CIRCULAR

Sub: Attention to Quality of Bituminous Construction under PMGSY.

1. Construction of Premix Carpet by Manual means:

It has been brought to the notice of NRRDA that in a few States, the construction of Premix Carpet and Seal Coat is being done by manual means: the manual mixing of bitumen and stone chip is done over pans prepared by cutting empty bitumen drums in uncontrolled fire on high temperatures, which results in loss of properties of bitumen. The quality of such PMC and Seal Coat is not as per specifications and leads to poor riding surface which may result in rutting and pot hole formation within 1 to 2 years of its construction.

As per the provisions of para-508.1.3.4 of MoRD-Specifications for Rural Roads, August 2004, only for very small jobs the manual mixing has been allowed. As per item No.5.9 of MoRD-Standard Data Book for Analysis of Rural Roads, September 2004, the analysis has been provided for construction by manual means and this provides for mixing of bitumen and chips in a small capacity hot mix plant, i.e., Mix all-of 6/10 t capacity, however manual laying is permitted. It is clear that the manual mixing of bitumen and chips is not permitted in specifications for PMGSY roads.

However, it seems that State Specifications were followed for the packages cleared in earlier years. Therefore; some States might still be permitting manual mixing. Construction of substandard work can not be allowed even in packages which were cleared earlier on the basis of State Specifications. It has, accordingly, been decided that manual mixing of material of PMC and Seal Coat should be prohibited with immediate effect and the States should ensure that the mixing of material for PMC and Premix Seal Coat is carried out in a hot mix plant as prescribed in item 508 of SDB irrespective of the provisions that might exist in State's own specifications for packages cleared before the current financial year.

2. Verification of Genuine of Quality and Quantity of Bitumen:

Some States verify the source of bitumen before allowing the use of bitumen in construction. Accordingly, submission of original bills and transit passes issued by the refinery which is supplying the bitumen to Contractor is made mandatory before allowing the use of bitumen in the construction. Bitumen is such a material in which there is considerable scope for spurious mixing of other liquids. As a result, in spite of provision of mandatory tests, it is difficult to ensure the quality and quantity of bitumen used.
States are therefore advised to consider making mandatory the submission of original bills and transit passes issued by the refinery, before allowing use of the bitumen in the construction of roads under PMGSY. The States may also evolve a mechanism to verify the release of bitumen to various Contractors through the refineries on a regular interval as a good construction practice.

The States may kindly communicate the action taken in this regard.

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