



# Rajasthan State Pollution Control Board

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F.14(05)Adm/RPCB/Plg / 2535-2569

Date: 20-12-2019

1. Group Incharge, HOPM/Planning/ BMW/Hazardous/ Textile/ CPP/ MUID/Plastic/ Mines, SCMG&DS/ CD&Project/ EC/VTR/DF RSPCB, Jaipur.
2. Regional Officer, Regional Office, RSPCB, Jaipur (South)/ Jaipur (North)/ Alwar/ Bhiwadi/ Balotra/ Bharatput/ Bhilwara/ Bikaner/ Jodhpur/ Pali/ Kota/ Chittorgarh/ Kishangarh/ Sikar/ Udaipur.

Subject :-Guidelines for Abatement and control of Pollution in Hot Mix Plants (HMP).

In order to have coherent line of action while deciding the applications for consent to establish / consent to operate of Hot Mix Plants, the State Board has framed guidelines for abatement and control of pollution in Hot Mix Plants. Enclosing a copy of the guidelines, you are directed to ensure the compliance of the guidelines while processing the application for Consent to Establish / Consent to Operate of Hot Mix Plants.

Encl.: As above

Yours Sincerely

— S D —

(Shailaja Deval)

Member Secretary

F.14(05)Adm/RPCB/Plg / 2535-2569

Date: 20-12-2019

Copy to following for information & necessary action:-

1. P.S. to Chairperson, RSPCB, Jaipur.
2. Addl. P.S. to Member Secretary, RSPCB, Jaipur.
3. CEE/ CSO, RSPCB, Jaipur.
4. Joint Secretary & Director, Department of Environment, Govt of Rajasthan, Jaipur.
- ✓ 5. Group incharge (IT), with request to upload Guidelines for abatement and control of pollution in Hot Mix Plants on State Board's website.

  
Member Secretary



**Guidelines for Abatement of Pollution in Hot Mix Plants (HMP)**

**1. Introduction**

Construction of roads plays a vital role in the socio-economic development of the country. Ever since the Government of India declared infrastructure as the thrust area, there has been a pre-dominant boom in the road construction sector.

Hot Mix Plants are used for mixing of stone aggregates with bitumen for the construction of roads. A hot mix plant usually comprises of aggregate bins, feeder, weighting system, drying drum, bitumen and fuel storage tanks, air pollution control devices, hot mix storage silo, and loading facility. Most of such plants are installed near construction site and highways, and operate for such time till the construction work continues. Hence, many hot mix plants are not of permanent nature.

Presently there are no specific guidelines / standards notified under the Environment (Protection) Act, 1986 for Hot Mix Plants (HMP). The State Board is in receipt of complaints regarding air pollution from such plants. To address such complaints, guidelines are to be evolved for siting and pollution control measures to be adopted by HMPs.

**2. Nature of Pollution in HMP**

Preparation of bitumen mix in hot mix plants generates emissions containing particulate matter as well as gaseous pollutants. The primary emission sources in plants are burning of fuel for heating of bitumen mix, which emits mainly particulate matter (PM) and gaseous pollutant like SO<sub>2</sub> besides, other sources of generation of emissions in hot mix plants are handling of aggregates, movement of vehicles and vehicular exhaust.

**3. Location of Plant & Machinery**

- a. **Permanent siting** : A hot mix plant can be established permanently on a land which should be duly converted for industrial purpose by the competent authority.
- b. **Temporary siting** : A Hot Mix Plant which is to be established on a particular site, temporarily (to fulfil requirement for a particular road project) is not required to get the land converted for industrial purpose. However, such plants will require to get permission from the competent revenue authority not below the rank of Tehsildar to establish Hot Mix Plant on the particular piece of land.

Note- The Project Proponent intending to establish Hot Mix Plant temporarily should submit copy of work order given to him by agency/ authority to carryout road work. He will have to submit legal undertaking to the effect that the HMP will be dismantled / shifted from the site immediately after accomplishing that particular project and restoring the site in original condition.

#### 4. Pollution Control Measures required

1. Dust collector, cyclone/multi cyclone, Wet Scrubber or any other adequate Air Pollution Control Measures with the stack.
2. Suitable water sprinkling arrangements at all strategic locations such as transfer points, roads and around raw material feeder bins.
3. Covered conveyer belts.
4. Regular cleaning and wetting of the ground within the premises.
5. Temporary covering of raw material storage bins during non operation of HMP.

#### 5. Emission Norms

##### A. Height of Stack with Hot Mix Plant:-

- i. Height of stack attached with the Hot Mix Plants shall be calculated as per the following formula:
  - a.  $H = 14 Q^{0.3}$
  - b. Where H = total stack height to be provided in meters from ground level.
  - c. Q = sulphur dioxide (SO<sub>2</sub>) emission rate in kg/hr.

However, minimum 11 meters of stack height from the ground level will be provided.

- ii. Quantitative standard for stack emission

i.	Particulate Matter	150 mg/Nm <sup>3</sup>
ii.	SO <sub>2</sub>	400 mg/Nm <sup>3</sup>

Adequate monitoring facility shall be provided at stack to measure the level of stack emissions.

- iii. Quantitative standard for fugitive emission  
The Suspended Particulate Matter (SPM) measured between 3 meters and 10 meters from any process equipment of hot mix plant shall not exceed 600 microgrammes per cubic meter.
- iv. National Ambient Air Quality Standards - CPCB Notification NO. - B-29016/2090/PCI-I dated 18.11.2009 to be followed.





v. Noise Pollution (Regulation and Control) Rules, 2000 as Notified by MoEF S.O. 123(E) dated 14.02.2000 and amendments for control of ambient noise to be followed.

**6. General Stipulations:**

- a. Considering predominant wind directions, wind breaking fence made up of steel structures/panels/sheets shall be provided at one side of raw material bins.
- b. All roads / vehicle movement areas at the site of Hot Mix Plant shall have be pucca / metalled with stone aggregates.
- c. The waste water from wet scrubber should be circulated through settling tank and the sludge settled at the bottom should be utilized for road construction purposes.
- d. Regular sprinkling of water shall be ensured on such roads so that no dust is generated due to vehicular movement.
- e. Regular cleaning and wetting of ground within premises shall be carried out.
- f. Adequate plantation shall be carried out all along the periphery of the premises.
- g. Only approved fuels shall be used for heating of bitumen - aggregate mix. In no case unauthorized fuel such as Petcoke, FO, solvents, industrial waste shall be used.
- h. Stack, Ambient Air Quality and Ambient Noise Level monitoring to be carried out periodically (once in six months) and reports should be furnished to the RSPCB.

**Note : The existing hot mix plants shall comply with the above guidelines within a period of 04 months from the date of issue.**

  
Member Secretary