50 m</td>
<td>Uttar Pradesh Minor Minerals (Concession) Rules 1963</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum distance from any village roads</td>
<td>10 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>Minimum distance from any railway line or bridges</td>
<td>75 m</td>
<td>Himachal Pradesh Minor Minerals (Concession) Revised Rules 1971</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum distance from National Highway</td>
<td>60 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum distance from any reservoir, tank, canal, roads or other public works or buildings or inhabited sites</td>
<td>50 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum distance for all type of mining from any river banks (except in cases of ordinary sand)</td>
<td>50 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jammu &amp; Kashmir</td>
<td>Mining where excavation require use of explosives</td>
<td>500 m</td>
<td>Minimum distance from outer periphery of the defined limits of a National Highway, Railway line, State Highway, Major District Roads (MDR) and Other District Road (ODRs)</td>
<td>Jammu &amp; Kashmir Minor Mineral Concession Rules, 1962</td>
</tr>
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<td>-----------------</td>
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<td>-------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Mining where excavation does not require use of explosives</td>
<td>150 m</td>
<td>Minimum distance from outer periphery of the defined limits of a National Highway, Railway line, State Highway, Major District Roads (MDR) and Other District Road (ODRs)</td>
<td></td>
</tr>
<tr>
<td>Minor Mineral Mining</td>
<td></td>
<td>100 m</td>
<td>Minimum distance from any other public roads</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 m</td>
<td>Minimum distance from upstream as well as downstream of water works, head works or hydraulic works as defined under the J&amp;K Water Resources (Regulation and Management) Act, 2010.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>25 m</td>
<td>Minimum distance from any ‘embankment’ or ‘flood embankment’ as defined under the J&amp;K Water Resources (Regulation and Management) Act, 2010.</td>
<td></td>
</tr>
<tr>
<td>West Bengal</td>
<td>Minor Mineral Mining</td>
<td>5000 m</td>
<td>Minimum distance from a barrage axis or dam or a river</td>
<td>West Bengal Minor Minerals Rules 2002</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200 m</td>
<td>Minimum distance from any hydraulic structure, reservoir, bridge, canal, road and other public works or buildings</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>200 m</td>
<td>Minimum distance from both sides of any river bridge or culvert over any waterway or from any embankment and structural works of the Irrigation and Waterways Department</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 m</td>
<td>Minimum distance from any Railway land</td>
<td></td>
</tr>
<tr>
<td>Sikkim</td>
<td>Minor Mineral Mining</td>
<td>60 m</td>
<td>Minimum distance from bridges oh highways</td>
<td>Sikkim Minor Mineral Concession Rules 2016</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 m</td>
<td>Minimum distance from any railway line or any reservoirs, canals or other public works, or buildings</td>
<td></td>
</tr>
<tr>
<td>Assam</td>
<td>Mining where excavation require use of explosives</td>
<td>250 m</td>
<td>Minimum distance from the outer periphery of the defined limits of any village habitation, National Highway, State Highway and other roads</td>
<td>Assam Minor Mineral Concession Rules 2013</td>
</tr>
<tr>
<td></td>
<td>Mining where excavation does not require use of explosives</td>
<td>50 m</td>
<td>Minimum distance from outer periphery of the defined limits of any village habitation, National Highway, State Highway and other roads</td>
<td></td>
</tr>
<tr>
<td>Minor Mineral Mining</td>
<td></td>
<td>500 m</td>
<td>Minimum distance from major structures like R.C.C. bridges, Guide bund etc.</td>
<td></td>
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<td></td>
<td></td>
<td>75 m</td>
<td>Minimum distance from any railway line or bridges</td>
<td></td>
</tr>
<tr>
<td>Meghalaya</td>
<td>Minor Mineral Mining</td>
<td>50 m</td>
<td>Minimum distance from any railway line or under or beneath any rope way or any ropeway trestle or station, or from any reservoir, canal or other public works such as public roads and buildings or inhabited site</td>
<td>Meghalaya Minor Mineral Concession Rules 2016</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 m</td>
<td>Minimum distance from any village roads</td>
<td></td>
</tr>
<tr>
<td>Manipur</td>
<td>Minor Mineral Mining</td>
<td>50 m</td>
<td>Minimum distance from any reservoir, canal or other public works, or buildings.</td>
<td>Manipur Minor Mineral Concession Rules 2012</td>
</tr>
</tbody>
</table>
Annexure II

No.DGMS (SOMA)/(Tech) Cir.No.2 of 2003

Dhanbad, Dated the 31st January 2003.

