

# ARKANSAS STATE HIGHWAY COMMISSION

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DIRECTOR OF  
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May 7, 2009

Mr. George Wheatley, Chairman  
State Marketing Board of Recyclables  
5301 Northshore Drive  
North Little Rock, AR 72118-5317

Dear Mr. *Wheatley*

Reference is made to your recent letter to Commissioner Carl Rosenbaum concerning recyclables in Arkansas roadways.

As stated in your letter, recycled asphalt shingles present a possible opportunity to utilize recyclable materials in highway construction. Both scrap left over from the manufacture of new roofing shingles and old, tear-off roofing shingles are potential sources of replacement material for a portion of the asphalt cement and aggregate in asphalt concrete hot mix. The composition and properties of old, tear-off roofing shingles are likely to include foreign materials such as nails, metal flashing, and felt underlayment as well as asbestos fibers, and can vary widely. Scrap left over from the manufacture of new roofing shingles exhibit more consistent properties and would be preferred for incorporation into asphalt mixtures. The Department is reviewing the potential use of recycled asphalt shingles in asphalt concrete hot mix.

Warm mix asphalt is a technology that could increase the use of recycled asphalt pavement (RAP) in asphalt concrete hot mix. Warm mix asphalt without RAP is currently being evaluated on two projects by the Department and a research project has been funded to further investigate the technology and assist in development of specifications. This technology, when combined with recycled asphalt pavement, has the potential to produce a much greener asphalt concrete hot mix at a reduced cost to the Department.

The Department has developed and implemented specifications for recycling highway construction materials and waste products from industrial processes, rubblizing and compacting Portland Cement Concrete Pavement, recycling Portland Cement Concrete Pavement for use as aggregate base course, and allowing the substitution of fly ash and ground, granulated blast furnace slag for cement in portland cement concrete.

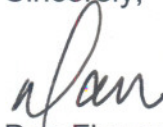
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The above resulted from extensive research and field evaluations which included an emphasis on quality and long term durability. Any new technology must be evaluated for long term performance and possible effects on the design life of roadways. Other considerations include special material handling requirements and equipment modifications necessary to incorporate the recyclable material and the associated costs.

As you can see, the Department has been active in considering recyclables for roadway construction and maintenance.

Sincerely,



Dan Flowers  
Director of Highways  
and Transportation

c: Governor Mike Beebe  
Highway Commission  
Deputy Director and Chief Engineer  
Assistant to the Director  
Assistant Chief Engineer-Operations  
Materials