Asphalt Recycling, Warm Mix Use Show Major Gains

THANKS TO BROAD adoption of sustainable construction practices, the asphalt pavement industry saved taxpayers more than $2.2 billion dollars during the 2011 paving season through the use of recycled materials and energy-saving warm-mix technologies.

According to a survey conducted by the National Asphalt Pavement Association (NAPA) in partnership with the Federal Highway Administration (FHWA), about 66.7 million tons of reclaimed asphalt pavement (RAP) and 1.2 million tons of reclaimed asphalt shingles (RAS) were collected in the United States during 2011 for use in new pavements. Also, about 19 percent of all asphalt produced in the country that year was made using warm-mix asphalt (WMA) technologies.

"Asphalt pavements are the sustainable option for paving our nations' roads and highways. With warm mix, we can use less energy to produce high-quality pavements, and RAP and RAS allow us

reuse liquid asphalt, saving costs and preserving natural resources," said NAPA chairman John Keating, president and COO East of Oldcastle Materials Inc. "While use of these technologies has increased dramatically, there is room to do more, and the asphalt pavement industry is ready to reach even higher levels of sustainability in road construction."

The use of RAP and RAS during the 2011 paving season translates to a saving of 21.2 million barrels of liquid asphalt binder, saving taxpayers some $2.2 billion. When reclaimed asphalt pavement and shingles are reprocessed into new pavement mixtures, the liquid asphalt binder in the recycled material is reactivated, reducing the need for virgin asphalt binder. Using reclaimed materials also reduces demands on aggregate resources. Warm-mix asphalt technologies allow asphalt pavements to be produced at lower temperatures, which means reduced energy demands, as well as fewer emissions during production and paving.

"The asphalt pavement industry has a long history of adapting new technologies and innovations to make a better product," said NAPA president Mike Acott. "This survey reflects that and demonstrates how asphalt producers are at the forefront of ensuring that our roads are built in an economical and sustainable manner."

Compared to a previous survey of the 2009 and 2010 construction seasons, the use of these sustainable practices has continued to increase.

In 2011, RAP usage reached 66.7 million tons, a 7 percent increase from 2010 and a 19 percent increase from 2009. More than 99 percent of asphalt pavement reclaimed from roads went back into new pavements. In the survey, 98 percent of producers reported using RAP in their mixes for new construction, pavement preservation, rehabilitation, and other projects.

RAS usage also continued to climb, increasing to 1.2 million tons in 2011 — an 8 percent increase over 2010, and a 52.5 percent increase since 2009. Since 2009, RAS usage has been reported in 36 states. RAS includes both manufacturers' scrap shingles and post-consumer roofing shingles.

The survey was conducted in mid-2012. Results from 203 companies with 1,091 plants in 49 states and Puerto Rico, along with data from 32 State Asphalt Pavement Associations, were used to calculate industry estimates for total tonnage. A slight variation from the previously reported 2010 results is due to changes in survey design to ensure greater accuracy. A copy of the full survey, including a state-by-state breakdown of the data, is available at www.asphaltpavement.org/recycling.

Preservation Alliance to Hold First Meeting

PLAN NOW TO attend the first meeting of the Pavement Preservation & Recycling Alliance (PPRA), which will be held Nov. 10-13 at the Dallas Marriott City Center hotel.

PPRA is a partnership of leading industry associations – the Asphalt Emulsion Manufacturers Association (AEMA), the Asphalt Recycling & Reclaiming association (ARRA), and the International Slurry Surfacing Association (ISSA) – the goal of which is to advance sustainable, eco-efficient, and innovative pavement applications.

This event will combine many aspects of what has been the AEMA Emulsion Technologies Workshop and the ARRA semi-annual meeting, and it will be a new event for ISSA.

The next two days will consist of a pavement preservation and recycling meeting geared heavily towards the interests of agency personnel and consulting engineers. Topics will include asphalt emulsions in pavement preservation, composition and classification of emulsions, variables affecting quality, and selecting the right type and grade; technical details of full-depth reclamation/soil stabilization, cold in-place, hot in-place recycling and cold planing, getting more done with fewer resources, and innovative and cost-effective pavement solutions; and slurry and micro systems.

For more information visit http://ppralliance.org/index.php/upcoming-meetings/2013-ppra-fall-meeting.