NRCA Report -
Asphalt Pricing & Sourcing

Information Sheet

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CONCERNS ABOUT ROOFING ASPHALT

A combination of factors has raised concerns in the U.S. roofing industry about the price – and even the availability–of roofing asphalt. These concerns have implications for the immediate future with consequences that are likely to worsen over time.

This report will provide some background about and offer some suggestions for contending with the situation. The most important of those suggestions is to be sure your communication lines are open with your suppliers and customers. Nearly everyone NRCA has spoken to about the subject is certain the industry faces a period of uncertainty and volatility; the most informed contractors will be the ones best able to respond.

Background

Asphalt is used in a variety of roofing materials, most notably built-up roof systems, asphalt shingles and polymer-modified bitumen roof systems. Asphalt is also found in some coatings and mastics.

Asphalt is both imported to the U.S. as a finished product and produced in U.S. refineries.
Of the imported asphalt, according to the Energy Information Administration, about 2/3 comes from Venezuela and about 1/3 comes from Canada. Asphalt can be – and is – produced from a variety of different crude oils; asphalt industry experts tell us that there can be significant differences among the asphalts' properties depending on the source of the crude. In all, about 3 percent of crude oil is refined to asphalt.

In addition, about 90 percent of the asphalt produced in the U.S. is used in road and highway construction as paving-grade asphalt. The properties of paving-grade asphalt are somewhat different from roofing asphalt and require different production processes. Somewhat less than 10 percent of U.S.-produced asphalt is used for roofing.

Asphalt–both paving- and roofing-grade–is a crude oil derivative that is referred to as a "bottom" product in the refining process–as distinguished from other crude oil derivatives such as gasoline and diesel fuel that are the primary production targets. "Bottom" products like asphalt were long considered to be largely give-away products by refineries and historically have been available at low cost. As recently as about 1970, asphalt could be purchased for less than $30 per ton; current prices are approaching $600 per ton.

In addition, there is less "light" crude oil available in the current marketplace. "Light" crudes produce a greater percentage of gasoline and diesel fuel and less than 10 percent asphalt. "Heavy" crudes are more prominent in the marketplace, and about 30 percent of these "heavy" crudes result in asphalt. Refiners, therefore, have more incentives either to sell asphalt more profitably or to alter production methods to produce less asphalt.

It should also be noted that though this report is intended to address issues pertaining to roofing asphalt, issues pertaining to crude oil supply also apply to all products that contain or use crude oil derivatives. In the roofing industry, these include some single-ply products, such as EPDM, and polyisocyanurate roof insulation.

The Issue

The overriding issue for the U.S. roofing industry is whether it will be able to continue to depend on a reliable supply of high-quality asphalt. There are at least three reasons for concern:

1. *Geopolitics.* Obviously, there is instability in the Middle East, home to the world's largest supplies of crude oil. In addition, about 25 percent of roofing asphalt comes from Venezuela (either originating as Venezuelan crude or as a finished product), and the percentage is even higher on U.S.'s East Coast. A supply disruption in Venezuela could have immediate and serious consequences, and Venezuela's government has been vocally anti-American. A supply disruption anywhere in the Middle East could have equally serious consequences.

2. *Rising prices for other petroleum products.* Even though prices for asphalt have increased dramatically in recent months, they have not increased at the same pace as other petroleum products, including, of course, gasoline and diesel fuel. As a result, refineries are much more inclined to produce more gasoline and diesel fuel when they can and less asphalt. And doing that requires technological improvements–usually involving the addition of cokers to the refineries at an approximate cost of $1 billion each. However, with increasing gasoline prices, cokers now seem to make economic sense, and an increasing number of refineries are planning to add them. Complicating the problem is the fact that once a coker is added to a refinery, it is costly, and in some cases impossible, to produce asphalt–even if the refinery wanted to.

