



KERALA STATE POLLUTION CONTROL BOARD
കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram - 695 004
പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/ SEE-3/TECH/98/2019

Dated: 15/12/2020

From

The Member Secretary

To

1. The Chief Environmental Engineer,
Regional Office, Trivandrum/Ernakulam/Kozhikode.
2. The Senior Environmental Engineer,
Environmental Surveillance Centre, Eloor.
3. The Environmental Engineer, District Office,
Thiruvananthapuram, Kollam, Pathanamthitta, Alapuzha, Idukki, Kottayam,
Ernakulam-1, Ernakulam-2, Thrissur, Palakkad, Malappuram, Kozhikode, Kannur,
Wayanad, Kasargod.

Sub:- Standard Operating Procedure for cattle farm - reg.

Sir,

Kind attention is invited. The Standard Operation Procedure for cattle farm is enclosed for information and kind necessary action.

Yours faithfully

MEMBER SECRETARY

Rv

Encl: as above

Standard Operating Procedure for Cattle Farms

Cattle in this context refer to cow, oxen (or bullock) & buffalo. This SOP is applicable for Gaushalas also.

1. Cattle farms (including open cattle farms) are categorized as Green.
2. If the number of adult animals is less than 5, such units may be exempted from consent purview. But such units shall have control measures like bio-gas plant, septic tank & soak pit system & shaded dung pit with provisions to prevent entry of storm water.
3. The minimum distance to the nearest residence is fixed as follows:

Animal number	Distance (in metres) to nearest residence
6-20	10
21 to 200	25
>200	50

4. Adult animal means animal with age 6 months & above.
5. One adult animal with its calf (less than 6 months old) shall be counted as one adult animal.
6. The number of animals permitted in a farm is proportional to the land area of the farm. As per the Kerala Panchayat Raj Livestock Farm Licensing Act, 2012, one adult animal is permitted in one cent land. Accordingly, only 100 animals are permitted in one acre land. The Board officials can use this guideline for fixing the number of animals permitted and accordingly make entry in the consent. This is applicable for both open & shed farming.
7. Approximately, 80l/day of waste water is generated per animal. Waste water is generated during bathing of animals, cleaning of shed, cooking, washing of feeding pots etc.
8. Bio-gas plant, septic tank & soak pit system are the usual waste water treatment measures in cattle farms. Effluent Treatment Plant need be insisted for farms with 125 or more number of animals. 125 animals generate approximately 10,000 l/day of waste water.
9. The sizing of the bio-gas plant may be based on the thumb rule 0.5 cubic metre per adult animal.
10. On an average 25kg dung is produced per adult animal per day.
11. Dung (Manure) Pit shall be constructed with roof and must be above floor level with concrete flooring and drainage facilities. Manure should be removed at least once in three months. Compost Pit (Dry Pit) for manure/fodder or feed waste shall be provided with roof.
12. Multiple bio-gas is preferable than single one in cattle farms housing large number of animals. Bio-gas generated shall be utilized or else facility for flaring shall be provided.
13. The discharges from cattle farms have high BOD (700-1000 mg/l) & coliform count. Usually BOD/COD is close to one. Hence ETP with MBBR is ideal. The overflow/slurry from bio-gas plants may be connected to the ETP. The treated effluent can be used for irrigation or discharged as per rules.
14. For open farming, the following norms may be used:
 - a. The farm may be fenced leaving a buffer zone of 5m around the farm.
 - b. The usual control measures like bio-gas plant shall be provided for the shed in which the cattle stay during night.
15. The ratio of fecal coliform(FC) to fecal streptococci (FS) is very important and helps in identifying the source of pollution as to whether it is from animal or human source(septic tank). During enquiry of complaints on suspected contamination of water bodies this ratio is extremely useful. FC/FS ratio is approximately 0.2 for cows & buffaloes, 0.4 for chicken and 4.4 for humans. Hence if the FC/FS ratio is less than one, the water body can be concluded to be contaminated from animal discharges and if greater than 4, then it is from human sources.

15.12.2020


CHAIRMAN