By: Jim Voytko

(continued) that we were actually throwing away a very valuable product. We learned that we could process the used asphalt and introduce it back into the HMA (Hot Mixed Asphalt).

But, in the 1970's, the Middle Eastern oil producing countries slammed the Western World with an oil embargo. All of us "older" Americans can vividly and painfully remember gas rationing when we waited in long lines to be able to get only 5 gallons of gas for our thirsty, inefficient cars. During that time, it became apparent that we were wasting a precious resource and needed to create ways to reduce our independence on oil. That independence has been coming very slowly, but one thing that was really pushed by the asphalt industry back then and ever since has been the increased interest in recycling.

Recycling in the asphalt industry is nothing new. It has taken twists and turns over the years with many different materials having been experimentally introduced into Hot Mix Asphalt (HMA). Glass, RAS (Recycled Asphalt Shingles), rubber and slag (a bi-product of the steel industry) are just a few of the materials that have been tried and successfully introduced back into the HMA. But, the most successful material that has been re-introduced into the HMA is used asphalt itself or Reclaimed Asphalt Pavement (RAP). Used asphalt contains all of the ingredients that we need to produce "new" asphalt. There is stone, sand, and asphalt cement (AC) that varies in quantities depending on the mix we are producing. The AC is by far the most valuable piece of the mix. It averages about 5% of the total mix by weight and current prices of AC are approaching $600.00 per ton. The stone and sand prices average less than $15.00 per ton. That is why it is important to be as efficient and exact as you can when producing and ordering as the slightest error can cost us a lot of money. It is a combination of stone, sand and AC that makes up the HMA and it is through the use of RAP that we save on the purchase of these items.

As with anything that is new, the asphalt industry had to learn how to effectively utilize the RAP in the HMA. Early on, producers were just putting it into the mixes at rates that were producing asphalt that literally was falling apart in days. Since those days, millions of dollars in research money has been spent on how to effectively utilize RAP in the mix. Through all of this trial and error and research dollars, RAP has become an important and valuable piece of the puzzle in the production of HMA. Today, you are allowed by New Jersey Department of Transportation a maximum of 25% RAP in your HMA. You will often hear us discussing RAP in many of the everyday conversations that we have due to the savings that we incur through its use. If you are replacing a roadway and are only allowed to recycle 25% of that what is happening to the other 75%? Good question. The industry and researchers continue to push for other beneficial uses of the used asphalt such as increased percentages in the HMA and for it to be allowed in the reclamation of quarries.

Recycled Asphalt is the single largest material that is recycled today. Over 75 million tons of asphalt is recycled annually. That is more than double all of the paper, glass, aluminum and plastics combined. Through the continued use and research we anticipate that the amounts used will significantly increase in the coming years. This increase in RAP usage will produce tremendous savings as there will be reductions in the amounts of sand and stone to mine and less AC that will need to be refined saving billions of dollars nationwide. So, when you think about it, through everyone's efforts in our industry, BLACK IS THE NEW GREEN!