3. *Environmental issues.* A new federal mandate for ultra-clean fuels goes into effect in October. Among other things, it is likely to drive up the price of gasoline and diesel fuel even further, exacerbating the existing gap in pricing with asphalt. It is also unclear whether refiners outside the U.S. will be willing to meet the U.S. clean fuel mandates and continue to sell here, which will only serve to provide more incentives for U.S. refiners to produce more gasoline and diesel fuel. In addition, the total number of U.S.-based refineries has declined dramatically during the past 50 years from more than 250 to less than 50. And when you add to this equation the difficulty oil companies are having getting the necessary approvals to build new refineries, we have a situation where there will be incredible supply pressures on all petroleum-based products.

Ironically, one of the only ways the situation will improve is if the price of asphalt *increases*–possibly substantially—and provides proper economic incentives for refiners to continue to produce it. Few people argue the price will not increase; the only question is how quickly it will rise.

The One Certainty: Uncertainty

It is likely these changes will take some time to occur. Cokers are expensive and take a couple of years to build–on top of the year or more it usually takes for a refiner to go through the permitting process.

However, market forces will continue to change and dictate even more change. If asphalt becomes more profitable to produce, someone will find a way to make it. If gasoline prices continue to increase, we're more likely to see the movement to coker technology accelerate. And obviously any major disruptions to crude oil supply can make the rest of the conversation irrelevant.

What Roofing Contractors Can Do

NRCA recommends three things.

First, and most important, stay in communication with your suppliers and customers. Prices are likely to be volatile, and the more you can predict future pricing, of course, the better you will be able to bid work.

Second, consider adding language to your bids, proposals and contracts to protect you in the event of dramatic price changes. Some sample language is included as a part of this report.

Third, stay engaged in the national debate concerning energy policy. We learned earlier this month the effect on our economy that problems at a single Alaskan crude oil source (Prudhoe Bay) can have. And Prudhoe Bay "only" accounts for 2 percent to 3 percent of U.S. oil consumption. We need more refineries. We need more exploration. We need less rigid federal regulation. We're learning the hard way why all of these things matter. NRCA's Washington, D.C., office is a good source of current information about energy-related initiatives. So is its Web site, www.nrca.net.

And, as always, look to NRCA for more information. And look to its industry partners, such as the Asphalt Roofing Manufacturers Association and Asphalt Institute, for more information as well. NRCA will be monitoring the situation closely and reporting to you regularly.

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POSSIBLE PROVISIONS TO INCLUDE IN PROPOSALS TO DEAL WITH VOLATILE PRICING OF ASPHALT PRODUCTS

"The roofing industry is currently experiencing price volatility in asphalt-related products. Because firm prices cannot be obtained from suppliers, prices are subject to change. If there is an increase in the price of asphalt-related products charged to the contractor subsequent to making this proposal/contract, the proposal/contract shall be increased to reflect the additional cost to the contractor, upon submittal of written documentation thereof."

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"Due to extreme volatility in asphalt prices, the price set forth in this proposal/contract applies only to orders for asphalt products that are ordered and paid for within _____
days of the date of this proposal/contract. All other orders shall be subject to change based upon changes in the price of asphalt-related products charged to [roofing contractor's] firm."

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"[Roofing contractor's firm] shall perform the work described herein at the price quoted. In the event, however, that the price for any of the roofing materials to be used in this work should increase by _____ percent or greater from the price at which said roofing material was available in the roofing contractor's locality at the time of submission of this proposal/contract, then the owner/general contractor agrees that said price quote shall be changed to reflect the additional cost to the roofing contractor of said roofing material."

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"Due to the extreme price volatility regarding asphalt-related products, the price quoted in this proposal is valid only for orders placed and paid for within the next _____ days. Thereafter, if there is an increase in the price paid by the roofing contractor for asphalt-related products, the amount of this proposal/contract shall be similarly increased to reflect the contractor's increased costs to obtain materials."

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"[Roofing contractor's firm] shall perform the work described herein at the price quoted. Provided, however, that in the event the price to the roofing contractor for any roofing materials to be used in this work shall increase by _____ percent of greater than the price upon which the roofing contractor relied in submitting said price quote, then the owner/general contractor agrees that said price quote shall be increased to this same extent."