

ENVIRONMENTAL HEALTH
OFFICERS' ASSOCIATION.

STANDARDS FOR
QUARRIES AND MINES.

THE NORTH EASTERN
REGIONAL BRANCH.

1986

GUIDELINES

The conditions applicable will be dictated by the nature and extent of the development proposed/carried on.

1. The development to be operated in such a manner that atmospheric pollution from dust, grit, smoke, offensive gasses, or mineral particles shall be kept at such levels as not to cause a nuisance or be injurious to public health.
- 2a. The best practicable means to be used to suppress and control dust arising from the development, e.g.
 - i) Stockpiles to be kept to a minimum. For long term stock piles suitable methods such as dust suppression sprays to be used during working of the stockpile and in periods of dry and windy weather. Stockpiling of fine or dusty material in the open air not to be allowed.
 - ii) Where water is to be used for dust suppression an approved wetting agent at correct concentrations to be used.
 - iii) Crushers, screens and appropriate load out areas to be adequately enclosed. Loading hoppers to be covered and enclosed on three sides. All these structures to be maintained at negative pressure by an extraction system.
 - iv) The emission from dust collecting equipment shall not exceed 70 mg of dust per cubic metre of air at a pressure of 30 inches of mercury and a temperature of 60 F.
 - v) All exposed belt type conveyors to be fitted with suitable and adequate wind boards, or be adequately enclosed as a minimum protection against wind whipping. Where particularly fine or dusty material i.e. smaller size fractions are being conveyed the belt to be enclosed to such an extent as to prevent dust from being blown into the air.
 - vi) Screens to be sprayed with water and an approved wetting agent.
 - vii) Fugitive dust to be controlled by the erection and maintenance of a belt of suitable trees 'X' metres in width, tarring internal roadways, dust spraying programmes.
1. The deposit of dust from the proposed development as measured by approved deposit gauge(s) not to exceed 180mg/m^2 per day, averaged over thirty days, at any point along the site boundary.
3. 'X' number of suitable dust monitoring stations to be provided at approved locations at the boundary of the site close to existing dwellings. Such monitoring system to be agreed with a planning authority prior to the commencement of work on the development.
4. Before any excavated material leaves the site adequate wheel and underbody washing facilities to be provided, and be used by outbound vehicles from the site.
5. Trucks or other vehicles used for the transportation of crushed material to be designed, loaded and if considered necessary at any date by the planning authority, covered to prevent spillage or blowing of dust or any other deleterious material from the trucks or other vehicles.

6. The developer to be responsible for cleaning away materials dropping from the trucks or other vehicles using the site and ensure that the road in the vicinity of the site is kept in a clean and tidy condition. If this is not done to the satisfaction of the planning authority the work to be carried out by the planning authority and an appropriate charge levied.
- 7a. Noise not to exceed the limits set out in the following table:

| Noise From | Day 08.00-20.00 Hours | | Night 20.00-08.00 Hours | |
|----------------------------------|-----------------------|----|-------------------------|----|
| 1. Mining and Surface Operations | 'a' dB (A) Leq | 12 | 'b' dB (A) Leq | 12 |
| 2. Construction | 'c' dB (A) Leq | 12 | 'd' dB (A) Leq | 12 |
| 3. Blasting | 'e' dB (A) | | 'f' dB (A) | 12 |

As regards 1 and 2 above where noise has clearly audible tone components or where noise is impulsive in nature, the above limits to be reduced by 5 dB (A)

- 7b. The noise level from within the boundaries of the development shall not exceed 'a' dB (A) rated sound level at any point along the boundaries of the development or the equivalent at any point outside the boundaries between the hours of 08.00 and 20.00 hours. (Subjectively equivalent units deemed acceptable by the planning authority may also be used.) At all other times the noise level shall not exceed – dB(A) rated sound level subject to the same recommendations as stated above for noise levels between 08.00 – 20.00 hours.
8. The developer to monitor noise levels at not less than 'X' number of locations along the boundary at nearest dwelling house as follows and as agreed with the planning authority.
- A 24 hour record of background noise levels measured over 'X' number of days, prior to mining and construction phases
 - 24 hour records on at least a weekly basis during the construction stage.
 - 24 hour records on a monthly basis or at such longer intervals as may be agreed with the planning authority during mining operations.
 - Appropriate monitoring for specific periods as may be requested in writing by the planning authority to identify and resolve specific problems which may arise.
9. No blasting to be carried out (except in emergencies) between 18.00 hours and 08.00 hours and not at all on Sundays.
- 10a. All wash water, surface water drainage, surface water runoff and water from washings and dust control to be treated in a series of settlement ponds as outlined in plan. The ponds to be thoroughly dredged at least once every 'X' months.

- 10b. No breaching or over tapping of ponds to occur.
- 10c. All water from the settlement ponds to be recycled to the process in so far as is practicable.
- 10d. In the event of it being necessary to discharge effluent to receiving water the final effluent characteristics not to exceed specific limits for the following parameters. (Note: Adequate chemical analyses of the material to be mined/quarried should be provided to ascertain the presence or otherwise of heavy metals or other toxic materials from viewpoint of effluent and dust control.
- pH
 - Colour
 - Suspended Solids
 - Settleable Solids
 - Dissolved Solids
 - COD
 - Conductivity
 - Hardness
 - Alkalinity
 - Phosphorous
 - Sulphates
 - Chlorides
 - Detergents
 - Metals (specify)
 - Mineral Oils or hydrocarbons of petroleum
 - Other toxic substances
 - Other relevant Characteristics (including fish toxicity data from tests carried out on all or part of the effluent)
- (Physical and chemical analysis of the receiving water should be carried out prior to the setting of effluent standards)
11. Proposals for disposal of pond sludge to be submitted to and be approved by the planning authority prior to the commencement of work on the development. Developer to maintain a log record book of all pond de-silting operations, detailing dates, volumes desilted and where disposed of.
- 12a. The developers to commence appropriate monitoring, testing, sampling, recording and analysis required by the terms of this permission on the date of commencement of the development (unless otherwise required by the conditions of this permission) and the cost of all such monitoring to be borne by the developer.
- 12b. All data obtained from any monitoring. Testing, sampling, recording and analysis to be submitted to the planning authority as required and in the format to be agreed with the planning authority prior to the commencement of development. The format initially agreed to be reviewed annually.

- 12c. The planning authority shall in respect of such monitoring and other tests so required be afforded at all reasonable times the necessary facilities to inspect and check all monitoring apparatus and records considered necessary to ensure that the development is being carried out within the terms of the permission.
- 12d. The developer in agreement with the planning authority to contribute annually toward the cost incurred by the planning authority in the previous 12 months in carrying out monitoring, testing, and sampling in relation to all or any of the matters specifically required to be monitored under the terms of the permission.
13. In the event of a breach of the requirements of conditions on this permission the developer to report the matter immediately or as soon as is practicable to the planning authority and shall take immediate action, by the best practicable means, including if necessary or if required by the planning authority the cessation of quarrying/mining or crushing to cease the cause of pollution of water or air or of noise or vibration and shall not resume operations until effective measures have been taken to ensure compliance with the said requirements
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