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No. RW/RMP-16 (3)/84

Dated the 1st Jan., 1985

To

All Chief Engineers of the States and Union Territories,
dealing with National Highways, The Director General Works, CPWD, The Director General, Border Roads

Subject : Use of Hot Mix Plant on National Highway works

It has been observed that sometimes Hot Mix Plants used on National Highway works are not properly equipped with arrangements for gradation control of aggregate, measuring of bitumen and mineral filler feed system which are essential to obtain mix of desired specifications and ensure quality of asphaltic road works.

2. It has, therefore, been decided that while inviting tenders and allotting work to contractors, it may be specified that Hot Mix Plants should conform to component arrangements as per Annexure. This should also form part of the contract documents. The work should not be allowed to be executed by contractors, with the plant which do not fulfil these minimum requirements.

3. Similarly, departmental Hot Mix Plants which already have the essential features should be used on works as such, without putting in disuse or removing any of the components.

ANNEXURE

TECHNICAL REQUIREMENT OF HOT MIX PLANT TO BE USED ON NATIONAL HIGHWAY WORKS

Compositions of Plant : The Hot Mix Plant shall conform generally to I.S. Specifications No. IS-3066/1965 as amended from time to time and shall be equipped with the following arrangements.

1. *Cold Aggregate Feeder :* The cold aggregate feeder shall have minimum three independent bins or compartment, each provided with accurate mechanical means for feeding the aggregate at a uniform and predetermined rate to the Cold elevator or to some intermediate conveyor or directly into the dryer. The feeder shall provide for the adjustment of total and proportional feed and shall be capable of being locked in any setting.

2. **Dryer :** The dryer shall be capable of continuously agitating the aggregates while heating to desired temperature. At the discharge end of the dryer or any other suitable location, means shall be provided for ascertaining the temperature of the heated aggregate.
3. **Screening Unit and Gradation Control :** The dried aggregate shall be screened into not less than three sizes. The plant shall include means for accurately proportioning each bin size of aggregate either by weight or by volumetric measurement. When the gradation control is by volume, the unit shall include a feeder mounted under the compartment bins. Each bin shall have an accurately controlled, individual gate to form an orifice for proportioning the material drawn from each respective bin compartment. The orifice shall have positive mechanical adjustment and provided with a lock. Indicators shall be provided on each gate to show the gate opening in centimetres.
4. **Mixer Unit :** The plant shall include a mixer of an approved twin shaft pugmill type capable of producing a uniform mix. If not enclosed, the mixer box shall be equipped with a dust hood to prevent loss of fines.
5. **Mineral Filler Supply Unit :** There shall be an independent arrangement to feed mineral filler directly into the pugmill. The hopper to bin for mineral filler shall provide for the adjustment proportion the feed with the aggregate and bitumen feeds and shall be capable of being locked in any setting.
6. **Bitumen Heating :** A heating system for bitumen always with effective and positive control of temperature shall be provided, to maintain proper temperature and for allowing continuous circulation between storage tank and proportioning units during the entire operating period. Suitable arrangements shall be provided for recording the temperature at the tanks and in the circulating system.
7. **Synchronisation :** For synchronisation of Aggregate Bitumen and filler feeds satisfactory means shall be provided to afford positive interlocking control between the flow of aggregate from the bins or compartment, flow of bitumen from the tank and flow of mineral filler.