To All Owners, Agents & Managers of mines.

Subject: Dangers due to blasting projectiles.

Accidents due to projectiles ejecting from blasting had been a major source of accident in both below ground and opencast workings. Under the existing provisions of Coal Mines Regulations, 1957 and the Metalliferous Mines Regulations, 1961, before a shot is charged, stemmed or fired the shotfirer/blaster is required, amongst other things to ensure that all persons within a radius of 300m from the place of firing (referred to hereinafter as danger Zone) have taken proper shelter, apart from giving sufficient warning by efficient signals or other means approved by the manager over the entire zone. There had been, however, a number of instances where flying fragments due to blasting had ejected not only within but also beyond the danger Zone, resulting into serious and even fatal accidents.

This Directorate from time to time had drawn the attention of all concerned about the dangers from flying projectiles through issue of DGMS Circulars Viz. Circular Tech. 15/1977 and 8/1982. Recently, however, another fatal accident occurred due to same reason.

Enquiry into the accident revealed that in an open cast coal mine, overburden had been kept dumped against the free face of OB bench, 12 No. 1st row of holes were left uncharged because of spontaneous heating in the seam below. 17 holes of 150mn 6.5m Depth drilled in 7m x 5m Pattern (spacing & burden) charged with 75kg/hole and 42 holes of 6.5m depth 250mm dia drilled in 6m x 6m pattern charged with 130 kg/hole were blasted. The projectiles ejected due to blasting travelled for a distance of about 412m in the reverse direction away from the free face and hit a mechanical supervisor. The enquiry further revealed that the deceased had taken proper shelter in a blasting shelter but had come out of the shelter immediately on hearing to the sound of blast and was subsequently hit by the projectiles.

Over years there had been refinement of blasting practices as well as development in explosives and accessories, whereby it is possible to control the throw and prevent ejection of flying fragments within a safe distance, with relative ease. There is, therefore, no reason why such type of accident should continue to occur.

The matter is brought to your attention so that following corrective measures are taken in case similar conditions exists in any mine under your control.

1) In the interest of safety to treat all the places within a radius of 500m of the place of firing as the danger zone, all persons who are required to remain within the danger zone at the time of blasting should take protection in substantially built shelter.

2) Formulate a code of practice for controlled blasting Technique with milli-second delay detonators/ electric shock tubes/ cord relays or use of sequential blasting machines or by adequately muffling of holes including precautions to be taken during blasting operation until all clear signal given by blaster.

3) Training of persons and their helpers engaged in such blasting operation.

(Dashrath Singh)
Director-General of Mines Safety.
BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

(By Video Conferencing)

Original Application No. 304/2019
(With report dated 09.07.2020)

M. Haridasan & Ors.  
Applicant(s)

Versus

State of Kerala  
Respondent(s)

Date of hearing: 21.07.2020

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S. P. WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

Respondent(s):  Ms. Soni Singh, Advocate for CPCB
                Mr. Jogy Scaria, Advocate for KSFCB

ORDER

1. The Issue for consideration is the safeguards in operation of stone quarries close to residences and public roads. At present, the Kerala State PCB has permitted the stone quarry beyond 50 mtrs. from residences and public roads.

2. The Tribunal considered the matter on 28.02.2020. Finding the distance to be inadequate, CPCB was required to consider the matter and report. It was observed:

   "2. Accordingly, a report has been filed by the Kerala State PCB on 17.12.2019 retreating the distance criteria of 50 mtrs. and mentioning that no study is available with the CPCB."
3. We are of the view, as earlier observed that the distance of 50 mtrs. for stone quarry, particularly when blasts are involved, is highly inadequate and can have deleterious effect on noise and air pollution, environment and public health.

4. In view of above, we direct the CPCB to examine and lay down more stringent conditions and appropriately longer distance within one month and convey the same to the State Boards. The State Board may take further action accordingly. Compliance reports be filed before the next date by email at judicial-ngt@gov.in."

