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No. RW/NH-33029/1/97-S&R *Dated, the 8th August, 1997*

To

The Chief Engineers of States/Union Territories/Public Works Departments (dealing with National Highways & Other Centrally Sponsored Schemes); Director General (Works), Central Public Works Department; Director General Border Roads; Chairman, National Highways Authority of India

Subject : Specification of Aggregates in Bituminous Work - Use of Anti-stripping Agents

As you are aware, separation of bituminous binder from aggregate in presence of water is cause of disintegration of surfacing of pavement and development of potholes. To reduce stripping effect of water in the Third Revision of Ministry's Specifications for Road & Bridge Works published in 1995, maximum stripping value of aggregate has been reduced from 25 per cent to 5 per cent and maximum water absorption from 22 per cent to 2 per cent as compared to earlier specification. In Table 500-3 and TAble 500-8 of the present specification, the retained coating of aggregate has been prescribed as 95 per cent minimum and water absorption as 2 per cent maximum.

2. In Clause 504.2.2.1 and 507.2.2 of Ministry's Specifications, it has been indicated that the aggregate shall be preferably hydrophobic and of low porosity and in cases where hydrophilic aggregates are to be used, the bitumen shall be treated with anti-stripping agents of approved quality.

3 In cases where aggregates do not meet the specifications given in para 1 above, the actual dose of anti-stripping compound to be used in bitumen shall be determined as per tests indicated in Appendix-5 of Ministry's Specification, such that there is no stripping of aggregate. The dose shall, however, neither be less than the values indicated in Appendix-5 nor more than 1 per cent. If the dose for no stripping is more than 1 per cent, the anti-stripping compound is not as per Ministry's Specification (Table A5-1 - Appendix-5).

4. To minimize damages to roads due to removal of binders particularly during the rains, it is requested that above specification may be followed in all NH works.