



## INTERDEPARTMENT MEMORANDUM

### STATE OF ALABAMA HIGHWAY DEPARTMENT

1409 COLISEUM BOULEVARD MONTGOMERY, ALABAMA 36130

November 14, 1986

CONSTRUCTION INFORMATION MEMORANDUM NO. 8-86

TO: All Division Engineers

FROM: William J. Hartzog *WJH*  
Construction Engineer

RE: Tack Coat - Emulsified Asphalt

We are continuing to experience failures in asphalt plant mix pavements which were caused by emulsified asphalt tack coat. Our desire is to continue using the emulsions for tack coat; however, in order to prevent expensive failures and repairs, both our inspectors and contractors should be aware of the following:

1. Emulsions should be used as obtained from the refinery without further dilution or other modification by the contractor. Emulsion will separate and its characteristics will change if it is not used within a reasonable period of time after it is obtained from the refinery; therefore, an evaluation should be made of any stored material which may be questionable prior to its use.
2. The overheating of emulsion is detrimental to the product and will change its characteristics. The emulsion should not be heated in excess of 140°F.
3. When purchasing new material, the old material should be completely removed from the storage tank, tanker, or distributor before introducing the new material. The old material will contaminate the new material and cause it to fail the material specifications.
4. After the emulsion is applied, it must be given time to break before it is covered with plant mix. Otherwise, water will be entrapped and will lead to early failure of the plant mix. Two notable problems have been detected: (1) the uncured emulsion will cause a slip plane and cause the plant mix to shove; and/or (2) the entrapped water will produce steam in hot weather and cause the plant mix to push up and separate from the underlying layer. When either case occurs, the purpose of the tack coat is destroyed and pavement failure occurs.

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Although tack coat is an inexpensive item, it should not be treated as such because of the expensive problems which can result from its improper handling and use.

WJH/gl

cc: Alabama Asphalt Pavement Assn.

Mr. W. E. Page

Mr. T. L. Cain

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