Accordingly, the CPCB has filed its report on 09.07.2020 concluding as follows:

"6.0 Conclusion:

In view of available information, following minimum distance criteria may be considered for permitting stone quarrying by SPCBs:

<table>
<thead>
<tr>
<th>Mining Type</th>
<th>Minimum Distance</th>
<th>Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. When Blasting is not Involved</td>
<td>100 m</td>
<td>Residential/Public buildings, Inhabited sites, locations to be considered by States.</td>
</tr>
<tr>
<td>B. When Blasting is involved</td>
<td>200 m **</td>
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</tbody>
</table>

**Note: The regulations for danger zone (500 m) prescribed by Directorate General of Mines Safety also have to be complied compulsorily and necessary measures should be taken to minimise the impact on environment.

However, if any states is already having stringent criteria than the above for minor mineral mining (i.e. more prescribed distances than the above), the same shall be applicable."

In view of the above, the said criteria be followed throughout India. The CPCB may monitor compliance.

A copy of this order be sent to the CPCB and all the State PCBs/PCCs by email for compliance.
The application is disposed of.

Adarsh Kumar Goel, CP

S. P. Wangdi, JM

Dr. Nagin Nanda, EM

July 21, 2020
Original Application No. 304/2019
AK
CIRCULAR

Sub: Policy for grant of Consents to Stone Quarries in the State of Maharashtra.

Ref: 1) Revised Classification of Industrial Sectors published by Central Pollution Control Board dated 07/03/2016.
2) Minutes of Consent Committee Meeting of the MPC Board dated 18/06/2016.
3) Minutes of Consent Appraisal Committee Meeting of the MPC Board dated 10/10/2016.

The Central Pollution Control Board has issued modified directions u/s 18(1)(b) of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981 on 07/03/2016 regarding harmonization of classifications of industrial sectors under Red / Orange /Green / White categories. The stone quarrying activity does not covered in this classification of the industries.

The Maharashtra Pollution Control Board has received various applications for grant of Consent to stone quarrying activities. In order to ascertain the category of the stone quarry activity and to cover this activity under the consent management of the Board, this matter was discussed in the Consent Committee meeting of the Board held on 16/06/2016 and Consent Appraisal Committee meeting of the Board held on 10/10/2016. In these meetings, the following decisions were taken for grant Consent to Establish/Operate to the stone quarry activity:
I. Stone quarry having area 5 Hectars and above are covered under the Consent regime.

II. Stone quarry having area below 5 Hectars will come under the purview of the District Collector/s in the State of Maharashtra, as per their jurisdiction and they will implement the Guidelines for Environmentally Sound Operations for Stone Quarries issued by the Maharashtra Pollution Control Board.

III. The stone quarry activity is not allowed in the eco sensitive area declared by the Government of India/Government of Maharashtra and any other Government competent authority.

The District Collector shall strictly implement & impose the said guidelines at the time of granting permission to the stone quarrying activities below 5 Hectars. They shall also ensure that the stone quarries having area 5 Hectars and above shall obtain valid consent to establish/operate from the Maharashtra Pollution Control Board within next 30 days from the date of issuance of this circular.

These Guidelines are come into force with an immediate effect from the date of issuance of this circular and all the District Collectors in the State of Maharashtra are hereby directed to implement the above guidelines. In addition, it is directed to all concerns to implement the above Guidelines within 30 days from the date of issue of this circular.

For & behalf of the Maharashtra Pollution Control Board,

(Dr. P. Anbalagan, IAS)
Member Secretary


Copy submitted for information to:
- Hon'ble Additional Chief Secretary (Environment), Govt. of Maharashtra, Mantralaya, Mumbai
  And Hon'ble Chairman, M.P.C. Board, Mumbai.
Copy for Information and implementation to:
- The All Divisional Commissioner, State of Maharashtra.
- The All District Collectors, State of Maharashtra.
- Directorate of Geology and Mining, GoM, Civil Line, Nagpur.
- The All District Mining Officer, State of Maharashtra.


Copy to:
- Principal Scientific Officer / Assistant Secretary (Technical)/Joint Director (Air Pollution Control)/Joint Director (Water Pollution Control) /RO (HQ)/ RO (Cess), M.P.C. Board, Sion, Mumbai-400022.

Copy for information and necessary action to:
1. The all Regional Officers/ Sub Regional Officer, M.P.C. Board - They are directed to serve the copy of the said circular along with Guidelines for Environmentally Sound Operations for Stone Quarries to the concerned District Collectors in the State of Maharashtra as per their jurisdiction.

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